DECENTRALISING TAX REVENUES:
RECENT INITIATIVES IN AUSTRALIAN FEDERALISM

By
P.D. Groenewegen

No. 159 APRIL 1991

DEPARTMENT OF ECONOMICS

The University of Sydney
Australia 2006
DECENTRALISING TAX REVENUES:
RECENT INITIATIVES IN AUSTRALIAN FEDERALISM

by

P.D. GROENWEGEN

No. 159 APRIL 1991
DECENTRALISING TAX REVENUES: RECENT INITIATIVES IN AUSTRALIAN FEDERALISM

The high degree of tax centralisation in the Australian federation makes it a particularly interesting case study for investigating opportunities for tax decentralisation, especially when both State (Provincial) and Local (Municipal) government have been given only the most limited access to independent tax sources. Australian local government can, with few exceptions, only use real property rates for obtaining its tax revenue. The Australian States, although constitutionally entitled to share all tax powers concurrently with the Commonwealth (national) government except for customs and excise, in practice are effectively barred from using income taxes as well as sales taxes. The federal division of national tax revenue produced by this unequal tax assignment, of eighty per cent of revenue to the Commonwealth, 17 per cent to the States, and only 3 per cent to local government (when own purpose outlays are in the proportion of 51.0, 41.2 and 7.8 per cent) sits uneasily within the general theory of public finance and its fiscal federalism theory component. Yet from 1942, when the Commonwealth effectively took over income tax powers, these proportions of tax raising by level of government have more or less remained constant between Commonwealth on the one hand, and the State/local government sector on the other. Tax redistribution had occurred within the State/local sector over this half century with the proportion of tax revenue going to local government virtually halving from 6 to 3 per cent, and a concomitant rise in the share accruing to State governments. It may be noted at the outset that this relative shift between the lower tiers of government was not independent of changes in Commonwealth financial assistance arrangements.

After a brief introduction, by way of background, to the nature of Australian fiscal federalism as it evolved over its near century existence, this paper examines the problems these arrangements create for fiscal federalism theory; recent proposals to reduce this high degree of tax centralisation are then discussed, combined with an examination whether the
Australian institutional structure and its associated political expectation framework are likely to prevent implementation of such solutions. A final section draws lessons from Australian experience for tax assignment design in either federal or other multi-jurisdictional forms of government organisation.

The Australian federation commenced in 1901 from the union of the six Australian colonies: New South Wales, Tasmania, Victoria, South Australia, Queensland and Western Australia, which thereby became the original States. The Northern Territory, created in 1910 when South Australia ceded its northern half to the Commonwealth, gained self-government in 1978; the Australian Capital Territory, created by the federal constitution, became self-governing in 1989. Local governments exist in the six States and the Northern Territory by virtue of State legislation. As 'creatures' of the States, they therefore have no independent status in the Constitution. Attempts to give local government such status through constitutional amendment by referendum have failed. This makes a national policy for local or regional decentralisation difficult to achieve.

The Constitution transferred various powers from the States to the Commonwealth. These included foreign and inter-state commerce; taxation; bounties on productions and exports; borrowing on the credit of the Commonwealth, a power considerably extended by the Federal Agreement which created the Loan Council; communications including broadcasting; civil aviation; social security; immigration and emigration; banking, money and insurance; powers often expanded by judicial interpretation. Tax powers are concurrent with the States, apart from an exclusive federal power over customs and excise. The Commonwealth was also given the right to make conditional grants to the States. The Constitution can only be amended by referendum, a difficult exercise since a majority of States (four out of six) and of voters must support the proposed change.

Transfer of customs and excise (which had raised close to three quarters of colonial tax revenue before federation) involved the new federation at the outset in substantial revenue transfers from the centre. For the first ten years of federation, three quarters of customs and excise revenue were returned to the States by the Commonwealth; from 1911 to 1927 the Commonwealth substituted fixed per capita grants of 25 shillings (£2.50) to the States. From 1910 the Commonwealth also began to use its concurrent tax power in earned with the introduction of land tax, estate duty followed in 1914, income tax in 1915, entertainment tax in 1916, wholesale sales tax in 1930 (as a depression measure to compensate for the loss of customs revenue) and pay-roll tax in 1941. From 1927 to 1942 States relied heavily on their own income taxes, supplemented by taxes on motorists, stamp duties, estate duty and liquor licences. In this period, States enjoyed virtual total revenue independence from the Commonwealth, whose revenue transfers to the States in this period were confined to grants for specific purposes, mainly road construction. Attempts to introduce State sales taxes were held to be unconstitutional as contravening the exclusive federal excise power but liquor licence fees successfully survived such challenge. 1942 permanently changed this situation of State revenue independence. As a temporary war measure, the Commonwealth took over income tax powers from the States, a power which it has since continued to hold by skilful use of its conditional grant power. Subsequently, revenue transfers to the States have become an essential feature of Australian fiscal federalism either in the form of block grants or, for a brief period from 1976 to 1986, by institutionalised tax revenue sharing. From 1973, the federal government started paying block grants to local government via the States, an important factor explaining the decline in the local government tax share which has already been noted.

Apart from grants, attempts to solve this fiscal imbalance from excessive State revenue dependence in this new highly centralised tax system have largely focussed on tax transfers. Land tax and entertainment tax were vacated by the Commonwealth in 1952 and 1953 respectively. Pay-roll tax was transferred to the States in 1971. The Commonwealth abandoned its Bank Account Debts tax in 1990 thereby creating some room for the States.
to raise their Financial Institutions Duty rates. In addition, from 1978 to 1989 the Commonwealth had legislation in force enabling States to levy surcharges (or to grant rebates) on federal personal income tax, a piggy-back arrangement no State dared use in this period because of its perceived adverse political consequences. On the local government front, revenue dependence on the local rate or property tax has declined through increased intergovernmental financial assistance from the centre though attempts by local government to expand its access to tax instruments have invariably been rejected by State governments.7

From the mid-1980s State revenue dependence on federal grants has been reduced by cuts in real terms of federal financial assistance for fiscal restraint reasons. This explains the relative rise in State tax shares, via the increased State tax effort it has on aggregate induced. Less savage cuts in federal financial assistance to local government for most of this period has meant that this relative rise in State tax shares has been at the expense of local government. Such an outcome has been assisted, however, by a Commonwealth policy of only modest reduction in tax effort in order to increase an already growing federal budget surplus.

The current tax/revenue position for the three levels of government is indicated in Table 1. Apart from showing the extent of fiscal imbalance, it provides a picture of the relative importance of particular tax instruments for the three tiers of Australia’s federal system.

### TABLE 1: Revenue Sources by Level of Government

<table>
<thead>
<tr>
<th>Source</th>
<th>Commonwealth</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td><strong>Own-Sources Revenue</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax, Fees and Fines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income Taxes</td>
<td>63.7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pay-roll Tax</td>
<td>1.2</td>
<td>9.1</td>
<td>-</td>
</tr>
<tr>
<td>Local Rates</td>
<td>-</td>
<td>-</td>
<td>53.3</td>
</tr>
<tr>
<td>Land Tax</td>
<td>0.1</td>
<td>1.8</td>
<td>-</td>
</tr>
<tr>
<td>Stamp Duties</td>
<td>0.1</td>
<td>5.7</td>
<td>-</td>
</tr>
<tr>
<td>Financial Institutions Duties</td>
<td>0.4</td>
<td>0.8</td>
<td>-</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>10.2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Excise</td>
<td>10.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>International Trade Taxes</td>
<td>4.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Taxes on Gambling</td>
<td>2.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Taxes on Motor Vehicle Use</td>
<td>-</td>
<td>3.9</td>
<td>-</td>
</tr>
<tr>
<td>Franchise Taxes</td>
<td>-</td>
<td>3.3</td>
<td>-</td>
</tr>
<tr>
<td>Fees and Fines</td>
<td>0.7</td>
<td>1.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Other</td>
<td>0.2</td>
<td>2.7</td>
<td>-</td>
</tr>
<tr>
<td><strong>Net operating surplus</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>95.8</td>
<td>35.0</td>
<td>56.9</td>
<td></td>
</tr>
<tr>
<td><strong>Other revenue</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>10.0</td>
<td>8.7</td>
<td></td>
</tr>
<tr>
<td><strong>Total Own Revenue</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100.0</td>
<td>54.6</td>
<td>77.6</td>
<td></td>
</tr>
<tr>
<td><strong>GRANTS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From Commonwealth</td>
<td>n.a.</td>
<td>45.4</td>
<td>1.7</td>
</tr>
<tr>
<td>From States</td>
<td>n.a.</td>
<td>n.a.</td>
<td>20.8</td>
</tr>
<tr>
<td><strong>TOTAL REVENUE</strong></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

---

a. For Commonwealth, largely fringe benefits tax.

**Source:** Australian Bureau of Statistics:
Table 1 clearly shows the vertical imbalance in the Australian federation as measured by the degree of revenue dependence of States and local government. It also reveals its cause: the lack of access to major taxes, especially income tax, sales tax and product taxes for State government and the almost exclusive reliance by local government on the local property rate.

II

The actual Australian situation with respect to tax assignment and vertical fiscal imbalance sits uneasily with the current orthodoxy in fiscal federalism theory. The revenue gap visible at both State and local government levels makes the general efficiency rule of matching marginal benefits from outlays with marginal costs from additional taxes more difficult to apply, and hence may generate serious inefficiencies. Such inefficiencies are often explained as follows. At the most general level, heavy revenue dependence on Commonwealth funds induces inefficient State (and local) expenditure decisions because the States (and local) governments do not have to accept political responsibilities for all the taxes levied to defray that expenditure. The degree of care and responsibility in such spending decisions is likely to be less when they spend 50(75) cents dollars with low political costs than if the full cost of each dollar's spending had to be raised from their own taxes. The system also enables State (and local) politicians to blame shortcomings in their service delivery and program quality on the meaness of federal (and/or State) politicians, who cut down or do not increase fast enough the grants on which meeting so many of these State (and local) responsibilities to their constituents depend. In addition, when the relative sources of funds favour grants from other levels of government, scarce administrative talent and energy is likely to be wasted in searching for methods to enhance eligibility for grants rather than reduce costs or enhance effectiveness and efficiency of service provision and delivery.

On the other side of the balance sheet, vertical fiscal imbalance creates opportunities for inefficiency at the central government level. Relative revenue abundance from the high yields of available tax bases may induce laxity in federal spending decisions. More importantly, it may generate a wish to interfere in the spending decisions of lower levels of government to which the grants are paid, by making them increasingly more conditional. Australian experience partially supports this proposition: the high degree of vertical fiscal imbalance after the second world war has raised the relative proportion of specific purpose grants in total federal financial assistance considerably. Apart from infringing State sovereignty, and lowering if not eliminating the divergence in service delivery which many prize as a major advantage of federalism, the imposition of conditions may generate waste and duplication in several ways (see EPAC, 1990a). Last but not least, existence of vertical fiscal imbalance provides excellent opportunities for the grantor with surplus revenue to enforce expenditure restraint only on grantees by savagely cutting financial assistance in order to reduce its visible budget outlays without adverse effects on its outlays for own purposes. Such enforced economy on one level of government only is likely to generate inefficiencies in resource allocation and may have other adverse by-products as well.8

So much for the resource allocation implications of vertical fiscal imbalance, in general adverse. To what extent is the tax assignment position which causes this imbalance consistent with the normative rules of fiscal federalism analysis? Here again, Australian practice does not conform neatly to theory. It is clear that Australia's local rates, with its immobile tax base and ease of local administration, are appropriately assigned to local government. Australia shares this proper assignment with virtually all other countries which have local government.9 It is equally clear that what are generally seen as major stabilisation and redistributational taxes are controlled by the central government. However, State governments in Australia, as the middle level of government in its federation, do not have the effective access to income tax, destination based product tax and even the nature resource taxes which theory suggests they should have. On the other hand, they have
access to the pay-roll tax which normative fiscal federalism rules assign to the use of local
government (for a summary of these rules, see McLaren, 1983, p. xiv).

Even then, this general statement hides many of the conundrums between actual
Australian tax assignment and the normative rules of widely accepted fiscal federalism
theory. For example, on the ground of its exportability and hence large spill-overs, McLaren
(1983, p. 106, 112-4) argues corporation tax to be a national tax, an assignment likewise
useful for administrative reasons; Peggy Musgrave (1983) denies the need for this
assignment and supports the traditional access of State governments (in the United States
and elsewhere) to corporation taxes. However, since land taxes and local rates, if applied to
business property, are likewise exportable when the business in question trades across
jurisdictional borders, such taxes should also be centrally controlled. This is particularly
appropriate when they are assigned to the generally geographically small local government
units, hence the United Kingdom’s centralisation of the business rate in its recent local
government finance reforms.10 Tax exporting possibilities tend to support central tax
administration, leaving relatively little tax room for sub-national jurisdiction. Furthermore,
given the implications for international competitiveness, the maintenance of which is an
increasingly growing concern for most governments, such taxes even impinge on the degree
of tax freedom for the national governments of smallish, open economies. Nor are highly
unequally distributed tax bases between government levels invariably centralised in
Australia. The fiscal consequences of such unequal tax base endowments are, however,
taken into consideration in calculating equalisation factors for determining financial
assistance grants to individual States.11

Much can be said on the current unsatisfactory state of the Australian economy,
with its high overseas debt and still large current account trade deficit, its difficulties in
restructuring and improving its level of international competitiveness. Little of this can be
blamed on the non-conformity of Australian fiscal federalism arrangements with the
normative rules from theory. This even applies to its chronic vertical fiscal imbalance and
long-existing, and long endured, highly centralised tax assignment. In fact, the opposite
can be said. If, in accord with the twin deficit line of argument, an improved trade balance
is seen as closely related to fiscal restraint, the undoubted Australian successes in this
regard (one of the highest relative budget surpluses in the OECD) is partly attributable to
this high centralised tax system which gives the Commonwealth exceptional powers for
curtiling State and local government outlays by squeezing their revenue. Lack of
centralisation, with respect to the inflationary potential of increased State taxes and
charges, may likewise damage international competitiveness both directly and indirectly
through its wage increase consequences. Such fiscal policy considerations are, however,
rarely raised in the debate about the need for tax independence for State and local
government in Australia and the associated gains in efficiency from reduced vertical
imbalance. They likewise feature little in the many proposals for shifting tax assignment
in favour of the States which have surfaced in Australian debate in recent years. (For an
exception see EPAC, 1990b).

III

Increased revenue independence for the States in Australia can only be approached
from two sides. The first, and the one more prominently adopted in debate, is to re-write the
federal constitutional compact by giving the States access to either their own retail sales tax
or to marginal income tax powers, sometimes rather broadly conceived. The other is to
develop new State taxes, constitutionally feasible on the current arrangements, and of such
a nature that they do not impinge on national and State priorities for sustainable economic
development. It may be noted all these approaches are on the active agenda, given the
federal initiative in organising special Premiers’ Conferences in 1991 for the purpose of
securing federal reform. On present intentions, these will not only involve better
coordination in transport and communications, wage determination and other ‘micro-
reform’ areas, but also the tax assignment arrangements and the inefficiencies from
associated fiscal imbalance.12 These various alternatives for reducing fiscal imbalance,
and the type of proponents they have attracted in the last decade, can be briefly discussed in turn.

1. The Retail Sales Tax Avenue. Clearly highly appropriate from the perspective of normative fiscal federalism tax assignment rules, and widely conforming with the international practice of North American federations Canada and the United States, this option has been widely espoused by Constitutional Commissions (1987), the Victorian State Treasury (1990), the trade union think tank (Evatt Foundation, 1988), private academics (for example, Walsh, 1990) and individual politicians. To safeguard State use of this tax from constitutional challenge a small constitutional amendment would be required; deletion of the phrase, "and excise" from the clause which gives exclusive federal powers over duties of customs and excise. Given Australian predilections to reject referenda for constitutional change, it seems unlikely such an amendment would succeed. Such rejection is even more certain when the subject matter is contemplated: few citizens are going to vote to give governments additional powers to tax when no effective reduction in such tax powers is contemplated at the other government level. In addition, the State retail sales tax option has attracted opposition because it would made federal reform of the consumption tax area less attractive. Tax reform with a value added tax to rationalise the current inefficient federal wholesale sales tax regime, a policy growing in support, is made more difficult and less effective by the introduction of separate retail sales taxes at the State level.

2. Marginal Income Tax powers for the States. On various occasions after the 1942 uniform income tax arrangements, this has been suggested as a method for keeping the benefits of uniform legislation, collection and assessment procedures while returning some power over this form of taxation to the States. From 1978 to 1989 legislative opportunities for State implementation of this policy were in existence, but were in fact never used by any State government. A potent reason for this was that the federal government had not created room for States to use such marginal income tax powers, because income tax rates (already popularly regarded in Australia as exceptionally high, unfair and inefficient) had not been substantially reduced. Until the federal government lowers its personal income tax rates substantially, perhaps, to take an example, by halving them, it will be impossible for a State government to use any marginal income tax powers it is granted. The political dangers to State governments in entertaining the thought of using such marginal income tax powers had in any case been adversely tested in the 1975 New South Wales State elections where the Liberal Premier was defeated, largely on his platform of raising tax revenue by this means in order to reduce reliance on other, less equitable State taxes. It may be noted that Australian proposals for marginal income tax powers have confined this increased tax access to personal income tax. Company tax has been invariably excluded from marginal tax powers because of the difficulties in apportioning tax base and revenue by source. Secondly, the lessons of the 1970s suggest that any chance of making marginal State income tax powers policy effective needs to make its use attractive to State governments. Various means are in principle available to reach the last objective.

The first of these is redistributitional. The New South Wales proposals which ended in electoral defeat for its proponent, was partly justified by the potential equity gains from substituting progressice personal income tax for rather regressive State taxes. This type of progressive switch in State tax bases was also suggested in Labor Party circles and surfaced in an official report on State taxation (Collins, 1983; 1988). The legislative arrangements in force from 1978 also made the use of marginal income tax powers attractive for small States by the equalisation grants this would generate. Such equalisation was required to compensate them for the lower yield per head they would gain from such percentage point of surcharge relative to that available to high income states, New South Wales and Victoria. However, as already mentioned, no small states in Australia adopted this strategy for enhancing their equalisation grant entitlement and thereby redistributing national income in their favour.

The second strategy is to make tax room for the States by large, federal personal income tax reductions and thereby create the potential for States to use marginal income tax powers. One method of achieving such income tax reductions implies a carrot and stick
approach to the problem, since in it the tax cuts are to be financed by substantial reductions in federal grants to the States. This policy, suggested in the past by several academics (for example, Mathews, 1978, pp. 26-7: Walsh, 1990) has now been embraced in principle by the leader of the Opposition, as something for serious discussion in the context of federal reform proposals in the area of tax realignment.\textsuperscript{14} If grants in this context are to include specific purpose payments, this policy is all the more attractive to the conservative side of politics, because like Reagan's new federalism it enables substantial transfers of social spending responsibilities to the States, hence increasing potential for their reduction. In addition, this proposal enables the elimination of that fiscal equalisation which has been such a long standing feature of Australian federalism. Most fiscal equalisation is now achieved through the weighting of per capita financial assistance by fiscal disabilities: elimination of financial assistance grants removes this instrument of fiscal equalisation. Inclusion of specific purpose grants in the scheme makes the opportunities for reducing fiscal equalisation even greater. With strong criticism of the adverse resources allocation implications of the current equalisation arrangements, this may make this policy even more attractive to the federal Liberal party leadership.\textsuperscript{15}

The scheme floated by the Federal Leader of the Opposition in February 1991 suggested the following scenario. States are to be given access to personal income tax raising by enabling them to set rates additional to federal rates (but presumably keeping within the federal determined rate structure) and with personal income tax continuing to be collected by the Federal Taxation Office. Federal and State tax liabilities then can be separately indicated on individual assessment notices. To enable the States to levy additional income tax, tax room is to be created by reduced federal financial assistance to the States. Abolition of all general revenue assistance (perhaps including that for capital purposes) would create a substantial amount of tax room. Passing back responsibilities to the States with respect to hospital and non-tertiary education funding would increase that potential even further. Abolishing both types of grants would enable the federal government to cut income tax collections on aggregate by close to 40 per cent.\textsuperscript{16} The third plank in this federalism platform relates to stabilisation. A traditional Treasury worry about returning any income tax powers to the States has been associated with the possibility this may impede national fiscal demand management policy. The proposal by the Leader of the Opposition implies this type of argument may be made redundant by insisting that, as part of the arrangements, States will have to have balanced budgets as a matter of course, under uniform accounting standards and subject to external audit.

The difficulties inherent to implementing marginal income tax powers in this way arise from the equalisation consequences of the move. These will be attractive to Victoria and New South Wales, but much less so to the other four States and the Northern Territory. Adverse equalisation consequences arise for these smaller States and Territory on at least three grounds. First, the weights by which per capita financial assistance is inflated to compensate for State fiscal disabilities favour Queensland by well over 25 per cent, West Australia by more than 35 per cent, South Australia by well over 40 per cent, Tasmania by approximately 60 per cent and the Northern Territory by more than 500 per cent. Although there are also substantial per capita variations in specific purpose payments for health and schools, some of which favouring New South Wales and Victoria, these variations by definition are unlikely to redress the unfavourable fiscal equalisation effects from abolishing general revenue assistance.\textsuperscript{17} Last but not least are the unequal yields States can expect from personal income tax surcharges, once again favouring New South Wales and Victoria. Unless the federal opposition's initiatives build in safeguards for the smaller States, the proposal seems politically doomed from the start, unless Australians can be made to forego the 'fair go' implications of their fiscal equalisation arrangements.

3. **Designing alternative Tax Sources for the States.** Up to the 1940s, tax innovation was largely a Commonwealth activity; from the 1970s onwards, the States have initiated a number of tax instruments designed to enhance their revenue independence by safeguarding the relative importance of their tax instruments in national tax revenue raising. Three such innovations can be briefly indicated as alternative means for reducing
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$ MILLION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll tax</td>
<td>1291.4</td>
<td>1499.7</td>
<td>924.8</td>
<td>1403.8</td>
<td>368.5</td>
<td>566.1</td>
<td>205.0</td>
<td>308.6</td>
<td>231.5</td>
<td>428.9</td>
<td>65.5</td>
<td>107.6</td>
<td>22.4</td>
<td>39.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land tax</td>
<td>225.6</td>
<td>497.0</td>
<td>178.7</td>
<td>265.7</td>
<td>36.1</td>
<td>58.8</td>
<td>32.2</td>
<td>63.7</td>
<td>40.6</td>
<td>73.7</td>
<td>10.0</td>
<td>19.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stamp duties</td>
<td>516.9</td>
<td>1920.4</td>
<td>479.4</td>
<td>1259.0</td>
<td>282.5</td>
<td>670.0</td>
<td>128.4</td>
<td>235.0</td>
<td>131.5</td>
<td>416.2</td>
<td>24.7</td>
<td>51.8</td>
<td>10.1</td>
<td>13.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial institutions</td>
<td>122.3</td>
<td>212.9</td>
<td>80.7</td>
<td>159.0</td>
<td>-</td>
<td>-</td>
<td>48.8</td>
<td>43.7</td>
<td>34.9</td>
<td>38.8</td>
<td>2.3</td>
<td>16.5</td>
<td>-</td>
<td>0.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gambling taxes</td>
<td>479.6</td>
<td>670.3</td>
<td>298.6</td>
<td>412.5</td>
<td>121.9</td>
<td>145.1</td>
<td>49.7</td>
<td>105.5</td>
<td>31.7</td>
<td>104.0</td>
<td>26.4</td>
<td>31.2</td>
<td>4.7</td>
<td>12.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes on insurance</td>
<td>255.1</td>
<td>366.2</td>
<td>233.8</td>
<td>253.0</td>
<td>56.9</td>
<td>76.7</td>
<td>64.7</td>
<td>75.4</td>
<td>49.1</td>
<td>72.6</td>
<td>9.3</td>
<td>14.0</td>
<td>0.7</td>
<td>2.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor vehicle taxes</td>
<td>578.4</td>
<td>865.3</td>
<td>347.1</td>
<td>399.1</td>
<td>253.9</td>
<td>403.0</td>
<td>103.5</td>
<td>165.4</td>
<td>140.6</td>
<td>211.8</td>
<td>37.3</td>
<td>49.8</td>
<td>7.6</td>
<td>15.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business franchise taxes</td>
<td>415.0</td>
<td>636.7</td>
<td>372.4</td>
<td>494.1</td>
<td>50.6</td>
<td>126.5</td>
<td>119.1</td>
<td>174.7</td>
<td>117.8</td>
<td>208.0</td>
<td>34.5</td>
<td>78.1</td>
<td>9.1</td>
<td>24.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL TAXES</strong></td>
<td>4080.0</td>
<td>7603.2</td>
<td>3140.7</td>
<td>5044.3</td>
<td>1297.9</td>
<td>2456.6</td>
<td>788.1</td>
<td>1279.4</td>
<td>869.8</td>
<td>1684.0</td>
<td>225.8</td>
<td>405.9</td>
<td>59.3</td>
<td>116.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**AS PERCENTAGE OF TOTAL TAXATION (%)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll tax</td>
<td>30.4</td>
<td>26.3</td>
<td>29.5</td>
<td>27.8</td>
<td>28.4</td>
<td>22.9</td>
<td>26.0</td>
<td>24.1</td>
<td>26.6</td>
<td>25.5</td>
<td>29.0</td>
<td>26.5</td>
<td>37.5</td>
<td>34.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land tax</td>
<td>5.5</td>
<td>6.5</td>
<td>5.7</td>
<td>5.3</td>
<td>2.8</td>
<td>3.1</td>
<td>4.1</td>
<td>5.0</td>
<td>5.7</td>
<td>4.4</td>
<td>4.4</td>
<td>4.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stamp Duties</td>
<td>12.7</td>
<td>25.3</td>
<td>15.3</td>
<td>25.0</td>
<td>17.9</td>
<td>28.2</td>
<td>16.3</td>
<td>18.4</td>
<td>15.1</td>
<td>24.7</td>
<td>10.9</td>
<td>12.8</td>
<td>16.9</td>
<td>11.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial institutions</td>
<td>3.0</td>
<td>2.8</td>
<td>2.9</td>
<td>3.2</td>
<td>-</td>
<td>-</td>
<td>3.7</td>
<td>3.4</td>
<td>4.0</td>
<td>2.2</td>
<td>1.0</td>
<td>4.1</td>
<td>-</td>
<td>0.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gambling taxes</td>
<td>11.4</td>
<td>8.8</td>
<td>9.5</td>
<td>8.2</td>
<td>9.4</td>
<td>7.5</td>
<td>6.3</td>
<td>8.5</td>
<td>5.9</td>
<td>6.0</td>
<td>11.7</td>
<td>7.7</td>
<td>7.9</td>
<td>9.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes on insurance</td>
<td>6.5</td>
<td>4.8</td>
<td>7.1</td>
<td>5.0</td>
<td>4.4</td>
<td>5.1</td>
<td>8.2</td>
<td>5.9</td>
<td>5.7</td>
<td>4.5</td>
<td>4.1</td>
<td>5.5</td>
<td>1.2</td>
<td>1.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor vehicle taxes</td>
<td>14.2</td>
<td>11.4</td>
<td>11.0</td>
<td>7.9</td>
<td>19.6</td>
<td>16.4</td>
<td>13.1</td>
<td>12.9</td>
<td>16.2</td>
<td>12.6</td>
<td>16.5</td>
<td>12.5</td>
<td>12.2</td>
<td>11.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business franchise taxes</td>
<td>10.2</td>
<td>8.3</td>
<td>11.9</td>
<td>9.8</td>
<td>3.9</td>
<td>5.2</td>
<td>15.1</td>
<td>13.7</td>
<td>13.5</td>
<td>12.4</td>
<td>15.3</td>
<td>19.3</td>
<td>15.2</td>
<td>21.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**REVENUE PER CAPITA ($)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll tax</td>
<td>341.4</td>
<td>318.8</td>
<td>190.9</td>
<td>186.1</td>
<td>296.6</td>
<td>234.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land tax</td>
<td>84.9</td>
<td>60.3</td>
<td>21.7</td>
<td>39.4</td>
<td>50.7</td>
<td>43.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stamp duties</td>
<td>328.9</td>
<td>285.8</td>
<td>230.5</td>
<td>142.2</td>
<td>287.8</td>
<td>131.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gambling taxes</td>
<td>81.9</td>
<td>98.7</td>
<td>62.9</td>
<td>63.8</td>
<td>69.8</td>
<td>68.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor vehicle taxes</td>
<td>147.7</td>
<td>90.6</td>
<td>138.8</td>
<td>99.8</td>
<td>146.5</td>
<td>81.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business franchise taxes</td>
<td>108.7</td>
<td>112.2</td>
<td>41.9</td>
<td>105.3</td>
<td>143.8</td>
<td>170.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) Total does not add to individual taxes listed.

Source: Calculated from ABS, 1988-89 Taxation Revenue Australia.
vertical fiscal imbalance. (For details of these taxes, see Commonwealth Grants Commission 1990b, Appendix 1.)

(a) **Business Franchise Taxes.** Given the successful defence of States with respect to their right to levy liquor licences, that is, with respect to the right to conduct a particular type of business, Sawyer (1974, esp. p. 181) suggested this principle could be applied to a wide range of goods. That advice has been followed, initially by Tasmania, and so far has survived a number of constitutional challenges. Most States now levy business franchise taxes with respect to tobacco and petroleum products and in some States these contribute as much as 20 per cent of tax revenue (see Table 2). Given that the principle which has safeguarded these taxes from being classified as excises rests on the fact they are imposed on the privilege to carry out a business, the tax can be extended to all types of business and thereby act as a proxy for a modest retail sales tax (Collins, 1988, chapters 21, 25.3; Groenewegen, 1980) but this extension has as yet not been tried by any State government.

(b) **Financial Institution Duty.** Perhaps also inspired by Sawyer’s perceptive paper (Sawyer, 1974, p. 181) which proposed taxes on receipts not related to the sale of goods as a constitutionally possible State tax, and likewise following the Campbell Committee’s suggestions for rationalising heterogeneous stamp duties by a more neutral and uniform financial institutions levy, Victoria and New South Wales introduced a small tax on financial institution receipts in 1982. This spread gradually to all other States (except Queensland) making a useful contribution to State tax revenue (see Table 2). Base has been broadly defined. It covers receipts of all banks, permanent building societies, credit unions, dealers in securities, trustee companies and special credit providers such as retail stores. revenue has been partly used to abolish some less desirable forms of stamp duty. From 1991, State revenue from the tax will benefit from the federal abandonment of Bank Accounts Debita Tax, already noted. Financial Institutions Duty has been criticised for its high compliance costs induced by the exemption of certain receipts (such as those, for example, for diplomatic staff) and its complex legislation which results in unintentional under- and over-payment by taxpayers (for a detailed discussion of this unusual tax see Valentine and Wallace, 1985; Collins, 1988, New South Wales FID Committee, 1990).

(c) **Financial Assets Duty.** In the context of a stamp duty reform proposal designed to abolish stamp duties on share transactions, the New South Wales Premier indicated that the revenue lost by this was to be recouped by the introduction of a new financial assets duty. Revenue from this new tax would in addition be used to abolish the current financial institutions duty and loan security duty, hence its introduction needs to be seen as part of a tax rationalisation scheme. This tax is perhaps better described as a tax on the assets of financial intermediaries. More specifically, its proponents have defined it as follows. It imposes an annual levy (payable in monthly instalments) on the audited book value of all Australian assets of a financial intermediary (to include banks, merchant banks, building societies, cash management trusts, insurance companies, superannuation funds, approved deposit funds, finance companies, credit unions and authorised money market dealers) in instances where the financial intermediary carries on business in New South Wales (New South Wales FID Committee, 1990, pp. 13-14). Difficulties in defining Australian financial assets, New South Wales business and asset valuation were fully recognised by its proponents. It was also realised that effective and efficient implementation required State cooperation and harmonisation of the tax across State boundaries. To be revenue neutral the tax was estimated to need a rate “somewhat higher than 0.07 per cent per annum” while the growth rate of the tax base relative to that of the tax bases it is designed to replace would ensure positive contributions to State tax revenue (New South Wales FID Committee, 1990, pp. 24-5). 18

It may be noted that the New South Wales State Tax Task Force (Collins, 1988, chapter 27) suggested the reintroduction of State estate and gift duties as a further desirable option in the State tax innovation area. Successful implementation of such a proposal would need cooperation of other States. In short, there is a substantial range of options available for reducing the vertical fiscal imbalance for the Australian States.
However, it has already been suggested that institutional factors in the Australian political framework make it unlikely that many of these options are going to be implemented. The reasons for this can be briefly reterated.

A retail sales tax option for the States, requiring as it does constitutional amendment, seems unlikely to succeed given the inbuilt hostility of the electorate against constitutional change. Even bipartisan support is unlikely to make this measure succeed. An approach based on State marginal income tax powers is also likely to fail in the Australian situation. Treasury opposition based on its implication for demand management effectiveness is one important factor, weighing heavily with a federal government whose cooperation is essential to allow this measure to proceed. Equalisation problems also make its implementation unlikely if combined with income tax room created through substantial grant abolition. Compromises over equalisation would have to be worked out. It must also be remembered that when the option was open to the States for over a decade, it was not used by them.

State tax innovation seems therefore a more fruitful approach. Here the potential for tax competition needs to be kept in mind. This either requires coordination, as Victoria and New South Wales did to some extent with Financial Institutions Duty, or cooperation, essential if States are to reintroduce capital transfer taxes on property passing at death. Such cooperation seems also indispensable if States move to tax financial assets at a significant rate, a rate essential if the tax is designed to rationalise existing State imposts of the type indicated by the New South Wales Premier. However, such cooperation and the uniformity in the innovating taxes it is likely to entail, eliminates that diversity, competition, experimentation, and opportunities for tax-payer choice, so beloved by the ardent federalist.

IV

What lessons can be learned from Australian experience? One of relevance to those in the process of drawing up a new constitution is to make that constitution easier to amend than Australia's is. This is all the more important when expectations in the fiscal sphere entertained by designers of a constitution are so easily falsified by the march of events. More importantly, Australian experience shows that a federation can survive substantial vertical fiscal imbalance without disastrous consequences, especially when surprisingly little convincing evidence has been produced on the various inefficiencies so frequently associated with it (cf. EPAC. 1990a, pp. 6-10, 26-36 on lack of such evidence with respect to duplication, for example). Australia's constitutional rigidities make a State retail sales tax unlikely; marginal income tax powers for States are likely to founder on the barrier of ingrained support for fiscal equalisation and the perceived stabilisation needs of federal Treasury. However, as has been convincingly argued in any case (Break, 1980, pp. 32-34) such marginal income tax powers rank low on the scale of tax decentralisation policies, given the limited State control over the tax in question they imply.

The same can be said for new State taxes when they require the degree of State cooperation and coordination the Australian situation appears to demand. Tax competition makes for uniformity rather than diversity in this case. At the same time, evidence on administrative costs of State taxation (Collins, 1988, pp. 93-4) suggests that economies of scale in Australian tax administration at the State level are real, and are particularly significant for smaller States and Territories. This imposes significant costs on the community from the introduction of new State taxes. In short, centralisation of taxes on the Australian model, which is sanctioned de facto by normative tax assignment rules, appears to be the best policy despite its recognised imperfections.
If this conclusion can be accepted, mechanisms will have to be found for secure and
certain institutionalised revenue sharing. In this area, Australian experience has not been
satisfactory. Its experiments with institutionalised tax revenue sharing failed because of an
overt use of central fiscal powers designed to maintain its economic dominance over the
States. Overcoming such difficulties requires institutional developments in cooperative
federalism for which precedents and bases exist in Australian experience from its Premiers’
Conference and Loan Council mechanisms. Australian experience, on the other hand,
augurs badly for tax decentralisation as conventionally conceived, and this is even more
ture when Australia’s dismal decentralisation record on local and regional government is
also considered.

FOOTNOTES

1. Although performing many of the functions of States, and in the case of the
Australian Capital Territory, of local government as well, territories cannot become
States under the constitution except with the consent of the original States. This
affects the Territory’s political representation in the parliament but so far has few
important fiscal federalism consequences. For a more detailed survey of the issues
raised in this section, see Groenewegen (1983).

2. Created in 1928 as a coordination mechanism for public borrowing and hence an
interesting experiment in cooperative federalism. Financial deregulation has negated
its role in interest determination and it is now basically an instrument whereby the
Commonwealth controls aggregate public borrowing for long term demand
management purposes. It has other potentials, however, including that of becoming
a vehicle for a national infrastructure investment planning.

3. Fewer than a dozen of such referenda have been successful in Australia’s federal
history, as against at least five times as many unsuccessful ones. Three small
states, comprising about a quarter of the voting population, can effectively veto any
referendum proposal for constitutional change.

4. Before federation, the State politicians who drafted the constitution expected the
concurrent tax power to be used by the Commonwealth only in great emergencies,
and hence saw it as a clause which gave the constitution desired flexibility. In short,
they viewed the compact as indirect taxes for the Commonwealth, and direct taxes
(income tax, land tax and estate duties) the preserve of the States.
5. This was used in the following way. Financial assistance grants could be made conditional upon States not levying their own income tax. Any income tax revenue raised by a State from its own tax being fully offset by grants to that State, there was a strong political disincentive on States to use their concurrent income tax power.

6. Bank Accounts Debits Tax, introduced in 1983, imposed a charge (at progressive rates) on cheque account debits in trading banks: a highly discriminatory tax and inconsistent with the federal government's policy to increase competitive neutrality in the Australian financial sector. The States and Territories (except Queensland) tax the receipts of financial institutions (broadly defined to include all credit granting organisations) at a flat rate of 0.03 per cent at the time of first imposition in 1983. Abolition of the Bank Accounts Debits Tax has induced some States to double their rate of Financial Institutions Duty.

7. As briefly discussed below, it may also be noted that estate duties disappeared in Australia at both federal and State levels during the decade after 1976, when Queensland initiated the move. Tax competition potential made all States follow suit. Abolition of federal estate duty was implemented by a conservative Prime Minister-grazier, but attempts at its reintroduction have been resisted equally strongly by his just as conservative successor.

8. Curtailment of financial assistance to the States has induced sharp rises in fees and taxes with a major impact on the Consumer Price Index and hence the official inflation rate. Curtailment of public consumption by restricting grants to the States as an anti-inflationary demand management strategy hence may partially negate the effects by the inflationary tax increases it induces at the State level.

9. The United Kingdom's introduction of the community Charge or poll tax and its simultaneous abandonment of the local government property rate goes against this general conformity in international local government tax assignment practice and the normative rules suggested by theory. However, this departure appears to be short-lived and re-introduction of the local rate in some form in the United Kingdom seems certain.

10. For a discussion of this reform, see King (1990).


12. A process initiated by the Prime Minister in July 1990, and fleshed out at a special Premiers' Conference (meeting of federal and State premiers) in October 1990. In its agreed communiqué at the end of the meeting, it was inter alia stated:

"Leaders and representatives have agreed on the need for a fundamental review of Commonwealth/State financial arrangements by a committee of senior expert officials. In this review the Commonwealth and the States recognise the need to address the question of vertical fiscal imbalance - with a view to reducing that imbalance while recognising the necessity for the Commonwealth to have adequate means to meet its national responsibility for effective macro-economic management .... This will embrace, firstly, an assessment of the distribution of Commonwealth and State Government taxation powers and examine the efficiency of the present allocation of such powers. All options for reform of the distribution of taxation powers will be considered in the course of this review, including the place of Local government in the structure of taxation."

13. Why this policy did not appeal to the electorate has never been satisfactorily investigated. Perhaps voters do not understand the underlying subtleties of the argument. The Opposition leader who won the election successfully conveyed to voters that the policy constituted double taxation, a far more simple message to
understand, and given the unpopularity of income tax at the time it clearly won the day.

14. J.R. Hewson, 'Sixth Sir Norman Coopper Catalan', 15 February 1991. Its details are more fully addressed later in this section. I am indebted to the Office of the Leader of the Opposition for a copy of this address.


16. 1990-91 budget estimates indicate total general revenue assistance of $13.6 billion, capital assistance of $0.3 billion, while hospital and education grants for the states amount to a further $6 billion, making a total of $20 billion. Income tax collections were estimated at $54.3 billion, now widely expected to be an over-estimate given the recessed conditions in which the Australian economy found itself for much of the 1990-91 financial year. However, these data suggest a forty per cent personal income tax cut across the board is quite feasible in such a scenario as that outlined by the Leader of the Opposition.

17. See Commonwealth Relations with other levels of Government 1990-91, Canberra: AGPS, 1990, Tables 17 and 32; Victorian Treasury (1990, pp. 36-7) estimates the Inter-State subsidy in hospital funding grants from New South Wales and Victoria to the other four States and the Northern Territory at $1.45 billion and $139 and $149 per capita respectively.

18. Announced by the Premier at a gathering of New York investors in February 1991. The New South Wales FID Committee as a result from responses to its 1990 report has now apparently decided not to proceed with its financial intermediaries asset tax proposal.

19. Although local government is included in the deliberations on vertical fiscal imbalance to be conducted at the special Premiers' conferences in 1991, new revenue instruments for local government have rarely been greeted with enthusiasm by State or federal committees of inquiry into local government finance. Space prevents detailed discussion of the Cinderella treatment accorded to local government in Australia, which likewise is a peculiar feature of antipodean practice in fiscal federalism. See National Inquiry (1985) chapter 16.5; Committee of Inquiry Into Local Government Rating (1990) chapter 11 and Groenewegen (1990), esp. pp. 17-19. New local government taxes suggested in this context include land tax, entertainment taxes, accommodation and tourist taxes, business licence tax, local income tax, development and improvement charges, local sales tax and since its United Kingdom introduction, the poll tax or community charge.

20. This shows State tax collection costs as a proportion of revenue varying from 0.45 per cent for New South Wales and 0.6 per cent in Victoria, to 0.78 in decentralised Queensland and 1.64 and 2.64 in Tasmania and the Northern Territory respectively. Little comprehensive data on this aspect of tax decentralisation seem to exist: cf. Helm and Smith (1990, p. 289 and n.16).
REFERENCES


Working Papers in Economics

108 S.G. Joson
109 B.N. Ross
110 L. Ermini
111 L. Ermini
112 P. Groenwegen
113 V.B. Hall, T.P. Truong & V.A. Nguyen
114 V.B. Hall, T.P. Truong & V.A. Nguyen
115 F. Gill
116 C. Kingston
117 V.B. Hall & W.R. Mills
118 W.P. Hogan
119 L. Ermini
120 P. Groenwegen
121 N.C. Bliss & B. imminent
122 W.P. Hogan & J.D. Sharp
123 C. Hall
124 L. Ermini
125 E. Kierman
126 F. Gill
127 E. Kierman
128 S. Leithi & J. Sheen
129 S. Birgeroves Hopt & Y. Varoufakis
130 J. Sheen
131 E. Jonas
132 S. Leithi & J. Sheen
133 F. Gill
134 W.P. Hogan
135 Y. Varoufakis

Offsets and Development of Defence Support Industries in Small Economies; April 1989
The Conglomerate and the Financial Agglomerate; Modern Forms of the Leader-Commanded Firm; July 1989
Incremental Behavior on Schedule and Hierarchical Decomposition; July 1988
The Limits of Keynesian Control Theory in Economic Policy-Making; July-October 1988
Neo-Classical Value and Distribution Theory: The English Speaking Pioneers; September 1988
An Australian Fuel Substitution Tax Model; October 1989
Responses to World Oil and Coal Shocks, in an Australian Short-Run Fuel Substitution Tax Model; October 1988
Social Justice and the Low-Paid Worker; October 1988
Theoretical Foundations of Constant-Proportion Portfolio Insurance; October 1988
Is Medium-Temperature Solar Thermal Process Feasible for Australian Use? Preliminary Results; November 1988
Insider Information and Market Adjustments; November 1988
Reinterpreting a Recent Temporarily Asymmetric Consumption Gap Model; December 1988
Progressive Personal Income Tax - A Historical Perspective; December 1988
Robustness of the Solution of the Growing Firm: Some Generalizations and Extensions; December 1988
Prudential Regulation of Bank Ownership and Control; January 1989
The Reform of Australian Aviation; June 1989
Transitory Consumption and Measurement Errors in the Permanent Income Hypothesis; June 1989
Is Austerity Necessary?; July 1989
Labour Market Flexibility - To What End?; August 1989
Financial Reform: A Perspective; September 1989
On Optimal Lumping; September 1989
Multiple Equilibria in Finitely Repeated Games; October 1989
International Monetary and Fiscal Policy Cooperation in the Presence of Large Inflexibilities; October 1989
Was the Post-War Boom Repressive?; October 1989
A Risk Averse Price-Sensitive Monopolist in a Model of International Trade; October 1989
A Target-Price Dilemma: Some Consequences of Incomplete Information; December 1989
New Banks in Australia; December, 1989
Modelling Rational Conflict: The Limits of Game Theory; February 1990
Working Papers in Economics Published Elsewhere

3 H.V. Lam  Journal of the Developing Economies, 17(3), March 1979
4 V.B. Hall & H.L. King  New Zealand Economic Papers, 8(3), March 1976
5 K.J. Philips  Economic Record, 53(141), September 1977
6 H.V. Lam  Journal of Development Studies, 14(1), October 1977
7 I.G. Sharpe  Australian Journal of Management, 13(2), April 1978
9 W.P. Hogan  Economic Papers, 55, The Economic Society of Australia and New Zealand, October 1977
12 I.G. Sharpe & P.A. Volker  Economic Letters, 2, 1979
13 I.G. Sharpe & P.A. Volker  Credit and Capital, 1201(1), 1979
15 F. Gill  Australian Economic Papers, 19(3), December 1980
18 I.G. Sharpe  Journal of Banking and Finance, 3(1), April 1979
23 I.G. Sharpe & P.A. Volker  The Australian Monetary System In the 1970's, M. Porter (ed.), Supplement to Economic Board 1978
25 I.G. Sharpe & P.A. Volker  Economic Record, 56(152), March 1980
27 W.P. Hogan  The Australian Journal of Management,
29 P. Saunders & W.P. Hogan  Malaysian Economic Review, 24(1), April 1976
30 W.P. Hogan  Australian Economic Papers, 18(133), December 1977
38 U.R. Kohli  Australian Economic Papers, 21(33), December 1982
41 W.P. Hogan  Canadian Journal of Economics, 15, May 1982
42 W.P. Hogan  Applied Economics, 15, February 1983
43 P. Saunders  Australian Economic Papers, 20(171), December 1981
46 W.J. Harrell  Journal of Industrial Economics, 22, March 1983
48 W.P. Hogan  Economic Record, 57(159), December 1981
53 J. Yates  AFSI, Commissioned Studies and Selected Papers, AGPS, IV 1982
54 J. Yates  Economic Record, 58(161), June 1982
55 G. Mills  Research, Australian Transport Research
56 V.B. Hall & P. Saunders  Economic Record, 60(158), March 1984
57 P. Saunders  Economic Record, 59(157), September 1983
58 F. Gill  Economic Papers, 4, 1984
59 G. Mills & W. Coleman  Journal of Economic Literature, March 1982
<table>
<thead>
<tr>
<th>Reference</th>
<th>Author(s)</th>
<th>Title</th>
<th>Volume/Issue</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>S.S. Joson</td>
<td>Australian Economic Papers</td>
<td>27(44), June 1985</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>R.T. Ross</td>
<td>Australian Quarterly</td>
<td>34(1), Spring 1984</td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>J.J. Murtilees</td>
<td>Economic Record</td>
<td>59(166), September 1983</td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>A. J. Philip</td>
<td>Australian Economic Papers</td>
<td>22(41), December 1983</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>V.B. Hall</td>
<td>Economic Letters</td>
<td>12, 1983</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>V.B. Hall</td>
<td>Energy Economics</td>
<td>8(2), April 1986</td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>P. Gill</td>
<td>Australian Quarterly</td>
<td>59(2), Winter 1987</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>J.J. Murtilees</td>
<td>Australian Economic Papers</td>
<td>23(42), December 1984</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>J. Yates</td>
<td>Australian Quarterly</td>
<td>56(2), Winter 1984</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>V.B. Hall</td>
<td>Economics Letters</td>
<td>28, 1986</td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>S.S. Joson</td>
<td>Journal of Policy Modeling</td>
<td>12(2), Summer 1986</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>R.T. Ross</td>
<td>Economic Record</td>
<td>60(170), September 1986</td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>R.T. Ross</td>
<td>Australian Bulletin of Labour</td>
<td>22(1), Sept 1985</td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>W.P. Hogan</td>
<td>Company and Securities Law Journal</td>
<td>68(1), February 1986</td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>J. Yates</td>
<td>Urban Studies</td>
<td>26, 419-433, 1989</td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>R.M. Ross</td>
<td>The Economic and Social Review</td>
<td>20(3), April 1980</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>R.T. Ross</td>
<td>Australian Bulletin of Labour</td>
<td>21(1), December 1985</td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>J. Piggott</td>
<td>Public Sector Economics - A Reader</td>
<td>P.Hare (ed.), Basil Blackwell, 1980</td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>B.W. Ross</td>
<td>Prometheus</td>
<td>6(2), December 1988</td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>S.S. Joson</td>
<td>Elitismo Del Cristo Valente: Istoria Di Economia Internazionale</td>
<td>3(2), 1990</td>
<td></td>
</tr>
<tr>
<td>87</td>
<td>J.G. Sharpe</td>
<td>The Australian Quarterly</td>
<td>56(1), 1990</td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>P.D. Groenewegen</td>
<td>The Economic Journal</td>
<td>100(1000), 1990</td>
<td></td>
</tr>
</tbody>
</table>

**References:**
- Australian Economic Papers
- Australian Quarterly
- Economic Record
- Australian Economic Papers
- Economic Letters
- Energy Economics
- Australian Quarterly
- Economics Letters
- Journal of Policy Modeling
- Economic Record
- Australian Bulletin of Labour
- Scottish Journal of Political Economy
- Company and Securities Law Journal
- Urban Studies
- The Economic and Social Review
- Australia's Greatest Asset: Human Resources in the Nineteenth and Twentieth Centuries
- Australian Bulletin of Labour
- Watts Bulletin
- Public Sector Economics - A Reader
- Decentralisation: Local Government and Markets: Towards a Post-Welfare Agenda
- Prometheus
- Elitismo Del Cristo Valente: Istoria Di Economia Internazionale
- Economic Analysis and Policy
- The Australian Quarterly
- The Economic Journal