Western Australia's Submission to the

Productivity Commission's Inquiry into Horizontal Fiscal Equalisation

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Executive Summary

Horizontal Fiscal Equalisation (HFE) aims to distribute GST revenue between the States[1] to ensure each State has the same fiscal capacity, under average policies, to provide general government infrastructure and services.[2]

While Western Australia agrees with the concept of HFE that weaker States should be supported, the way in which HFE is currently practiced in Australia not only fails to achieve its aims, but also creates perverse incentives in the process. Reform to the system would promote efficiency and economic growth across Australia. Ultimately all States would benefit from reform.

The System is Failing to Meet its Objectives …

Despite its complex approach, the system is not, and cannot, be made to be comprehensive nor accurate – it is not transparently equitable. No-one can say that States currently receive the right amounts to equalise their fiscal capacities (even once time lags are taken into account). There are many 'disabilities', or non-policy influences, which impact on States' ability to provide services that the Commonwealth Grants Commission (CGC) fails to assess or cannot accurately measure. The CGC also fails to remove the influence of States' policies on their revenue bases. The CGC relies on many judgements, and frequently acknowledges shortfalls in its assessments.

The difficulty of making precise assessments has required the CGC to use judgement, and in its own words "… judgments on what constitutes the best equalisation outcome must continue to be made. Making those judgments is a task of the Commission."[3]

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1 In this submission, 'States' refers to the six Australian States and the Australian Capital Territory and Northern Territory (i.e. the entities that receive a share of the GST grant pool distributed by HFE).

2 Commonwealth Grants Commission, *Report on GST Revenue Sharing Relativities 2015 Review – Volume 1*, page 1.

3 Commonwealth Grants Commission, *2020 Review: The Principle of HFE and Its Implementation: Staff Discussion Paper CGC 2017-02-S*, May 2017, page 8.

States will always be receiving an approximation of what they would need under HFE. The CGC has itself acknowledged the proximate nature of its work, stating that:

> The reference to material factors in the [CGC's HFE] definition makes clear the Commission does not aim to achieve precise equalisation as not all disabilities are included, either because they cannot be reliably measured or they have only a relatively small effect on the GST distribution. This means that while precise (or complete) equalisation is the aspirational goal, in reality the Commission achieves proximate equalisation.[4]

However, the situation is much worse than the CGC describes, because it does not achieve policy neutrality, many of its assessments rest on disputable judgements, and there are significant gaps in its assessments. Even proximate equalisation is not achieved.

… While Imposing Significant Costs

At the same time, the current implementation of HFE disincentivises States from undertaking fiscal reforms or developing their economies, and makes it extremely difficult for States with volatile revenues to manage their budgets.

In particular, the system generates the following perverse outcomes.

- States that need to increase their revenues currently have an incentive to raise their tax rates above the national average rather than to grow their underlying revenue base.
  - This is because (apart from royalties) States keep most of the additional revenue from higher tax rates, but if they increase their underlying base they lose most of the revenue gains to other States.
- There is a reduced incentive to undertake difficult microeconomic reform (such as tax reform) that requires compensation for the 'losers' from reform.
  - Recipient States are encouraged to adopt a welfare mentality. The motivation to undertake reform is diminished by the resulting reduction in their high share of grants and the fact they do not need to reform – they can continue to rely upon these grants.

[4] Commonwealth Grants Commission, *2020 Review: The Principle of HFE and Its Implementation: Staff Discussion Paper CGC 2017-02-S*, May 2017, page 4.

- Resource-rich States are discouraged from getting an appropriate return for minerals as increased royalty rates lead to lower GST grants – especially where one State dominates a particular mineral base and effectively sets the national average royalty rate on that mineral (as in the case of Western Australia and iron ore).

  - Indeed, despite the mining boom, Western Australia's revenue growth has been no greater than the national average.

- There is a large disincentive to develop industry, as most of the fiscal benefits are redistributed to other States but there is no sharing of much of the costs of development.

- People have a reduced incentive to respond to market signals and move to areas with better job and income prospects, inhibiting structural adjustment.

Such penalties are not only inefficient, but inequitable for communities that have borne the burden of developing their States. Through their impact on economic growth, they restrict the wellbeing of future generations across the nation.

The current implementation of HFE is also inequitable in the context that Western Australians carry a disproportionate burden in funding the Federation, as they make a higher per capita contribution to Commonwealth taxes and draw a lower per capita share of Commonwealth services such as health and social security benefits.[5]

- This contribution includes Commonwealth Petroleum Resource Rent Tax from major projects facilitated by the State, for which there is currently no revenue sharing arrangement with the State.

The current practice of HFE also creates difficulties for States in managing their budgets, predominantly due to the time lags in the process.

The problem is that the use of old data means that GST impacts of changed economic circumstances occur with a time lag and mainly beyond the four year forward estimates.

[5] Refer to Chapter 2 of this submission for more detail.

Lags in the GST process often exacerbate revenue volatility, as economic cycles are often out of phase with the cycle of GST impacts. The budget forward estimates of revenues and operating surpluses become a complex mix of future and past influences, eroding transparency.

Time lags are not just a problem attributable to the recent mining boom or, indeed, to royalty revenues. Even now, all States are making decisions or facing changed economic circumstances that have GST consequences beyond the forward estimates.

Reform Would Provide Net Benefits to the Community

The current implementation of HFE works against economic efficiency and is at least as likely to be reducing equity as enhancing it. As such the system is imposing net costs on the Australian community as a whole.

Reforms to HFE can and should be implemented to improve incentives for productivity and economic growth and enable better budget management without significantly impacting equity (to the extent it is currently delivered).

Potential reforms have been identified that preserve the general principle of HFE but would increase efficiency, equity and simplicity.

Importantly, the reform proposals will benefit all governments through a stronger economy, including through a larger pool of GST and Commonwealth revenue. Reform of the system would not, therefore, be a zero sum game.

Recommendations

The Productivity Commission should investigate proposals that:

1. in the longer run, involve the Commonwealth taking on the equalisation role and allocating GST revenue on an **equal per capita** basis;

2. limit the extent and economic costs of any redistribution, in recognition that attempts to achieve full equalisation are futile, by introducing a **GST relativity floor**;

3. place a high priority on the CGC implementing HFE in a more efficient way that ensures it minimises disincentives for productivity and economic growth, such as by:

    a) **discounting revenue assessments**. For example, the mining revenue assessments (which are most affected by these impacts) could be discounted by at least 25%. Alternatively, all revenues could be discounted by at least 25%;

    b) removing the sensitivity of GST grants to changes in State tax and royalty rates by using a **global revenue base**, which would also bring simplicity advantages. For example, a global revenue base could be formed by aggregating the current individual revenue base measures. There is also potential for developing a global revenue base that is relatively insensitive to State policies;

4. improve equity and simplicity (and, to a degree, efficiency) by addressing gaps in the assessment of spending needs and using **fewer and simpler spending assessments**; and

5. **provide full contemporaneity**, so that own-source revenue volatility is immediately offset by adjustments to GST grant shares **or**, alternatively, **introduce stable GST grant shares** (based on underlying indicators) that mean States are fully accountable for managing their volatile revenues.

Western Australia is happy to clarify its views in this submission or otherwise provide further information that would assist the Productivity Commission in its considerations of these important issues.

1. Introduction

This submission argues that there are a number of problems with the current implementation of HFE which should be addressed, and presents solutions for improving the efficiency, equity and simplicity of HFE.

The chapters are as follows.

- *HFE Principle and Historical Context* – discusses how the implementation of HFE has evolved and become more extreme over time.
- *Federation and HFE* – discusses how fiscal centralisation hampers the effective working of the Federation, including in respect to interstate migration.
- *HFE in Literature and Models – Efficiency* – critically assesses existing work on the efficiency of HFE, concluding that HFE as implemented in Australia is likely to be inefficient.
- *HFE in Practice – Efficiency* – discusses the various ways in which the current implementation of HFE impedes efficiency.
- *HFE in Practice – Equity and Simplicity* – discusses the complexity of the current HFE practice and the inaccuracies and judgements in the implementation of HFE that result in failure to achieve equity.
- *HFE in Practice – Budget Management* – discusses the problems the current implementation of HFE causes for States' budget management, particularly due to the time lags.
- *Solutions* – puts forward the principles that should underpin HFE and reform options consistent with these principles.

2. HFE Principle and Historical Context

Key Points

- Western Australia agrees that States that have a weaker fiscal capacity, through no fault of their own, need financial assistance so they can provide an acceptable standard of service to their communities.
- HFE was designed in a different era when fiscal circumstances were less volatile and more uniform.
- Equalisation has become much more extreme and is no longer the stabilising and unifying force that it was intended to be.
- From 1942-43 to 2012-13, no State had ever had a relativity below 67%. However, Western Australia's relativity has now remained below 38% for four years.
- While Western Australia was previously a beneficiary from HFE, this compensated Western Australia's export-oriented economy for the impact of Commonwealth tariff policies.
- HFE is only one small part of the redistribution between States through the Commonwealth's budget.

Introduction

The CGC currently chooses to define the HFE principle as:

> State governments should receive funding from the pool of goods and services tax 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.[1]

In giving effect to the principle, the CGC aims to identify factors that are beyond States' direct control that would cause their fiscal capacities to diverge. The CGC uses these to recommend a distribution of GST revenue with the aim of removing the impact of that divergence.

[1] Commonwealth Grants Commission, *Report on GST Revenue Sharing Relativities 2015 Review – Volume 1*, page 2.

Western Australia does not consider this principle to be a concern in itself and supports a system where financial assistance is available to States with (through no fault of their own) weaker fiscal capacities, so that they can provide an acceptable standard of service to their communities. However, the way in which HFE is implemented in Australia generates disincentives to undertake fiscal reforms and develop State economies.

Implemented correctly, with full policy neutrality, the principle should drive a process that provides a degree of equity to all citizens of Australia, regardless of the State in which they reside, while not undermining efficiency. Achieving this goal requires immediate and significant change to the determination of States' GST relativities.

Australia's HFE System was Designed in a Different Era

The current system of HFE in Australia was designed in an era when fiscal circumstances were less volatile and more uniform. The system has simply not held up in the face of rapid change and volatility – particularly from 2004-05 when the impact of time lagged data in the GST grant distribution process became very significant for Western Australia.

When HFE was introduced in Australia in the 1930s with the creation of the CGC, it was intended to be a unifying force in the Australian Federation. The approach to HFE has changed since this time and is instead becoming a divisive influence, undermining public understanding and support for the Federal system.

> …while its rationale has shrunk, HFE has expanded, going well beyond the goals set for it in the 1930s (which aimed mainly at ensuring a uniform minimum, rather than achieving equality) …We have reviewed the grounds conventionally given as justifications and found them seriously wanting. Although they are inherently difficult to quantify, we suspect any positive effects of HFE are more than outweighed by the distortions …[2]

Chart 2.1 shows how extreme the equalisation has become, with Western Australia at record low relativities.

[2] Henry Ergas and Jonathan Pincus, *Reflections on Fiscal Equalisation in Australia*, draft paper presented at the State Funding Forum organised by Australian School of Business, University of New South Wales, September 2011.

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. Former Prime Minister John Howard stated that:

> 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[3]

For the fourth year in a row, Western Australia has received a GST relativity below 38% and Western Australia's relativity over the period 2018-19 to 2019-20 is expected to remain lower than the lowest relativity ever faced by another State since 1942-43.[4]

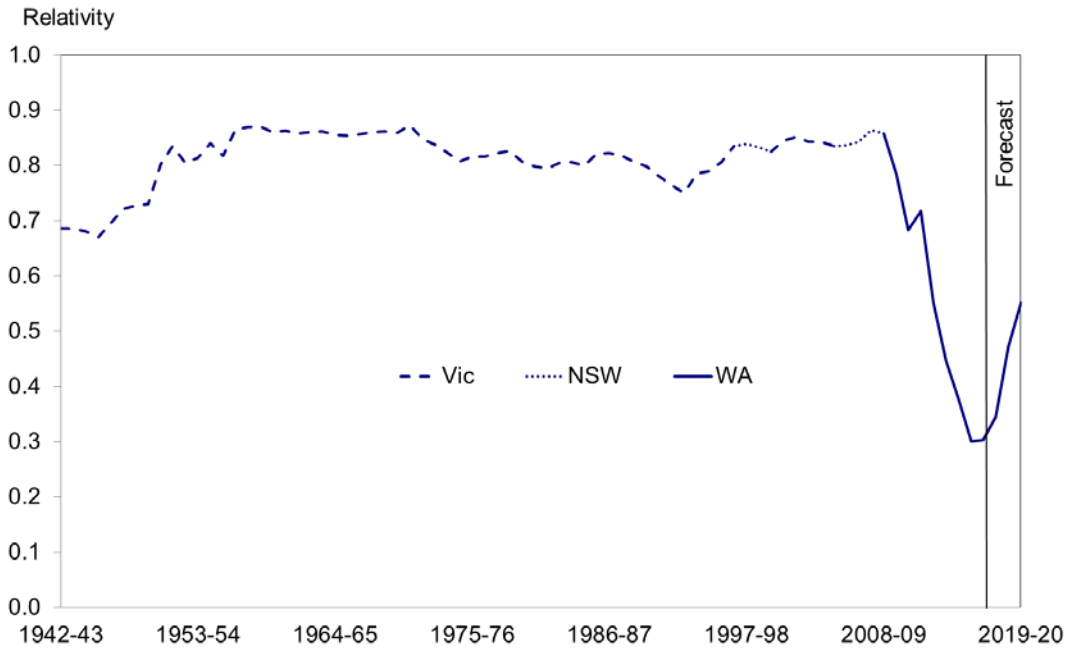
It is increasingly clear that the Western Australian community no longer supports an arrangement that is supposed to be a source of cohesion.

The lowest relativity received by any other State since 1942-43 was 67% in Victoria in 1945-46. In fact, no other State has had a relativity below 75% since 1950. The lowest GST relativity for another State was 83.5% for New South Wales in 2004-05.

[3] *The West Australian*, 17 May 2013.

[4] This was the year income tax was taken over by the Commonwealth and financial assistance grants to the States were introduced as compensation.

Chart 2.1: Lowest Relativity in each Year Since 1942-43



Source: Western Australian Treasury estimates, consistent with the Economic and Fiscal Outlook released on 6 April 2017.

Note: Relativities relate to GST grants since 2000-01, and financial assistance grants/tax sharing grants/tax reimbursement grants in prior years (including CGC special grants).

HFE Previously Compensated Western Australia for the Impact of Commonwealth Policies

It is true that until 1997-98, Western Australia benefitted from the HFE process. However, this merely helped compensate Western Australia's export-oriented economy from the adverse impact of Commonwealth policies (especially tariffs) aimed at protecting other State economies.

Since Federation, tariff policies have favoured the rest of the nation at the expense of Western Australia.

Tariffs were designed to protect Australia's manufacturing sector, concentrated in the Eastern States (particularly New South Wales and Victoria), but Western Australia's economy was primary industry based. Tariffs forced Western Australia's farmers and other primary producers to pay higher prices for manufactured inputs.

Tariffs were a burden on Western Australia's economy for many decades. In 1988-89, when sustained tariff reform began, Western Australian Treasury estimated (based on Industry Commission modelling) that Commonwealth industry assistance reduced the State's annual GSP by around 3%.

Of note, in 1990-91, when Western Australia received $261 million in net terms through HFE, the manufacturing sector received Commonwealth budgetary outlays of $791 million.[5]

Also of note, from 1938 until 1960, the Commonwealth had placed an embargo on the export of iron ore from Australia. Although at least partly reflecting concerns at the time about the national security threat posed by Japan, the Commonwealth also supposed that Australia had insufficient reserves and needed to keep them to support the local steel industry. Following an extended period of industry lobbying, and with confirmation in the 1950s of massive iron ore deposits, the export embargo was lifted by the Commonwealth in 1960.[6]

In 2017-18, Western Australia will effectively contribute around $4.4 billion of GST to other States through the Commonwealth's HFE process, compared to if the GST were distributed on an equal per capita basis.

HFE is Only a Small Part of Redistribution

Although large, the redistribution of GST revenue represents only a small fraction of Western Australia's total support for other States.

Each year, the Western Australian Treasury estimates the net redistribution across States that occurs through the Commonwealth budget. For each State, the redistribution is measured as the difference between the Commonwealth revenues generated in that State (including GST) and the Commonwealth expenditures (including GST grants) for the benefit of that State.

States with higher incomes and business profits contribute more to total Commonwealth taxes, while those with younger and healthier populations, or stronger economic conditions, draw less on health and social security benefits.

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5 Industry Commission, *Annual Report 1992-93*, page 350.

6 Minerals Council of Australia (2015), *Iron country: Unlocking the Pilbara*, pages 13-19, http://www.minerals.org.au/file_upload/files/publications/Iron_country_David_Lee_FINAL.pdf.

Western Australia was a net contributor to the Commonwealth budget in the 1986-87 financial year, well before it became a donor State in HFE terms (which occurred initially in 1997-98). The broader net contribution made by Western Australia to the Commonwealth budget between 1986-87 and 1997-98 dwarfed any HFE benefits for Western Australia in this period.

Using the latest available data (2014-15), Western Australia contributed $23 billion to the Federation (or around $8,850 per person) in 2014-15.

Results for all States are shown in Table 2.1 (a positive figure for a State indicates that it makes a net contribution to the Federation, while a negative figure indicates that it receives a net subsidy).

Table 2.1: Net Fiscal Contribution of Each State to the Federation 2014-15 (a)

State	$m	$ per capita
New South Wales	1,997	264
Victoria	1,175	200
Queensland	-7,706	-1,622
Western Australia	22,776	8,848
South Australia	-8,409	-4,969
Tasmania	-5,490	-10,650
Northern Territory	-4,344	-17,846
Total	**0**	

Source: Western Australian Treasury estimates, using a range of data sources including the Commonwealth Final Budget Outcome publications and Australian Bureau of Statistics publication 5220.0. Results are based on the latest available data. Some data has been proxied by escalating earlier data using relevant economic indicators.

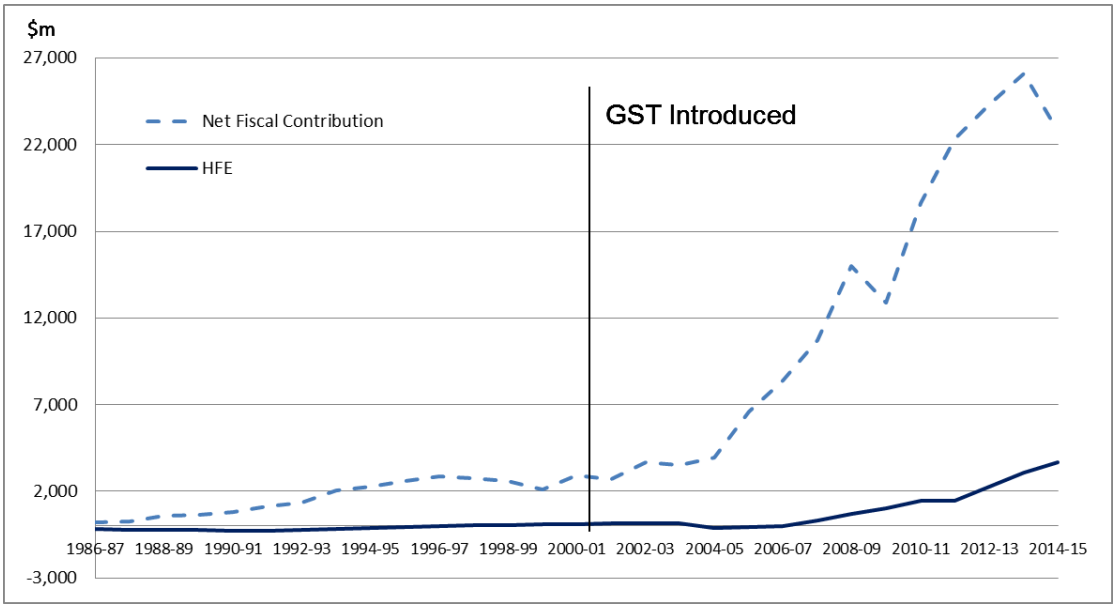
(a) All Commonwealth outlays and revenue relating to the Australian Capital Territory (ACT) are allocated to the other States according to population shares. This recognises that the ACT would be unlikely to exist as a separate entity if the Federation dissolved.

In 2014-15, Western Australia's contribution to the Federation was much greater than that of New South Wales and Victoria, the only other net contributors. On a per capita basis, Western Australia's net contribution was more than 30 times greater than New South Wales and more than 40 times greater than Victoria.

Western Australia's large net fiscal contribution reflects the high level of company tax, personal income tax and mining revenue derived from the State, and the low level of Commonwealth social security and health payments to residents of Western Australia. It also reflects the State's large net HFE contribution.

Chart 2.2 shows Western Australia's net fiscal contribution and net HFE contribution over time. Over the period 1986-87 to 2014-15, Western Australia's total net fiscal contribution (in nominal terms) was $206.6 billion.

Chart 2.2: Western Australia's Net Fiscal Contribution to the Federation



Source: Western Australian Treasury estimates, using a range of data sources including the Commonwealth Final Budget Outcome publications and Australian Bureau of Statistics publication 5220.0. Results are based on the latest available data. Some data has been proxied by escalating earlier data using relevant economic indicators.

3. Federation and HFE

Key Points

- Empirical evidence suggests that:
  - the long-term performance of federations is significantly impaired by high fiscal centralisation (by which, in particular, State revenues are not retained where they are generated); and
  - migration across States in Australia in response to economic opportunity is low and not addressed by overseas migration.
- Improving Australia's performance requires a reduction in fiscal centralisation.

Introduction

This chapter provides evidence that:

- the long-term performance of federations is positively related to the degree of subnational fiscal autonomy, which is low in Australia; and
- migration across States in Australia in response to economic opportunity is low and not adequately addressed by overseas migration. It is argued that Australia's fiscal centralisation has played a part in this.

The implication is that improving Australia's performance requires a reduction in the degree of fiscal centralisation (that is, a reduction in the degree to which State revenues are centrally controlled).

Federations and Fiscal Centralisation

Federations are commonly held to offer multiple advantages over unitary States. One of these advantages is the prospect of better economic outcomes through customisation of policies (between and across levels of government) to reflect differences in local needs, competition between States, and opportunities to test different and innovative approaches to service delivery.

However, the advantages of the Australian federation have been dulled by Australia's very high level of fiscal centralisation.

The application of a strict HFE principle, in addition to Australia's already high level of vertical fiscal imbalance, results in very high fiscal centralisation, effectively centralising nearly all State revenues.

Development and Fiscal Centralisation

Careaga and Weingast (2003)[1] and Weingast (2009)[2] have pointed to strong theoretical and observed links between high fiscal centralisation and reduced economic development[3].

Their conceptual model suggests that, the larger the proportion of taxes generated within a province that may be kept by the province, the greater the provincial government's provision of growth-fostering public goods and the lower its reliance on 'rents' to maintain political support.

They formulate a 'fiscal law of 1/n' for fiscally centralised federations in the following terms.[4]

> If there are *n* provinces, then the average province receives *1/n* of the total revenue pool, no matter how good or bad its policies. … Now let the province alter policies to foster local economic growth so that the revenue generated from the province … increases. The … province receives *1/n* of the total increase in revenue generated solely from its increased investment in the local economy. The province bears the full expenses of the market-enhancing public goods but captures only *1/n* of the fiscal return.

This essentially reflects Australia's situation – any State that improves its underlying revenue base will lose most of the associated revenue gains to other States.

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1 M Careaga and B Weingast (2003), *Fiscal federalism, good governance and economic growth in Mexico*, in D Rodrik (ed.) In Search of Prosperity: Analytic Narratives on Economic Growth, Princeton University Press.

2 B Weingast (2009), *Second generation fiscal federalism: The implications of fiscal incentives*, Journal of Urban Economics 65, pages 279-293.

3 Countries examined were the United States, China, Mexico, India, Russia, South American nations, Canada and Italy.

4 B Weingast (2009), *Second generation fiscal federalism: The implications of fiscal incentives*, Journal of Urban Economics 65, page 283.

Economic Performance of OECD Federations

Twomey and Withers (2007)[5] also examined the impact of fiscal centralisation. Building on previous studies, they analysed the performance of 21 OECD countries over a 50 year period (1950 to 2000).

Regression analysis was used to link real GDP per capita growth (in purchasing power parity terms) with:

- the economic starting position of each country;
- whether that country is a federation or not; and
- the degree of fiscal decentralisation, measured as the average own-tax share of state, regional and local governments over the whole period. This is essentially a measure of vertical fiscal imbalance (VFI).

Twomey and Withers considered whether other influences could bias the results, but concluded that this was not a concern.[6]

Conclusions from the analysis were that, in 2006 terms for Australia:

- federation has delivered a benefit of $4,507 per capita (i.e. per capita GDP 11.7% higher than otherwise);
- a further benefit of $2,925 per capita (6.8%) could be achieved if fiscal decentralisation were increased to the average for all OECD federations; and
- this further benefit would increase to $4,188 per capita (9.7%) if fiscal decentralisation were moved to best practice, as defined by Canada, Germany and Switzerland.

Put another way, fiscal centralisation in Australia may be reducing national GDP by around 10%.

This may be a conservative estimate, as Australia's comprehensive HFE system (by international standards) probably means that the VFI measure understates fiscal centralisation in Australia.

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5 A Twomey and G Withers (2007), *Federalist Paper I, Australia's Federal Future: Delivering Growth and Prosperity: A Report for the Council of the Australian Federation*.

6 *Ibid.*, page 55.

While significant time has passed since this analysis, the chosen period of the analysis (1950-2000) represents a period of relative stability and growth which is well suited to revealing the different performance characteristics of different levels of fiscal centralisation in developed nations.

Accordingly, it is considered that the Twomey and Withers analysis remains very relevant, and in conjunction with the evidence from Careaga and Weingast (2003) and Weingast (2009) provides significant evidence of large deleterious effects from fiscal centralisation. This should be of major concern to policy makers, especially since Australia has high vertical fiscal imbalance and an extreme form of HFE.

Interstate Migration in Australia

Labour mobility across jurisdictions is an acknowledged source of productivity gain.

In an address to the Melbourne Institute and The Australian Economic and Social Outlook Conference (June 2011), Gary Banks (then Chairman of the Productivity Commission) noted that:

> The potential benefits of geographic mobility of labour during a mining boom were explored in recent modelling conducted by the Commission. Unsurprisingly, GDP and average real wages were projected to be higher when labour was fully mobile across jurisdictions, reflecting the gains from resources moving to higher valued uses. A less obvious, though equally important result, was the role of labour mobility in distributing the benefits of the resource boom across Australia. The ability of workers to move to work in another state or territory moderated the growth in wages in booming jurisdictions, and increased it elsewhere.

It is noteworthy that after nearly 120 years of federation, 57% of Australia's population still resides in two States that comprise just 13% of Australia's area. There are very many unexploited economic opportunities outside these States and in principle no reason why much more economic activity (and investment) should not ultimately occur outside these States and attract a higher population.

So how mobile is labour across the Australian States? The following sections progressively build a case that mobility in pursuit of opportunity has been inadequate and inconsistent. We conclude that Western Australia is attracting too few people either from overseas or interstate, and Australia's fiscal centralisation is playing a significant role in this.

Short-Term Analysis

Data in the Productivity Commission's Research Report on *Geographic Labour Mobility* (April 2014) indicates that interstate moves in 2010[7], including for job purposes, were a small minority of total moves.

- The report notes that, while 16% of the labour force changed residence, this dropped to 3.3% for movements between regional labour markets and 1.7% for interstate moves.[8]

- The report also notes that only a fraction of total movements (estimated to range between 10% and 17%) was primarily for work purposes[9], and also that of the 10% of workers who changed jobs, only 1 in 20 relocated interstate[10].

While suggestive, this data cannot firmly show that the labour force is inadequately responding to interstate work opportunities.

Two figures extracted from the *Geographic Labour Mobility* report (see boxes) provide more direct evidence of a problem with interstate labour mobility. These indicate that work opportunities (measured by employment growth) and interstate migration bear little relationship to each other, albeit the data periods are different and relatively short term.

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7 Data reflects proportion of people who moved residence in the year prior to the 2011 Census.

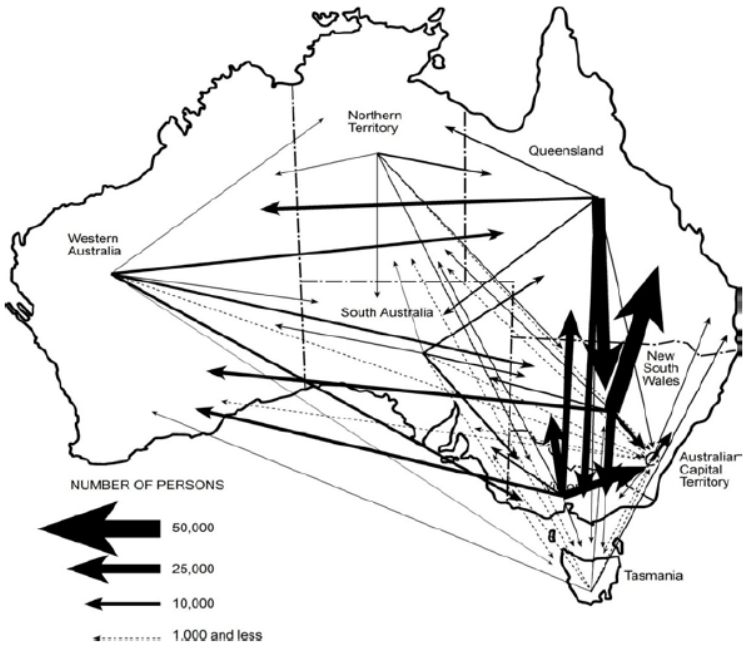
8 Productivity Commission (2014), *Geographic Labour Mobility*, pages 12-13.

9 *Ibid.*, page 12.

10 *Ibid.*, page 106.

Extract from Geographic Labour Mobility Report – Figure 4.3 (page 75)

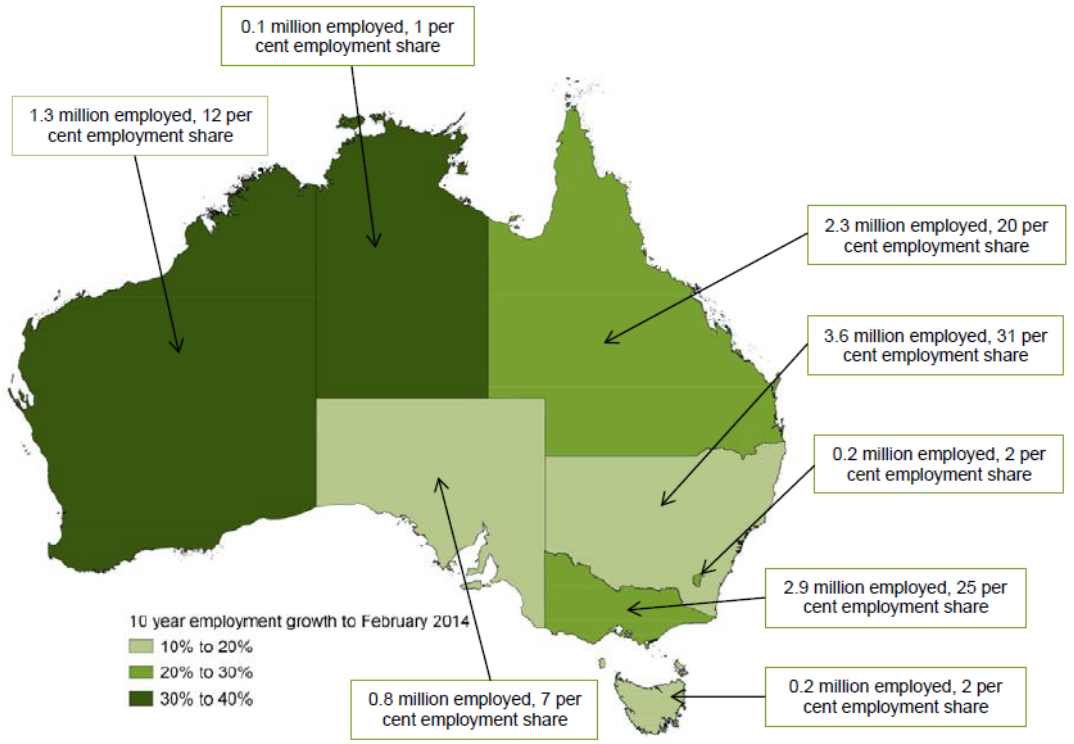
Figure 4.3 **Interstate migration in Australia, 2011-12**



Source: RAI (forthcoming).

Extract from Geographic Labour Mobility Report – Figure 4.6 (page 91)

Figure 4.6 **Employment statistics by state and territory, February 2014**



Source: ABS (*Labour Force, Australia,* Cat. no. 6202.0).

Longer-Term Analysis

To explore these issues further, we have used ABS data (3101.0 and 5220.0) over the longest period possible (1989-90 to 2015-16) to look at the long-term relationship between the relative economic performance of States and population movement across States.[11]

We sought to understand whether, at a high level, population movements seem to reflect opportunities for labour to improve its circumstances. Due to time constraints we have not attempted to make a distinction between population and the labour force.[12]

[11] This analysis predates the release of revised population estimates by the ABS on 27 June 2017, which incorporate results of the 2016 Census of Population and Housing.

[12] Queensland has been a major destination for retirees, but the average age of Queenslanders remains below average, as does the share of the population aged 60 and above. Around 90% of Queensland's net interstate migration during the years 1997 to 2015 was aged less than 60 years, and around 80% was aged less than 50 years. See discussion of this later in the chapter.

For this purpose, it is not the level of economic activity (e.g. per capita GSP) that is relevant, as different levels of economic activity are compatible with similar returns to labour across States in an equilibrium situation. Rather we have used a measure of change, namely, growth in per capita GSP, as an indicator of labour market imbalance. The assumption underlying our analysis is that States with relatively higher growth in per capita GSP are likely to have a tighter labour market than States with lower growth in per capita GSP, prompting labour migration by individuals to improve their wages.

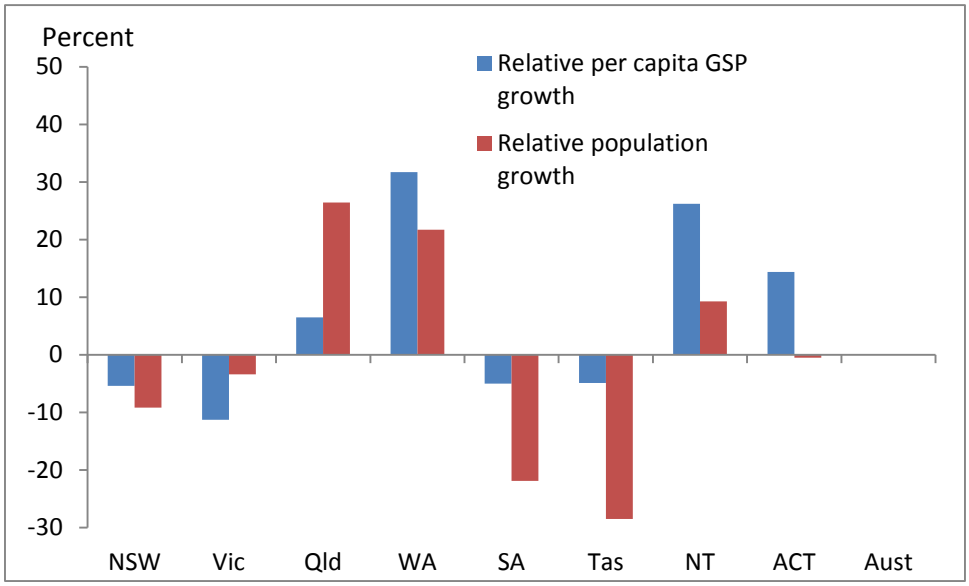
We have not looked at the fine detail of population movements. Nor have we sought to comment on the level of population movements in Australia, but rather the distribution of the movement that has occurred.

There are feedback effects from population movement to growth in per capita GSP. Population inflow can feed labour demand generating more population inflow. Nevertheless, in the medium term population movement should reduce wage differentials (other than those relating to amenity and cost of living) unless other economic circumstances change.

Chart 3.1 shows, as expected, a systematic tendency for above/below average economic performance (measured by growth in per capita GSP) to be associated with above/below average population growth (the ACT being the sole exception).

- However, beyond moving in the same direction, there is not a clear relationship, which suggests that work opportunities have not been a consistently strong driver of interstate location choices. This is confirmed by the analysis of components of population growth presented in Chart 3.2 and Table 3.1 below.

Chart 3.1: Relative Per Capita GSP and Population Growth 1989-90 to 2015-16



Source: Calculated by the Western Australian Treasury from ABS data (3101.0 and 5220.0).

Features of overseas and interstate migration are particularly noteworthy:[13]

- Western Australia (a high performing State) has received a relatively high share of **net overseas migration** (NOM) compared to its population share. However, this has been mainly at the expense of the low performing States of South Australia and Tasmania, rather than the low performing but major population centres of New South Wales and Victoria (which receive more than a population share of overseas migration). Queensland and the Northern Territory, despite above average performance, have attracted less than a population share of overseas migrants.

  - The *Geographic Labour Mobility* report notes that "Historically, most immigrants have settled in large 'gateway' cities, such as Sydney and Melbourne."[14]

  - Notably, after dropping briefly to around 50% in 2012, New South Wales' and Victoria's share of overseas migrants (on a rolling annual basis) has now moved up to 75%.

[13] Natural increase has contributed to population growth differentials across Australia, but apart from the Northern Territory, this may largely reflect overseas migration and interstate migration in previous years.

[14] Productivity Commission (2014), *Geographic Labour Mobility*, page 6.

- We conclude that growth States (Western Australia, Queensland and Northern Territory) are attracting too few overseas migrants.

- **Net interstate migration** (NIM) has overwhelmingly favoured Queensland (receiving 91% of gains) over Western Australia (receiving 9% of gains), despite Western Australia's much stronger economic performance. The losses are distributed across the other States, including the Northern Territory (despite its strong economic performance).

  - As Queensland is a known destination for retirees, we looked at age-specific net interstate migration from the ABS over the slightly shorter period 1997 to 2015 (calendar years). For ages below 60, the States gaining from net interstate migration were Queensland (78%), Victoria (11%) and Western Australia (12%).[15] These numbers are again way out of line with relative economic performance.

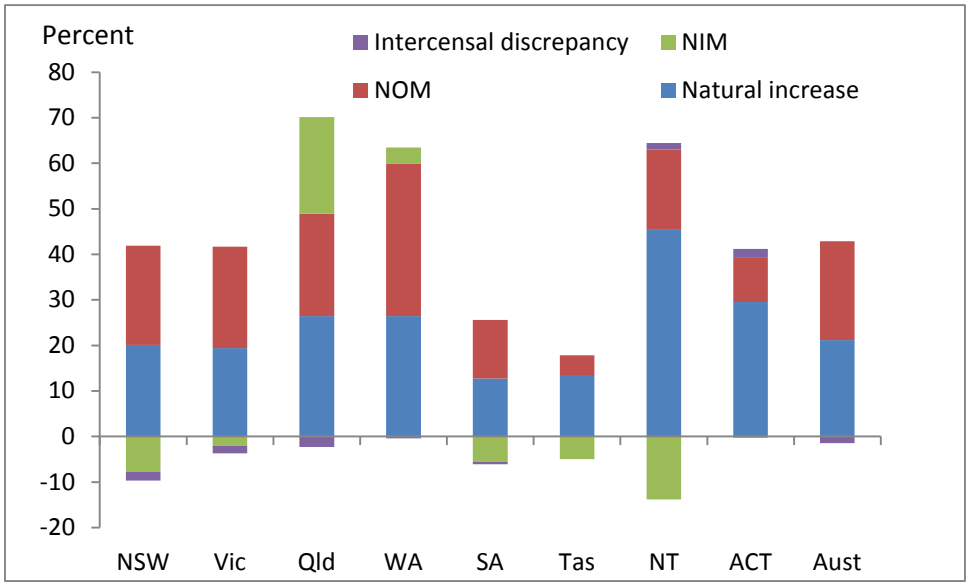
  - The *Geographic Labour Mobility* report notes that "In contrast to Queensland, Western Australia has relied much more on overseas migration to meet the labour demands of its strong economy. This could be pointing to the formidable role of distance."[16]

  - We conclude that Western Australia is attracting far too few interstate migrants, relative to its strong economic performance.

[15] For less than 50 years, recipients of net positive interstate migration are Queensland (73%), Victoria (13%), Western Australia (12%) and ACT (2%).

[16] *Ibid.*, page 8.

Chart 3.2: Components of Population Growth 1989-90 to 2015-16



Source: Calculated by the Western Australian Treasury from ABS data (3101.0).

Table 3.1: Analysis of Population Growth, 1989-90 to 2015-16

	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Aust
Share of **net overseas migration** as % of State population share	104	104	95	144	64	23	78	45	100
Share of **net interstate migration** as % of total interstate migration	-68	-13	91	9	-12	-3	-3	0	0
Share of **natural increase** as % of State population share	98	93	114	116	65	70	208	140	100

Source: ABS 3101.0. State population shares are the average of shares as at Dec 1989 and Dec 2015. Migration and natural increase are measured between Dec 1989 and Dec 2015.

Tackling Labour Immobility

The *Geographic Labour Mobility* report notes that:

> Employment is usually a necessary but not sufficient reason for residential mobility.
>
> Housing and living costs are also found to be determinants of where people choose to live and work. …
>
> The quality and availability of economic and social infrastructure – such as education facilities, health services, communication services and transport – also influence where people live and work.[17]

It follows that addressing these issues could help address the problems noted above of the entrenched attractiveness of New South Wales and Victoria, and Western Australia's 'distance problem'.

Tackling these issues in urban and regional areas has been a major objective of successive Western Australian Governments, but has been significantly frustrated by a GST distribution that has given inadequate regard to these issues and has instead reallocated Western Australia's strong revenues to other States.

It has not helped that Commonwealth infrastructure assistance to Western Australia, which would be well above its population share if based on the 15% share of Commonwealth revenues generated in Western Australia, has in fact been far below its population share, and hence far below what has been required to meet growth demands.

- Western Australia's share of Commonwealth infrastructure grants was 9.3% over the five years to 2015-16[18].
- Western Australia's share of Commonwealth direct investment was 8.5% over the five years to 2015-16[19].

The very high centralisation of government revenues in Australia (that is, the reallocation of revenues generated in one State to other States) therefore arguably lies at the root of inadequate labour mobility.

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17 *Ibid.*, page 111.

18 Excludes Western Australia's GST top-up grants, which were intended as compensation for its low share of untied GST grant revenue.

19 Excludes the ACT, which receives 16.5% of Commonwealth direct investment.

The *Geographic Labour Mobility* report suggested a whole range of areas of government policy that could be addressed to facilitate labour mobility – income and housing support policies, tax policies, local government financial capacity, employment services, land-use planning policies, education and training, occupational licencing, better use of economic development assistance.

Some of these issues relate to Commonwealth policy and cross-State issues where the Commonwealth may have a role.

For the rest, the sheer range of issues argues against a central planning solution. Giving States more access to their revenues would provide them with more accountability for their performance and the incentive and capacity to improve their economic futures. States would invest in growth-facilitating services and infrastructure if they could retain the revenue benefits needed to ultimately finance the investments.

4. HFE in Literature and Models – Efficiency

Key Points

- Theoretical analysis purporting to show that HFE is efficient inevitably relies on some assumptions that do not hold in the real world.
- When these assumptions are carried across into general equilibrium modelling of HFE the sources of inefficiency are assumed away. 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.
- The presumed efficiency of HFE is based on the elimination of incentives for inefficient migration. However, the literature recognises that this would itself have large inefficiency consequences, so that HFE inherently must involve compromises between different sources of inefficiency.
- The issues discussed in the literature suggest that the way HFE is implemented in Australia is likely to be inefficient because it:
  - focusses on the short term rather than the (undiscoverable) long term;
  - does not recognise the scope for benefits from economic growth in a nation with 'underpopulated' States;
  - provides impediments to interstate migration;
  - equalises royalties regardless of their use, which can include national interest investment and compensation for risks inherent in mining-based development; and
  - generates distortionary incentives on taxes and royalties, and on incentives and capacity for development (which can result in accumulating efficiency losses over decades).
- In a practical sense, these concerns suggest that HFE be redesigned to:
  - minimise 'formula driven' redistributions generated by the splitting of revenue bases that have little equity rationale; and
  - avoid excessive redistribution of revenues raised by States, in order to preserve the natural incentives for federal systems to efficiently allocate resources.

Introduction

In a well-known response to modelling of the efficiency benefit of HFE by Independent Economics (2012)[1], Pincus and Ergas (2012)[2] noted that:

> Almost every negative impact HFE could have on productivity is assumed away.[3]

Pincus and Ergas go on to describe the problems of this model. This chapter aims to explain that most of the problems are not particular to the Independent Economics model.[4] In our view, it is not feasible to develop a general equilibrium model that captures the impacts of HFE.

This chapter also explains that the equalisation of 'fiscal externalities', even were it meaningful or achievable, would have large inefficiency consequences, as recognised in the literature, because of the undesirable fiscal incentives it would create. Hence the literature recognises that, from an efficiency perspective, HFE inherently must involve compromises. If the compromises are insufficient (as we argue that they are), HFE reduces the incentives and capacity of States to grow the productive capacity of their economies.

This chapter also examines why, from an efficiency perspective, the equalisation of location costs is not separable from the equalisation of revenue capacities and socio-demographic demands.

In the final section, we discuss why we consider that the GST Distribution Review's final report is misdirected in not recommending any action to materially improve the efficiency of HFE.

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1 Independent Economics (2012), *Horizontal Fiscal Equalisation: Modelling the welfare and efficiency effects*, prepared for the South Australian Department of Treasury and Finance.

2 J Pincus and H Ergas (2012), *Comments on Independent Economics report for the SA Government, entitled "Horizontal Fiscal Equalisation: Modelling the welfare and efficiency effects"*, Paper submitted to the GST Distribution Review.

3 *Ibid.*, page 1.

4 Some problems are particular to the Independent Economics model, including the constant price assumption for private goods, as noted below.

The Efficiency Case for HFE

The basic efficiency case for fiscal equalisation was put forward by Buchanan (1950)[5] as follows.

> If states are not identical in fiscal capacity, the people in the low capacity (low income) states must be subjected to greater fiscal pressure (higher taxation and/or lower value of public services) than people in high capacity states. If 'equals' are thus pressed more in one area than another, there will be provided an incentive for migration of both human and non-human resources into the areas of least fiscal pressures. Resources respond to market-determined economic reward, plus fiscal balance. If the fiscal balance for equals is not made equivalent for all areas of the economy, a considerable distortion of resources from the allocation arising as a result of economic criteria alone might result.[6]

In later studies, inefficient migration is explained in terms of the 'fiscal externality' associated with migration, which is a generalisation of Buchanan's original exposition. As explained by Boadway (2004)[7]:

> A marginal in-migrant imposes two offsetting effects on the existing residents of a region. On the one hand, the taxes he pays contributes to the regional budget that finances spending for all households. On the other, his use of public goods and services may reduce the benefits obtained by existing residents, the so-called *congestion effect*. …[8]
>
> If migration is costless, migration will be inefficient if … the size of the fiscal externality differs across regions.[9]

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5 J Buchanan (1950), *Federalism and Fiscal Equity*, The American Economic Review, Vol. 40, pages 583-599.

6 *Ibid.*, page 589.

7 R Boadway (2004), *The Theory and Practice of Equalisation*, CESifo Economic Studies, Vol. 50, pages 211-254.

8 Note that 'congestion' here is used in a more general sense than 'diseconomies of large scale'. It includes the situation of publicly provided private goods, which are congestible in the sense that, for a given quantity of these goods, if an additional person comes into the State, there is less available for the existing population of the State.

9 *Ibid.*, pages 223-224.

On this basis, the equalisation of differences in revenue capacity (including rents and taxes) and differences in socio-demographic population characteristics has been broadly justified, as these characteristics can lead to different fiscal externalities across States, which theoretically drive inefficient migration.[10]

Economies and diseconomies of scale in public services also yield fiscal externalities, as the additional migrant lowers or raises the average cost of publicly provided goods for all. HFE transfers in Australia provide additional funding for the higher costs of both small scale[11] and large scale[12] public services, whereas on an efficiency basis only the former should be funded (to encourage more people into the State to generate scale efficiencies). As noted by Garnaut and Fitzgerald (2002)[13]:

> Some elements of the CGC's calculations work are directly against efficiency. For example, the CGC provides additional money to States with higher congestion costs (e.g. law and order[14] and public transport), whereas an efficiency optimal calculation would provide less money to these States (to encourage more migration to less congested States).[15]

Location Cost Equalisation

The equalisation of unavoidable differences across States in public sector wages and regional/remote costs is an important feature of HFE that has been criticised as inefficient. In fact, different views have been put forward on the efficiency merits of location cost equalisation for public services, which need to be considered carefully to understand the issues – see Box 4.1 below.

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10 Boadway (2004) works through the revenue issues in detail (pages 224-231), and notes the need for equalisation of spending on targeted population groups (pages 231 and 237).

11 This is funding for the higher per capita fixed costs of State-wide administration (such as the legislature and core head office functions of departments).

12 This is funding for the higher per capita costs of public transport in larger cities.

13 R Garnaut and V FitzGerald (2002), *Review of Commonwealth-State Funding, Final Report*, prepared for the Treasurers of New South Wales, Victoria and Western Australia.

14 Since discontinued by the CGC.

15 R Garnaut and V FitzGerald (2002), *Review of Commonwealth-State Funding, Final Report*, prepared for the Treasurers of New South Wales, Victoria and Western Australia, page 140.

Overall, without some form of cost equalisation (either explicitly or by equalising only the real value of all State revenues), there will be differential fiscal pressures on 'equal' individuals across States, leading to Buchanan's observation noted above that if "'equals' are thus pressed more in one area than another, there will be provided an incentive for migration of both human and non-human resources into the areas of least fiscal pressures". Hence the efficiency rationale for cost equalisation is essentially no different than the efficiency rationale for revenue and socio-demographic equalisation.

Box 4.1 - Views on Location Cost Equalisation

- In the models considered by Dixon, Madden and Peter (1993)[16] and Pincus (2011)[17], cost equalisation cannot be justified on efficiency grounds because, through migration, wages across States should adjust to be the same in real terms (this covers both private and public costs). What is overlooked by Dixon, Madden and Peter, but recognised by Pincus, is that the equalisation of nominal tax capacity distorts this equilibrium (from which one would conclude that some form of cost equalisation is required if nominal wages are equalised):

  > … the CGC assumes that, for any given type of wage worker, a higher wage fully represents a higher capacity for tax purposes. But, if the theory of spatial equilibrium has empirical heft, then this is wrong. By imposing a higher burden on the residents of the state with higher nominal wages but not higher real wages for similar people and jobs, the Commission's approach to fiscal equalisation offends the principle of horizontal fiscal equity and distorts the pattern of settlement.[18]

[16] P Dixon, J Madden and M Peter (1993), *The Effects of Reallocating General Revenue Assistance among the Australian States*, The Economic Record, Vol. 69, pages 367-81.

[17] J Pincus (2011), *Examining Horizontal Fiscal Equalisation in Australia, Research Paper No. 2011-25*, The University of Adelaide School of Economics.

[18] *Ibid.*, page 13.

- Boadway (2004)[19] overlooks the link between equalisation of nominal tax capacity and costs, but even so supports cost equalisation that is sensitive to State policies to provide lower public service levels in high cost regions (close to the CGC's approach), as "it is likely that high-cost locations will exist in all regions, but to differing degrees". This reflects the same principle that underlies the efficiency rationale for equalisation of spending on targeted population groups – if some States bear a higher fiscal burden from high cost regions (and hence raise taxes on that account), this will deter efficient migration based on economic reward.

- Garnaut and Fitzgerald (2002)[20] also overlook the link between equalisation of nominal tax capacity and costs. They suggest that 'cost subsidies encourage people to locate in higher cost regions, with a loss in national welfare' unless 'factor allowances … correlate with externalities not explicitly considered by the CGC and consequently by accident act to improve efficiency'. Even so, in similar vein to Boadway, they see a role for equalisation of higher cost regions:

  > … to the extent that State Governments decide that the rich will bear a disproportionately high share of these costs, subsidies may reduce the incidence of these costs on the rich [in high cost States], and hence reduce fiscal incentives for the rich to migrate to low cost States.

- Petchey (1995)[21] provides a mathematical analysis to show that cost equalisation can be relevant in the context of State rents (e.g. royalties). As we understand the basic argument, if two States have equal real wages and equal per capita nominal rents, then there may be inefficient migration to the low cost State (where the rents are higher in real terms) which needs to be countered by a grant to the high cost State.

[19] R Boadway (2004), *The Theory and Practice of Equalisation*, CESifo Economic Studies, Vol. 50, page 238.

[20] R Garnaut and V FitzGerald (2002), *Review of Commonwealth-State Funding, Final Report*, prepared for the Treasurers of New South Wales, Victoria and Western Australia, page 140.

[21] J Petchey (1995), *Resource Rents, Cost Differences and Fiscal Equalisation*, The Economic Record, Vol. 71, pages 343-353.

- Independent Economics (2012)[22] assumes (contrary to reality) that there are no cost differentials in the private sector, but there are in the public sector. This assumption obviously renders efficiency outcomes from its modelling suspect for this reason (other reasons are discussed below).

Why the Efficiency Case for HFE Fails

The 'fiscal externality' framework and the general equilibrium models (which effectively embed these fiscal externalities) that have been put forward to quantify the efficiency of equalisation grant distributions have essential limitations.

The upshot is that the fiscal externality framework and general equilibrium models provide no guide at all to the efficiency of equalisation as currently practiced in Australia. Indeed, such equalisation is most likely to be inefficient on a range of counts, including:

- focus on the short term rather than long term;
- lack of recognition of the scope for benefits from economic growth in a nation with 'underpopulated' States;
- impediments to interstate migration;
- the indiscriminate equalisation of royalties; and
- distortionary incentives on taxes and royalties, and on incentives and capacity for development.

Long Run versus Short Run

We do not know the long-run efficient allocation of resources in Australia, or the efficient path to that outcome. Indeed, the future is essentially unknowable for many reasons.[23]

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[22] Page 57: "because the private consumption good and the mining good are both tradeable internationally, their output prices … are assumed to be already determined on world markets."

[23] Unpredictable aspects of the future include technology change, expanding information on resource availability, changing global demand/supply conditions for commodities and services, changing political environment, responses to global economic growth capacity constraints from global warming and exhaustion of mineral and agricultural endowments, etc.

Yet the 'fiscal externality' framework essentially presupposes a world of timeless relationships between a generic private 'good'/mining output, and the generic inputs used to produce them. The general equilibrium models follow this presumption, for example Dixon, Picton and Rimmer (2005)[24] and Independent Economics (2012). These models use simple production functions (linear, Cobb-Douglas or Constant Elasticity of Substitution) whose parameters are fixed by recent economic data. The models and the equilibrium outcomes produced by these models are therefore intrinsically short run in nature and can provide no guidance on long-run efficiency.

'Underpopulated' States

The fiscal externality analysis and general equilibrium models presuppose that the States are sufficiently populated that additional labour has declining long-run marginal returns (i.e. wages) and increasing disutility from congestion. This is sometimes referred to as 'overpopulation'. In this situation, migration from high wage States to low wage States serves to equalise wages across States. This does not happen if additional labour increases marginal returns in some or all States.

It is not at all obvious that States in countries like Australia or Canada are in a situation of declining long-run marginal returns to labour.

Boadway and Flatters (1982)[25] note that:

> … it is overpopulated federations which would tend to have a unique stable equilibrium … In an underpopulated federation an internal equilibrium, if it existed, would tend to be unstable. Since it is hard to imagine Canada as being anything but underpopulated, this seems to bode ill for the stability of the migration process.
>
> We do not observe the complete depopulation of provinces or regions, however, and that is presumably because there is not free migration …[26]

[24] P Dixon, M Picton and M Rimmer (2005), *Efficiency Effects of Changes in Commonwealth Grants to the States: A CGE Analysis*, Australian Economic Papers, Vol. 44, pages 82-104.

[25] R Boadway and F Flatters (1982), *Efficiency and equalisation payments in a federal system of government: a synthesis and extension of recent results*, Canadian Journal of Economics, Vol. 15, pages 613-633.

[26] *Ibid.*, page 619.

Benefits from Increasing Population

As another aspect of 'underpopulation', Boadway (2004) has pointed to non-fiscal 'agglomeration' externalities associated with migration that should be accounted for in an efficiency-based equalisation system.

> The endogenous growth literature has emphasised local externalities associated with the accumulation of human and physical capital … The new geography literature focuses on the advantages of product diversity that can come with local agglomeration of firms … As well, job matching can improve with the size of the labour market … In a federalism context, these various externality effects imply that the migration of skilled labor and entrepreneurs brings with it benefits that are not captured by the migrants, and to the extent that these differ across regions, there may be inefficiencies that can be corrected by equalisation.[27]

This again seems pertinent to a nation like Australia.

Response of Migration to Economic Opportunity is Low

Boadway (2004) takes an equivocal view towards the existence of migration costs (i.e. impediments to free migration):

> … the migration equilibrium constraint can be binding in either direction [towards reducing or increasing the fiscal externality differences between States] depending on the characteristics of the regional economies. This makes it impractical to take migration costs into account in designing equalisation systems, even in relatively simple settings. Fortunately, if migration costs are identical for all … the costs of migration can be ignored, as is typically the case in the equalisation literature.[28]

Three points need to be made about this.

Firstly, Boadway's assumption, that migration costs are identical for all, does not appear to be borne out by the analysis in Chapter 3 of this submission, which suggests that migration is unequally driven by economic opportunity across States, including by the influence of distance and the attractiveness of large population centres.

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[27] R Boadway (2004), *The Theory and Practice of Equalisation*, CESifo Economic Studies, Vol. 50, page 243.

[28] *Ibid.*, page 225.

Secondly, even accepting the assumption that migration costs are identical for all, Boadway's conclusion relates to the end point equilibrium towards which migration tends, not the rate towards which it tends. The rate of migration adjustment to exploit long-term economic opportunities has consequences for national welfare.

It might be countered that slow interstate migration in Australia simply reflects rational risk assessment and non-market preferences (e.g. around lifestyle, community/family links and attachment to the place of one's upbringing), and is hence welfare optimising. However, a policy maker needs to consider that:

- individual risks associated with mobility in general (and moving from more settled areas to developing areas) need to be balanced against the collective risk of a poorer performing economy;
- individual welfare preferences are not necessarily optimal from an intergenerational perspective, as yet to be born children are not wedded to particular locations; and
- there are significant government policy impediments to labour mobility, as noted in the Productivity Commission's *Geographic Labour Mobility* report, which are unlikely to be grounded in individuals' welfare preferences.

Thirdly, equalisation of royalties is likely to particularly discourage migration to highly mining-dependent States, because of the economic risks faced by these States (see next section). The large population States also gain risk advantages from their national political clout.

Overall, we conclude that 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. This complements the empirical findings in the previous chapter.

Equalisation of Rent Revenues (Royalties) is Not Efficient

The standard assumption in the fiscal externality analysis is that these revenues enable the States that are more 'fortunate' in terms of natural resource endowments to provide 'windfall' benefits to the residents, which inefficiently attract migrants. However, this is simply an assumption.

- States may use some of these rents for purposes that are in the national interest, such as providing economic and social infrastructure and other assistance to support development opportunities that serve to optimise long term national economic growth. In Australia, the equalisation of rents has largely obscured this use of rents, though in some circumstances it can be seen, such as assistance that underpinned the North West Shelf gas project.

- States with large mining activities may need to use the rents to offset the risks for the community associated with regional and State-wide economic volatility that is consequent upon the dependence on mining, including the finiteness of resources. Equalisation offsets only a fraction of these risks, and equalisation is not guaranteed to be around when some of these risks materialise.[29]

  - Such compensation could be directly offered to the community (high services, low taxes), or put into a sovereign wealth fund until needed.

  - Without such compensation, the net benefit of mining to States is reduced. As well, labour migration to these States will be discouraged.

For low mining States that receive royalties through the GST, these royalties are just one of many constantly changing influences on the GST, so the sense of responsibility to wisely use a finite resource is lost.

It is therefore argued that efficiency maximisation requires less than full equalisation of royalties.

Efficiency Based Equalisation Involves Inherent Compromises

The literature recognises that equalisation to eliminate the 'fiscal externality' motive for migration is incompatible with other efficiency objectives, so that compromises are necessary.

[29] In effect, royalties may be rents at an enterprise level, but not at the broader community level.

Boadway and Flatters (1982) note that:

> National efficiency considerations would dictate that … actual tax collections [on rents and capital] be fully equalised. Note that it is not the tax capacities that should be equalised but actual taxes collected.
>
> [But] Under full equalisation, the provinces would have little incentive to levy taxes on capital or rents at all, since these revenues would be equalised over provinces anyway.[30] (page 627)

Boadway (2004) generalises this analysis to include 'residence' taxes and different types of households, noting that:

> In principle, full efficiency could be attained by a complicated system of transfers to households based on individual-specific [net fiscal benefit] differentials. However, although that system of transfers would neutralise fiscal incentives for migration, the effect of it would be to … undermine the purpose of decentralized decision-making [and] introduce incentives for regions to choose fiscal policies to increase their equalisation entitlements.[31]

To address this conflict, equalisation is based on national average tax rates. This is essentially a compromise between limiting migration distortions from fiscal externalities, and limiting distortions to States' fiscal policies.

However, distortions to State policies remain, as discussed in the next three sections.

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30 R Boadway and F Flatters (1982), *Efficiency and equalisation payments in a federal system of government: a synthesis and extension of recent results*, Canadian Journal of Economics, Vol. 15, page 627.

31 R Boadway (2004), *The Theory and Practice of Equalisation*, CESifo Economic Studies, Vol. 50, pages 231-232.

Recipient States Don't Use HFE Benefits as Intended

Buchanan (2002)[32] suggests that States receiving untied benefits from HFE may use the benefits in ways that frustrate the intention to reduce inefficient migration. For example, recipient States may give too much to the poor at the expense of the rich, or to the rich at the expense of the poor. He concludes that:

> The central government must, in effect, adopt a hands-on policy with respect to the ultimate distribution of the equalizing funds within the poorer regions.
>
> Just as is the case with the provincial governments, however, there is little or no assurance that the coalition structure of central government politics will be such as to allow the economists' idealized scheme for fiscal equalization to be put in place.
>
> … I now recognize that the practical difficulties, politically, involved in implementing any equalization scheme may be such as to negate any potential net gains.[33]

Tax/Royalty Rate Distortions

Boadway (2004) notes that national average tax rates can still distort the tax rate decisions of individual States. This is because the tax rate of an individual State affects the average.

> To the extent that a region's tax rate influences the national average tax rate, it will have a disincentive to increase rates if its entitlement from that base is negative [i.e. has above average revenue capacity], and vice versa. … If each region is relatively small compared with the nation as a whole, a given region's influence on the national average tax rate will usually be small. **An exception will be where a region has a high proportion of a particular tax base … like particular sorts of natural resources** [emphasis added].[34]

Western Australia's near 100% share of iron ore and nickel production and 70% share of gold production are extreme examples of this (where Western Australia loses respectively 88% and 60% of any rate increase to other States).

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[32] J Buchanan (2002), *Fiscal Equalization Revisited*, Paper #1 for 'Equalization: Welfare Trap or Helping Hand?', a conference co-sponsored by the Atlantic Institute for Market Studies, the Montreal Economic Institute and the Frontier Centre for Public Policy.

[33] *Ibid.*, page 10.

[34] R Boadway (2004), *The Theory and Practice of Equalisation*, CESifo Economic Studies, Vol. 50, page 241.

However, even modest revenue capacity differentials can have a significant impact on HFE grants if a State changes its tax mix, and hence impact on State decisions about tax reform.

Notably, these issues are not reflected in general equilibrium models of HFE efficiency that we are aware of, which reflect taxes and royalties only at an aggregated level.

Boadway's solution is:

> … to blunt the disincentive effect by reducing the extent of equalization of such bases, even though that also reduces the effectiveness of the equalization.[35]

Alternative approaches discussed in the final chapter of this submission would be to amalgamate revenue bases or find an underlying broader measure of revenue capacity.

Reduced Incentives and Capacity for Development

The standard efficiency analysis of equalisation assumes that States' economic activity is independent of decisions on public provision and regulation. However, State provision of social and economic services and infrastructure plays an integral role in facilitating economic growth. Similarly, State regulation on a host of matters determines what the private sector can do, and how efficiently it can do it.

The assumed independence of the productive capacity of State economies from State public sector activities leads to the following poor conclusions:

- incentives for development are not an issue;
- capacity to fund infrastructure to facilitate future development is not an issue;
- royalties from non-renewable resources are 'icing on the cake' to be allocated equitably for consumption, rather than invested for sustainable development; and
- remote area costs are just a nuisance that should only be minimally equalised, rather than being seen as an integral part of the State's production function.

[35] *Ibid.*, page 241.

Dahlby (2002)[36] notes that:

> While … tax policy distortions are well-known and have been studied by public finance economists for a number of years, the potential for expenditure distortions is only rarely discussed and has received no formal analysis [before this paper].[37]

Dahlby concludes that:

> The incentive effects of equalization grants are predicted to:
>
> - reduce the recipient government's marginal cost of public funds, which may lead to … excessive expenditures on purely consumptive public expenditures;
>
> …
>
> - reduce the recipient government's expenditures on tax base enhancing activities, such as education and infrastructure.[38]

Weingast (2003) provided a somewhat similar analysis (see previous chapter).

In the absence (to our knowledge) of a well-developed treatment of this issue in the literature, we offer the following general principles.

Equalisation imposes budget constraints on States that change what State governments can optimally offer their electorates.

- Spending and regulatory measures that are productivity-enhancing are effectively taxed by HFE, unlike spending and regulatory measures that are not productivity-enhancing but support consumption or amenity. Some measures will support both amenity and productivity, but many will not. Some measures will enhance productivity at the expense of amenity. In a federation, States are very sensitive about tax burdens and their impact on interstate competitiveness, and no State is likely to support significantly above average tax burdens to support productivity-enhancing activities.

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[36] B Dahlby (2002), *The Incentive Effects of Fiscal Equalization Grants*, Paper #4 for 'Equalization: Welfare Trap or Helping Hand?', a conference co-sponsored by the Atlantic Institute for Market Studies, the Montreal Economic Institute and the Frontier Centre for Public Policy. Dahlby provides a formal framework on pages 8-12.

[37] *Ibid.*, page 8.

[38] *Ibid.*, page13.

- The 'HFE tax' on new mining activity is particularly high, as a large proportion of the benefit accrues to governments through taxes and royalties that are equalised away. Mining can also face community opposition, and the introduction of mining in a region creates risks from adverse impacts on other activities, employment volatility and depletion of resources. These issues can make it harder for governments to justify mining 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.

- HFE cuts through the dynamic process of economic development. Where circumstances or initiatives generate an economic and tax revenue gain for a State, there is the opportunity to invest that revenue gain in public infrastructure and services to build on the economic gain and generate a cycle of growth. However, HFE reallocates the revenue gains.

Starved of capacity to provide public infrastructure and services, States can and do lean on the private sector in relatively undeveloped areas to provide their own infrastructure. However, the private sector providers prioritise their own interests, not that of the broader potential community of economic agents that could thrive in these areas.

The following chapters explore how these issues have affected Western Australia.

GST Distribution Review

The GST Distribution Review final report states that:

> The current system [of HFE] creates perverse theoretical incentives in some instances, but there is little evidence that they have any effect in the real world.[39]
>
> …increases in a State's tax base are generally the result of economic growth [not State policies], and a State has many reasons to pursue economic development beyond the potential fiscal gains.[40]
>
> … individuals and businesses may be inclined to locate in States with stronger economic growth anyway and it is difficult for the government to determine what the appropriate settlement pattern would be.[41]

The previous chapter has presented evidence (Weingast, Twomey and Withers) that perverse incentives do have real world consequences. It is obviously impractical to directly observe what States' economies would have looked like if perverse incentives were removed. States have made innumerable policy choices large and small over the decades, which may have been different if perverse incentives were removed, and may have affected Australia's economic performance.

While States obviously do have reasons to pursue economic development, as noted above, equalisation imposes budget constraints on States that systematically change what State governments can optimally offer their electorates.

While many policy choices in the short run may have a marginal impact compared to other drivers of economic growth, over the long run, each policy choice gradually feeds more into resource allocation and the performance of the economy, until the cumulative impact becomes potentially very significant.

The kinds of policy choices that are relevant here include tax and royalty regimes; business activity regulation; urban and regional planning; protections, benefits delivered to, and burdens placed on, particular groups; choices about investment in public good infrastructure and services; and direct development assistance.

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[39] J Brumby, B Carter, N Greiner (2012), *GST Distribution Review Final Report*, page 140.
[40] *Ibid.*, page 138.
[41] *Ibid.*, page 139.

On the positive side, we consider that Western Australia's financial support for the North West Shelf project and nurturing of the iron ore industry long before the boom in prices for this mineral, contributed very significantly to Western Australia's economic performance decades later.

On the negative side, we consider that the slow but relentless effect of disincentives and capacity restrictions imposed by HFE has significantly contributed to underperformance in the Australian economy, from which no State has been insulated. In Western Australia's case, regional areas in the north and south have been underprovided with basic infrastructure to facilitate cost-effective development.

Importantly, the very inability to marshal evidence of what could have been (or what could be) provides a strong argument against Australia's fiscally centralised model, in favour of the federal model of fiscally autonomous, competitive and innovative subnational governments. This model is effectively a market mechanism to guide governments to optimal choices, which are otherwise blind to the central planner.

The GST Distribution Review report discussed the difficulty of evidencing perverse incentives or determining what the appropriate settlement pattern should be. However, these difficulties are pointers, not to inaction as implied by the GST Distribution Review, but rather to the need for reform to reduce the role of central planning and increase the role of market mechanisms.

5. HFE in Practice – Efficiency

Key Points

- The current implementation of HFE creates the following inefficiencies that impact on the nation's economic growth:
  - disincentives to undertake difficult microeconomic reform, creating a welfare mentality;
  - skewed tax policy incentives, including a dulled incentive to maintain tax compliance;
  - disincentives to develop industry; and
  - disincentives for States to get an appropriate return on minerals.
- The 'HFE tax' is much more extreme than other tax/transfer systems, which are designed to provide assistance for those in need but also minimise distortions to reward and effort.
- Western Australia invests in industry development and mining regions in general, but HFE does not adequately acknowledge that investment or provide funding to help continue investment.
- Canada's approach to equalisation reduces disincentives by:
  - bringing less wealthy provinces up to a standard, without bringing wealthier provinces down; and
  - discounting its assessment of mining revenues by 50%.
- Gaps in HFE increase the need for the Commonwealth to facilitate national interest development. However, Commonwealth support is not always well targeted.
- Regular demands by State governments for Commonwealth grants to be quarantined from the HFE process is evidence of its perverse incentive effects.

Introduction

Australia's current system of HFE creates disincentives for States to develop their economies and pursue difficult productivity-enhancing reforms. The disincentives affect all States.

Western Australia makes a significant contribution to the wealth of the nation, including through its contribution to Commonwealth revenues and has heavily invested in its industries to nurture and develop projects that may not have received such support in other parts of the country. Benefits have been reaped across the nation from Western Australia's policies however the HFE system has acted to stifle the success of Western Australia and insufficiently recognises the great expenses that have been diverted toward achieving economic prosperity.

In addition to the inefficiencies from restraining labour and capital movements across State borders (discussed in Chapter 3), the current implementation of HFE reduces the nation's prospects in the following ways.

- There is a **disincentive to undertake difficult microeconomic reform** (such as tax reform) that requires compensation for losers, incentivising States to maintain the status quo and free-ride on stronger States.
- **Taxation incentives are skewed** to inefficient outcomes by adjusting tax mixes and rates, and a dulled incentive to maintain compliance.
- There is a large **disincentive to develop industry**, as most of the fiscal benefits are redistributed to other States, but there is no sharing of much of the costs of development, creating a penalty for success.
- Resource-rich States are **discouraged from getting an appropriate return for minerals** as increased royalty rates lead to lower GST grants.

A major reason for these disincentives is the lack of policy neutrality in the HFE process, as currently implemented.

This chapter also discusses Canada's approach to dealing with many of these issues and the Commonwealth's role in facilitating national development.

Microeconomic Reform

States cannot rely on revenues from improved productivity to further fund economic reform (or provide productivity-enhancing infrastructure), as these revenues will be equalised away.[1]

At the margin, when a State increases its per capita fiscal capacity (all else remaining equal) the benefit is redistributed across all States on an equal per capita basis. As such, the State that has increased its capacity will keep only its population share of the increased national revenue (fully contributed by that State). This reduces a State's incentive to grow its economy.

In addition, it is worth noting that because a State will only ultimately retain its per capita share of the increase in national fiscal capacity generated by its reform efforts, States with smaller populations are more heavily penalised. Arguably, the communities in these jurisdictions would benefit most in relative terms from reform given the limited size of their labour markets and stocks of financial and physical capital.

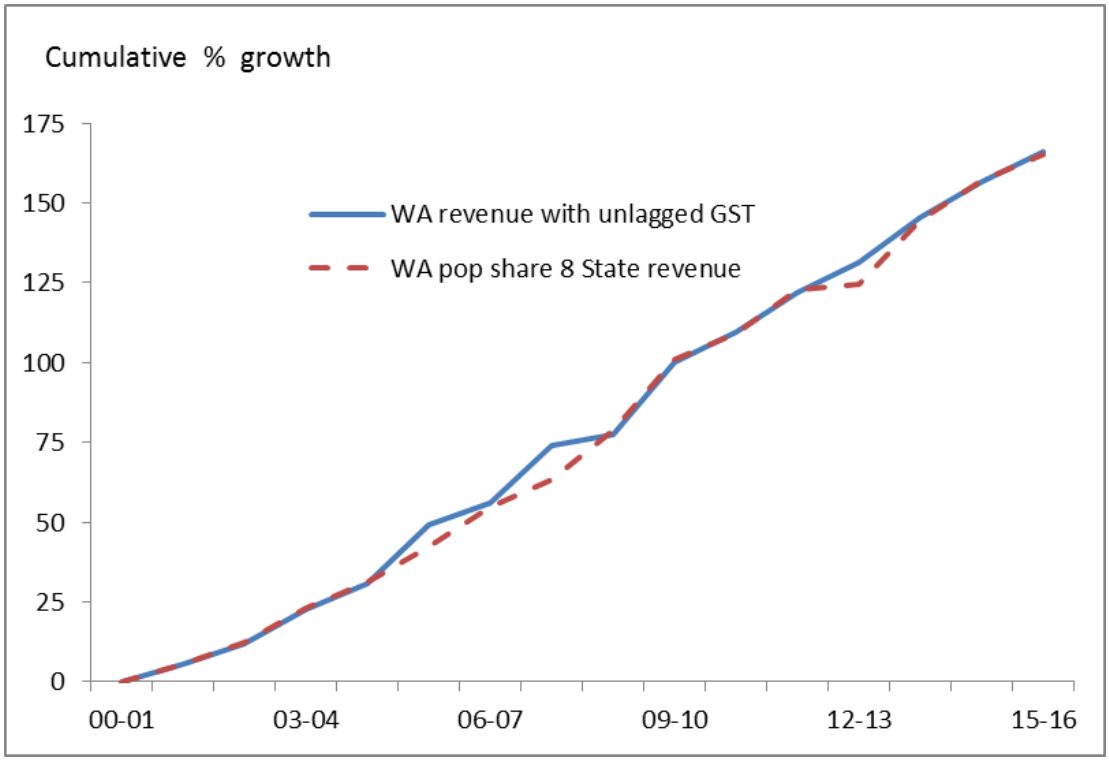
Such penalties on States undertaking reform are not just inefficient, but inequitable for communities that have borne the burden of developing their States.

HFE therefore impedes States' ability to gain public support for difficult decisions to enhance their economic performance, as the decisions cannot be presented on the basis of future revenue benefits. This is particularly difficult where the reform involves pain for some sectors and/or if the gains from micro-economic reform are difficult to see. Furthermore, the affected sectors may require compensation that the State will find difficult to afford, given most of the increased revenues are equalised away.

Chart 5.1 shows the effect that HFE has had on Western Australia's revenue growth from 2000-01 to 2014-15. The chart shows that, despite the mining boom, after GST grant impacts are taken into account, Western Australia's revenues have only grown in line with the average of all eight States. That is, contrary to popular belief, Western Australia's revenues have grown no faster than the national average.

[1] Unless offset by unpredictable revenue capacity building productivity enhancements in other States.

Chart 5.1: Comparison of Western Australia's Revenue Growth to 8-State Growth



Source: Calculated by the Western Australian Treasury from ABS and CGC data.

Note: Revenues include GST, with the lagged effect removed to allow contemporaneity.

Welfare Mentality

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. In consequence, they have a vested interest in maintaining the current system.

- Economist Saul Eslake remarked that Tasmania, in its recent 2017-18 Budget:

  > …makes no attempt to lay out a far-reaching program of fundamental reforms, of the sort required to make meaningful inroads into the large gap between Tasmania's economic performance and that of the rest of Australia, a gap which foreseeable demographic trends will otherwise tend to widen over time.[2]

It has long been recognised in economic theory the impact government involvement and interventions can have on economic agents' incentives to work, invest and save. Overly excessive taxation rates or high levels of welfare support can distort incentives, lead to losses in economic efficiency and increased welfare dependency.

Such principles can be extended to HFE as the CGC is effectively imposing a tax on economic agents (the States), which will result in behavioural responses. No other welfare system imposes such hefty marginal tax rates as the HFE system.

The need for the Commonwealth to provide States with reward payments for competition policy reforms recognises that much of the fiscal reward for reform effort accrues to the Commonwealth, diminishing the incentive for States to undertake difficult reform. HFE also results in a significant redistribution of the fiscal return from State-initiated reform effort, similarly diminishing incentives.

Taxation Inefficiencies

Tax Mix

A State will raise a required amount of tax (and royalty) revenue needed to cover the required provision of services and infrastructure. It does this through various taxes, determined by the economic and demographic circumstances it faces. If circumstances dictate, it may choose to reduce its reliance on one tax in favour of another. What matters to the State is the total quantum raised.

However, the CGC assesses each State's revenue capacity for individual taxes, not its overall capacity to raise revenues. Therefore, how a State raises its required amount of revenue (its tax mix) affects its GST grant.

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[2] ABC News, 26 May 2017, http://www.abc.net.au/news/2017-05-26/saul-eslake-analyses-the-tasmanian-budget-2017/8559774.

So, States could change their mix of taxes, while raising the same amount of total revenue, and receive a different GST grant. For example:

- New South Wales' GST grant would increase by around $240 million per annum if it replaced its stamp duties with an equal amount of land tax revenue. It could increase its GST grant by around $150 million per annum if it doubled its gambling tax revenue and reduced its land tax revenue by the same amount.

- Queensland's GST grant would increase by around $1.4 billion per annum if it were to forgo its coal royalty revenue and replace it with an equal increase in stamp duty revenue.

- At the extreme, Western Australia's GST grant would increase by around $2.8 billion per annum if it relinquished its iron ore royalty revenue in favour of a revenue-neutral increase in its payroll tax revenue.

As a further illustration, should Western Australia want to raise an additional net $1 billion per annum, it would have various taxes or royalties it could choose to increase, but would need to consider the GST impact.[3] If it chose to raise the revenue through an increase in:

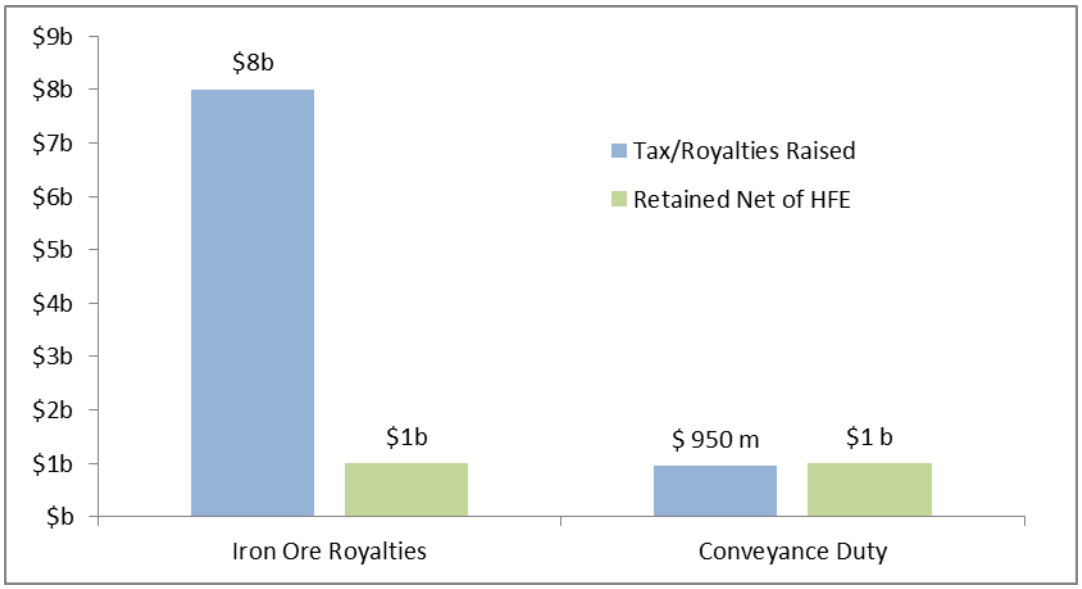
- the iron ore royalty rate, it would need to raise over $8 billion in actual revenues to retain $1 billion net of HFE impacts; or

- the conveyance duty rate, a highly inefficient tax, it would need to only raise around $950 million in actual revenues to retain $1 billion net of HFE impacts (see Chart 5.2).[4]

[3] The losses would occur after a lag. This analysis assumes they are banked from initial revenues to cover later losses.

[4] Western Australia's conveyance duty base is lower than its per capita share, so increasing the national average tax rate, increases the GST benefit to Western Australia.

Chart 5.2: Revenue Retained Net of HFE Impacts



Source: Calculated by the Western Australian Treasury.

The example above demonstrates that the operation of HFE when a revenue base is concentrated in one State has the potential to grossly distort the deadweight losses associated with raising an additional dollar of revenue for the State's budget. Efficient revenue policies should seek to minimise the deadweight losses associated with raising revenue.

States can also be disadvantaged if they forgo certain tax revenue in preference for higher revenue from other sources. For example, because Western Australia restricts gambling, and does not raise revenue from gambling in the same way as some other States, it raises additional revenues from other sources, such as royalties.

- However, Western Australia effectively loses most of this additional royalty revenue through the HFE process, whereas other States effectively keep all of their gambling revenues.

- There is social benefit from restricting gambling, for which Western Australia pays through reduced gambling revenues. Other States choose to forgo that social benefit and raise gambling revenues. There is no GST off-set for this decision, because gambling revenues are assessed by the CGC in such a way that they have no effect on the GST distribution. If gambling revenues were assessed differently, through assessing the actual per capita collections (similar to iron ore royalties), States with greater than average per capita gambling revenues would lose GST and States with lower than average per capita gambling revenues would gain GST. This would work as an incentive for States to reduce their number of poker machines. States with lower per capita gambling would get more GST and a greater social benefit.

In summary, assessing different revenue sources individually, instead of considering States' overall capacity to raise revenue, creates incentives for States to make policy decisions based on GST impacts, which may be detrimental to State and national economic growth.

Tax Rates

For a State to improve its services or infrastructure, or reduce debt, it must raise the additional revenue required. The current implementation of HFE can influence the way in which States raise that additional revenue.

The CGC assesses revenues based on the average tax rate of the States. This means that each State's assessed revenue for a tax is calculated as the revenue that it would raise from its base, if it applied the national average tax rate.

As States' shares of their revenue bases are generally similar to their population shares (with the exception of royalties), a State's change in a tax rate only affects the national average at the margin, so will have little impact on its GST grant share.

On the other hand, if a State expands its revenue base, its assessed revenue will increase by an amount equivalent to the national average tax rate multiplied by the additional revenue base, and the State will lose all but its population share of this increase in its assessed revenue.[5]

[5] If the State's tax rate differs from the national average, then this increase in revenue base will alter the national average tax rate, but this impact is minor other than for royalties.

Hence, States will always receive more revenue (net of GST redistribution) from increasing tax rates than from an equivalent expansion of the underlying tax base (which would raise revenues by expanding the State's economy), despite the base expansion being better for the economy.

- For example, if a State expanded its payroll tax through encouraging businesses to employ more people, it would effectively lose most of the additional revenue. The incentive is instead to raise its payroll tax rate, which would have only a minor impact on GST grant shares (and would be positive for States with less than their per capita share of the payroll revenue base).

The current implementation of HFE therefore incentivises States to increase tax rates above the national average rather than to grow their underlying revenue base. This is a highly inefficient outcome.

Compliance

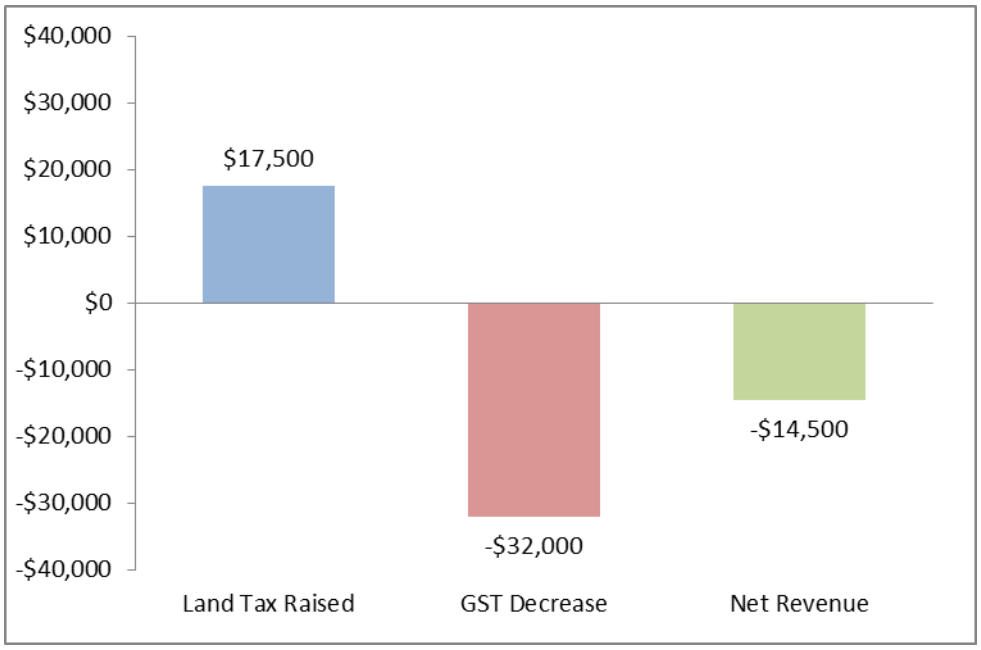
A State's compliance effort can also affect its GST grant. A State can effectively lose the majority of additional revenue raised from increased compliance effort and, in some circumstances (depending on its actual tax rate), can lose more in GST grants than it gains from the increased compliance.

This creates a perverse incentive for States to reduce compliance effort in order to reduce their tax base, and increase their GST grant.

- For example, if Western Australia increases its land tax compliance effort, it will result in a GST loss greater than the revenue gained if that compliance activity relates to land with an unimproved value between around $500,000 and $1.5 million. So, if increased compliance effort in Western Australia identified an additional $10 million worth of property in aggregate with unimproved land values between $900,000 and $1 million, it would raise additional land tax of around $17,500. However, its GST grant would decrease by around $32,000 and it would face the cost of that increased compliance effort (see Chart 5.3).[6]

[6] This is because Western Australia collects land tax at below the average rate in those value ranges.

Chart 5.3: Net Revenue from Land Tax Compliance



Source: Calculated by the Western Australian Treasury.

Western Australia is not the only State that would suffer a disproportionate GST loss as a result of increased land tax compliance. Using 2015-16 data, New South Wales and South Australia have the potential to lose more than 100% of the additional revenue in certain value ranges.[7]

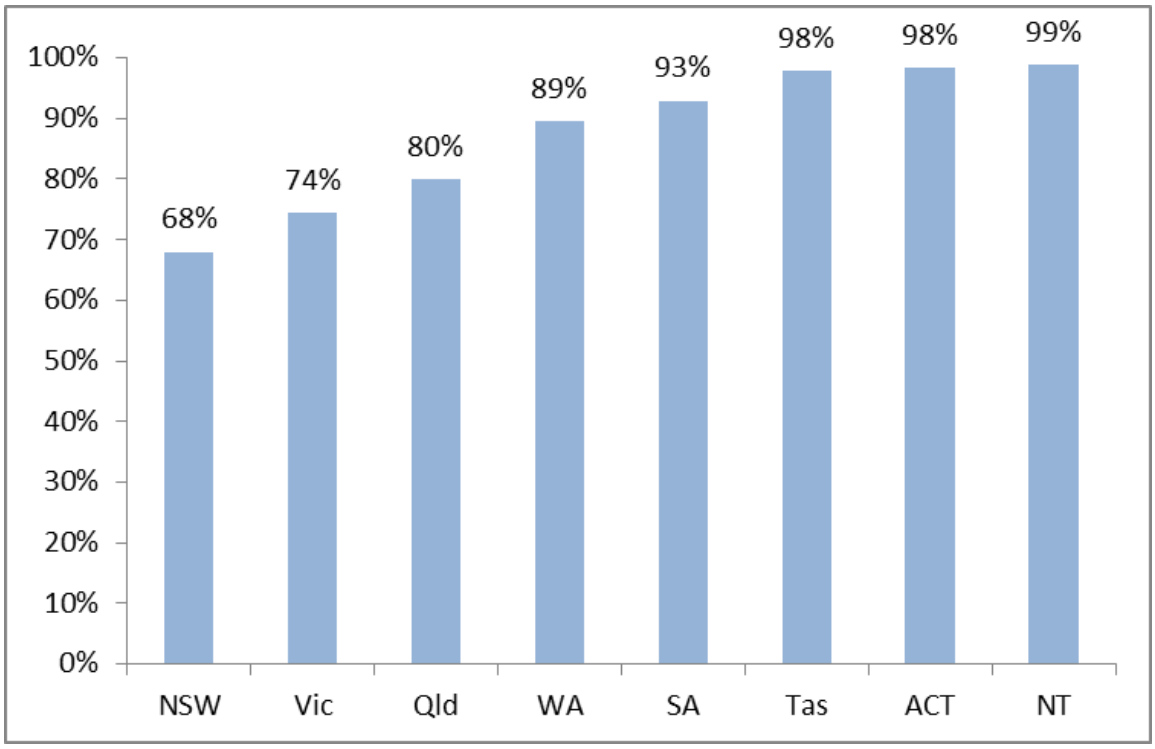
Disincentives to Develop Industry

Through the HFE process, any increase in one State's per capita fiscal capacity (all else remaining equal) is redistributed across all States on an equal per capita basis, giving rise to a 'HFE tax' on growth that reduces a State's incentive to grow its economy.

[7] Compliance losses for land tax occur because the CGC uses State data to measure the revenue base (also for transfer and motor vehicle duties). Successful increased compliance effort adds directly to that State's revenue base. When the CGC uses third party data (such as in its payroll tax assessment) the measurement of the revenue base is not necessarily dependent of the compliance effort, subject to how related the third-party methods are to the actual base.

- For example, should a State increase its effort to build its economy, leading to an increase in its per capita revenue base, this increase in the State's per capita fiscal capacity effectively suffers the 'HFE tax' of all but its population share (see Chart 5.4).
  - Western Australia is taxed at 89%, i.e. it retains only its 11% population share of the increased revenue capacity.
  - For smaller States, the tax rate is even higher. The Northern Territory, for example, would face an effective 'HFE tax' rate of 99%.

Chart 5.4: Effective HFE Tax Rate



Source: Calculated by the Western Australian Treasury.

This disincentive was recognised in a submission by a former Premier of Western Australia, Sir Charles Court, to the 2002 Garnaut-Fitzgerald *Review of Commonwealth-State Funding.* It noted that States are discouraged from growth-promoting policies, as:

> ...the development of Western Australia's large mineral resources involved huge political effort and acceptance of some political costs including, at the time, the costs of confronting unhelpful Commonwealth Governments. For a State to have the revenue benefits of development (which are not simply 'rents') largely equalised away from it by the CGC (90 per cent equalised away in Western Australia's case), while the CGC does not similarly share around the nation many of the costs of development borne by the State Governments, discourages efforts.[8]

The Garnaut-Fitzgerald Report further noted that "Disincentives to growth-oriented policy are probably even more important in recipient States than in donor States."[9]

The marginal community benefit from increased effort is reduced by the 'HFE tax'. So, governments will consider the fiscal benefits of resource development, and increasingly (for Western Australia at least) the associated GST impacts. Hence, given there are costs to development (including political costs), all else being equal, marginal development projects are less likely to proceed when fiscal returns are lowered by the 'HFE tax'.

This is further compounded because the CGC does not adequately recognise States' economic development costs.

For example, should a mining company wish to open a new mine in Western Australia, the State often faces costs from helping to facilitate this investment. Once producing, the new mine would contribute royalties to the State in return for the use of a non-renewable asset. However, through the GST redistribution process, the State would lose roughly all but its population share of the increased revenues from this new mine.

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[8] Summary of former Premier of Western Australia Sir Charles Court's views from his submission to the 2002 Garnaut-Fitzgerald *Review of Commonwealth-State Funding*, *Final Report*, page 9.

[9] R Garnaut and V FitzGerald (2002), *Review of Commonwealth-State Funding, Final Report*, page 9.

Western Australia's Development Policies

Western Australia has a number of policies that directly encourage industry development and mining regions in general. Box 5.1 provides examples of Western Australia's investment in the mining regions. Notably, retaining vibrant regional towns requires more than just strictly economic development expenditure.

The Productivity Commission has acknowledged the nation-wide growth from the boom in its report on *Transitioning Regional Economies*.

> [The resources boom] has led to higher incomes on average for individuals, larger profits for many companies engaged in mining, and increased revenues for State and Territory governments and the Australian Government.[10]
>
> … [Mining regions'] large revenue base and expansion of capacity generated during the boom are likely to provide economic and employment opportunities for decades to come[11]

CEDA noted that "improving the social infrastructure and amenities of a region (such as the provision of quality health and education services) can also assist in attracting and retaining a skilled workforce".[12] Such a skilled workforce is essential to exploit the economic potential of a region.

[10] Productivity Commission (2011), *Transitioning Regional Economies*, *Initial Report*, page 3.
[11] *Ibid.*, page 18.
[12] CEDA (2016), *State of the Regions Series: Regional Development in Western Australia*, page 28.

Box 5.1 – Investment in Western Australia's Mining Regions

Western Australia has been very pro-active in developing its mining sector.

This is reflected in Western Australia's efforts to promote the regions in which this potential exists.

For example, in the Pilbara region, since December 2008, Western Australia has invested $6.9 billion[13] of the State's mineral and onshore petroleum royalties to more than 3,700 projects across regional Western Australia. Much of this funding is channelled into infrastructure in the Pilbara, including:

- the Pilbara Cities initiative ($1.7 billion), to help develop Karratha and Port Hedland into better service centres so as to facilitate the development of industry and ensure a more balanced and sustainable economy and community;
- the Pilbara workers' housing initiative ($355.5 million[14]), to relieve housing cost pressures on those workers not directly involved in the mining industry; and
- Pilbara community projects ($93.5 million), to fund priority community infrastructure projects.

The State Government also funds other investment in the Pilbara region that is outside the *Royalties for Regions* program.

The CGC does not adequately assess the costs and risks to States in developing their economies, which are high in Western Australia.

In particular, the CGC ignores the impact of past policy decisions. In the 1970s and 1980s, Western Australia made significant investments in the North West Shelf project. Box 5.2 details that involvement (and the lack of acknowledgement by the CGC, which sees Western Australia effectively only receive 7% of the total royalties generated by the project).

13 http://www.drd.wa.gov.au/rfr/Pages/default.aspx.

14 Figure includes the whole of Western Australia. However, it primarily relates to the Pilbara Region. http://www.drd.wa.gov.au/projects/Housing/Pages/Affordable-Housing-for-Workers.aspx

Box 5.2 – Investment in the North West Shelf Project

In the 1970s and 1980s Western Australia played a pivotal role in securing the development of the North West Shelf project through financial assistance and infrastructure provision. This project helped to provide the energy needed to develop other State resources and established Western Australia as a prospective location for natural gas development in the face of significant global competition.[15]

- Western Australian Treasury calculated that in 2010 net present value terms, the estimated cost of its commitments to assist the North West Shelf project (e.g. payment of subsidies to the State's power utility to help cover the losses it initially incurred under crucial 'take or pay' gas contracts) is estimated to be around $8 billion. The State negotiated a royalty-sharing arrangement with the Commonwealth that reflected that effort, with the State receiving around two-thirds of royalties.

- However, due to fiscal equalisation, Western Australia loses all but its population share (about 11%) of that royalty stream (without having reflected its development contribution). Since 2010-11, the net return to Western Australia averages only about $100 million per annum (in nominal terms). Other States (who shared none of the costs or risks) effectively receive the remaining royalty stream of around $800 million per annum (courtesy of equalisation).

- The CGC refuses to acknowledge that the State's expenditure directly resulted in the development of the North West Shelf project; rather it argues that the project may have gone ahead and generated considerable revenues, with or without Western Australia's involvement, even though evidence was provided to the CGC that the State had good reason for undertaking the actions that it did.[16] The CGC ignored the fact that States cannot take risks with the future of their economies.

Despite the massive and integral role played by Western Australia to develop the North West Shelf project, it effectively retains only 7% of the total royalties collected, after the related GST redistribution and the Commonwealth retention of one-third of the royalties.

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[15] For more information, see Western Australian submission to the CGC's 2015 Review at: https://cgc.gov.au/index.php?option=com_docman&view=download&alias=124-r2015-cgc-email-to-state-under-treasurers-wa-response-pdf&category_slug=state-responses-4&Itemid=248 – discussed in Appendix A.

[16] Commonwealth Grants Commission, *Report on GST Revenue Sharing Relativities 2015 Review* – Volume 1, page 49 and Volume 2, page 109.

At the time that the North West Shelf project was established, the current system of equalisation was in its infancy, and its consequences were unlikely to have been appreciated by State governments. Today they are more likely to have a significant bearing on decision making.

A common argument against the fact that HFE disincentivises development is that States continue to develop their industries.

State governments do have incentives to develop their economies and their revenue bases to enhance the income and wellbeing of their electorates (including by generating employment opportunities). However, these incentives are moderated by the constraints imposed by HFE, in particular making development more costly.

Moreover, the inefficiencies inherent in the HFE process are becoming more acute in recent years, with fiscal circumstances becoming more volatile and less uniform, and more understood by States as a result.

- Western Australia has been pro-active in developing its mining sector since the 1960s. The State continues investing to retain a buoyant industry, while holding the belief that its advocacy will bring change to the HFE system.

- That Western Australia has continued to develop despite the disincentives suggests that in the absence of these disincentives, greater investment at the margin would have occurred, leading to greater State and national growth.

Private Provision of Infrastructure

Another common argument is that the State does not provide a lot of the infrastructure in remote regions; that the private sector provides, or should provide, much of the infrastructure for mining communities in order to get their projects operational.

- It is true that the private sector is encouraged by the State Government to undertake as much as possible.

- However, while this is (and has been) optimal given the State's funding constraints, the private provision of infrastructure in discrete mining camps or towns has led to development in an uncoordinated manner that is naturally driven by the needs of large resource companies. The resulting infrastructure is sometimes piecemeal, and does not always reflect the most economical, technically feasible development path and therefore the public (national or State) interest.

- It can also make it expensive for the State to integrate private development with new infrastructure.

  For example, when establishing the towns of Tom Price and Paraburdoo, Rio Tinto developed its own electricity system. These towns, and BHP-developed towns like Newman, are now only loosely interconnected with the North West Interconnected System (NWIS), which means limitations are imposed on electricity users in one part of the system accessing electricity generated in other parts of the system.

  To bring the standard of the NWIS up to the standard of the South West Interconnected System, and overcome the legacy issues associated with the private provision of electricity infrastructure, would require an investment of about $2 billion from the State.

  Yet the loosely-connected NWIS supplies power to a region that is vital to the nation's economy, generating more than 25% of Australia's merchandise exports.

Box 5.3 describes Western Australia's efforts to encourage private-sector investment in the mining sector.

Box 5.3 – Western Australia's Encouragement for the Private Sector

Western Australia's current policy effort to encourage exploration and resource development is (and has been for some time) above that of other States. The Fraser Institute's *Survey of Mining Companies 2016* ranks Western Australia very highly for encouraging mining investment across a range of indicators. It ranks Western Australia:

- number 3 in the world in the *Investment Attractiveness Index*;[17,18] and
- number 9 for its policy climate[19].

These rankings are not surprising given Western Australia's substantial investments in the resources sector over many years.

- The Geological Survey of Western Australia supports mineral and petroleum exploration in the State through the provision of high quality geoscientific information, free of charge, which reduces technical and economic risks to mining companies and is fundamental to the discovery of the State's next resource projects;
- The Exploration Incentive Scheme promotes resource exploration in Western Australia, with an emphasis on greenfields areas, to keep exploration at levels required for long-term sustainability of the State's resource sector;
- The Minerals Research Institute of Western Australia fosters and promotes minerals research through grant funding projects to overcome challenges to future resources development. It also awards scholarships to foster the next generation of engineers, geologists and other science professionals in relation to the resources sector; and
- Western Australia's Department of Mines and Petroleum[20] operates a streamlined approvals system, critical to attracting minerals and petroleum investment, processing 7,000 to 8,000 applications per year.

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17 *Fraser Institute Annual Survey of Mining Companies 2016*, February 2017, page 9.

18 The *Investment Attractiveness Index* is a composite index of policy perception (40%) and mineral potential (60%). Queensland is ranked 10th, South Australia 13th, Northern Territory 20th, Tasmania 56th, Victoria 57th and New South Wales 62nd (behind Papua New Guinea).

19 *Ibid.*, page17. New South Wales is ranked 66th.

20 This will become the Department of Mines, Industry Regulation and Safety from 1 July 2017.

Western Australia's Department of State Development[21] also holds State Agreements, legal contracts between the Western Australian Government and proponents of major projects within Western Australia, and are ratified by Acts of Parliament. They are highly visible signs of the State's support for, and commitment to, projects. State Agreements detail the rights, obligations, terms and conditions for the development of the specific project.

- State Agreements have been used by successive governments since the 1950s to secure major resource projects, particularly those that require the development of railways and ports, and long-term tenure. Under such agreements, proponents take or share responsibility with the State for developing infrastructure specific to the project.

HFE Reduces Strong States' Incentive to Grow

The lack of policy neutrality entailed in using highly segmented revenue bases that depend on actual activity leads to inefficient outcomes, dulls incentives to develop economies and potentially encourages game-playing from States.

Robert Carling, Senior Fellow at the Centre for Independent Studies, an independent public policy research institute based in Sydney, notes:[22]

> The fundamental problem with the current system, apart from its impenetrable complexity, lies in the perverse incentives it creates for the behaviour of state governments. In principle it is supposed not to affect incentives at all because the elaborate web of financial supports and handicaps it provides are meant only to reflect the intrinsic fiscal advantages and disadvantages each state faces, not the effects of states' own policy choices.
>
> In practice, it is impossible to disentangle intrinsic from policy-induced advantages and disadvantages, and mismanagement ends up being rewarded while good policies are penalised to some extent. In WA's case, the surge in royalty revenue partly reflected the state's own role in ensuring the resources were developed in the first place.

[21] This will become the Department of Jobs, Tourism, Science and Innovation from 1 July 2017.

[22] *Business Insider Australia*, 19 August 2016.

HFE equalises away the ability of a State to engage in a virtuous cycle of development using growth to fund infrastructure and services to facilitate more growth. This restricts that State's economic growth and consequently, national growth.[23]

- Although Western Australia retains strong growth potential, its ability to develop that potential is restricted through a lack of funding, and so consequently is national growth.

Disincentives to Appropriately Price Minerals

HFE is of particular concern with the assessment of States' capacity to raise royalty revenue because the assessment picks up individual minerals, which removes policy neutrality (i.e. these policy differences between States have a greater impact on GST shares than for any other category).[24]

For example, Western Australia currently holds 98% of the iron ore revenue base, almost 100% of nickel and 70% of gold.

- Therefore, when Western Australia increases its royalty rate for these minerals, it has a major effect on the national average royalty rate and results in Western Australia being penalised heavily through lower GST grants.
  - Western Australia's effective GST loss from an increase in its iron ore royalty rate (or lease rental rate) is 88% of the increased revenue.
- This creates a major disincentive to Western Australia setting its royalty rates for an appropriate return on its mineral extraction.

There is evidence that the CGC treatment of mining revenues affects policy decisions in practice, not just in theory:

[23] This effect is discussed further in the Equity chapter.

[24] It is acknowledged that Western Australia supported the mineral-by-mineral approach prior to its introduction in the 2015 Review. This was because it was considered to give a better equalisation outcome than the previous approach. However, Western Australia's support was conditional on including a discount to improve policy neutrality. https://cgc.gov.au/index.php?option=com_docman&view=download&alias=124-r2015-cgc-email-to-state-under-treasurers-wa-response-pdf&category_slug=state-responses-4&Itemid=248, page 3 and page 22.

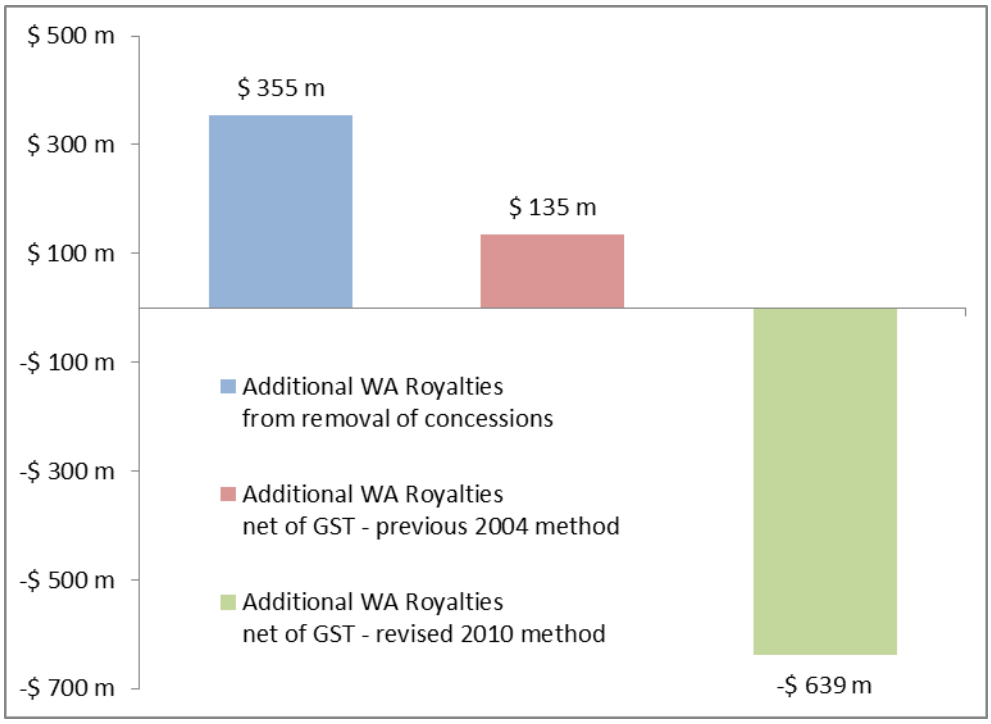
- In Western Australia, a deal was struck with the major mining companies to remove iron ore fines royalty concessions from 2011 (effectively increasing the royalty rate), which would raise substantial extra State revenue. This was effected through changes to State Agreements. Negotiations for these changes had been conducted over many years, commencing under the Gallop Labor government in 2005 (but first suggested in 1981, with a decision made in 1995 to remove the concessions when the opportunity arose).[25]

  However, without consultation the CGC made fundamental changes to the mining assessment in its 2010 Review Final Report that divided mineral types into high-rate and low-rate groups. The GST implications of this change would have at the time seen Western Australia lose nearly three times more GST than it gained in revenue from its proposed approach to iron ore fines.[26] Under the previous assessment method, when the negotiations had begun with mining companies, the GST loss would have been around 62% of the revenues gained (see Chart 5.5).

[25] See Hansard of 2 June 2005: http://www.parliament.wa.gov.au/Hansard%5Chansard.nsf/0/a294aa64541ead90c825757000126b18/$FILE/A37%20S1%2020050602%20p2712c-2713a.pdf

[26] Under its 2010 Review methods, the CGC divided onshore mining into a 'low royalty rate' group (for minerals with royalty rates below 5%) and a 'high royalty rate' group (for minerals with royalty rates above 5%). Iron ore fines were in the 'low rate' group, but were at risk of being reclassified to the 'high rate' group due to Western Australian's removal of concessions. Western Australia potentially faced the extraordinary situation when 'pricing' its minerals more appropriately (removing iron ore concessions in response to market conditions), of losing more in GST grants than it would gain in royalty revenue. In fact, lowering its royalty rate on 'lump' iron ore could have gained more GST grants than the loss in royalty revenue.

Chart 5.5: Estimated Annual Revenue for Western Australia from Removing Concessions on the Iron Ore Fines Royalty Rate



Note: GST impacts are unlagged. The loss under revised 2010 Review method refers to where iron ore fines are reclassified as a 'high rate' mineral.

Source: Calculated by the Western Australian Treasury. Average annual revenue from removing iron ore fines concessions over 2010-11 to 2014-15 (estimated from Western Australia's 2010-11 Mid-Year Review) and estimates of the associated GST grant losses made at the time.

In an article in the West Australian newspaper on 9 November 2016,[27] the Hon Christian Porter MP, a former Treasurer of Western Australia, explained that the GST implications were fully understood, but this substantial risk was taken to highlight the flaw in the HFE system and, as Mr Porter explains, was based on the assumption that the Commonwealth would intervene to fix the flaw.

[27] Available at: http://christianporter.dss.gov.au/editorials/west-australian-opinion-editorial.

This assumption proved correct, with successive Commonwealth Treasurers directing the CGC on the treatment of iron ore fines over four years from 2011-12 through 2014-15. Further, in 2013, the Hon Wayne Swan, then Commonwealth Treasurer, directed the CGC, through terms of reference for the 2015 Review, to develop a new mining revenue assessment.[28]

- In the lead-up to the 2017 Western Australian State election, the Hon Brendan Grylls, the then leader of the WA Nationals Party and member of the State Cabinet, proposed a revenue-raising proposal to increase the lease rental rate paid by selected mining companies from 25 cents per tonne to $5 per tonne. Mr Grylls championed that this would raise $7.2 billion in vital revenue over four years.[29] The idea was rejected by the Liberal Party because the GST losses would amount to 88% of the revenue increase, meaning Western Australian mining companies would be saddled with an increased tax, but the vast majority of the proceeds would flow to the other States through increased GST (see Chart 5.6).

  - Concerns about the majority of the additional revenue flowing to the other States were also highlighted in the media campaign by the Chamber of Minerals and Energy of Western Australia.[30]

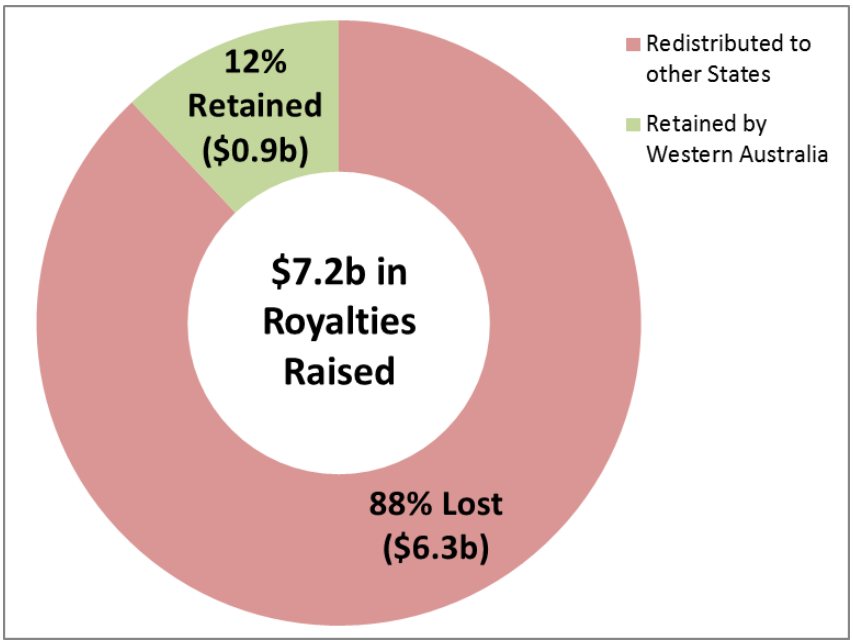
  - Mr Grylls continued the proposal, but based it on seeking a Commonwealth intervention to 'quarantine' the increased revenue from HFE or to impose a floor in the relativities. Either measure would have seen Western Australia effectively retain the increased funding.

[28] https://cgc.gov.au/index.php?option=com_docman&view=document&Itemid=256&layout=default&alias=190-r2015-terms-of-reference-pdf&category_slug=terms-of-reference

[29] http://www.nationalswa.com/brendon_grylls_appointed_leader_major_policy_platform_announced

[30] The Chamber of Minerals and Energy of Western Australia, *Toxic Tax Must Go As Newspoll Shows Lack of Support for Grylls' Anti-Jobs Mining Tax*, http://www.cmewa.com/news-and-events/latest-news/37-2017/327-toxic-tax-must-go-as-newspoll-shows-lack-of-support-for-grylls'-anti-jobs-mining-tax, 10 February 2017.

Chart 5.6: Royalty Retention from the $5 Lease Rental Proposal



Source: Calculated by the Western Australian Treasury.

- In the 1980s, Queensland introduced high coal freight charges as an alternative to increasing coal royalties. However, the CGC assessed Queensland as effectively collecting royalties through coal freight charges following the 1988 Review.

- Queensland and Western Australia have considered providing assistance to mining companies (in response to market conditions) in the form of royalty relief rather than direct assistance. These arrangements can potentially have greater GST benefits compared to direct assistance.

  - Queensland recently considered giving Adani Mining Group a $320 million 'royalty holiday' in order to help the company proceed with its Carmichael coal mine in that State. On the surface, this was a generous offer, but the cost to Queensland would have been effectively reduced, because around 40% of that forgone revenue would have been 'returned' to the State through increased GST grants.

  - Western Australia offered financial assistance to promote magnetite projects into production in 2013, in the form of a 50% royalty rebate (rather than a grant or other form of direct assistance). This was extended for two years from 2016. The extension alone was valued at over $40 million, but the cost to Western Australia will be effectively reduced by approximately $35 million due to GST offsets.

- For Western Australia, royalty (and tax) policy proposals now routinely include an assessment of the related GST impacts.[31]

The Canadian Approach to Efficiency

Even before their reforms in 2007, the equalisation system in Canada was arguably more growth-oriented than the Australian system. However, in a presentation to the Expert Panel on Equalization and Territorial Financing Formula, Bruce Winchester, Director of Research Services, AIMS, opened with the following:

> As it turns out the rational choices, given the incentives implicit in equalization, are not the ones that build the economy and thereby increase the government's fiscal capacity, but rather the ones that raise taxes, deepen dependency, damage growth prospects, and increase debt. Equalization recipients have failed to take the tough decisions that growth and innovation require, they have underdeveloped their natural resource sectors, and overdeveloped government sectors, they are deep in debt and levy high taxes. These results can almost certainly be laid, in large part, at the doorstep of equalization.[32]

Australia's comprehensive process of equalisation is in stark comparison to the Canadian approach, despite the two countries having many similarities, including strong mining and agricultural sectors, and a similar Federal system.

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[31] A similar assessment is made for proposed Commonwealth grants. In Western Australia, most proposals to sign a financial agreement with the Commonwealth require the completion of a *Commonwealth Funding Agreement Assessment* form, which includes questions on how much of the grant would be retained by the State following the HFE process.

[32] Atlantic Institute for Market Studies (AIMS) (2005), *Equalization Reform That Works: Taking seriously the idea that incentives matter*, page 1.

Unlike the Australian system, where all States are equalised to the average fiscal capacity of all States, Canadian equalisation reduces disincentives by bringing less wealthy provinces up to the common standard, without bringing wealthier provinces down to that standard. In addition:

- the Canadian system includes only 50% of resource revenues in its calculations;
- the system is not a zero-sum game (the national government provides the required amount of equalisation funding needed to bring recipient provinces up to the standard from its own sources, rather than through horizontal transfers between provinces); and
- Canadian provinces enjoy a greater fiscal autonomy due to Canada's modest vertical fiscal imbalance (much lower than Australia).

A key difference is that the Canadian system does not equalise expenditure. The Expert Panel on Equalization and Territorial Formula Funding assessed that incorporating expenditure need would not have a material effect on equalisation.[33,34] The panel also cited conceptual and data difficulties, and noted that any expenditure differences would be better targeted through specific transfers from the central government.

The reasons for the Canadian approach to discount resource revenues are:[35]

- as owners of the resources, it is considered that the provincial governments should receive the benefits;
- provincial governments are charged with the development of the resources and therefore require the incentives from the benefits they provide to continue support; and
- the significant provincial government expenses on the infrastructure required to exploit the resources should be compensated.

[33] Expenditure equalisation is material for Australia.
[34] Canadian Department of Finance (2006), *Achieving a national purpose: Putting equalization back on track. Expert panel on Equalization and Territorial Formula Financing*, page 88.
[35] *Ibid.*, page 108.

This is summed up during Canada's 2007 Review into its methods:

> In order for the Equalization program to accurately reflect the net provincial revenues that are left after incurring the costs associated with resource development, and to ensure that provinces have the incentive to invest money to support resource development, it is argued that the inclusion rate of natural resource revenues should be less than 100 percent.[36]

Similar to Australia, it is Canada's western provinces that are endowed with the majority of the nation's natural resources. But, unlike Australia, the western provinces enjoy a greater national accommodation of regional interests and localisation of resource taxation.

- Eccleston and Woolley[37] argued in 2014 that this is due to a greater dominance of Canada's western provinces (30.7% of the Canadian population and 36.5% of GDP) to that of Western Australia (10.6% of the Australian population and 16.2% of GDP), and a lower vertical fiscal imbalance, resulting in greater influence in the national political sphere.

Note that Canada's ten provinces are included in the equalisation program; the three Canadian territories are not. They, instead, receive Territory Formula Financing, which helps their governments fund essential public services, such as hospitals, schools, infrastructure and social services, and recognises the high cost of providing these services in remote locations to a large number of small, isolated communities.

- Each territory's grant is based on the difference between its assessed expenditure needs and its capacity to generate revenues.

- The system includes incentives for the territories to increase their own revenues and develop their economies by excluding 30% of their measured revenue capacity from the calculation.

It is quite clear that, by seeking that provinces' fiscal capacities are 'reasonably comparable'[38] rather than attempting to make them equal, the Canadian system has built in efficiency and incentive measures into its system of equalisation.

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[36] *Ibid.*, page 108.

[37] R Eccleston and T Woolley (2015), *From Calgary to Canberra: Resource Taxation and Fiscal Federalism in Canada and Australia*, Publius, The Journal of Federalism, 2015, Vol. 45(2), pages 216-243.

[38] This aspiration is set out in Section 36(2) of the Canadian Constitution.

Efficiency and Commonwealth Support to the States Outside HFE

The failures of HFE place a greater onus on the Commonwealth to promote economic development, in addition to its other roles.

The incentive of States to increase productivity is diminished not only by HFE but also by the Commonwealth receiving much of the benefit, in terms of higher tax revenues, generated by that higher productivity. The Commonwealth therefore provides grants to the States, both for infrastructure and to reward States for undertaking microeconomic reforms.

- An example of the Commonwealth having to do more to support economic development is the need for it to encourage Australian economic growth in northern Australia. It is doing this through a Northern Australia Infrastructure Facility, established to provide concessional loans to enable private sector investment in economic infrastructure, and the Northern Australia Roads Programme and Northern Australia Beef Roads Programme.

However, a number of serious criticisms have been made of the Commonwealth's allocation of infrastructure grants.

- The Grattan Institute has found that Commonwealth transport funding has not been provided according to need, but apparently out of political considerations.[39]

- A former Federal Government Finance Minister has pointed out that projects are approved that Infrastructure Australia has not recommended, while anything that is in the long term national interest but doesn't provide political benefits "is always going to struggle".[40]

- The Commonwealth's 2017-18 Budget announced an equity investment of $8.4 billion in the Inland Rail project,[41] despite Infrastructure Australia finding it had only a marginal cost benefit ratio of 1.1.[42]

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39 Grattan Institute (2016), *Roads to riches: Better transport investment*, page 36.
40 *Lindsay Tanner slams politics of spending*, The Australian, 23 March 2012.
41 2017-18 Commonwealth Budget Paper No. 1, page 4-9.
42 http://infrastructureaustralia.gov.au/projects/files/Final_Inland_Rail_Project_Evaluation_Summary.pdf.

Commonwealth involvement in such projects would be less necessary if States retained more of their own revenues, rather than having the vast majority of their revenues effectively pooled and allocated on an 'equity' basis by HFE. Reduced Commonwealth involvement would also increase State accountability to maintain and provide their own infrastructure. As it is, Commonwealth involvement may need to increase as States take in the implications of the way that Western Australia is being effectively penalised for making its own efforts to develop its economy.

States also regularly demand that Commonwealth grants, including reward funding, are quarantined from the HFE process, that is, treated so as to not impact on that distribution, in order to ensure the benefits are retained in their State.

For example:

- States recognised the potentially distortionary impact of HFE by negotiating to ensure that the $5 billion Asset Recycling Initiative did not impact on the GST distribution; and
- State support for the recent competition reforms[43] was also conditional on reward funding being quarantined from the HFE process.

The fact that States seek to have grants quarantined indicates that HFE generates incentive effects which States feel keenly.

[43] Through negotiation with the Commonwealth Government on the *National Partnership on Regulatory Reform* to provide $300 million over two years to incentivise States and local governments to lessen the regulatory burden on small businesses and remove other restrictions that hinder economic growth and competition.

6. HFE in Practice – Equity and Simplicity

Key Points

- Efficiency and equity are not always in opposition and cannot be examined in isolation.
  - Reforming HFE so it does not penalise or discourage development promotes both efficiency and equity.
- Although HFE is aimed at achieving equity, it does not transparently do so, and in many respects it fails to be equitable.
- To the extent that HFE does improve equity, the benefits are small when compared to the efficiency concerns and the welfare benefits delivered through the Commonwealth's overall tax/transfer system, and must be measured against the efficiency losses induced by HFE.

Introduction

Efficiency and equity are not always in opposition to each other, and should not be treated as if they are. Not only is there an efficiency reason to encourage States to develop their tax bases, including by deferring social expenditures to provide economic infrastructure, but there is an argument based on justice. It is inequitable that a community that made sacrifices should be compelled to lose most of the resulting benefits to those communities that chose not to make those sacrifices.

Implemented correctly, with full policy neutrality, the HFE principle should drive a process that provides a degree of equity to all citizens of Australia, regardless of the State in which they reside, while not undermining efficiency.

However, the policy neutrality principle is not achieved in practice. Moreover, HFE is a marginal contributor to equity for individuals given its small size relative to equity expenditures more generally. If these marginal contributions to equity come with significant efficiency costs, this must raise questions about the current process.

Furthermore, a mechanism that purports to provide equity actually needs to be transparent and defensible in terms of both how equity is measured and its performance against that yardstick.

The issues raised in this chapter around individual assessments, simplicity and accountability illustrate that the process is far from being transparently equitable.

Significance of Equity Achieved by HFE

To the extent that HFE does deliver equity, these benefits are outweighed by the size of the overall tax/transfer system. The Commonwealth expects to redistribute $8 billion of GST revenue from the donor States to the recipient States to achieve HFE in 2017-18. By contrast, the Commonwealth intends to spend, in 2017-18, $64 billion on assistance to the aged, $37 billion on assistance to families with children and $10 billion on assistance to the unemployed and sick.[1,2]

Not only is HFE smaller than the overall tax/transfer system, but that system's impact on the wellbeing of individuals and families is more immediate than HFE. Therefore, equity at an individual level is better targeted through direct Commonwealth assistance than HFE.

To the extent that HFE does improve equity, that equity may be outweighed by its deleterious impact on future economic growth – which is unfair on both current and future generations.

Notably, the inequities that are being addressed by HFE may partly be the outcome of poor incentives generated by HFE. The OECD has noted that:[3]

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

Also, HFE is only equitable if it compensates States for unavoidable differences in fiscal capacity. It is not equitable when it redistributes the fiscal benefits that States have achieved through their own efforts.

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1 2017-18 Commonwealth Budget Paper No.1, page 6-24.

2 Assistance to States and regions for economic and community development also has a redistributive effect. See also the discussion under *Efficiency and Commonwealth Support to the States outside HFE* in Chapter 5.

3 OECD Publishing (2013), *Fiscal Federalism 2014: Making Decentralisation Work*, page 111.

There may be a role for the Commonwealth to assist States that have ended up in budgetary stress, even when this may have been the result of their own failure to develop their economies. However, this is not consistent with the HFE principle and should be done outside the HFE process. Such assistance should be funded directly by the Commonwealth, rather than by the other States, as it requires value judgements by the Commonwealth.

Simplicity and Transparency

The current implementation of HFE is extremely complex.

The CGC's documentation for its 2015 Review of its methods comprised over 800 pages, yet many of the CGC's judgements are not clearly explained. Its assessment system contains well over 200 spreadsheets. There is a focus on very detailed calculations, rather than getting the overall result broadly correct, but there is much variation in the system (see Box 6.1).

The result is that, throughout Australia, the CGC process is seen as a 'black box'. This lack of transparency means that it would never be possible to convince politicians, the public, or any disinterested bureaucrat of the equity of the system.

A detailed review of the system provides no more comfort that equity is being achieved. This is the subject of the rest of the chapter.

Adding to this is the lack of accountability of the CGC. In particular, the Commissioners make their decisions with little direct contact with the stakeholders, convey those decisions by a report, and then leave it to the secretariat to answer any questions. The ultimate response to any question is that the report is the final statement on the views of the Commissioners.

The result is that the Commission's views are not challenged by rigorous debate.

Box 6.1 – Features of Current CGC Assessments

The CGC currently undertakes 26 assessments to determine the GST distribution. A significant proportion of these include sub-categories, and there are a large number of assessments of specific disabilities associated with the category assessments.

In this context, a 'disability' is a factor that drives differences in spending requirements or revenue raising capacities between States.

These assessments vary greatly in approach and detail.

- Some category/sub-category assessments are based simply on population shares.
- Some disability assessments are highly detailed, such as the Wage Costs assessment (which employs a regression model with over 700 variables) and the hospitals socio-demographic/non-State sector factors (which employ cross-classified matrices with around 200 cells). Notably, the detail in these two assessments has not prevented arguments over their reliability.
- Many categories are highly reliant on judgements about methods, such as the Health, Justice and Transport assessments.
- Some assessments are driven by underlying disability factors, while others are highly mechanistic, such as the taxation assessments where the CGC uses State data to construct a detailed average of the States' tax systems, including tax progressivity. There is no consideration of States' intent behind setting rates or tax-free thresholds, or deciding on tax mixes.
- There are gaps in the assessments (see below), and economic development needs are recognised only incidentally through the aim of giving States the capacity to provide an average standard of general government services and infrastructure.

Reliance on Judgements

In its final report on the 2015 Review of its methods, the CGC noted that:

> The equalisation process could be implemented in several ways.[4]
>
> …The equalisation system, while grounded in data, also represents a series of Commission decisions. We accept that there may be some factors impacting on State fiscal capacities which we either do not capture or capture imperfectly. This is because the quality of data varies widely, and in some cases the underlying conceptual case is less clear cut than in others.[5]

The difficulty of making precise assessments has required the CGC to use judgement, and in its own words "… judgments on what constitutes the best equalisation outcome must continue to be made. Making those judgments is a task of the Commission."[6]

The Secretary to the CGC, Mr Michael Willcock, also recently noted in a Senate Estimates hearing that judgements are required:

> The Commission recognises that there are different arguments and there are trade-offs in a whole lot of method choices that the Commission has to make decisions on – and that perhaps stakeholders would wish the Commission to make some different judgements, or to come to a different set of trade-offs.[7]

Examples of Contested Judgements

General Structure of HFE

Many aspects of the general structure of HFE are contested.

For example, there is a striking contrast between the CGC's practice of estimating States' spending needs using indicators of underlying need and its approach to estimating their revenue raising capacities. The CGC generally treats differences between States in their observed revenue bases as if they reflect non-policy influences and underlying capacity to pay.

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4 Commonwealth Grants Commission, *Report on GST Revenue Sharing Relativities 2015 Review – Volume 1*, page 31.

5 *Ibid.*, page 35.

6 Commonwealth Grants Commission, *2020 Review: The Principle of HFE and Its Implementation: Staff Discussion Paper CGC 2017-02-S*, May 2017, page 8.

7 Proof Committee Hansard, Senate Economics Legislation Committee Estimates, Wednesday 31 May 2017, page 70.

Health Assessments – Impact of Private Sector Provision of Services

The CGC's judgement on this issue in the 2015 Review had a major effect on Western Australia's GST share. It is an important issue for Western Australia because of the State's low level of private sector service provision, which leads to greater demands on the public sector.

Prior to the 2015 Review, the CGC had used a 'subtraction model' approach to assess the impact of private services on public health spending. In essence, the CGC calculated total (public and private) health spending requirements for each State, and then subtracted estimated non-State provision.

In the 2015 Review, the CGC continued to acknowledge the conceptual validity of this approach, but was concerned about some (vaguely defined) implementation issues, mostly around data availability. The CGC therefore moved to a new 'direct' approach which uses partial indicators of non-State health provision chosen by judgement (e.g. bulk billed GP services) that are then applied to specific components of public health spending that are considered 'substitutable' with the private sector.

The outcome is conceptually quite different from the previous 'subtraction' approach, as partial indicators are used (the true indicators being unknown), and the indicators are applied to substitutable State spending rather than the substitutable non-State sector spending, for reasons that have not been explained. This new method is costing Western Australia around $200 million in reduced GST every year.

Justice Assessment

The CGC has judged that a proportion of police services is not affected by crime propensity ('community policing' – general patrols and the like) and a proportion is ('specialised policing' – crime squads, forensics, etc). There are strongly contested views about this, and sufficient evidence has been put forward to at least cast significant doubt about the validity of the CGC's hypothesis.

The CGC has used further judgement to determine these proportions. The CGC states: "There are no readily available reliable data upon which to base a split between community and specialised policing".[8] It analysed State budget papers and police annual reports to deduce that the split ranged from 30:70 (community:specialised) in Western Australia to 70:30 in Tasmania. The decision was to use a 50:50 split.

These decisions by the CGC are largely arbitrary, and yet important, because crime propensity differs significantly across States.

Transport Assessment

Recurrent public transport subsidies in urban areas are estimated by fitting a curve to data on State urban transport subsidies. This involves three judgements.

- City population size is assumed to be the sole driver of unavoidable urban transport subsidies. There is no consideration of standard levels of service or revenue raising, unlike all other assessments.
- The type of curve is assumed to be smooth and 'log linear'.[9]
- It is assumed that policy differences across States don't affect the outcome. However, three quarters of the urban populations used in fitting the curve live in the five largest cities (Sydney, Melbourne, Brisbane, Perth and Adelaide) that are situated in five different States, so that in no State is the relationship between city population size and the level of public transport subsidies observable. The data shows significant differences between capital cities of roughly comparable size.

[8] Commonwealth Grants Commission, *Report on GST Revenue Sharing Relativities 2015 Review – Volume 2 – Assessment of State Fiscal Capacities*, page 307.

[9] The dependent variable is per capita urban transport subsidy; the independent variable is population size.

Unrecognised Costs

There are many gaps in the CGC's assessments. The CGC has itself acknowledged the proximate nature of its work, stating that:

> The reference to material factors in the [CGC's HFE] definition makes clear the Commission does not aim to achieve precise equalisation as not all disabilities are included, either because they cannot be reliably measured or they have only a relatively small effect on the GST distribution. This means that while precise (or complete) equalisation is the aspirational goal, in reality the Commission achieves proximate equalisation.[10]

Unrecognised costs identified by Western Australia include:

- Remoteness
  - Based on data provided to the CGC in the 2015 Review, Western Australia's remote areas are generally more expensive than areas in other States of comparable remoteness.[11] However, under the CGC's average cost approach, the cost to service areas in each remoteness category is assessed to be the same in all States. It was estimated in 2012 that the CGC underestimates Western Australia's dispersion costs by around $300 million per annum.
  - In the 2015 Review, the CGC also decided to change its treatment of Hobart and Darwin from 'major cities' to respectively 'inner regional' and 'outer regional', to achieve consistency with the ABS 'ARIA' index[12] of comparable remoteness. As a result, the relative remoteness of Tasmania and the Northern Territory now reflect their distance from Melbourne and Adelaide respectively. The CGC has acknowledged that this yields 'excessive' benefits for these States, and has therefore applied a 50% discount. However, this has introduced a lack of transparency into the assessments, as the basis for the discount is unclear.

[10] Commonwealth Grants Commission, *2020 Review: The Principle of HFE and Its Implementation: Staff Discussion Paper CGC 2017-02-S*, May 2017, page 4.
[11] As measured by the Australian Bureau of Statistics' ARIA remoteness classification.
[12] Accessibility/Remoteness Index of Australia.

- Crime propensity
  - Western Australia is considered the methamphetamine capital of Australia (and Australia is second in the world behind Slovakia), affecting its costs for police, courts and hospitals.[13,14] This is not picked up in the CGC's assessments, which only include general factors for age and socio-economic status based on the national influence of these factors.[15]
  - Indeed, on the basis of the socio-economic status measure, Western Australia is considered to have low spending needs rather than high spending needs.
- Private sector health provision
  - This has been discussed above.
- Regional water subsidies
  - In Western Australia's experience, difficult water access is a major reason for the State's high level of water subsidies for regional communities. However, the CGC has been unable to develop a reliable measure of this disability.

[13] Australian Criminal Intelligence Commission (2017), *National Wastewater Drug Monitoring Program*, Report 1, March 2017.

[14] New South Wales is shown to be the Australian cocaine capital, but consumption, measured by dose, is about 10% that of methamphetamine use in Western Australia.

[15] Methamphetamine use is anecdotally driven by high socio-economic status and is more prevalent in young males. Western Australia is above average for both. See also http://www.abc.net.au/news/2017-06-12/meth-use-in-wa-drops-wastewater-analysis-shows/8609840, which shows a drop in use coinciding with a drop in economic growth.

- Economic development spending
  - The CGC's assessments do not cover public good-type costs to facilitate efficient development of Western Australia's prospective regions, such as improving amenities and access to housing; improving energy, water and mass transport infrastructure; and supporting foundational economic activity (e.g. North West Shelf and Ord River projects). More generally, there are high costs associated with the provision of infrastructure in advance of demand (necessitated by the general inability to provide capital on an incremental basis) in an environment of high growth and volatility. The unrecognised costs and risks associated with these activities were estimated in 2012 to be in excess of $1 billion per annum.
  - The CGC equalises all mining-related revenue but not all mining-related expenditure. This asymmetrical treatment contributes to the excessive redistribution of mining-related revenue.

Lack of Consistency with Other Bodies

A lack of consistency also exists between CGC assessments and similar assessments by other bodies.

For example, in the Schools Education assessment, the CGC assessed Western Australia as needing to spend 6.6% above the national average for the 2015-16 data year. In contrast, the Commonwealth's Students First needs-based funding model assessed Western Australia as needing to spend 14.1% above the national average (adjusted for wage costs) in the same year.

Which is correct? Western Australia would receive around $300 million per annum extra GST if the Students First model were used for 100% of schools funding rather than just the Commonwealth's share of that funding (around 11% in 2015-16).

This highlights the difficulties in claiming that the CGC's assessments are 'fair'.

Inequitable Treatment of Efforts to Develop Mining

The current implementation of HFE is inequitable as it does not recognise the differing efforts that States make in developing their natural resources.

The development of gas reserves on the eastern seaboard is a case in point.

During a recent interview on the ABC,[16] Mr Ian Macfarlane, former Commonwealth Government Minister for Industry and now the Head of the Queensland Resources Council, argued that the eastern States' gas crisis is largely due to New South Wales and Victoria failing to develop their gas reserves.

- Mr Macfarlane says that the Queensland government has been very pro-active and the industry, as a result, has come on board, but is now being called on to solve the eastern States' gas problems.

- He says that it is one thing to want to buy gas, but another to come and share the risk and share the rewards of developing the gas reserves.

Irrespective of whether New South Wales and Victoria are influenced by the GST impact of their policies on coal seam gas development, they will benefit from Queensland's development of its resources through the GST redistribution of Queensland's royalties. These decisions by New South Wales and Victoria will also draw GST from other States (including Western Australia, which effectively donates about 50% of its iron ore royalties to these States).

The Productivity Commission stated in 2015 that the "expected benefits of the moratoria [to coal seam gas in New South Wales and Victoria] must be weighed against their expected costs – higher gas prices for users and reduced royalty and taxation revenue for governments".[17]

[16] ABC, *7.30 Report*, 27 April 2017,http://www.abc.net.au/7.30/content/2017/s4660142.htm

[17] Productivity Commission (2015), *Examining Barriers to More Efficient Gas Markets*, page 2.

The Productivity Commission also noted that:

- "sound risk management does not equate to eliminating all risk" and that those "risks can be managed through a well-designed regulatory regime, underpinned by effective monitoring and enforcement of compliance"[18]; and

- "governments that have resorted to moratoria … may have been seeking a higher standard of risk management from CSG activities than what applies for many other land uses".[19]

Whatever benefits result from the moratoria, they are enjoyed exclusively by the residents of New South Wales and Victoria, and in the interest of both efficiency and equity, the forgone future revenue should be borne by those same residents, and not shared with the rest of the nation through the GST.

In saying this, we note that:

- Western Australia is not seeking HFE to be reformed to encourage development, merely that it stops discouraging it. States are welcome to adopt the policies they think best, but should be restricted in their ability to pass the limits placed on their revenue-raising capacity from those policies on to the people of other States; and

- Western Australia is not arguing that every deposit needs to be developed at any point in time, as this would be irrational and inefficient. States need to consider a range of factors, and some restrictions, short term and long term, are inevitable and arguably efficient.

Recognising the State policy decisions that underlie mining development will not just make HFE more equitable, it will also facilitate national growth.

[18] *Ibid.*, page 2.
[19] *Ibid.*, page 15.

7. HFE in Practice – Budget Management

Key Points

- Time lags in the implementation of HFE cause budget management difficulties, because much of the impact of current economic circumstances and policy decisions falls outside of the forward estimates period.
- Time lags are a continuing problem, as governments will always focus on the forward estimates.
- Removing time lags has substantial transparency benefits.

As noted in previous chapters, the current implementation of HFE does not recognise, or does not adequately recognise, some costs.

The CGC also implements HFE with significant time lags. This causes considerable budget management difficulties for the States.

For example, the GST distribution for 2017-18 is based on fiscal circumstances in the three years 2013-14 to 2015-16.[1]

This is despite the CGC having the following contemporaneity principle.[2]

> Equalisation will be implemented by methods that: … deliver relativities that are appropriate to the application year (contemporaneous relativities). This principle means that, as far as possible, the distribution of GST provided to States in a year should reflect State circumstances in that year.

Effectively, the CGC is forecasting the 2017-18 circumstances as reflecting the circumstances in the three years to 2015-16.

However, in practice, the CGC's contemporaneity principle is far from being achieved. This is illustrated by Chart 7.1, which compares Western Australia's actual relativity to its unlagged relativity.

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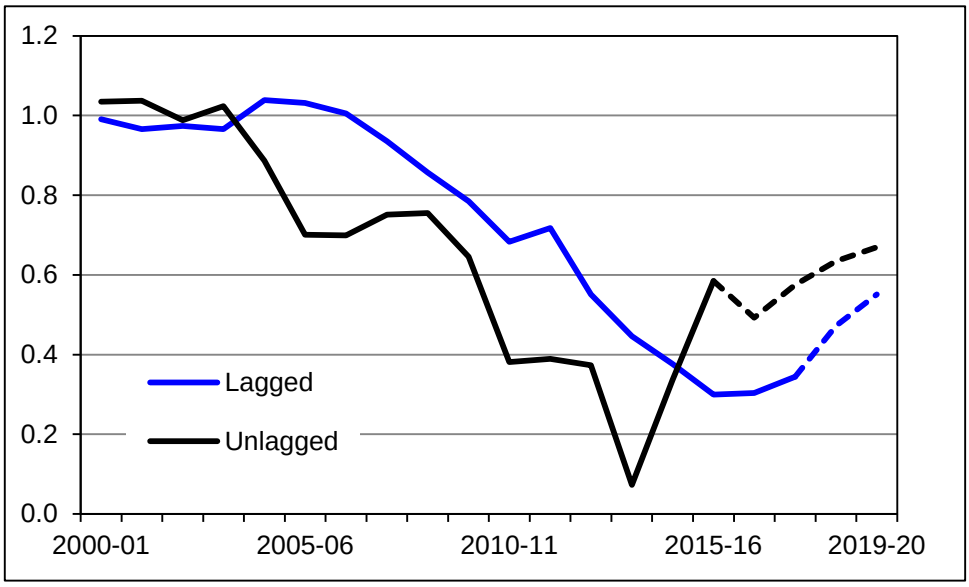
1 A limited exception is that the CGC 'backcasts' some 'major' changes in Commonwealth-State relations to reflect the expected 2017-18 arrangements (e.g. changes to State distributions of major tied grants such as for the National Disability Insurance Scheme).

2 Commonwealth Grants Commission, *Report on GST Revenue Sharing Relativities 2015 Review – Volume 2 – Assessment of State Fiscal Capacities*, page 6.

Chart 7.1: Western Australia's Actual and Unlagged Relativities



Notes: Projections are shown by dashed lines.

Earlier relativities have been put on a GST-only basis (whereas the CGC recommendations applied to a combined pool of GST and health care grants prior to 2009-10).

Source: CGC data and the Western Australian Treasury.

An example is the 2015-16 grant year, when the CGC recommended a 0.29999 relativity for Western Australia, largely reflecting iron ore production in the three years to 2013-14. Taking into account growth in the GST pool, the redistribution recommended by the CGC implied an iron price of $A93 per tonne, whereas the actual iron ore price in 2015-16 was only $A65 per tonne. This difference in iron ore price was equivalent to $1.4 billion in GST grants for Western Australia in 2015-16.

Why Do Time Lags Cause Budget Management Difficulties?

The time lags, and resulting volatility in State revenues, cause considerable difficulties for State governments.

The problem is not due to difficulties in forecasting relativities for the upcoming financial year. The experience for Western Australia and other States generally is that relativities can be forecast one year in advance reasonably accurately.

Rather, the problem is that the use of old data means that GST impacts of changed fiscal circumstances occur with a time lag and mainly beyond the forward estimates period, but governments generally focus on the forward estimates period and the operating surpluses.

For example, during the period of high iron ore prices up to 2013, the State Budget forecast large operating surpluses throughout the forward estimates, but these largely reflected the HFE time lags. Consideration of the later impact of the time lags tended to be discounted due to the substantial uncertainties in any forecasts beyond the forward estimates period.

When the iron ore price fell abruptly, the States' GST grant share was still declining, exacerbating the fall in revenue. If there had been no time lags, both the increase and the decrease in iron ore royalty revenue would have been largely offset by GST grant changes at the time these were occurring. GST relativities would have been more volatile but this is necessary to cancel out the volatility in other revenue and ensure much more stable total revenue.

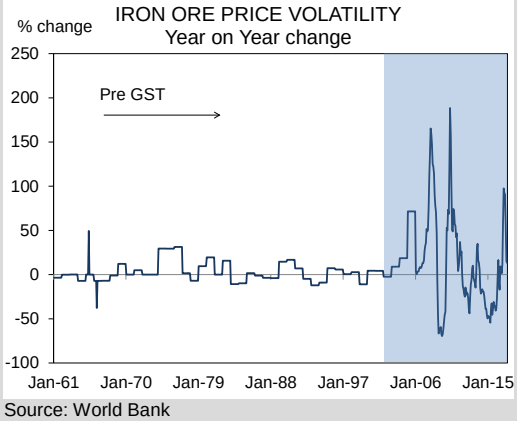
Box 7.1 discusses the evolution of iron ore pricing and its impact on volatility of iron ore royalty revenues.

Box 7.1 - Evolution of Iron Ore Pricing

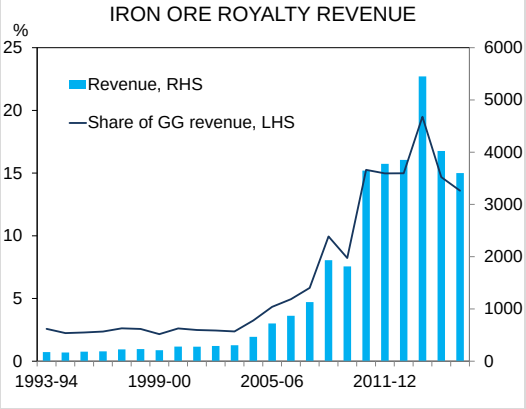
The iron ore price has become highly volatile as a result of the emergence of China as the dominant consumer of seaborne iron ore. From 2000 to 2009, Chinese seaborn iron ore imports increased from around 16% to 70% of global seaborne trade. This demand shock created a significant global shortage of iron ore, which caused prices to increase far above historical averages, followed by a commensurate (and lumpy) supply response which caused prices to head back toward their historical averages. The volatility created by these dynamics placed considerable pressure on the annual benchmark pricing system[3] (involving annual prices being negotiated directly between the major producers and buyers) which eventually broke down over the period 2008 to 2010.[4]

[3] The development of the iron ore industry in Western Australia was underpinned through long-term contracts between mine developers and Japanese steel mills. Prices were negotiated annually and were effective from the start of the Japanese financial year in April.

[4] Interestingly, a series of supply shocks have recently caused volatility in coal markets and some market participants have sought to move away from negotiated price assessments.



Source: World Bank



Source: Western Australian Treasury

Prices are now set in spot and derivative markets, which have significantly increased intra-year price (and therefore revenue) volatility. Demand for seaborne iron ore has also become very highly concentrated in one country - China. This has structurally increased price volatility as changes in market demand are almost entirely driven by changes in demand within a single country. Furthermore, increases in royalty rates and the volume of output have structurally increased the contribution of the volatile iron ore royalty stream to Western Australia's general government revenue. For example, iron ore royalty revenue comprised around 2.5% of general government revenue from 1993-94 to 2003-04 before increasing to nearly 20% in 2013-14. Managing this volatility is a cost which is largely borne by the people of Western Australia even though the revenue is ultimately redistributed to other States.

It can be argued that the HFE time lags lead to more extreme fiscal policies by State governments.

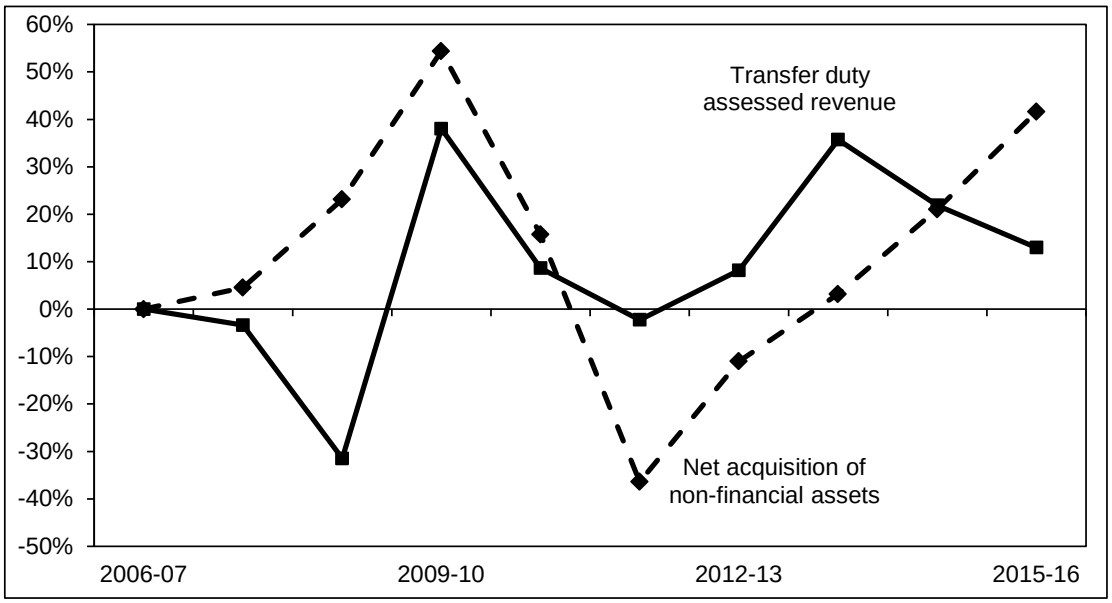
For example, when land tax collections have grown strongly, the time lags have hidden the GST impact. This was a contributing factor to the Western Australian Government cutting land tax rates and/or increasing land tax thresholds in the majority of years from 1995-96 to 2008-09, leading to lower than otherwise land tax collections. In recent years, when time lags have reduced Western Australia's overall revenues, land tax rates were increased (bringing Western Australia up to national average land tax effort).

As another example, Western Australia did not increase electricity prices for eight consecutive years (2001-02 to 2008-09). The latter half of this period was when Western Australia had begun to benefit from time lags in the HFE treatment of the mining boom. When taxation revenue fell in 2009-10, without an immediate offsetting GST impact, electricity prices were increased by 23% (and by 16% in 2010-11).

It is likely that other States are also affected in this way.

For example, Chart 7.2 compares New South Wales' growth in assessed stamp duty on property transfers[5] with growth in net acquisition of non-financial assets, over the last decade. This shows some correlation between strong growth in transfer duty and strong growth in asset purchases.

Chart 7.2: New South Wales Growth in Transfer Duty Assessed Revenue and Net Acquisition of Non-Financial Assets



Source: CGC assessed transfer duty and ABS net acquisition of non-financial assets.

Why Have Time Lag Concerns Only Been Raised in Recent Years?

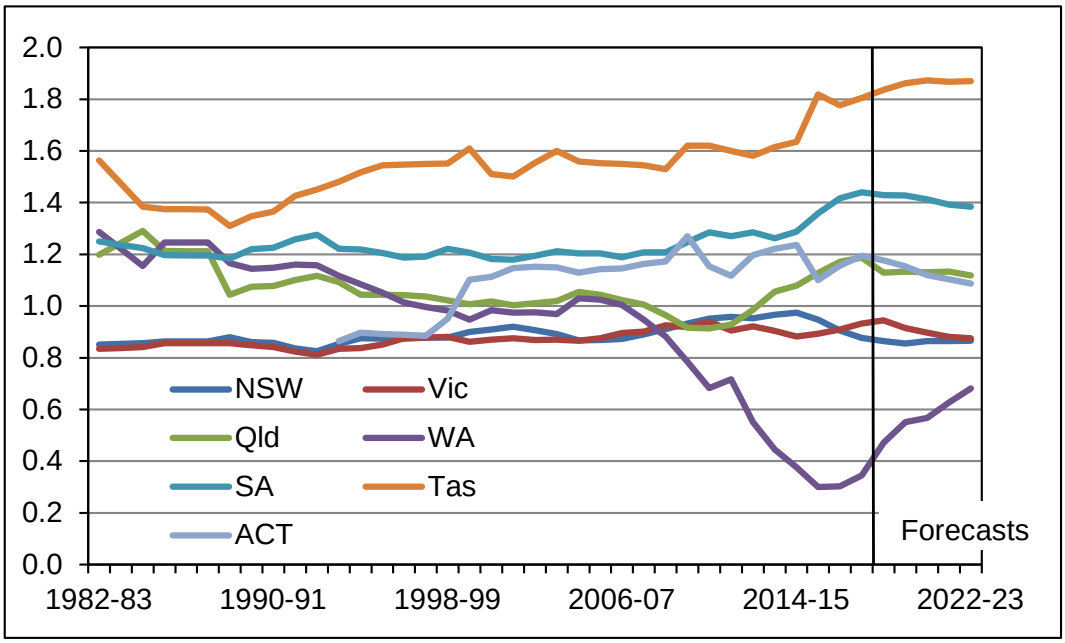
Time lags have been a longstanding feature of HFE, so some parties might ask why Western Australia is making a big issue of them now.

Firstly, the changes in Western Australia's circumstances going into and out of the mining boom have been unprecedented, at least since the introduction of relativities in 1982-83. This can be seen in the movement in relativities in Chart 7.3 (which covers all States apart from the Northern Territory).[6]

[5] Capacity to collect transfer duty as per the CGC assessments, based on national average policies.

[6] The Northern Territory appears to have no significant trend in its relativity, but sometimes has large percentage point changes in its relativity in individual years. However, as a proportion of its GST grant, the Northern Territory has never experienced anything like the 70% decline faced by Western Australia from 2006-07 to 2015-16.

Chart 7.3: Each State's CGC Relativity



Notes: The grant pool to which the relativities apply has changed over time, from financial assistance grants plus health care grants, to GST grants plus health care grants, to GST grants. However, the impact of this on movements in the relativity has been fairly small.

Relativities prior to 1993-94 have been scaled to give a national average of one (whereas the CGC recommendations were expressed relative to Victoria).

Excludes the Northern Territory, which has an inherently volatile relativity.

Forecasts beyond 2019-20 should be treated with considerable caution.

Source: CGC and the Western Australian Treasury. Forecasts are consistent with the Economic and Fiscal Outlook released on 6 April 2017.

It should be noted that Chart 7.3 shows the lagged relativities, so it understates movements in circumstances (an extended set of forecasts has been shown to illustrate the flow through of current circumstances, but forecasts beyond 2019-20 should be treated with considerable caution). However, this is the case for all States, so it enables comparison between States.

Secondly, although time lags may be receiving more attention now, Western Australia is not the first State to raise this issue.

For example, going in to the mining boom, other States were quite vocal about how the circumstances of Western Australia and Queensland had improved ahead of their relativities declining.

It was this concern that led the CGC to implement a contemporaneity principle in the 2010 Review, in order to justify changing from a lagged five-year average to a lagged three-year average. In practice, a three-year lagged average still falls far short of being contemporaneous.

In arguing for contemporaneous relativities, Western Australia has only been asking for the CGC to actually take its own contemporaneity principle seriously. The CGC in response has claimed that contemporaneous relativities can be achieved by having HFE "achieved over a run of years with a lag",[7] rendering its contemporaneity principle essentially meaningless.

Why Did Western Australia Not Save the Time Lag Benefits?

As shown by Chart 7.1 earlier, Western Australia received a substantial benefit from time lags during the mining boom. Various parties have suggested that Western Australia should have saved these time lag benefits, in preparation for the coming declines in its GST grant share.

However, there are a number of reasons why Western Australia did not save the benefits. These reasons are likely to also apply to other States in a similar position.

The GST Distribution Previously did not Account for Infrastructure Spending Needs

Prior to the 2010 Review (which applied from the 2010-11 grant year), there was no meaningful assessment of States' infrastructure spending requirements (particularly the additional infrastructure that must be built to cater for higher population growth).

Western Australia's population growth has generally been above the national average. Hence, the State had to either 'overspend' compared to other States or build less infrastructure than other States. This left considerable pressures to provide infrastructure from the time lag benefits of the mining boom. Meeting these pressures was important for the ongoing development of the State.

[7] Commonwealth Grants Commission, *Report on GST Sharing Relativities 2015 Review – Volume 1*, page 71, paragraph 162.

At the time of the mining boom, it was critical to correct for past under provision of infrastructure due to the very high population growth. Western Australia had an increase in population of about 540,000 between December 2005 and December 2016, equivalent to more than the entire population of Tasmania (about 520,000). Western Australia needed to invest in schools, hospitals and roads to deal with this increase.

The GST Distribution Continues to Underfund Western Australia's Development Needs

The time lag benefits are only meaningful if GST grant shares reflect an accurate assessment of HFE.

Western Australia has made a number of criticisms of the CGC's HFE assessments. In particular, the Western Australian Treasury estimated in 2012 that unrecognised spending needs related to development of the State totalled $2 billion per annum. Little recognition of this was provided in the CGC's 2015 Review.

There was Public Pressure to Use the Surpluses to Provide Improved Services and Reduced Taxes

There is always public pressure to improve services and reduce tax rates. In a democratic system, this is invariably reflected in political pressure.

These pressures become much larger when governments are running large surpluses. The public sees these funds as available, and has little heed for arguments that saving is required for the future. Nonetheless, in its 2012-13 Budget the then Western Australian Government announced the creation of a Western Australian Future Fund with contributions of at least 1% of Western Australia's annual royalty revenue from 2016-17.[8]

The economic literature has well documented the tendency for people to value spending today over saving for the future, even when the present value of money with interest in the future might match the current value of money in the hand.

[8] The current State Government has announced that earned interest from the Future Fund will be used to pay for a Future Health Research and Innovation Fund to drive medical research and innovation.

There were Uncertainties about the Application of HFE in Later Years, and Expectations by the State Government that Reform would be Achieved

The CGC methods are subject to ongoing change as a result of the five-yearly method reviews. The possibility of more extensive reform was also raised by the occurrence of the GST Distribution Review (that reported in October 2012), although this ultimately only proposed minimal immediate reform.

The Western Australian Government was also of the view that the HFE system was clearly 'broken', and that the forecast relativities would be unacceptable to the Commonwealth Government. This view was bolstered by the instruction sought by Western Australia, and given by successive Commonwealth Treasurers, in the CGC 2011 Update and later terms of reference to not reclassify iron ore fines.[9]

The Western Australian Government's expectations were partially realised, in that the Commonwealth Government has implemented a de facto GST relativity floor. However, this floor of 37.6% is far lower than the 75/80% floor sought by Western Australia and has involved tied funding, whereas GST funding is untied.

There Appeared to be Time to Adjust to Lower GST grants

Although it is well known that booms come to an end, most commentators did not anticipate that iron ore prices would fall as suddenly as they did.

When iron ore prices fell, the revenue impact was exacerbated by continuing declines in the State's GST grant share, giving an insufficient time frame for restructuring the State's finances.

[9] See discussion in Chapter 5. If the CGC had reclassified iron ore fines, Western Australia's GST grant loss would have exceeded the revenue from the royalty rate increase. The CGC was instructed to not reclassify iron ore fines, pending its 2015 Review.

Time Lags are a Continuing Problem

The recent mining boom was not the first boom, nor will it be the last.

Furthermore, time lags are not just a problem attributable to the recent mining boom or, indeed, to royalty revenues. Even now, all States are making decisions or facing changed economic circumstances that have GST consequences beyond the forward estimates.

Governments will naturally place more importance on fiscal consequences within the current term of government, compared to longer term consequences. The public also have a short-term perspective, and even members of the public with a longer-term view may find it hard to understand the time lag implications.

It should also be noted that GST relativity forecasts depend upon States' forecasts of other States' fiscal capacities, and this dependence can be particularly significant for the States with lower royalty capacity (as their mining revenue assessments depend largely on the other States' capacity). For example, the Victorian 2017-18 Budget forecast a GST relativity of 98% for 2020-21, whereas the Western Australian Treasury currently forecasts Victoria to have a relativity of 90% in 2020-21. The difference appears to be at least partly due to Victoria and Western Australia forecasting different iron ore and coal royalties (to be collected by Western Australia, Queensland and New South Wales).

The credit rating agencies have been known to discount the impact of current HFE arrangements, including the time lags. Western Australia's experience at the end of the mining boom was that rating agencies questioned the State's relativity forecasts. Credit rating agencies have been known to use their own relativity projections, with conservative estimates of the time lag impact.[10]

In theory, when a State's revenues fall, it could borrow to cover the shortfall while it waits for the GST benefits to flow. However, time lags mean there are inherently more variables and therefore more uncertainty and risks in GST forecasts. As well, restrictions on their credit rating may make this borrowing more expensive. This additional borrowing cost will be faced by States with more volatile revenues, undermining equity.

[10] Explained in an email from Standard and Poors to the Western Australian Treasury, 14 April 2015.

Alternatively to borrowing, mechanisms available to adjust down expenditure quickly are more limited and more costly for the community (limited to reductions in service volumes, transfer payments, or cancellation of smaller capital projects) while the jurisdictions without the volatile revenues have the lead time to consider a wider range of options (for example, service redesign) or implement cost reduction programs. Again, equity is undermined.

Would a Longer Time Lag Help Budget Management?

Some parties have suggested that GST grants could be made more stable by using (say) a ten-year average of data years.

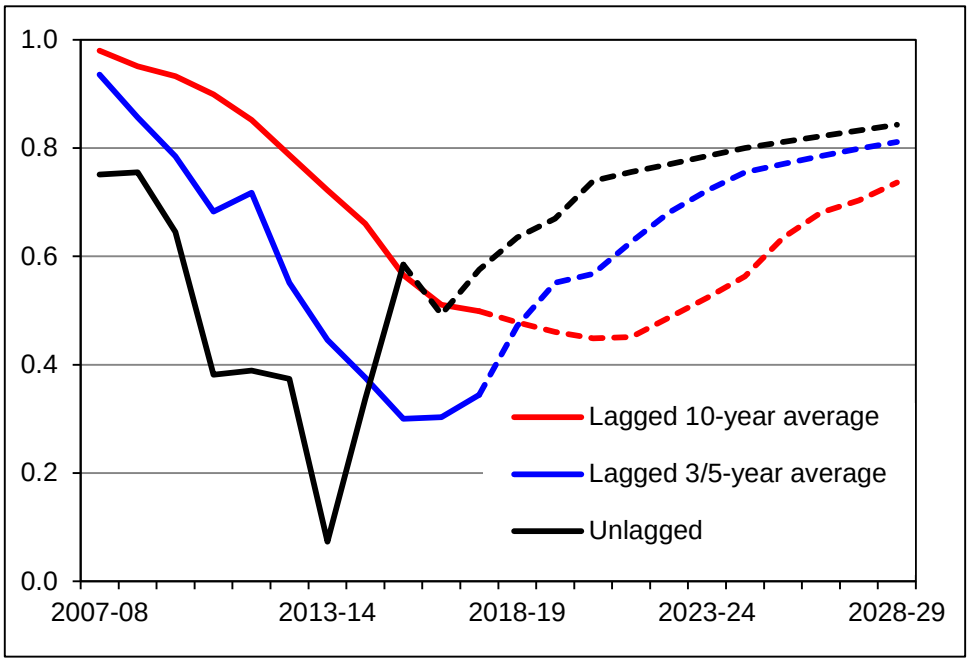
The idea of this would not be to have GST grants offset movements in own source revenues (which would occur with fully contemporaneous relativities). Rather, it is to remove volatility from GST grants, so States only face volatility in their own source revenues, which they can manage as it occurs (without the risk of it being exacerbated by movements in GST grants).

Stable GST grants would be a reasonable approach to addressing budget management, despite not removing State-specific volatility. Stable GST grants would also have the additional benefit of addressing efficiency concerns, as relativities would be less responsive to State actions.

Nonetheless, a lagged ten-year average would not achieve stable GST relativities.

Chart 7.4 compares Western Australia's relativity under a lagged ten-year average with the lagged average that the CGC has been recommending (three- or five-year average) and unlagged relativities. This chart includes extended forecasts to show the flow-through of the end of the mining boom into the lagged ten-year average relativities, but forecasts beyond 2019-20 should be treated with considerable caution.

Chart 7.4: Western Australian Relativities



Notes: Projections are shown by dashed lines.

Earlier relativities have been put on a GST-only basis (whereas the CGC recommendations applied to a combined pool of GST and health care grants prior to 2009-10).

Forecasts beyond 2019-20 should be treated with considerable caution.

Source: CGC and the Western Australian Treasury.

As shown by Chart 7.4, ten-year average relativities would still have had a substantial fall, from 98% in 2007-08 to 44.9% in 2020-21 (not much above the three-year average of 29.9% in 2015-16 and the de facto floor of 37.6%), followed by a substantial rise.

Although the ten-year average would reduce year-to-year volatility in States' GST grants, it still would exacerbate total revenue volatility.

In Western Australia's case, a ten-year average would give results further from unlagged than the current arrangements for all years in Chart 7.4, except for the four years 2015-16 to 2018-19. A ten-year average could have:

- further distorted policy decisions by giving a greater illusion of revenues and surpluses arising from the time lags during the mining revenue boom; and
- resulted in a much more drawn-out process whereby the State faced very low GST grants in the face of economic hardship after the mining boom.

Transparency

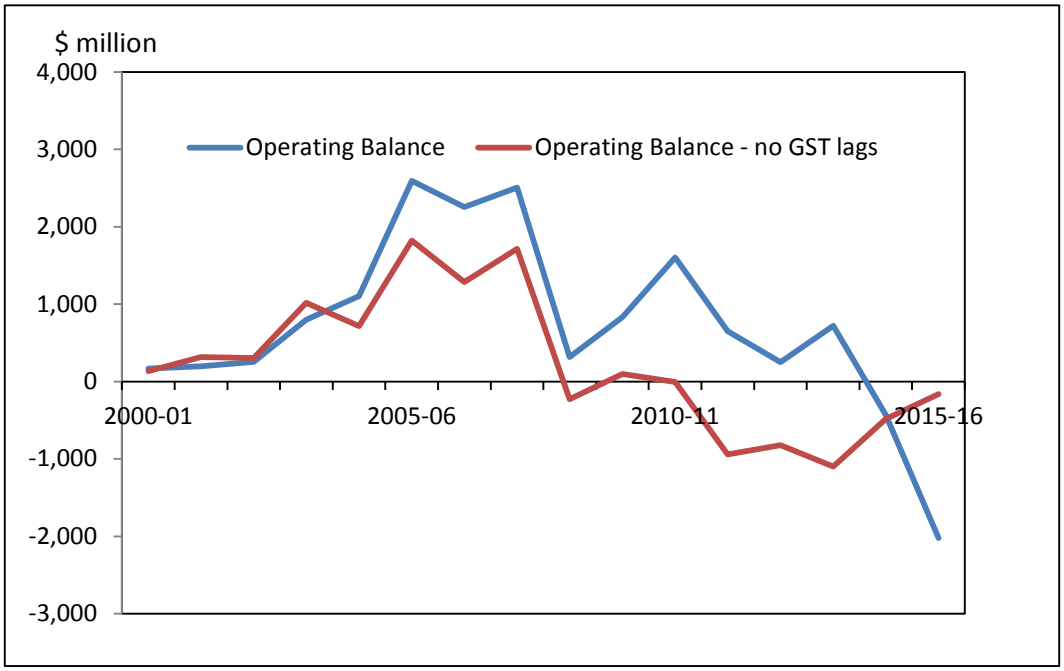
Removing time lags in the GST formula is a clear improvement from a transparency perspective. Opposition to the measure is likely driven by the inevitable negative one-off impact on at least some jurisdictions from the change.

Looking at Chart 5.1 in Chapter 5, it is apparent that without time lags, Western Australia's revenue growth since the inception of the GST looks essentially the same as all States.

Similarly, without time lags, the operating surplus for any year gives a much better indication of the underlying State of the budget in that year. Chart 7.5 shows the impact of GST time lags on Western Australia's operating surplus.

Time lags currently disguise the real GST grants and underlying budget position of all States. The transparency gains from removing the disguise (and additional complexity and uncertainty) would be substantial.

Chart 7.5: Western Australia's Budget Operating Surpluses



Source: Calculated by the Western Australian Treasury.

8. Solutions

Key Points

- The current system of HFE impedes economic growth, creates perverse incentives, lacks accountability, is complex and not transparent, and distorts budget management.
- Reforms should be underpinned by principles that preserve the aim of HFE, but would increase the overall efficiency, equity and simplicity of its implementation.
  - HFE should be implemented based on principles that exhibit conservatism; policy neutrality and preservation of incentives; underlying equity; accountability, simplicity and transparency; and contemporaneity.
- In the longer term, an accountable HFE system that displays all the above mentioned principles is achieved through distributing the GST pool on an equal per capita basis, with the Commonwealth directly providing equalisation grants to States that require them.
- Other reform options that address the above mentioned principles to varying degrees include:
  - introducing GST relativity floors;
  - assessing revenues using a global revenue base;
  - applying discounts to revenue assessments;
  - using simpler and more comprehensive expense assessments; and
  - establishing contemporaneous assessments.

Introduction

As set out in previous chapters, the current HFE system not only fails to achieve its aims, but also creates perverse incentives in the process. The system is impeding economic growth, includes many disputable judgements, and has significant gaps in its assessments.

Significant reform to the current HFE arrangement is required.

- HFE and the supporting principles are not being achieved.
- There is no accountability, as Commonwealth government ministers routinely pass responsibility back to the CGC, the CGC does not engage with community debate, the CGC makes many value judgements about how the generic HFE principle should be implemented, and there is no expert oversight of the CGC.
- Efficiency and equity are not apparent.
- It is complex and not transparent, which makes external review difficult, risks biased outcomes through selectivity about what is assessed and what is not, and entails many technical judgements.
- There are many gaps in documentation of issues and decisions.

This chapter considers a new set of principles to better guide HFE and considers options for improving the current implementation of HFE.

Proposed HFE Principles

The Western Australian Government considers that HFE reform should reflect principles that preserve the aim of HFE, but would increase the overall efficiency, equity and simplicity of its implementation. The following principles are recommended.

Conservatism

- A State's fiscal capacity should be presumed to fully/partly reflect its own effort if there is no/partial evidence to the contrary.

Efficiency - Policy Neutrality and Preserving Incentives

- GST grants should not be affected by the revenue or spending mix.
- GST grants should not be affected by differences in policies across States that have affected or will affect per capita revenue bases and spending needs.

Equity

- Underlying disabilities should be recognised, rather than their detailed manifestations.
- Assessments of drivers of differences in spending and revenue requirements between States should be consistent with policy neutrality.
- Assessments should be relevant to Australian circumstances to broadly reflect State policies and objectives in providing and funding services.

Accountability, Simplicity and Transparency

- There needs to be accountability – high level implementation decisions should reflect a consensus view of Governments or decisions of the Commonwealth Treasurer (where consensus cannot be reached). The CGC should be responsible for implementation, not policy.
- Methods should be clearly described and simple.
- There needs to be full documentation of data and evidence used by the CGC in reaching its conclusions.

Contemporaneity

Either:

- GST grants should be unaffected by cyclical or transient factors, leaving States fully accountable to manage budget volatility; or
- GST grants should reflect current circumstances, spreading volatility across States as it occurs.

Reform Options

The Western Australian Government has identified a package of reform options that, to varying degrees, address the above principles (see Table 8.1). Most of the options complement each other and could be combined.

Table 8.1: Comparison of Reform Options

	Improvements to:				
Options:	**Conservatism**	**Policy Neutrality and Preserving Incentives**	**Equity**	**Simplicity and Transparency**	**Contemp-oraneity**
Long Run – Equal Per Capita GST and HFE Administered Separately	✓	✓	✓	✓	✓
GST Relativity Floor	✓	✓	-	-	-
Global Revenue Base Using Policy Neutral Indicators	-	✓	-	✓	✓
Global Revenue Base Using GSP or State Revenue Bases	-	✓	-	✓	-
Discounting the Assessments	✓	✓	-	✓	-
Better Spending Assessments	-	✓	✓	✓	-
Contemporaneous Assessments	-	-	✓	✓	✓

Distribute GST on an Equal Per Capita Basis

In the long run the system should transition to an equal per capita sharing of the GST, with the Commonwealth providing equalisation grants to States that need them.

This option addresses the current lack of accountability of the HFE system by:

- separating the general revenue assistance and equalisation objectives; and
- giving the Commonwealth direct responsibility to provide, from its own revenues, additional support to States that require it (hence incentivising the Commonwealth to maintain the equity and efficiency of the system).

This is consistent with the long-term vision in the 2012 *GST Distribution Review Final Report*. It is also consistent with the National Commission of Audit recommendation to allocate the GST on an equal per capita basis, with the Commonwealth providing additional grants to recipient States.

The cost to the Commonwealth of funding equalisation directly could be offset, at least partially, by reductions in existing tied grant funding to the States.

Principal Benefits

This option addresses all the principles we have proposed.

The arrangement rates highly on accountability, simplicity and transparency.

Importantly, there is the opportunity for equity as well as efficiency improvements, as the Commonwealth takes a greater interest in how recipient States use their equalisation grants.

Contemporaneity is addressed by giving States a stable GST share, allowing States that don't receive separate equalisation grants from the Commonwealth to fully manage their revenue volatility. Recipient States may receive volatility assistance as required through the Commonwealth's equalisation grants.

Introduce a GST Relativity Floor

Applying a GST relativity floor that ensures a minimum level of GST funding, say 75-80% of a State's population share, would safeguard against extreme outcomes that are unjustified by the approximations that cannot be avoided in any HFE formula.

A floor could be implemented gradually behind the lowest State relativity.

For the past three years, the Commonwealth Government has agreed to pay a top-up grant to Western Australia to give equivalent funding to its 2014-15 relativity of 37.6%. In effect, this has set a de facto floor. Accordingly, the GST floor could progressively increase from 37.6% to 75/80%, behind the lowest State relativity using a ratchet approach.

For example, the lowest State relativity over the forward estimates is forecast to be Western Australia, with forecast GST relativities of 47.1% in 2018-19 and 55.1% in 2019-20.[1]

Accordingly, a GST floor of 37.6% could be formally introduced in 2018-19 and increase to 47.1% in 2019-20 and then to 55.1% in 2020-21, and so on. This is expected to have no financial impact for any State over the forward estimates period.

Principal Benefits

This option is a simple way of reflecting the conservatism principle and potentially preserves incentives for the fiscally stronger States to more aggressively pursue economic development, leading to benefits nationally.

[1] Western Australian Treasury estimates, consistent with the Economic and Fiscal Outlook released on 6 April 2017.

Assess States' Revenues Using a Global Revenue Base

Global Revenue Base Using Policy Neutral Indicators

Preliminary analysis suggests that a genuinely policy neutral revenue base may be able to be constructed[2] from a small set of indicators, including population size, land area (as a general measure of endowments), market access (to recognise more difficult market access for South Australia and Tasmania) and indigeneity (which, among other things, recognises the Northern Territory's special circumstances).

Global Revenue Base Using GSP

Analysis previously provided to the CGC suggests that GSP, with some adjustments, provides a good measure of States' global revenue capacity. Adjustments that appear relevant include the exclusion of 50% of general government final consumption expenditure (as States only get indirect tax benefits from their own spending), and offshore mining production (which States cannot tax).

Global Revenue Base Using States' Revenue Bases

This option adds together all the States' revenue bases. For annual land and motor vehicle taxes, the annualised value of the revenue base is used.

Principal Benefits

These options are all more policy neutral and simpler than the current CGC assessments. They largely remove the disincentive effects for reform and economic growth-enabling policy.

- All options provide tax mix neutrality, but only the first option provides tax base neutrality.
- The first two options are much simpler than the third.

The first option also complies with the contemporaneity principle, as the revenue base excludes cyclical and transient factors.

[2] Using regression analysis of State revenue time series data.

Discount the Revenue Assessments

A discount to revenue assessments would reduce the disincentives inherent in the current implementation.

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.

Some discounting could be applied to expenses if material policy influences were shown to exist.[3] However, policy influences are likely to be more pronounced on the revenue side, such as where one State has a very large share of the national revenue base, or where the revenue base is influenced by State policies.

Generally, discounting would be towards a population share distribution, but could be towards a land area distribution in the case of mining-specific discounts.

Principal Benefits

These options all improve policy neutrality by reducing tax policy and economic development disincentives.

Additionally, transparency is improved as it provides clear recognition that current assessments are not implemented in a policy neutral manner.

Discounting is also consistent with the conservatism principle.

[3] Inbuilt incentives already exist to deliver services cost-effectively. But in certain situations disincentives may arise. For example, if a State reduces its number of poor people, its GST grant will fall.

Introduce Simpler But More Comprehensive Spending Assessments

The twin objectives of this approach are:

- a smaller number of simpler assessments by using broader indicators that pick up the underlying cost drivers of States; and
- addressing gaps in the assessment of spending needs, including development costs incurred by States, particularly where the revenue bases are not based on policy neutral indicators.

For example, there could be a broad social welfare assessment, based on underlying indicators of cost drivers rather than the current individual assessments of welfare, services to communities, and housing.

Principal Benefits

This option could potentially improve equity and simplicity, as well as indirectly addressing efficiency (development disincentives) by providing better capacity for States to undertake needed development.

Establish Contemporaneous Assessments

(Options for stable GST grants include the Global Revenue Base Using Policy Neutral Indicators option discussed above.) [4]

Contemporaneous assessments would be implemented using forward estimates (which could be updated during the financial year) followed by a final correction in the following year to reflect final outcomes.

Principal Benefits

Contemporaneity would be much improved.

Full contemporaneity acts to stabilise States' total annual revenues, apart from volatility in total revenue collections across all eight States, which is equally shared across States.

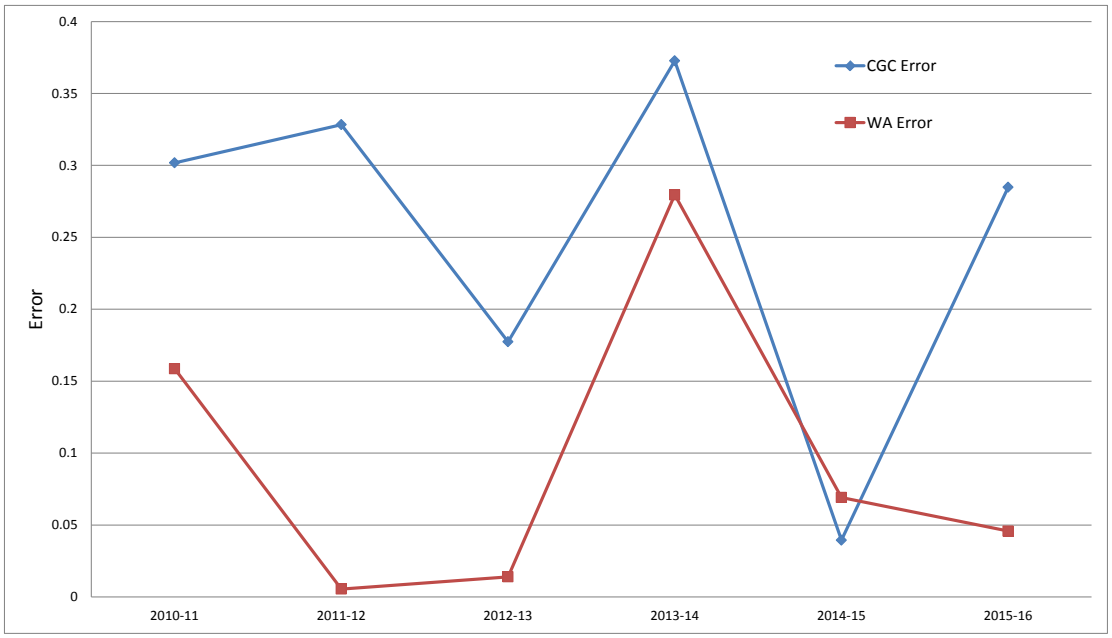
This option does reduce certainty about the GST relativity for the coming years, but that certainty is bought at the price of uncertainty in total revenues.

[4] As noted in Chapter 7, lengthening the data averaging period simply facilitates the transfer of GST time lag impacts to future governments.

The following chart shows that Western Australia's Mid-year Review estimates of its GST relativity for the coming financial year have been a better estimator of the unlagged GST relativity for that year than the CGC's lagged three year average. For example:

- In its December 2014 Mid-year Review, Western Australia's forecast of its GST relativity for the 2015-16 data year was 0.539 and the actual 2015-16 data year relativity was 0.585 (a difference of 0.046).
- In comparison, in its February 2015 Update, the CGC recommended a GST relativity of 0.300 for 2015-16 (based on its forecast based on three previous years of data) (a difference of 0.285 compared to the actual data year relativity).

Chart 8.1: Forecasting Error of Unlagged GST Relativity[5]



Source: CGC and the Western Australian Treasury.

Updating the estimates during the financial year should normally yield estimates close to the final outcome, and any errors would be corrected in the following financial year.

Transparency would also be much improved.

Equity would also be improved, as States that benefit from other States' revenues would also share their volatility.

[5] The unlagged GST relativity for a year is measured as the latest data year relativity calculated by the CGC for that year.