# Reflections on Fiscal Equalisation in Australia

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**Abstract**

Social and economic conditions in contemporary Australia substantially weaken the equity arguments for fiscal equalization beyond equal per capita grants. Australia is a prosperous nation with low variances of income and fiscal capacity across jurisdictions, mainly due to the extensive, centrally-funded welfare system, and the low height of the barriers to the movement of goods, services, capital and population between the states and from abroad. The same factors also greatly weaken the applicability of efficiency arguments for fiscal equalization of the extreme Australian kind—including arguments relating to settlement patterns, to fiscal externalities, and to risk sharing. There remain no strong constitutional or quasi-constitutional reasons for the system of equalisation.

## 1. Introduction

Horizontal fiscal equalisation refers both to a mechanism and to an objective. The mechanism is the process through which revenues collected by the Commonwealth from the Goods and Services Tax ("GST") are distributed to the States and Territories ("jurisdictions" or "states"). The objective is that of securing particular outcomes captured by the term "equalisation".

Social and economic conditions in contemporary Australia substantially weaken the equity arguments for fiscal equalization beyond equal per capita grants. Australia is a prosperous nation with low variances of income and fiscal capacity across jurisdictions, the result of many factors, including an extensive, centrally-funded welfare system, and the low height of the barriers to the movement of goods, services, capital and population between the states and from abroad. The same factors also greatly weaken the applicability of efficiency arguments for fiscal equalization of the extreme Australian kind—including arguments relating to settlement patterns, to fiscal externalities, and to risk sharing.

In this paper, we examine the various arguments for equalisation and assess their contemporary relevance. Those arguments can be conveniently grouped in three categories.

A first is constitutional, using the term somewhat broadly. By this, we refer to the view that horizontal fiscal equalisation (HFE) is required to give substance and stability to the federation, guarding against the risk of secession and hence preserving the benefits of federation for all jurisdictions to enjoy.

More contemporary variants of this argument suggest that HFE is to some extent a substitute for greater centralisation within the federation and hence slows, if it does not reverse, the trend for functions to be transferred to the Commonwealth; or acts as a bulwark against the growth of tied or conditional grants from the Commonwealth to the states, thus preserving the benefits of federalism as a system of government.

A second grouping relates to the efficiency arguments. These include claimed benefits of HFE in preventing inefficient movement of population within the federation, limiting undesirable tax competition and enhancing risk sharing.

A third and final grouping relates to equity, and centres on the argument that HFE contributes to the wider goal of equity between persons.

The structure of the paper is as follows. We first consider each category of argument put in favour of HFE. That done, we briefly discuss the practical consequences of a move away from HFE to distribution of GST revenues on an equal per capita basis; and examine some transition options. A final section concludes.

## 2. Constitutional aspects of HFE

In principle, the objective of the current arrangement is to compensate jurisdictions for demographic, economic, social and geographic disadvantages over which they have no control and which would otherwise render them incapable of providing, with reasonable levels of efficiency, a standard of public services comparable to that which other jurisdictions can and do provide.[1]

The premise underlying this goal is worth noting at the outset. It is that some jurisdictions are as a factual matter disadvantaged relative to others in ways that prevent them from achieving living standards (and associated levels of provision of public services) comparable to those achieved in more fortunate jurisdictions. From there, it is an easy step to suggest that it is part of the notion of nationhood that the more fortunate jurisdictions should aid those that are less well off, much as assistance would occur within a family.

In considering that premise, it is important to distinguish its two facets. The first is the notion that there is some inherent feature of jurisdictions that durably prevents income levels from converging. The second is the historically contingent notion of disadvantages of federation and those disadvantages' possible consequences for the stability of federation.

The first of these two aspects of the disadvantage concept is highly questionable. Its origins usually lie in an exaggerated belief in the importance of scale and resources as exogenous determinants of long run productivity levels. New South Wales, according to this argument, will inevitably find it easier to achieve high levels of per capita income than say South Australia or Tasmania, as its population is much larger. As well as somewhat confusing cause and effect, the presumed importance of scale and resources seems at odds with international experience, where there is little evidence that bigger countries (in scale, size or natural endowments) grow more quickly, or attain durably higher income levels, than smaller countries. Rather, subject to policy settings (a very important caveat), the pattern tends to be one of convergence of per capita income levels, suggesting small jurisdictions can, through their own efforts, 'catch up'.[2]

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[1]    The evolution of this objective is outlined in Williams (2011), section 6.

[2]    Convergence in per capita incomes will occur in any event within a zone with high labour and capital mobility, as factor movement within the zone will equalise marginal products between jurisdictions. But the type of convergence we are referring to here does not rely on movements along given production functions but rather shifts in production functions, as lower productivity jurisdictions catch up with higher productivity jurisdictions.

The second aspect of the disadvantage concept has more substance, but is clearly historically contingent. Thus, vertical fiscal imbalance and horizontal fiscal equalization both had their Australian origins in compromises made to achieve federation in 1901: the assignment of the major tax bases—customs and excise—to the central government, which then proceeded to impose tariff protection; the power of Parliament to make grants as it sees fit; and an upper house with an equal number of Senators per state.

In the 1910s and '20s, special grants to selected states were supplemented by equal per capita grants, as the method of distributing the surplus revenue of the Commonwealth. The pressures for continued and additional special grants increased during those years and especially in the 1930s. In understanding those pressures, it is important to recognize that federation did bring with it policies that redistributed income between jurisdictions. The increase in tariffs from the end of World War I and the tight regulation of the labour market redistributed income from the primary sector to secondary industry, and probably to the non-traded goods sector. Moreover, currency union likely had higher costs for the weaker, less diversified, states, which lost an instrument that could have helped cushion adverse movements in demand for their exports and which would have facilitated real wage adjustment. To that extent, those jurisdictions that were significantly export-oriented had a plausible case that they suffered disadvantages from federation, disadvantages that could merit compensation through special transfers.

Seen in that context, the argument that equalization had a role to play in preserving the federation has some force. That role involves ensuring each jurisdiction received pay-offs from federation no less than its opt-out income, i.e. the net benefits it would secure were it to stand alone. To the extent to which secession was a live possibility, or if the original compact implied a commitment to sharing anticipated future benefits in a manner consistent with such a 'no regrets' rule, the opt-out value would set a lower bound on the pay-offs any jurisdiction should obtain.

Arguably, in the circumstances of the 1930s, with a less integrated domestic economy, smaller transfers from the centre, policies that did seriously disadvantage some jurisdictions and a weaker sense of nationhood (compensated by a stronger sense of forming part of a greater empire), ensuring such a minimum was a serious concern, as the strength of the secessionist movement in Western Australia at that time suggests. As opting-out is a collective decision, taken at the level of jurisdictions, meeting the constraint that each jurisdiction received no less than its stand-alone gain could justify distributions of the joint product that differed from equal per capita.[3]

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[3]     This is similar to the standard case in cooperative game theory of sharing the gains from cooperation between two jurisdictions with differing opt-out imputations. In that case, nothing guarantees that the equal per capita distribution of the gains will be in the core of the game. For an example, see Young (1995) pages 83 and follows.

However, it is equally clear that the contingent factors that gave force to this argument in the 1930s are of little relevance to the present day. Since the 1980s, the progressive reduction in tariffs, the liberalization (albeit still far from sufficient and now partly reversed) of the labour market, the reform of the non-traded goods sector (and especially of providers of inputs to exports, such as rail transport and ports) and the floating of the exchange rate have reduced, if not eliminated, the implied tax on export-oriented activities. As a result, it is difficult to argue that federation in itself disadvantages particular jurisdictions, though that is not to say that all Commonwealth policies advantage all jurisdictions equally.[4]

Rather, it seems reasonable to suppose that in contemporary circumstances, the gain from federation to each jurisdiction is so great that a change from the current version of HFE to plausible alternatives would not move any jurisdiction close to its opt-out value. In fact, though it is obviously difficult to test this empirically, it seems likely that the greatest loss from leaving the federation would be borne by the current net beneficiaries of HFE. As a result, the need to ensure each jurisdiction does no worse than it would absent federation is not a binding constraint on the choice of allocation approach.

Some support from this inference can be drawn from the fact that, as a practical matter, the opt-out counterfactual plays no role in the Commonwealth Grants Commission's methodology. Indeed, even attempting to model that counterfactual would pose formidable challenges.[5] In short, whatever other roles horizontal fiscal equalisation may play, preserving the integrity of the federation is no longer among them.

However, there is an additional line of constitutional argument worth noting: that HFE may slow down the centralization of spending within the federation and the transfer of functions from the sub-national jurisdictions to the Commonwealth.

In essence, this argument views redistribution between the jurisdictions, on the basis of need, as a substitute either for tied funding from the Commonwealth or for the Commonwealth's direct assumption of responsibility for what were previously sub-national policy areas. To that extent, fiscal equalisation would help preserve the benefits of federalism, even if it is no longer indispensable to the preserving the federation.

Taken at its most general level, it is not easy to square this argument with the observed trends.

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[4]   Inefficient Commonwealth policies (such as the Resource Super Profits Tax, and its even more poorly designed successor, the Mineral Resource Rent Tax), in harming productivity overall, can obviously harm some jurisdictions more than others. But attempting to offset that harm through equalization makes no sense, and indeed reduces the opposition to bad policy.

[5]   It would, for example, depend on whether jurisdictions opted out individually or in coalitions as well as on the nature of the relations between jurisdictions once opting-out had occurred (for instance, in terms of whether they formed a common market and retained a common currency).

In effect, Australia's experience is that increases in vertical fiscal imbalance and in tied funding have gone hand in hand with greater horizontal equalization. Moreover, and somewhat perversely, greater equalization has tended to reduce the fiscal resources of higher productivity jurisdictions, making them more dependent on transfers from the centre. The resulting pattern is one in which the higher a jurisdiction's long term per capita GSP, the greater has been the equalization 'tax' and the larger the share of tied funding in its total revenues.

To the extent to which those high levels of productivity also reflect relatively good governance (which would be consistent with economic research on the determinants of long-term productivity levels and trends), the effect is to increase central control in jurisdictions where it interferes with the quality of government, while reducing it where (at least in principle) it might have something to bring. If that characterization is correct, the benefits of federalism would be better secured by a move to (or at least towards) equal per capita, which would increase the budgetary autonomy of better performing jurisdictions, while relying on transfers from the centre in a corrective role where incomes lagged and there was scope for policy improvement.

In other words, the distribution of revenues between the jurisdictions for their discretionary use would be separated from corrective roles, with those roles then being exercised by the centre through other instruments.[6] This would avoid the present situation, where corrective roles are played both by the horizontal allocation mechanism and by vertical transfers, creating recurring issues of transparency and accountability.

This is not to deny that a move to equal per capita (EPC) could raise issues about the allocation of specific responsibilities, notably with respect to Australia's indigenous population. We discuss those issues below in the wider context of a possible transition to EPC. However, here we note that, if the change from full fiscal equalisation to equal per capita did lead to greater Commonwealth intervention, then it could always take the form of general revenue grants (like the 'special grants' to claimant states, in earlier decades).

## 3. Efficiency arguments for HFE

Moving from constitutional or foundational considerations to economic efficiency, three arguments have conventionally been put for HFE. These are that HFE corrects or at least limits potentially undesirable movements in population; that HFE can allow the better management of fiscal externalities and reduce undesirable tax competition; and that HFE contributes to efficient risk-sharing. We consider each of these in turn.

### a)  Population movement, natural endowments and settlement patterns

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[6]  In particular, National Partnership Agreements were designed to encourage 'corrective' policy changes.

In an integrated labour market, population will flow to areas that offer the best post-tax and transfer bargain, including in terms of the supply of publicly provided goods and services. This is relevant because a jurisdiction may be able to make a superior fiscal offering, say thanks to especially abundant natural resources that are reflected in high royalties per head. By choosing to locate in that jurisdiction, interstate immigrants gain access to the fiscal advantages of the royalties: they join a fiscal 'club' with no entry fee. This fiscal advantage will tend to distort decisions about where to settle.

The distortion will be greater, the more mobile is the population and the more responsive mobility is to fiscal differences. HFE can offset these fiscal incentives for migration to and from specific jurisdictions, with settlement decisions then determined by fundamental economic factors, such as the productivity-determined wage rates in different locations.

While this argument is correct as far as it goes, it rests on strong assumptions. To begin with, it overlooks the fact that other policy instruments — notably labour market policies (which unduly compress wage differentials), social policy (which increases the reservation price of labour in areas of potential emigration) and tax policies (which lock in housing decisions) — tend to impede desirable shifts in the geographical distribution of labour. As best one can tell, in the short to medium run the effects of these in dampening desirable moves far outweigh the risk of excess movement: as attested to by complaints from the former Treasury Secretary, Dr Ken Henry, about the limited response of internal migration to the resource boom; and the adoption, by both the government and the opposition, of policies aimed at facilitating greater labour mobility. As a result, this argument likely provides only very limited support for HFE.

Moreover, the argument assumes a social planner that can discern the parameters determining the optimal settlement pattern (including revenue potential and relative incremental costs) and then set the extent and direction of redistribution so as to achieve that optimal pattern. In doing so, it is assumed that the social planner can simply treat those parameters as given: since its directions either do not influence those parameters or if they do influence them, it is open to the planner to direct jurisdictions to act optimally.[7]

However, the extensive redistribution inherent in attempts to equalise the fiscal capabilities of jurisdictions unavoidably involves some distortion to incentives. While those distortions would not arise in a system that perfectly measured those factors, and only those factors, over which individual jurisdictions could not exercise any control, no such system exists or indeed can exist. Rather, in practice, there are

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[7] In this respect, the relevant literature is characteristic of what is commonly referred to as 'first generation fiscal federalism', which abstracts from information and agency problems. It does so to such an extent that it is difficult, in this literature, to understand why federalism would ever be adopted as a mode of government, at least on economic grounds.

always margins of decision over which jurisdictions exercise some discretion that affect the extent of the redistribution.

The methods developed by the Commonwealth Grants Commission are no exception to this rule. Given that implicit 'tax' rate on mining revenues ranges from 99 per cent (NT), through 90 per cent (WA) to 67 per cent (NSW), the unsurprising result is that distortions do occur, which in this instance take two major forms.[8]

First, the attempt to 'tax' those endowments which give a jurisdiction the ability to offer a superior fiscal bargain creates disincentives to the development and efficient use of those endowments. Thus, jurisdictions with ample endowments of mineral resources may benefit by shifting taxable income from monetary payments to payments in kind, as monetary payments are more readily measured and redistributed through HFE than are (say) the benefits a mining company supplies to a jurisdiction in the form of mandated provision of infrastructure and of local services.[9] Specifically, HFE encourages States to require the miner to pay for infrastructure, in return for lower royalty payments.[10] There are also examples of a state encouraging miners to spend on matters at some remove from their main activities (for example, Santos' funding of a School of Petroleum Engineering at the University of Adelaide).

Moreover, because each jurisdiction will bear the full political costs of reforming resource taxation, but only capture a part of the benefits, some opportunities for increasing the efficiency of the tax structure will be forgone (or long delayed). The same argument applies to the approval of mining and related activities.[11]

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[8]  The implicit tax rate is equal to one hundred minus the state's population share.

[9]  Such a shift imposes inefficiencies to the extent the deadweight loss associated with "taxation in kind" exceeds that associated with monetised taxes; it also imposes a vertical externality to the extent both the Commonwealth and the jurisdiction at issue tax mining revenues, as it reduces the rent available for the two parties to tax. If there is double marginalisation of the complementary tax rates, the welfare cost is all the greater.

[10]  The State government gains from sacrificing royalties for in-kind benefits that are not equalised through HFE, if the benefit/cost ratio of the trade-off exceeds the population share of the State. For example, WA gets about the 10 per cent of royalites paid to the State, so any alternative use of the money that has a benefit/cost ratio of greater than 0.1 would be preferred to royalties.

[11]  Because HFE means that jurisdictions share mining royalites on an equalised basis, all jurisdictions have a fiscal interest in the mine-approval processes of the resource-rich states. (This is because the total fiscal resources of the jurisdictions comprise their own-source reveues, plus GST and non-GST grants; and it is reasonable to assume that an increase in one state's mining royalties does not lead to a matching reduction in the aggregate non-GST grants.) Nonetheless, the resource-poor states have relatively weak capacities to assist the resource-rich to resist anti-mining pressures.

To make matters worse, the Commonwealth Grants Commission's (CGC) approach, which effectively taxes the entirety of a jurisdiction's royalty income, amounts to taxing a jurisdiction's capital. This is because the royalty is the payment for the extraction of an exhaustible resource, whose offset is a reduction on the asset side of the jurisdiction's balance sheet. The income concept that would more appropriately define revenue capacity is the permanent stream or Hicksian income associated with financial capital maintenance, i.e. the level of consumption that can be maintained indefinitely holding capital intact. While that level of consumption can be difficult to measure[12], it is likely to be less than the flow of current royalties. To that extent, the CGC's approach will inefficiently accentuate the incentives to postpone extraction.

Finally, the taxation of resources is an area where the tax rates used to assess revenue capacity in the context of HFE are clearly not parametric with respect to the decisions of the largest resource states, and notably Western Australia. This feedback loop – from the state's tax decisions to the rates used to assess revenue capability and hence allocate income under HFE – will strengthen all the distortions noted above.[13]

It is therefore questionable whether, in practice, HFE can plausibly be used to tax 'booming' states and subsidise 'lagging' states in a way that not only leaves the overall pie no smaller than it would otherwise have been but also reduces the incentives for excess mobility, thus improving the settlement pattern. At the same time, and this is the second of the distortions we would point to, HFE can distort settlement patterns within jurisdictions.[14]

Thus, when a jurisdiction permits or even encourages settlement in locations that are relatively costly to service, then the additional costs are shared with other jurisdictions via HFE. Here too, HFE introduces an asymmetry in the distribution of the costs and benefits of reform efforts: the government of a jurisdiction that winds back cross-subsidies to high cost areas will bear all the costs of doing so, but will share the benefits with other jurisdictions in the form of lower assessed transfers under HFE. The result is a settlement pattern that is inefficiently dispersed. As we note below, similar effects operate with respect to exposure to natural hazards.

**b)    Fiscal externalities and tax competition**

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[12]    Indeed, it is difficult (and may not be possible) to construct a useful concept of economic (Hicksian) income for situations in which markets are incomplete and nominal and relative prices, and the expectations of those prices, are out of equilibrium. See for example, Beaver (1997).

[13]    See Dahlby and Warren (2003)

[14]    It is useful to note that in Canada there is fiscal equalisation of only half of mining revenues. The Canadian provinces have access to all the same taxes as the central government, except import duties and taxes on foreigners; and provinces have exclusive access to royalties, and to gaming, liquor and property taxes (Department of Finance Canada, 2011).

The task of getting jurisdictions in a federal nation to set taxes efficiently is fraught with difficulties, as jurisdictions face common pool problems[15] and other forms of fiscal externalities.

There is a large theoretical literature in public economics on how fiscal equalisation can help resolve these difficulties.[16] The seminal pieces, by James Buchanan in 1950 and 1952[17], were designed to show the social planner if and how fiscal equalisation can be used to achieve an efficient assignment of taxing powers and expenditure responsibilities; or to induce autonomous subordinate jurisdictions to choose the optimal tax rates and spending, so as to internalise fiscal externalities[18] and/or to share fiscal risks optimally.

Sometimes in this literature, public policies are chosen through highly stylised political mechanisms, like majority voting in single-issue referenda. However, largely the literature is not well integrated with the Public Choice school of thought, founded by Buchanan and Gordon Tullock, which eschews the assumption of benevolent dictators or benign social planners. Nor is this literature well integrated with more recent models that account for imperfect information and for agency problems. Given these features, it is an unsurprising aspect of this literature that it is mostly about how to avoid the inefficiencies caused by the very fact of federalism itself—as though federalism were merely an unfortunate historical accident (compared to a unitary state): if the omniscient social planner existed, then federalism would indeed be a sub-optimal institution.

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[15]   A common pool problem occurs where fiscal resources are shared by a number of non-colluding jurisdictions. Each jurisdiction may under-estimate the costs it imposes when it extracts revenues from the pool, or the benefits it provides when it adds to the pool. To that extent, each jurisdiction will under-state the marginal cost of spending and over-state the marginal cost of taxing (as some of the cost of its spending falls on other jurisdictions, while some of the benefits of its taxing will accrue to other jurisdictions).

[16]   For a survey, see Boadway (2004) also Boadway and Tremblay (2010).

[17]   Buchanan (1950) and Buchanan (1952).

[18]   Oates and Schwab (1988).

However, even in these models, fiscal equalisation is not always necessary for optimality and generally not sufficient;[19] and the correct equalisation formulae are hard to derive.[20] This may help explain why these arguments have mostly been used by academics, and not by governments in Australia on any consistent basis.

Consider payroll taxes. The academic literature suggests that a state's payroll tax increase may reduce the federal income tax take (a vertical externality) while increasing the payroll tax base of other states (an horizontal externality). These impacts have opposing effects on fiscal incentives.

Thus, starting from the horizontal effects, the state that increases its payroll tax rate can lose some tax base to another state through labour mobility, and the initiating state (correctly) regards that as a loss to itself, and to that extent overestimates the marginal cost of public funds (to the nation) attained through the payroll tax. However, there is also a vertical externality: the increase in payroll tax reduces earned incomes and reduces the central government's collection of its taxes on those incomes (and of complementary taxes); the national tax base shrinks and, presumably, the initiating State bears only a fraction of the consequences. HFE reduces the horizontal externality, but therefore exacerbates the vertical externality.

This is simply because when the initiating state is compensated with extra grant income (because its tax base is now lower, relative to those of the other states), this reduces its perceived marginal cost of public funds toward the true or national marginal cost of payroll tax funds (and will eliminate the gap if its tax rate is equal to the jurisdictional average). So, if this story is realistic, HFE encourages higher rates of payroll tax by the states collectively, and so worsens the extent of the vertical externality. As a result, whether the net result of HFE is positive or negative, in terms of tax efficiency depends not merely on its impact on the horizontal but also on the vertical 'game' between the Commonwealth and the states.

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[19] For example, Wildasin (1991) concluded that only if communities with weaker preferences for redistribution receive appropriately-larger subsidies, through the federal fiscal system, would decentralised and centralised decision-making mechanisms both choose the optimal level of redistribution. Also, Boadway and Tremblay (2010: 1026) noted that in models of federalism with costless migration, a fixed factor (land) and local public goods, 'regional governments choose their tax rates and public goods supplies optimally, under reasonable circumstances,' without fiscal equalisation payments (Boadway 2004:217). However, most state spending is on publicly-provided private goods.

[20] 'With costly migration, decentralized decision-making is not optimal unless very complicated transfer schemes are in place, which involve giving regions the right incentive for providing *G* [publicly-provided goods] as well as for redistribution. Such schemes have yet to be worked out except in special cases, even in an otherwise first best world of lump-sum transfers. Equalization on top of that is very complicated' (Boadway 2004:228).

It is hardly obvious that any plausible HFE process could correct this distortion or even be confident of moving it in the right direction. Thus, while an idealised social planner would simply assume the efficient tax rates, and then allocate funding on that basis, in practice, those efficient tax rates are not known. Moreover, to assess them, the CGC would need to take account of the way the Commonwealth would respond to a change in state payroll taxes. And then, if the Commonwealth knew how the CGC undertook that assessment, it would have incentives to use that knowledge to manipulate the outcome.[21]

It is therefore questionable whether HFE can, in practice, be justified in terms of the control of fiscal externalities. Rather, it is likely to exacerbate some (as in our previous discussion of mining taxation[22]) while perhaps reducing others. To the extent to which such fiscal externalities are a major source of concern, they would seem better addressed directly, for instance by greater fiscal coordination between jurisdictions, though that is not without defects of its own (including undermining potentially desirable fiscal competition).

**c)      Risk-sharing**

Fiscal equalisation buffers the fiscal consequences of idiosyncratic shocks: when droughts, floods, or declines in export demand (or their opposites) fall more heavily on a subset of jurisdictions, the fiscal effects are spread equally across all jurisdictions (albeit usually with a lag). Thus, HFE provides a form of mutual insurance.

The issue in practice is whether HFE inefficiently crowds out alternative insurance arrangements that are readily available now, but less so in earlier decades.

This question needs to be viewed in historical perspective. When HFE developed, market instruments for governments to insure against the risks here at issue were poorly developed. As a result, the relevant alternative was self-insurance, which was likely inefficient. Since then, however, commercial alternatives have emerged, and they may well have superior risk-bearing features to HFE.

Starting with insurance against natural disasters, there is now a relatively well developed global market for catastrophe insurance. While this form of insurance is

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[21]   Of course, that incentive disappears if it is assumed that all jurisdictions have a common welfare function. But that seems to dispose of federalism altogether, and returns us to the world of an omni-benevolent and omniscient social planner.

[22]   More generally, unless the tax rates used to determine HFE are genuinely completely parametric to the decisions of individual jurisdictions, HFE is likely to distort the tax structure whenever the jurisdiction can replace more readily assessed and observed revenue sources by less readily assessed and observed revenue sources.

inherently costly[23], it has the virtue that it involves risk-based premiums, which signal both the cost of risk and the value of risk reduction. Moreover, it typically involves deductibles and co-payments, reducing the incentives for moral hazard. The result is to reduce the incentives for excess risk-taking at both the extensive and the intensive margins.[24]

In contrast, in the implied insurance provided by HFE, there is no insuring authority (other than the CGC itself) to monitor risk-avoiding or risk-taking behaviour and to adjust premiums accordingly (or other terms of the contract).[25] Together with ever growing Commonwealth disaster relief, this amounts to a subsidy to risk-taking, with the unsurprising result of promoting inefficient settlement in high-risk areas. The ultimate loss is accentuated by the fact that the implied insurance also discourages jurisdictions from requiring individuals in those areas to be adequately insured, with the consequence that the cost of locating both public and private goods in hazard-prone areas is understated and the supply of those goods excessive.

Turning now to insurance against adverse economic shocks, fiscal equalisation does not protect a jurisdiction against the fiscal effects of shocks that are common to all Australian jurisdictions (for example, the North Atlantic financial crisis of 2008). For such shocks, jurisdictions (to the extent that they do not look to the Commonwealth) must use self-insurance or seek insurance in the market. The most relevant form of that insurance is access to capital markets to smooth spending when revenues are temporarily deficient (or failing that, making of provisions in good times, to be drawn down in bad).

When HFE was formally introduced in Australia, in the 1930s, world capital markets were generally less effective than today; and, besides, they were then in a state of disarray, far more severe than that affecting Australian jurisdictions in 2008. Moreover, section 105A of the Constitution, inserted in 1929, which allows the

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[23] Insuring against extreme weather events, including bush fires, is not like insuring against traffic accidents or theft. Hazards such as traffic accidents are largely independently distributed, with the result that increasing the numbers insured progressively reduces the riskiness of the pool as a whole. This allows premiums to be only marginally higher than the expected value of the loss. In contrast, extreme weather events tend to affect an area as a whole, giving rise to a correlated loss. Moreover, the estimation of the likelihood of major natural hazards is subject to significant uncertainties and risk ambiguity (which acts as a form of correlated risk). As a result, even with global reinsurance and the scope instruments such as catastrophe bonds and other insurance linked securities offer for efficient risk-sharing, insuring catastrophic risks involves far higher capital costs, so the ratio of premiums to expected loss, even in a vigorously competitive insurance market, may well be as high as 1.5 times the actuarial value of the loss.

[24] The extensive margin refers to the extent of the zone of settlement, and the intensity of that settlement. Charging a price for exposure to disaster risk increases the cost of activity in hazard prone areas, and hence reduces the incentives to support population in those areas. In contrast, the intensive margin refers to the extent of investment in hazard reduction, and in mitigating the consequences of hazards should they eventuate.

[25] To the extent to which HFE does not provide full insurance, the implied co-payment mitigates the extent of the moral hazard. In practice, however, the insurance provided by HFE has been supplemented by low or no cost insurance from the Commonwealth, with the overall effect of reducing the incentives for states to take efficient precautions (and induce households and businesses to take such precautions).

Commonwealth to make agreements to take over and manage State debts, pay the amounts due, and receive an indemnity from the State, was relatively new and largely untested, and the Commonwealth still had to demonstrate the credibility of the commitments it involved.[26]

In contrast, capital markets are now deep and relatively well integrated, and no state that follows prudent fiscal rules should have enduring difficulty in accessing those markets. Moreover, experience in 2008 showed that when access to capital markets by the states is constrained by market turbulence, the Commonwealth is well placed to step in and guarantee the states' access to finance.

As a result, the mutual insurance that HFE provides against idiosyncratic shocks would seem far less valuable now than earlier, whereas the costs of the arrangement (in terms of moral hazard) are not likely to have decreased.

### d)    Conclusions on efficiency arguments

Examination of the efficiency arguments made for HFE suggests that each of those arguments is weak, and more than offset by distortions HFE could induce.  The economic costs of these distortions are inherently difficult to measure: indeed, if they were not, they would not arise in the first place.

For example, if a central planner could distinguish an ideal from an observed settlement pattern, that central planner could avoid providing any incentive for inefficient settlement patterns to arise and persist. However, just as no central planner can accomplish that task, so no policy evaluator can readily examine the actual settlement pattern and discern the degree of settlement in high cost areas that is due to fiscal redistribution. And while it is possible to identify factors (such as cross-subsidies in charges for public services) that could distort the choice of location, it is more difficult to determine whether they are or are not inherently desirable or assess the extent to which they have been (properly or not) encouraged by HFE. Equally, it is not obvious how one would determine the extent to which any inefficiencies in the structure of resource taxation were due to the long-term effects of attempted equalisation compared to the other factors at work. These are not the kind of effects a Computable General Equilibrium model, for instance, would be capable of discerning.

What is clear is that the mere fact that apparent redistributions are relatively small – say as a share of goods and service tax (GST) revenues – does not necessarily imply that these perverse effects are trivial. In effect, the greater (and more uniform) the degree to which jurisdictions' choices adjust to the incentives that the attempted

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[26]    It could be argued that the Lang dismissal crisis of 1931 was a pivotal event in establishing the credibility of the Commonwealth's control over the fiscal position of individual states, and hence helped provide an underpinning to the capital market's acceptance of the value of the Commonwealth guarantee. But of course that guarantee was based also on superior access to taxing powers, especially post the Income Tax Act 1942.

equalisation creates, the smaller will be the ex post degree of redistribution. To that extent, the small size of the redistributions may reflect long term adjustment to distorted incentives, rather than any absence of such distortions.

Moreover, even if the distortions were relatively small – which, over a long period of time, seems unlikely – what is relevant are the economic and social costs compared to the benefits. In other words, as with any public program, the efficiency of the program needs to be assessed in terms of the gain per dollar of economic cost. As the gains seem so small and poorly defined, even costs that are low in absolute terms are likely to swamp them.

The only remaining issue of importance therefore is whether there are compelling equity arguments that might justify incurring these costs.

## 4. Equity arguments for HFE

As we have noted above, the current arrangement aims at compensating jurisdictions for disadvantages over which they have no control and which would otherwise render them incapable of providing, with reasonable levels of efficiency, a standard of public services comparable to that which other jurisdictions can and do provide. The goal, in other words, is equalisation of jurisdictions, rather than of individuals in those jurisdictions.

However, equity is a criterion that usually applies to people, not governments. If the ultimate goal of HFE is equal treatment of otherwise-equal individuals, reflection suggests that the equity argument for fiscal equalisation must depend primarily on the claim that jurisdictionally immobile sections of populations may otherwise be unreasonably disadvantaged by the operation of the federal fiscal system. It is, for the most part, a short run argument; and one that needs to be reconciled with the fact that the GST grants are untied.

If real incomes of similar individuals and families are in any event equalised through migration, then transferring revenues between jurisdictions merely leads to offsetting population movements, at least in the long run. However, because some of the benefits of that transfer of revenues are captured by the owners of resources that are in geographically fixed supply (such as land), there is nonetheless a change in the distribution of wealth, benefitting owners of those fixed resources in jurisdictions that receive payments at the expense of similarly placed owners in the jurisdictions that make the payments. There is no obvious reason why public policy should be used to effect such wealth transfers, nor is there any clear sense in which they are equitable (or promote greater equity).

Moreover, it needs explaining why governments that pursue only partial equalisation of budget capacities of private persons, should attempt full equalisation of public budget capacities. All redistributions have efficiency consequences, some positive and some negative. In the absence of an overriding ethical principle that supports the goal of exact fiscal equality, democratic nations generally accept a trade-off

between efficiency and equity, for constitutional and political reasons.[27] As a result, equity is not pursued beyond a point defined by taking account of its efficiency cost. In contrast, HFE does not explicitly account for that trade-off, and hence pushes equalisation beyond the point consistent with any realistic view of social preferences.

Is there a risk that in the absence of HFE, people in some jurisdictions might sink to unacceptably low living standards? Given a nationally-funded health and welfare system, and the other forces causing the relative uniformity of Australian living standards, this seems highly unlikely. It is difficult to believe, for example, that without fiscal equalization Tasmania, say, would end up like the backwoods of Appalachia, with public squalor.

Rather, whatever the risks may have been in the 1930s, the huge reduction since that time in the costs of inter-state migration and communications, and the development of a comprehensive social safety net mean that similar individuals and families enjoy very similar living standards in every jurisdiction.[28] However, that is not to deny that a move away from HFE would involve transition issues for individual jurisdictions, and it is to those issues that we now turn.

# 5. Transition from HFE

Table 1 shows the contemporary significance of fiscal equalization. Clearly, for the Northern Territory—due mostly to the high fractions of population classed as remote and Indigenous—the effects of switching to EPC grants would be massive on the budget, and large on GSP (Gross State Product, used here as a rough indicator of access to economic resources for consumption purposes). With GSP as numerator, the effects on other jurisdictions range from -0.3% to 2.9%, which could reasonably be called relatively small. Although the effects on jurisdictional budgets are multiples of the effects on GSP, they are still small for the three eastern states (1.0% through 1.7%); but are significantly larger for the others (-12.7% through 6.4%).

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[27] See Brennan and Pincus (2010).

[28] Abelson (2010) and Pincus (2011) argue that, by ignoring that some interstate differences in wage rates compensate for differences in costs of living (especially residential land rents and transit costs), the current Grants Commission methodology is unsound, when it comes to estimating capacity to pay taxes and charges.

**Table 1: Effects on state budgets and GSP of Equal Per Capita GST grants, 2010 (%)**

|  | NSW | Vic | Qld | WA | SA | Tas | ACT | NT |
|---|---|---|---|---|---|---|---|---|
| On general government expenditures | 1.0 | 1.4 | 1.7 | 6.4 | -5.8 | -12.7 | -2.5 | -53.0 |
| On GSP | 0.2 | 0.2 | 0.3 | 0.8 | -1.3 | -2.9 | -0.4 | -11.5 |

Sources: Commonwealth Grants Commission 2011, and ABS 5220.0, 5506 and 5512

Note: The estimates are the percentage differences between the 2010-11 grants proposed CGC and equal per capita, compared with the 2009-10 GSP and with general government expenditures, using populations of June 2010. The GST collection for 2009-10 was $46,553m; the estimate for 2010-11 is $45,950m.

Are the relatively small differences in pre-HFE fiscal capacities of the jurisdictions themselves a triumph of past HFE (NT excepted)? This seems unlikely and the opposite may well be true.[29] Whichever the case, Table 1 suggest that, apart from the Northern Territory, HFE is not essential for the maintenance of reasonable equality of jurisdictional capacities, even in the very short run; and, therefore, HFE cannot be regarded as being essential to a reasonable equality of living standards across jurisdictions.

There would, however, be a very significant impact on the Northern Territory. This is largely due to the assessed expenses associated with provision of services to Indigenous people who are located outside the main cities and towns (that is, in 'regional and remote' areas). Indigenous people comprise over 30 per cent of the population of the Northern Territory, far in excess of the national average. Under HFE, all Australian taxpayers contribute GST and other tax revenues on a 'needs' basis, to provide NT with the funds sufficient to supply services at the national average standard.

Without a distribution of Commonwealth grants based on HFE, and absent any alternative means of relieving NT of its disproportionate fiscal burden, the government and people of NT would likely prefer that the responsibility be passed to the federal government. The attitude of the other jurisdictions to such a passage of responsibility would depend on how the Commonwealth would then fund the services, with likely candidates being a reduction in the GST funds or in non-GST grants transferred to the states. In either case, the bulk of the burden of paying for the NT services would continue to fall on the budgets or the citizens of the other states; and the resultant redistributions of the (net) burdens would be relatively small. Thus, without HFE, at least one jurisdiction would have a large incentive to

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[29]    It has been argued that convergence between the Australian states has lagged that in Canada and the United States – see for example Cashin (1995). Whether that is correct when convergence is measured in terms of consumption rather than production (thus correcting for the high levels of foreign ownership) is controversial, as is the role of HFE –on the latter, see for example, Ramakrishnan and Cerisola (2004), which suggests industrial relations policy may have been a more important factor slowing income convergence than HFE. However, as we have noted above, the effects of HFE are inherently difficult to measure.  See also Shankar and Shah (2003) and Cerniglia (2003).

pass on the responsibility; and the other jurisdictions may not be greatly affected fiscally.

In practice, as is clear from the recently released Commonwealth Department of Finance and Deregulation's Strategic Review of Indigenous Expenditure (DOFA, 2010), the funding and even more so management of indigenous programs in the NT is in any event largely passing into Commonwealth hands and that trend seems likely to continue. As a result, this issue seems set to be dealt with outside the context of HFE, and it should not be allowed to distract or hinder the reform of HFE.

Rather, the focus should be on finding a reasonable transition path to EPC. Such a path could involve a number of options, including:

*   The GST replaced own-source revenues for the jurisdictions, with those own-source revenues being approximately equal to 80% percent of GST revenues. Capping the proportion of GST revenues eligible for equalization to say 20% would treat those prior revenues as jurisdictions' assured revenue sources, though, in practice, the earlier revenue sources were themselves subject to some degree of equalisation.
*   Setting a cap on the quantum redistributed relative to EPC, with redistributions declining to zero over a period of a decade.
*   Fixing in absolute terms the amount redistributed, and then reducing it progressively over a period of time.

## 6. Conclusions

It is not clear that the premises that originally motivated HFE have any bearing on contemporary concerns. This fact, however, did not impede (or even seem to much affect) the move to fuller equalization over the years or the decision to apportion the GST revenues through an HFE process. Indeed, current HFE goes beyond the mere goal of ensuring each jurisdiction gets at least its opt-out value, or meets reasonable national standards of service provision; rather, it tries to make jurisdictions no worse off than a common standard, allegedly on grounds both of efficiency and of equity.

In that sense, while its rationale has shrunk, HFE itself 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): in that respect, it has borne out the general tendency of such redistribution programs to grow, regardless of whether that growth is justified. While the political economy of that process in this instance is beyond the scope of this paper, it may well be that that expansion suits a coalition of the recipient states and the Commonwealth, with the stakes at least for the former being greater than those for the process' net losers.[30]

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[30]   The fact that two substantial beneficiaries – the ACT and the NT – were originally directly financed by the Commonwealth (with HFE ultimately materially reducing that burden), is obviously not irrelevant in this respect.

The question then is the consequences of that growth, and the extent to which it can be justified. 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 it gives rise to – not least the sheer complexity and opacity of the process, and the reduction in fiscal accountability and predictability. If HFE has any gains they are likely to be very slight, and not to merit the administrative and economic costs it involves.

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