Fiscal Federalism in Australia

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0. Executive Summary

- The purpose of this report is to describe the system of fiscal federalism operating in the Commonwealth of Australia and to discuss the extent to which it could be a model for a new set of relationships between the centre and the localities in the UK.
- The Commonwealth of Australia came into existence when six self-governing colonies federated together in 1901. The same six states, plus two territories which have gained self-government in recent years, comprise the Australian federation today.
- A purpose of Federation was to secure the gains from internal free trade; another was to impose a common external tariff. As customs and excise constituted the most important tax base at the time, these purposes left the Commonwealth in possession of the main tax base. However, the States retained their control over domestic policy. Therefore, vertical fiscal imbalance (VFI) was in the federation from the beginning, and it remains. It is constitutionally very difficult to eradicate.
- Both the resources and the economic interests of the States varied. Between 1901 and 1933, the States whose economies gained least from federation were Western Australia and Tasmania.
- The present arrangements for fiscal federalism, which date to 1933, derive from pressures in these states. The result is a regime which attempts to achieve the highest degree of horizontal fiscal equalisation (HFE) found in any democratic federation. The Commonwealth Grants Commission (CGC), a non-partisan body at arms length from politicians, oversees the regime.
- Since 1933, VFI has become more pronounced because the Commonwealth has monopolised income tax and has recently introduced the first broad-based expenditure tax, known as GST. It has promised to remit the proceeds of GST to the States.
- A recent move by the donor States to query the benefits of the CGC regime has produced a report claiming that equity, efficiency, and transparency would all improve if the regime were abolished.
- Such a change is politically unachievable, because the States that would lose from it would (and can) veto it.
- Nevertheless it raises interesting issues in public finance, which carry over to the UK case.
- An economically efficient system would: minimise perverse incentives, especially incentives to seek rent; encourage states to grow; discourage suboptimal location decisions; minimise transaction costs.
- An equitable system would maximise equity between relevantly similar individuals. Whether equity between States or territories is an appropriate policy target is controversial.
- But (at least) when territories may threaten to secede, equity between States or territories is an appropriate target for policy.
- Aspects of the Australian system that should be copied in the UK include the non-partisan agency and the target of HFE between component parts of the UK.

- Aspects that should be discussed and perhaps copied include the very extensive equalisation, including the feature of equalising away the effects of grants for special purposes.
- Aspects that should probably not be copied include the cumbersome formulae, and some of the perverse methods of calculating for ‘needs’.

Fiscal Federalism in Australia

1. History[1]

The Commonwealth of Australia came into existence in 1901 as the result of a series of conventions and referendums in the six ratifying colonies. In 1933, the Commonwealth created a mechanism for distributing grant from the Commonwealth to the States, which has been widely admired. Several scholars, including myself, have recommended that it be copied in the UK. The purpose of this report is to describe the system of fiscal federalism operating in the Commonwealth of Australia and to discuss the extent to which it could be a model for a new set of relationships between the centre and the localities in the UK.

The units of Australian federalism remain the same six colonies, now the States, plus the two Territories (ACT and NT)[2] which achieved self-government in the 1970s and 1980s. The units are extremely heterogeneous by population and land area, but the most homogeneous of any democratic federation by GDP per head. Although the popular perception, in Australia as elsewhere, of NT is that it is extremely poor, and it certainly contains a massive proportion of extremely poor Indigenous people, yet its GDP per head on the output measure is not an outlier, because of its substantial mineral output. Table 1 contains the basic details.

Table 1. The units of Australian federalism

Unit	Population, 000	Land area, km^2	GDP/head, AUD
NSW	6643	800 640	35 021
Vic	4854	227 420	33 882
Qld	3670	1 730 650	28 790
WA	1919	2 529 880	36 828
SA	1519	983 480	27 639
Tas	473	68 400	24 062
ACT	323	2 360	40 808
NT	200	1 349 130	38 397
Australia	19 604	7 692 030	33 037

Source: Australian Bureau of Statistics website, www.abs.gov.au, various tables,consulted 2.10.02. GDP data (known in Australia as GSP, gross State product) for June 2002. Population for 31.12.2001.

Taxation, tariffs, and fiscal federalism occupied a great deal of time in the Australian constitutional conventions. As in the United States a century earlier, however, the

[1] Facts in this section are from CGC (1983); Garnaut and FitzGerald (2001, 2002), La Nauze (1972), and interviews with Commonwealth and State officials, September and October 2002. Interpretations are mine.

[2] See Appendix 1: Acronyms and Abbreviations

framers of the Australian constitution failed to anticipate future patterns of taxing, spending, and federal-state relations.

Before Federation, the colonies got most of their revenue from customs and excise – 76% in 1896-7. One of the purposes of Federation was to reduce barriers to trade such as State tariffs and railway changes of gauge at State borders. (The second of these has not yet been achieved). What the states lost in revenue from tariffs against each other, they must regain either in common Australian tariffs against the rest of the world, or from some other tax base. The framers spent a great deal of time on the 'Braddon clause' (now part of s.87 of the Australian Constitution), which guaranteed the return of ¾ of federal customs and excise revenue to the States. However, as in other federations, the States were divided in their relative exposure to the world economy, and hence in their median voter preference over tariff policy. The Constitution as drafted failed to carry in referendum in NSW. In subsequent bargaining, the Premiers of NSW and Vic persuaded the other states to restrict the operation of the Braddon clause to ten years, and to insert a new clause (now s.96) empowering the Commonwealth to make grants to the States. All the action in Australian fiscal federalism now takes place under this clause.

The first Australian party system was indeed organised around the cleavage between Protection and Free Trade, these being the first Commonwealth party labels. The free-trading outlier was Western Australia. It was the most reluctant member of the initial federation. As a very remote primary producer with little import-substituting domestic industry, it lost out twice over from the switch from State to Australia-wide tariffs. It faced tariffs on its inputs and did not benefit (indeed, stood to suffer in the event of international retaliation) from tariff protection for its outputs. The other State in a comparable position was Tasmania. Not surprisingly, the Commonwealth Grants Commission and its initial ideology came from these two States.

The Great Depression exacerbated WA's relative position, and in a 1933 referendum its voters voted by a margin of 2 to 1 to secede from the Commonwealth. This induced Prime Minister Joseph Lyons (to date the only Tasmanian to hold that post) to legislate for a statutory commission to report to the Governor-General [i.e., the Executive] on any application from a State for financial assistance under s.96 of the Constitution. The CGC was accordingly constituted in the same year. Its intellectually dominant force was L.F. Giblin, another Tasmanian, former adviser to Lyons (and England rugby international, despite having been born and brought up in Tasmania). Giblin was a statistician who took an egalitarian view of the CGC's mandate in the face of objections from his chairman, who believed that this was to expand the CGC's role beyond its statutory duty to report on claims by States in difficulty. The two conceptions of the CGC's role both appeared in early statements, allowing modern commentators to pick an 'ideology' of the CGC to suit their present-day argument. On the egalitarian side, the CGC's First Report stated that 'It seems, therefore, to be unavoidable to use as some measure of disability the financial position of a State'. Successive statisticians, the most important being Giblin himself and R. L. Mathews, an academic economist who became a Commissioner in 1972, elaborated formulae for evaluating 'disabilities'. By Mathews' time it had become explicit that a State suffered a disability (which could be negative) if its revenue capacity differed from the mean revenue. It also suffered a disability (again, possibly negative) if the cost of delivering services differed from the mean, for reasons such as remoteness, congestion, or differential prices of wages or supplies. This approach implied that revenue and expenditure relativities must be measured across all States.

The more limited conception of the CGC's role was embodied in its Second Report, which stated that 'the only ground for … assistance is the inability to carry on without it…. Some States are certainly in serious financial difficulties. It must be made possible for them to function as States of the Commonwealth at some minimum standard of efficiency' (quoted in CGC 1983, p. 36). On this conception the CGC should enquire explicitly only into conditions in claimant States, although implicitly even this necessarily involves comparison with the rest; and any special grant available only to claimants means by definition less grant available to non-claimants.

Over the history of the CGC, the Giblin/Mathews interpretation seems to have prevailed more often than not. This has led the CGC to adopt successive, quite egalitarian, statements of the principle of horizontal fiscal equalisation (HFE). In 1936 its formula ran:

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

The most recent version runs:

> each State should be given the capacity to provide the average standard of State-type public services, assuming it does so at an average level of operational efficiency and makes an average effort to raise revenue from its own sources. (Source: www.cgc.gov.au, consulted 02.10.2002)

Critics allege that the CGC has been surreptitiously making the formula more egalitarian over the years without statutory warrant. Its defenders reply that the CGC is entirely open about its formula, and that it would be open to States at any Premiers' Conference, or at the Intergovernmental Conference specially convened to discuss fiscal federalism in 1999, to raise the issue. The formula is indeed non-statutory, although the 'not appreciably below' wording was for a time statutorily embodied in the Grants Commission Act 1973. The Commission states that replacing 'not appreciably different' by 'the same' was approved by all the States in 1977 (CGC 2002b, paras 10-11).

The staffing of the Grants Commission has grown proportionately to its tasks. In the 1930s it had essentially only a secretary and clerical staff. It grew steadily after World War II, especially under the Whitlam Labor administration (1972-5), when it was tasked with making grants to local government as well as to the States. That task was removed by the succeeding Fraser administration in 1976, when each State had to appoint a State Grants Commission to perform the task at that level.[3] The secretariat,

[3] But the Commonwealth Minister for Local Government may override the recommendations of a State Grants Commission, and has done so at least once. It has the power to do so because grants 'through' the States to local authorities are special purpose

according to the Commission's website, currently numbers about 55. If a body doing the same job for the UK had to be staffed pro rata to population, it would therefore need about 150 staff. The CGC's assistant secretary, however, believes that staff numbers are a function of the level of detail required for assessments, their frequency and the quality of the available information, and that therefore the UK body to fulfil the same function need only be about the same size as the CGC (personal communication from M. Nicholas, 21.10.02).

2. VFI and HFE in Australia

From the outset, Australia has had a substantial vertical fiscal imbalance (VFI). The States have always had more line responsibilities than the Commonwealth, but the Commonwealth has always controlled more of the tax base. In the beginning, the States handed control of customs and excise, then the principal tax base, to the Commonwealth. This was inevitable, given the framers' conception of Australia as an internal free trade area surrounded by a common external tariff. Both limbs of this policy required the Commonwealth to be the taxing authority. However, the States did not concede to the Commonwealth the domestic policy areas that they had already, as colonies, been running for decades. The Australian Constitution is difficult to amend, requiring high multiple thresholds. The financial clauses have never been amended, and therefore they remain the framework into which all VFI (and HFE) arrangements must fit.

It was therefore inherent in Australian federalism that some body must transfer the surplus revenue raised by the Commonwealth to the states. This was done in ad hoc ways until the creation of the CGC. Note that although the CGC (and its critics) have always seen its role as one of securing a greater or lesser degree of HFE, the purchase for that role, and the need for some body such as the Commission, both arose from VFI. Wherever VFI exists (as it does, notably, in the UK), there must be a body or mechanism to make the required transfers. That body may or may not also attempt to achieve HFE.

VFI, measured as the States' ratio of Commonwealth grant revenue to total revenue, was just below 0.4 at Federation. It declined to a little above 0.1 in 1939, soared during the Second World War and the foundation of the welfare state, peaking at 0.6 in 1959. It declined unsteadily to below 0.4 in 1999 but will now rise again due to the new arrangements for GST, discussed below.

The biggest change in Commonwealth-State relations was that the Commonwealth took over income tax from the States in 1942. The switch was supposed to be for the duration of the war only, but it has proved permanent. The Constitution is silent on the respective rights of States and Commonwealth to levy income tax, so that the outcome has been a combined function of politics and the courts. In the bipartisan welfarist climate of the 1950s and 1960s, retention of the income tax power at

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payments, which gives the Commonwealth the opportunity to impose conditions on how it is. The conditions that are imposed are that the payments are passed to local authorities and that equalisation and some other specified principles are employed in the allocation to the local authorities.

Commonwealth level was uncontroversial (except among the State governments). When States tried to reassert their power to tax, the Commonwealth legislated to reduce its grants dollar for dollar to any State that did so. The High Court, whose judgments on these matters have been consistently pro-Commonwealth, upheld the constitutionality of the *de facto* Commonwealth monopoly of the income tax base.

The next critical Court intervention came in 1997, when it outlawed State 'franchise fees'. These had been a disguised form of excise on alcohol and tobacco, but the Court held that they were indeed an excise and hence constitutionally the province of the Commonwealth only. The Commonwealth agreed to increase its excise taxes and return the proceeds to the States, thus necessarily increasing VFI.

The Commonwealth introduced a goods and services tax (GST, functionally equivalent to a VAT) in 1999. This had been extremely controversial, and Australia was one of the last mature democracies to introduce a broad-based expenditure tax. As a side-payment to the States, the Commonwealth agreed that the whole proceeds of GST, net of the cost of collection, would be remitted to the States. GST is a more robust tax base than those it replaced, and its yield is expected to grow in real terms in line with the growth of GDP. Otherwise, the promise to remit the net proceeds is not a binding constraint, as the Commonwealth makes transitional grants (shown as 'budget balancing assistance' in Table 2) to ensure that no State is worse off than under the previous arrangements.

GST introduces a new political factor and a new psychological factor. The GST, in conjunction with the political make up of the Commonwealth and the State Governments, has largely removed debate about the size of the untied assistance from the system. (Currently the Liberal-National coalition controls the Commonwealth government, and the Australian Labor Party controls all eight States and territories). It is clear to all that the amount of assistance depends on the revenue from the GST and the States have a strong input into the rate of that tax and its collections. It would be interesting to see how the Commonwealth would react if all States agreed to a higher rate of GST - they have to agree and it has to pass through the Federal Parliament. The main way States can increase their untied grants is to reduce those of other States and the zero-sum nature of the game has become explicit.

Psychologically, State actors can plausibly say, *It is our money, raised from our taxpayers. We want our money back* – either in the form of a distribution according to the amount of GST raised, or an equal per capita (EPC) distribution. The CGC does neither: because of its strong version of HFE, it returns GST proceeds in such a way as to ensure that gross Commonwealth grants to the States (i.e., the sum of tied and untied grant) satisfy its HFE criteria.

As the welfare state developed, the Commonwealth wished more and more to intervene in policy areas that were constitutionally reserved to the states. The scope to do so by constitutional amendment being extremely restricted[4], it did so by tied

[4] A constitutional amendment requires at least: an absolute majority in both houses of the federal parliament, and support in State referenda amounting to both a majority of States and a majority of votes cast. Only eight amendments have succeeded since 1900. Only one of these (namely the 1946 amendment to s.51, sponsored by the Chifley Labor government to

grants, known in Australia as special purpose payments (SPPs). An SPP offers a grant to a State in a policy area that is constitutionally in the State's domain, but with Commonwealth conditions attached. By financial year 2002/3, SPPs constituted AUD22bn of the total AUD54bn (i.e. 40%) of the volume of Commonwealth grants (Table 2).

Table 2 Commonwealth payments to State and local government, 2002-03

	AUDm
GST payments	29380
Budget balancing assistance	1741
Other untied grants	755
Subtotal: untied grants	*31876*
SPPs to States	15827
SPPs 'through' States to other bodies (e.g., private schools)	5491
SPPs to local government	332
Subtotal: tied grants	*21650*
Grand total	53526

Source: Adapted from Garnaut and FitzGerald (2002), Table 3.1

In pursuit of its Tasmanian conception of HFE, the Grants Commission has developed a very detailed set of procedures for equalising both revenue capacity and expenditure disabilities. Péloquin and Chong (2002) have heroically overcome as many data limitations as possible to derive the data presented in Table 3, which show that Australia has the most egalitarian equalisation regime of any democratic federation. The column entries in Table 3 are population-weighted standard deviations of fiscal disparities measured in $US per capita at purchasing power parity. The exclusion of Australian local government does not seriously degrade their data because it is small and weak.

give the Commonwealth broader powers in the field of social services) extends the Commonwealth's powers of service delivery.

Table 3. Overall magnitude of revenue capacity and expenditure need disparities in selected federations, population-weighted standard deviations, $US per capita at PPP.

Federation and year		Pre-equalisation	Post-equalisation
Australia 2000-01 (excl. local govt)	Revenue	$136	$0
	Expenditure need	$303	$0
Germany 1999 (incl. local govt)	Revenue	$463	$142
USA 1996 (incl. local govt)	Revenue	$392	$392
	Expenditure need	$482	$482
Canada, 2001-02 (incl. local govt)	Revenue	$1020	$640
Switzerland, 1999 (incl. local government)	Revenue	$1510	$1175

Source: Derived from Péloquin and Chong (2002), Table 2.

Table 3 shows that Australia is the only federation in Péloquin and Chong's set that attempts to equalise for expenditure need, although it has the smallest disparities before equalisation. The next most egalitarian federation is Germany. The USA, which does not attempt to equalise, nevertheless has smaller population-weighted standard deviations than Canada, even after the Canadian equalisation process.

To an outsider, the two most startling features of the CGC equalisation regime are: (i) that it equalises away the effects of tied grants and (ii) that its expenditure assessment walks like a regression model and talks like a regression model but is not a regression model. These issues are discussed in Section 3.

Table 4 introduces the CGC's mode of operation.

Table 4. Contributions of needs to grant shares, 2002-03 (all entries are AUD per capita)

		NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Per cap share of GST pool	*a*	1848	1848	1848	1848	1848	1848	1848	1848
Needs adjustments:									
Revenue	*b*	-156	69	63	-225	336	579	272	148
Expenditure	*c*	-48	-338	-69	357	29	457	340	6320
SPPs	*d*	33	27	29	-176	-4	-10	-20	-465
Total	*e=b+c +d*	-172	-242	23	-43	361	1026	283	6003
Grant entitlement	*f=a+e*	1676	1606	1871	1805	2209	2875	2131	7851
Relativity	*g=f/a*	0.906	0.868	1.012	0.976	1.194	1.554	1.152	4.245

Source: Garnaut & FitzGerald (2002), Table 4.1 Cf also CGC (2001), Table 1, (2002a) Table A-10.

To understand Table 4, it is helpful to read it first across and then down. Row *a* shows the mean per capita amount available from GST, after costs of collecting it have been deducted. Row *b* is the CGC's calculation of the states' revenue disabilities. A positive sign implies a positive disability. As expected, two of the three donor states have negative signs (NSW because of a buoyant housing market and WA because of mineral wealth, both of which create healthy tax bases). The most unexpected number in this row is the high positive disability of the ACT, which is a high-income area. The reason is constitutional. Under the Constitution (s. 114), the States and the Commonwealth may not tax one another's property. As the largest employer and property-holder in ACT is the Commonwealth, the territory's payroll and property tax base is to that extent disabled.

Row *c* of Table 4 summarises the Commission's heavy lifting. It is the end product of an extremely detailed process of examining the cost of delivering public services, and the quantity of services required to enable each citizen of each State to be provided with public services to the level of the average of similarly placed citizens in all States. The Commission is at pains to insist that it compares like with like. In all states the quality of public services enjoyed by remote rural dwellers is below that enjoyed by city dwellers. The comparability exercise is not designed to produce equality of access and of services for all citizens of Australia, but only to ensure that a rural citizen of NT has comparable outcomes to a rural citizen of NSW, and an urban citizen of NT to an urban citizen of NSW. This row therefore gives huge per capita weighting to NT, and shows significant positive disabilities in WA (remote) and Tas (small and poor).

The next row(row *d*) is to compensate for the effects of SPPs. A negative sign means that the State receives above average SPP payments per capita; a positive sign means that it receives below average SPP payments per capita. Row *e* is simply the sum of the three above, and it gives the net difference for each State from an EPC distribution. From this are derived the absolute (row *f*) and relative (row *g)* per capita payments to each State.

Two remarks:

i. The outcome is not well aligned with GDP per head, but the Commission insists that it is not designed to be. Critics of the system point in particular to the high net grant per head to ACT, which is a high income area. The CGC retorts that the grant reflects what actually affects the financial capacities of State governments, given the services States in general provide and the revenues they raise. GDP or household income per head do not themselves affect State budgets.

ii. SPPs are fully equalised away. This prompts a number of questions, such as: in that case why does the Commonwealth bother to make them? And why do States bother to accept them? I return to these questions in Section 3 below.

3. (Mostly) Australian criticisms of the system

Once any system such as the CGC's has been instituted, changes to it are a zero-sum game. It is therefore not surprising either that fierce criticisms of the operation have been made from time to time, mostly by people in donor states, nor that the operation has nevertheless continued without substantial change. It happens that one of the fiercest assaults is currently under way at the instigation of the three donor States, namely NSW, Vic., and WA. They commissioned the Review (Garnaut and FitzGerald 2001, 2002), whose data are used copiously in this report. For most of the history of fiscal federalism in Australia, there have been only two donor states, namely NSW and Vic: WA has recently joined them because of its buoyant mining royalty tax base. One lucky consequence of the controversy is that a volume of high-quality research is under way. This section attempts to summarise the state of play. Most of the criticisms below emanate from Garnaut and FitzGerald (2002) and their supporting studies, viz., Dixon et al 2002 and Harding et al. 2002. However, for convenience we add two criticisms mentioned above but not yet elaborated: viz., that the CGC model overequalises to the extent that there is no point in having SPPs at all; and that it produces an almost-regression model without going what may appear to be the logical final step to an overt regression model.

Garnaut and FitzGerald fault the system on three grounds: equity, efficiency, and transparency. I group the criticisms under these headings.

3.1 Equity

Garnaut and FitzGerald insist that the primary test of equity is the vertical distribution of income. A government's policies are equitable to the extent that income per head is more equal after government intervention than before it. Therefore, in any democracy including Australia, the primary engines of equity are the personal taxation and social security systems.

A secondary test is horizontal equity, which may be judged in at least two different ways: equity among States and equity among individuals. In their Executive Summary, Garnaut and FitzGerald say plainly: '[T]he concept of equity among States has no meaning; equity must relate to outcomes for individuals and households'. In their detailed discussion they are more nuanced:

> In the early decades of the 20^{th} century when … secession was considered a realistic alternative to continued membership of the Federation in some States at some times, intrinsic horizontal equity among States was probably seen as more important than it is today. Other conceptions of horizontal equity, in terms of similar treatment of individuals and households in similar circumstances wherever they live in Australia, have become relatively more important more recently (Garnaut and FitzGerald 2002 pp. 2, 123).

Whether or not horizontal equity among subnational units in the UK (e.g., the devolved authorities and the Government Office Regions of England) has meaning, or is an appropriate policy target, is considered in Section 4 below.

Harding et al (2002) modelled the vertical equity effects of moving from the current CGC regime either to one in which GST proceeds were distributed on an EPC basis, or to one in which they were returned to states in the proportions in which they were originally raised. Their data come from sample surveys and are thus, as they warn, subject to sampling and to non-sampling error. There must also, as they warn, be considerable doubt as to how one should assign the income that households at different income levels derive from State provision of such semi-public goods as roads and transport. With all these qualifications, their negative results are nevertheless interesting (Table 5). The data in Table 5 are for households. If calculated for individuals, the pattern is exactly similar.

Table 5. Gini coefficients for equivalent household income measures under the current system, EPC, and State of origin scenarios, 2000-01.

	Current system	Equal per capita	State of origin
Equivalent private income	0.520	0.520	0.520
Equivalent Federal income	0.297	0.297	0.297
Equivalent SPP income	0.271	0.271	0.271
Equivalent final income	0.252	0.251	0.252

Source: Adapted from Garnaut and FitzGerald 2002, Table 9.1

A Gini coefficient of 1 denotes perfect inequality; one of 0, perfect equality (of post-transfer income, in this case). The rows of Table 5 are to be read as follows. The first row measures the inequality of private household income in the Harding (2002) survey, before tax and transfers. The second row measures the inequality of private household income, after adding 'Commonwealth own-purpose expenditures with personal benefits attributable to households, minus the imputed value of Commonwealth taxes paid'. The third row shows the effect of adding the 'imputed value of all SPPs delivered to and through the States and all other revenue assistance, but excluding GST-financed revenue assistance, which is allocated by the … CGC'. The purpose of this is to try to isolate the 'CGC effect', which appears in the fourth row.

Accordingly, the columns of Table 5 do not differ in the first three rows. They show that personal taxation and transfers do the heavy lifting of vertical equity, and that services provided via SPPs add a modest amount more. The payload comes in the fourth row. This gives the Gini coefficients for all income sources measured in the study, namely those counted in the first three rows plus the CGC distribution of untied grant. Even though the CGC uses strong criteria of HFE, the fourth row of Table 5 shows that inequality as measured by the Gini coefficient would not increase if GST revenue were distributed on either the EPC or the State of origin bases.

How can this be? To understand how this striking and counter-intuitive result arises, note that the Gini coefficient is measured across all pairs of Australians in the survey. It cannot capture the specific State effects. If, as Garnaut and FitzGerald argue, equity is wholly an interpersonal and not at all an interstate concept, this is appropriate. But this begs the question. Either of the two changes would have severe adverse consequences for the people in two small states, Tas and NT. Switching to an EPC basis, for instance (which Garnaut and FitzGerald recommend), would cost each Tasmanian about AUD 900 p.a and each Northern Territorian about AUD 5000 p.a. The latter number is of the order of 13% of GDP per head in NT. Switching to a State of origin basis would cost each Tasmanian about AUD 1500 p.a. and each Northern Territorian about AUD 5700 p.a. (Harding 2002, Fig. 3). That these dramatic numbers do not raise the overall Gini coefficient reflects the small size of these two states. The exercise shows that whether a State as such is an appropriate target of horizontal equity is a vital policy decision. If not, the CGC regime is inappropriate; if so, it may be appropriate.

Garnaut and FitzGerald have a further complaint, one echoed by numerous critics of the regime. The CGC assesses needs for expenditure in exquisite detail. But the federation has no way of ensuring that the States spend the money on those services which have given rise to their needs assessments. It is a stylised fact in Australia (that is, I do not know whether it is true, but I know that it could be true) that the NT gets huge weighting in its assessed expenditure needs for its high Indigenous population, but it spends most of its net revenue from GST in Darwin. It is, of course, in the nature of untied grants in a federal, or even a devolved, system, that the grantor cannot attach such conditions. In the UK, policy must assume that Scotland, Wales, and Northern Ireland will continue to be financed by block grant as long as they remain devolved authorities (and *a fortiori* if the UK becomes a federation). Loss of control by the centre of the subunits' spending is a necessary and intended consequence of either devolution or federalism.

3.2 Efficiency

There are various grounds on which a grant system that equalises for expenditure disabilities might be economically inefficient. The most important are:

- that grants which compensate for high costs of provide services in remote (or, conversely, congested) areas encourage factors of production to stay in, or move to, such areas, when it would be more efficient if they moved to, or stayed in, cheaper areas (Scott 1952);
- that there are deadweight administrative costs in managing the system of fiscal transfers;
- that the system encourages actors to seek rents rather than to seek efficiency;
- specifically, that it discourages efficiency-seeking agents in the States who realise that State gains from efficiency will be taxed or equalised away from them; and
- that it encourages an excessively large public sector in recipient states – this last being known in the literature as the ‘flypaper effect’.

Dixon et al. (2002, p. 1) estimate that

> A move from the present system of Commonwealth grants to an equal-per-capita basis would be likely to increase Australian welfare by between $150 million and $250 million a year…. A move to a State-of-origin basis for Commonwealth grants would generate a welfare gain of about $280 million a year…. The main mechanism underlying our results is the idea that the governments of States that are heavily subsidized under the present system (the Northern Territory, Tasmania and South Australia) make spending and tax decisions that are not closely in line with the preferences of their households. This is an example of the well-known flypaper effect…. The evidence that the flypaper effect is at work is that the heavily subsidized States have high per capita expenditures on State government services.

This study has been heavily criticised, and neither side in the current debate between policymakers places much weight on the possible savings of $150-250 million a year (source: interviews with Treasury officials, Commonwealth, Vic., and Tas, Sep-Oct. 2002). The critics have not produced evidence of cases where the system has discouraged efficiency, nor of the flypaper effect. As the study and its criticisms are highly relevant to the debate in the UK, I detail the most telling criticisms.

The first criticism is that Dixon et al beg the question. They *assume* a flypaper effect, and hence input to their model an assumption that State governments in claimant states are too large. This generates as output the proposition that savings could be made from moving to an EPC distribution. This move would force State governments to curtail their activities (severely in Tas and NT). But they do not *prove* a flypaper effect. If the size of government in the claimant States actually accords with their citizens’ preferences, then the input disappears, and the result with it.

The second criticism (cf Brennan and Pincus 2002) is that Dixon et al both confuse different definitions of efficiency and fail to distinguish between what Brennan and Pincus call a ‘reform’ and a ‘design’ perspective. The two points are linked. A ‘reform’ perspective studies an existing set of arrangements; a ‘design’ perspective attempts to design arrangements from the ground up. (The former is appropriate to policy discussion in Australia; the latter in the UK). The existing Australian arrangements involve strong protection of small states, which is built into the Australian constitution. Without this protection, the small states would not voluntarily have joined the Federation, and there would have been no Federation of the form that exists at present.[5] The definition of 'efficiency' under which Dixon et al's efficiency gains could be realised is not the standard welfare-economic definition of a Pareto improvement (maybe after compensation). Rather, it implies that Tasmanians and NT citizens would each lose welfare substantially, while Victorians and NSW citizens would in aggregate gain more than the losers would lose. It does not, however, inquire what price the losers would demand for moving to Sydney or Melbourne.

The dynamic efficiency disadvantages of the CGC regime are impossible to quantify since they depend on unmeasurable counterfactuals. A number of submissions to the Garnaut-FitzGerald review (notably Court 2002; Tasman Economics 2002) complain that the regime inhibits States from promoting economic development (or, more generally, growth-friendly policies), if they rationally anticipate that the proceeds of such development will be equalised away from them. State officials incur fewer political costs if they seek rents than if they seek growth. An obvious form of rent-seeking is to exaggerate one's disabilities. It is a piece of CGC lore that States never invite the Commission to visit their prosperous communities.

The point cannot be quantified but it is extremely important for institutional designers, in the UK or anywhere else. Fundamentally, it concerns the marginal tax rates faced by subnational politicians. If the marginal tax rate is 100% or higher, the arguments of Court and Tasman Economics have great force. If it is below 100%, then a State is in the same position as an income tax payer who faces a positive marginal tax rate greater than zero but below 100%. Some but not all of the possible growth-promoting things a State may do will be done.

In a federal system such as Australia, any State growth of this sort faces a high marginal tax rate. But to a large extent that is a consequence of VFI rather than of HFE. As a State contains, at maximum, 33% of Australia's population, it cannot rationally expect more than its population share of any returns from growth.

This criticism implies that the CGC regime may be too egalitarian for economic efficiency. On the revenue side, it equalises fully for States' disabilities. Recall that these may be negative. If the effect of WA's increasing mining production (assuming, for the sake of argument, that this increase was due to the policies of the WA government) is to broaden its tax base, but this then attracts a pro rata decrease in the State's disabilities, then indeed it faces a marginal tax rate of 100%.

A related issue concerns the CGC's practice of fully equalising away the effects of SPPs (see Table 4, row *d*). Why then does the Commonwealth offer them? And why do States accept them if they come with attached conditions that may displease the State? (Note that at the time of writing the Commonwealth Government is Liberal/National, whereas Labor governs all eight States). The answers seem to involve:

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[5] A Realist might object that, just as in the USA the small states of Delaware and (ultimately) Rhode Island had no choice but to join the Union because they could not exist viably outside it, so WA and Tas had no real choice but to join the Federation on the terms available in 1900. Such an objection ignores historical contingency: most importantly, that Australia had not won a war against the UK and therefore that the Constitution had to be ratified by (indeed, took the formal shape of an Act of) the UK Parliament. This gave each Australian state in 1900 a stronger veto than each American state in 1787.

- the five-year rolling average used by the CGC;
- time horizons;
- the political incentives facing politicians and line-department bureaucrats; and
- inadequate information.

As the CGC operates on a rolling average of five years' data, each year determining a new relativity (i.e., a new value for the vector of weightings in Table 4, row *g*), there is a lag in the equalising away of SPPs. The full five-year lag is always longer than the time to the next Commonwealth election *and* the next State election. Commonwealth elections must be at most three years apart (Constitution, s.28) and State elections may never be further than four years apart[6]. Therefore, even if (which is doubtful) politicians understand the CGC's equalising-away procedures, they may rationally support SPPs.

SPPs may be good for credit claiming. The same sum of money can be claimed twice, by Commonwealth and by State politicians. As State elections cannot coincide with Commonwealth elections, the public may not detect the double counting. An SPP may also represent a coalition between the line departments of the Commonwealth and the State(s) that oversee the function in question. Both gain from earmarking the grant to their function against their respective Treasuries who may wish on 'whole of government' grounds for more flexibility in funding.

Finally, few politicians in Australia appear to know how the CGC regime works. In Australia, as in other bicameral systems, politicians who wield vetoes over policy, especially in the Senate, can block government action unless they get a pay-off for their State. Politicians would not do this so energetically if they realised that any pork they get by this means can be equalised away by the CGC regime over a maximum of five years.

3.3 Transparency

Critics complain that the CGC regime is both data-heavy and opaque. As to transparency, the CGC retorts that it is utterly open about its methods, putting thousands of pages of documents on the Web and publishing over 2000 pages of hard copy data every year. But some of its data, and its manipulations of data, are very hard to see through.

The heroic attempt to assess expenditure need for every service in every State demands voluminous data, much of which is supplied by the Australian Bureau of Statistics. It also involves numerous judgment calls. I give one problematic example of each.

The proportion of Indigenous people in the population is a powerful driver of needs assessments. It is well known that Indigenous people suffer poor health, poor education, and dramatically lower life expectancy than non-Indigenous. Accordingly, all needs formulae have a heavy weighting for Indigeneity. *But who is Indigenous?*

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[6] The maximum time between state lower house elections is either three or four years. Source: various State Electoral Commission or Parliament web sites.

The data source for the Indigenous proportion of the population is the Census, where Indigeneity is self-reported. Several interviewees put to me that self-reporting exaggerates the Indigenous share of the population in Tas (where at 3.7% it is the second-highest of any State), and simultaneously depresses it in NT. The reasons for the first are unknown. The reason for the second is the difficulty of finding the entire population in extremely remote areas, where some of them may be away from their settlements for long periods of time. But there is no realistic alternative to self-reporting. Attempts by the official peak organisation of Indigenous people, ATSIC, to determine authoritatively who is and who is not Indigenous are currently ending in tears and the courts – an outcome which is probably inevitable. So a powerful driver of need in each state is a number which must remain quite unreliable.

The following anecdote is illustrative only, as the interstate allocation of Commonwealth assistance for local authorities does not contain a weighting for Indigeneity. However, the Tasmanian State Grants Commission asked each of its local councils to report on any extra costs that they incurred by virtue of their Indigenous population. The only council which reported that it incurred any also said that they were fully met through ATSIC, therefore the State Grants Commission made no grants weighted for Indigeneity (Interview, Secretary, Tas State Grants Commission, 02.10.02).

How do you determine objectively the expenditure need for schools? Data exist, of course, to establish the school-age population in each State, the proportion of them who stay on beyond the minimum school-leaving age, and the proportion who attend private schools. Australia makes SPPs ‘through’ States to private schools. If a State has an above-average proportion of students who leave at the first opportunity, do you raise its grant to enable it to improve its human capital, or reduce its grant because it incurs lower costs? If a State has an above-average proportion of students in private schools, do you raise its grant because they incur higher costs per head, or reduce its grant because the State is not educating them? The CGC formulae reduce grant in the first case and raise it in the second, but in each case a good argument from equity, efficiency, or both, could be made for doing the opposite.

Finally, the not-quite-regression procedures of the CGC are opaque. Péloquin (2002) has attempted to describe them for the benefit of his colleagues in the Privy Council Office, the Canadian department responsible for intergovernmental relations. The needs factors used in the CGC regime are a mixture of demographic and other drivers. Demographic features in the model include age, sex, prevalence of low income, of rurality, of Indigeneity and of non-Anglophone families. Other features include scale economies, dispersion, wage costs (when not directly affected by government policy), and cross-border spillovers (the last relatively minor in Australia with its huge distances and small population).[7] The CGC empirically determines the size and direction of the effects. Note that if (e.g.) low income reduces demand for a service, the CGC assesses that as a lowering of need for that service. This of course has the

[7] Probably the only borders where spillovers matter are: between ACT and NSW, which completely surrounds it; between NSW and Qld for a few km inland from the coast; and between NSW and Vic at the river bridges which form the main interstate crossings. The relative unimportance of these spillovers means that I found no discussion in Australia of the distinction between (in UK terminology) expenditure ‘in’ a State and expenditure ‘for’ it.

effect that if low-income Australians use a particular service least, the grants mechanism gives most money to those States with the fewest low-income citizens. Consider what are technically labelled as ‘superior’ goods, such as opera houses, which are consumed more by higher-income groups. The CGC’s methodology implies that the higher the per capita income in a State, the more it ‘needs’ funding for its opera house.

The CGC is very sensitive to interactive effects. Poverty and Indigeneity both increase demand for, and per capita cost of, health and welfare services. Poverty and Indigeneity are, of course, strongly correlated. The standard method of dealing with this problem in regression analysis is to enter both of the two predictors *and their interaction* into the model, with the intention of measuring the interaction effects as well as the direct effects. As the CGC eschews regression, it is forced to take elaborate, unreliable, and awkward steps to avoid double counting. These are explained in some detail in Péloquin 2002.

But why not simply use a regression model, in which the problem of interactions would be much more tractable? One objection would be that a regression model with only eight cases would be unstable. The same objection is made by those who wish to fend off alternatives to the current Barnett method of assigning block grants to the UK devolved authorities (Midwinter 2000, 2002). Quite rightly, Midwinter argues that one should not use a regression model with only four cases – although he seems to think that this absolves him from considering other alternatives to the current UK block and formula arrangements.

The CGC’s own objection is different. It is that it does not wish its model to be an impenetrable ‘black box’. It believes that to use a regression model would reduce its transparency. It does use regression models as a check on the outcomes of its expenditure formulae.

One problem common to the CGC regime and the English Standard spending Assessment (SSA) regime is how to avoid perverse incentives for units to become, or remain, inefficient. If the cost of providing a service is estimated from the costs that the existing States (respectively, local authorities) have incurred in providing it, the perverse incentives are obvious. In the UK, the Government has called this the problem of ‘regression against past spending’. The CGC is also sensitive to the issue, as it tries to weight for only those costs which governments cannot change – e.g., those deriving from climate or sparsity of population. But in any regime it is difficult to segregate those drivers of costs that governments can do nothing at all about. Governments can affect even sparsity of population.

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4 Lessons for the UK

It is widely accepted that the UK arrangements for both VFI and HFE need urgent repairs. It is unnecessary to rehearse the problems in detail as they are well known to readers of this report (but see Heald and Geaughan 1996; *New Economy* June 2000 (the whole issue); McLean and McMillan 2002). But they include the following:

- Completely different regimes cover the three DAs on the one hand and England on the other.
- The Barnett regime can be expected to converge on EPC, which is very unlikely to be the appropriate policy for any of the three DAs, all of which have above-average expenditure needs.
- The Barnett regime makes incremental block grant to each DA a function of incremental expenditure in England, a number over which it has no control.
- Conversely, it allows DAs to vire between capital and current spending at will, with possible consequences for HMT's Golden Rule over which HMT has no control.
- Over the 12 standard regions of the UK, public expenditure per head has a zero statistical relationship with GDP per head, rather than the expected statistically significant inverse relationship.
- There is a particularly painful juxtaposition between Scotland and the North-east region of England. Scotland has substantially higher GDP per head but also substantially higher public expenditure per head. Lord Barnett has repeatedly called this juxtaposition 'terribly unfair'.

Does the CGC regime have any relevant lessons for the UK?

4.1 Features to copy

Probably the feature of the CGC regime which is most attractive to UK commentators (cf Heald and Geaughan 1996, McLean and McMillan 2002) is that it is a non-partisan agency immune from political manipulation. Although it reports to the Commonwealth Department of Finance, it is independent of both that and the Commonwealth Treasury. There are good grounds for saying that the UK arrangements for addressing VFI and HFE are too close to the centre of UK government, being integral functions of HMT (for the DAs) and the ODPM (for England). As financing the DAs is an intergovernmental concern, it should be a function of an intergovernmental body. A UK Territorial Grants Commission should be a non-departmental public body, not under the line management of any UK or DA department. Its Commissioners should be appointed by agreement between the UK Government, the DAs, and the English regional chambers or assemblies. Its Secretaryship should be a publicly advertised fixed-term appointment. Its staff should be a mixture of secondees from HMT, ODPM, ONS, the DAs, universities, and other appropriate organisations (both public sector and private sector).

The CGC regime is usually consensual within Australia, although it is currently more controversial than it has been for some years. But to dislodge it would require the unanimous support of all eight States and Territories. If a comparable body is created in the UK, it too should be constitutionally embedded as deeply as possible.

4.2 Features to discuss

Is equity between states an appropriate policy aim? Translated to British terminology: should policymakers care about equity among the four units of the United Kingdom?

Should they care about equity among the 12 standard top-level statistical units (i.e., the three DAs and the nine Government Office regions of England?)

In my view, policymakers must consider equity among the four units of the UK. One very powerful reason is that the people care (some of them, at least), and the people elect the UK government. Even Garnaut and FitzGerald (2002) concede that equity among States is policy-relevant when there is talk of secession. There has been talk of secession by Northern Ireland since it was created, and by Scotland since the 1960s. The greater transparency of UK fiscal federalism since devolution has meant that more people have noticed apparent inequity. Scotland has higher GDP per head than six of the English regions, and yet it also enjoys higher public spending per head than any of the six. Joel Barnett has repeatedly called this 'terribly unfair': one of the occasions for this being a House of Lords debate that he initiated on his eponymous formula. The Barnett genie is out of the bottle.

Another reason, at least for a government of the (Centre-)Left, is that equity between regions may be a precondition for horizontal equity between people. It is reasonable to ask that the quality of treatment a citizen gets from a public service should not be significantly worse in one standard region than another. That is why the most egalitarian of Labour's great politicians, Aneurin Bevan, was the most bitterly opposed to devolution. Devolution is a fact, and it neither will nor should be reversed. The challenge to policymakers is therefore to placate the shade of Nye Bevan without dismantling devolution. This implies ensuring equity among the four units.

Although the regions of England do not (yet) have elected governments, the argument for equity among all 12 units is almost as strong as the argument for equity among 4. Both the 'popular demand' and the 'equal quality of service' arguments have some force here.

This implies that it is reasonable for the UK to consider a strong HFE regime like the CGC's, which coexists with Australian federalism

Should a UK grants commission go as far as the CGC does in equalising away the effects of payments for special purposes? There is a strong but not overwhelming case for doing so. What sort of payments for special purposes exist in the UK system? Everything that falls in the Annually Managed Expenditure (AME) totals for the three DAs (i.e., that lies outside their Departmental Expenditure Limits - DELs) can plausibly be regarded as a special purpose payment. The largest of these is agricultural support under the Common Agricultural Policy. There are good efficiency and equity grounds for equalising that away. Other, one-off, examples include the additional support to Wales in respect of EU Objective One, and various peace-related programmes in Northern Ireland. There is a good public finance argument in favour of equalising these away; but it would be politically unpopular. Any equalising away should be over a period of years, as it is in Australia.

4.3 Features to avoid

The CGC regime does no better, and arguably worse, than the English SSA regime in avoiding the problem of regression against past spending. Both regimes strive to condition grant on regressors whose values the beneficiaries cannot control, so as to avoid creating perverse incentives. Both have limited success. Although Ministers need urgently to find a replacement for SSA, following on Secretary of State Byers' promise to the Commons in December 2001, I saw no lessons for them in my (admittedly very brief) study of the CGC's technical materials.

The CGC's desire to be policy neutral takes it too far for the UK situation. In Australia, public funding of private (mostly religious) schools is embedded in the past politics of church and state there. Policy neutrality implies that the CGC can take no position on whether the States, or the Commonwealth, should subsidise private schools. Commonwealth grants to them are passed 'through' the States without stopping there. If (as is currently the case) it costs more to educate a pupil at a private than at a State school, then, *ceteris paribus*, the *fewer* pupils in a State are in its schools, the *more* it receives in grant from the CGC. This is unlikely to be acceptable in the UK.

My overall conclusion is that there are lessons for the UK to be learned from the CGC experience. The call for a territorial grants board in the UK is gaining strength. But the UK should not copy the CGC arrangements wholesale. It should think hard about some, and definitely reject others.

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NB. All CGC publications cited except CGC (1983) may be read on the Web at www.cgc.gov.au. All publications marked *, which emanate from the Review of Commonwealth-State Funding, can be found on its site at www.reviewcommstatefunding.com.au.

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Appendix 1.

Acronyms and Abbreviations

ACT	Australian Capital Territory
AME	Annually Managed Expenditure
ATSIC	Aboriginal and Torres Strait Islander Council
EPC	equal per capita expenditure
CGC	Commonwealth Grants Commission
DA	devolved authority (i.e., any of Scotland, Wales, or Northern Ireland)
DEL	Departmental Expenditure Limit (a UK Treasury control total)
GDP	gross domestic product
GSP	gross State product
GST	goods and services tax (=VAT)
HFE	horizontal fiscal equalisation
HMT	Her Majesty's [UK] Treasury
NSW	New South Wales
NT	Northern Territory
ODPM	Office of the Deputy Prime Minister
PPP	purchasing power parity
Qld	Queensland
SA	South Australia
SPP	special purpose payments (from the Commonwealth to States)
Tas	Tasmania
VFI	vertical fiscal imbalance
Vic	Victoria
WA	Western Australia

Appendix 2.

Interviews

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