

FORUM OF FEDERATIONS

OIL AND GAS MANAGEMENT AND REVENUES IN FEDERATIONS

AUSTRALIA

Michael Crommelin

Zelman Cowen Professor of Law
Melbourne Law School

1. Overview

The Australian Constitution makes no mention of oil and gas, and for sixty years these resources played no part in the evolution of the Australian federation. However, the discovery in the mid-1960s of valuable deposits of oil and gas in Bass Strait, several kilometres off the coast of the state of Victoria, had a lasting impact on both the Australian economy and the federal system of government. The initial response from governments, federal and state, was revealing. Cooperation was chosen above conflict. By and large, that approach has prevailed. As a consequence, forty years later and despite many changes, both levels of government, federal and state, are actively engaged in the management of oil and gas and share in the revenues derived from these resources.

Australian management and fiscal regimes for petroleum resources are therefore complex, if not convoluted. Federal and state governments play two parts in these regimes, as resource proprietors and regulators. For the most part, however, they have eschewed direct participation, electing instead to engage private enterprise to undertake upstream operations pursuant to statutory licensing arrangements administered by those governments. Petroleum revenues, while by no means insignificant, have never been large enough to dominate public policy. Among governments, there has been recognition that revenue sharing is an essential ingredient of the cooperative approach.

2. Historical and regional context of petroleum industry¹

The first petroleum exploration well in Australia was drilled in 1886. It was unsuccessful. Natural gas was discovered, by accident, near Roma, in Queensland, in 1900, then condensate nearby in the late 1920s, but the deposits were barely economic. In 1953, oil was found near Exmouth Gulf, in Western Australia, but again excitement was followed by disappointment. The reservoir was small, thin and non-commercial. Geological opinion inclined strongly towards the view that the Australian continent was too old to contain petroleum in commercial quantities.

A few years later, the tide turned. More gas was discovered near Roma in 1960, and in the following year, oil was found nearby, at Moonie. Two years later, in 1963, the Moonie field was declared commercial. Further onshore discoveries of oil, condensate and gas followed in rapid succession: Moomba, in South Australia, in 1963; Mereenie, in the Northern Territory, in 1964; Barrow Island, in Western Australia, in 1964; and Palm Valley, in the Northern Territory, in 1965. These discoveries provoked a reappraisal of Australia as a petroleum province, and marked the beginning of a new era of petroleum exploration. They did not, however, have an immediate impact on the Australian economy. While commercial, these deposits were small, remote from major population centres, or both; their development required both time and investment in substantial quantities.

Offshore, it was a different story. Drilling commenced in Bass Strait, off the coast of Victoria, late in 1964, and success was swift and dramatic. First gas, then oil, was

discovered in such quantities that Australia, within a few years, was transformed from almost total dependency on imports to near self-sufficiency in petroleum. More recent exploration has not met with similar success, and Australia no longer enjoys self-sufficiency, but Bass Strait continues to produce oil and gas in substantial quantities.

Petroleum exploration has also been conducted off the north-west coast of Western Australia, on the North West Shelf and elsewhere in the Timor Sea, for more than forty years. Complex geology, deep water and remote location have made the task difficult, at times frustrating. Nevertheless, perseverance has been rewarded by discoveries of crude oil, condensate and natural gas. The deposits of crude oil and condensate are not large enough to compensate for the decline in Bass Strait fields in recent years, but the deposits of natural gas are vast, sufficient to underpin substantial exports of liquefied natural gas (LNG) to Japan and China.

Australia is not, and has never been, a major player in the international petroleum game. Even so, petroleum plays a significant part in the Australian economy, and the management of petroleum resources presents a continuing challenge to Australian governments. In 2006-7, Australia produced about 33,000 megalitres of crude oil, condensate and liquified petroleum gas (LPG), equivalent to about 600,000 barrels of oil per day. Production of LNG was just over 39,000 million cubic metres². The current level of self-sufficiency in crude oil, condensate and LPG is around 53%³. In January 2006, Australia's estimated proved and probable reserves of crude oil, condensate and LPG were 965 ggalitres (0.1% of world reserves) and estimated proved and probable reserves of natural gas were 4,316 billion cubic metres (0.5% of world reserves)⁴. In 2004-5, the value of Australian petroleum production was A\$ 15.3 billion, about 2% of gross domestic product⁵. Production of crude oil, condensate and LPG has declined slowly for almost a decade, while production of LNG has increased substantially in that period. Australia is a net importer of crude oil, and a significant net exporter of LNG⁶.

Offshore regions dominate the production of petroleum in Australia⁷. In 2006-7, about 90% of the production of crude oil, condensate and LPG came from offshore regions; the Carnarvon Basin (incorporating the North West Shelf and the Timor Sea, off the north-western coast of Western Australia) accounted for 63% of total Australian production, the Gippsland Basin (in Bass Strait, off the coast of Victoria) contributed 19%, and the Bonaparte Basin (off the northern coast of Australia) provided almost 6%. Onshore, the Cooper-Eromanga Basin (partly in South Australia and partly in Queensland) provided more than 8% of total Australian production, most of the remainder; two-thirds of that came from the South Australian part of the basin.

The dominance of offshore regions is almost as strong with respect to natural gas⁸. In 2006-7, more than 80% of the production of natural gas came from offshore regions; about 65% from the Carnarvon Basin, and almost 20% from the Gippsland Basin. Onshore, South Australia contributed about 10% of total Australian production, with lesser amounts produced in Queensland, the Northern Territory, Victoria, Western Australia and New South Wales. A recent development of some significance is the growing contribution made to gas production by coal seam gas, mainly in Queensland but

also in New South Wales. In 2005-6, coal seam gas represented almost 5% of total Australian gas production, but that figure is destined to increase rapidly as new developments come on stream.

Petroleum produced from the Carnarvon Basin is largely exported, as crude oil and LNG, whereas crude oil from the Gippsland Basin is predominately used to feed Australian refineries and natural gas is used to supply the major cities of Melbourne and Sydney. Petroleum produced onshore is consumed locally⁹. The predominance of LNG exports from the Carnarvon Basin recently caused debate in Western Australia, at a time when rapid regional economic growth and accidental damage to a major gas facility supplying the local market combined to produce local gas shortages. The issue was whether a prescribed portion of natural gas production should be reserved for the Western Australian market. Given that the vast majority of gas production occurs offshore, this issue had a significant federal-state dimension. It also provided a recent illustration of state government endeavours, dating from the Bass Strait discoveries in the 1960s, to use the upstream petroleum industry to promote regional development,.

Other policy drivers have been a strong desire (particularly on the part of successive federal governments) to enhance energy security by decreasing Australia's dependence on imported crude oil and refined petroleum products. Concern over trade deficits has also been a contributing factor. After a brief flirtation in the early 1970s with subsidized prices for consumers of petroleum products, the federal government adopted a policy of international pricing in 1978 and has maintained that policy notwithstanding the recent perturbation in world prices. For a decade or so after 1978, maximization of government revenue was also a significant consideration, but more recently the decline in self-sufficiency in petroleum liquids has caused energy security to prevail over government revenue in the overall policy mix. With only minor exceptions, federal and state governments have relied on private enterprise to undertake petroleum exploration and production, rather than direct participation. As a consequence, free market philosophy has exerted noticeable influence upon the regulation of upstream petroleum operations.

Political controversy has erupted from time to time over issues such as government participation in petroleum exploration and production, fiscal authority, export controls and environmental protection. In 1974 the federal government attempted to establish a national petroleum and minerals corporation to engage directly in upstream activities, onshore and offshore. This proposal was strenuously resisted by Western Australia and Queensland, in particular, and the required legislation was defeated in the Senate. In 1987 the federal Parliament enacted legislation imposing a petroleum resource rent tax on offshore petroleum operations, replacing the federal crude oil levy and the federal royalty. Its plan to extend the petroleum resource rent tax to onshore petroleum operations, in place of the federal crude oil levy and state royalties, was vigorously opposed, again by Western Australia and Queensland, and finally abandoned. The argument in Western Australia over reservation of a prescribed portion of natural gas production for domestic use has now abated, but there can be no doubt about the authority of the federal Parliament to determine the matter as it sees fit. The celebrated battle in 1983 over environmental protection between the federal and Tasmanian

governments involved hydro electricity rather than petroleum, but the decision of the High Court of Australia in the *Tasmanian Dam Case* recognized the power of the federal Parliament to prohibit a major resource project on environmental grounds¹⁰.

3. Federal system and constitutional provisions

The federal Commonwealth of Australia was established on 1 January 1901, after more than a decade of debate and negotiations among the six British colonies that became its original states. At that time, there were great disparities among the original states in area, population, wealth and income. Perhaps surprisingly, given these disparities, the Australian federation is essentially symmetrical in nature, with all states enjoying similar powers and responsibilities.

The rationale for the Australian federation did not lie in economic, ethnic, religious, linguistic or educational cleavages. European settlement from the end of the eighteenth century displaced the Aboriginal inhabitants and established an Anglo-Celtic culture which predominated at the time of federation. Subsequent waves of immigration from Central and Eastern Europe, the Americas, Asia, Africa and the Middle East, especially during the second half of the twentieth century, have produced a much more diverse society but differences that now exist do not generally align with the boundaries of the Australian states and territories. Indeed, the Australian federation remains remarkable for its relative homogeneity¹¹.

The Commonwealth now comprises six states, two self-governing mainland federal territories, and a number of external federal territories. Large disparities remain. Tasmania is the smallest state by area, population and economic capacity. It has an area of 68,400 square kilometres, about 2.7 % of that of Western Australia, the largest state, which occupies almost one-third of the Australian land mass of 7,618,000 square kilometres. It has a population of only 494,500, about 7 % of that of New South Wales, the most populous state, which has almost one-third of the current Australian population of 21 million. In 2006-7, gross state product per capita ranged from A\$39,160 in Tasmania to A\$61,490 in Western Australia (compared to the average gross domestic product per capita of A\$47,954)¹².

The federal Parliament is bicameral, with the original states entitled to equal representation in the Senate, and representation in the House of Representatives proportional to their respective populations¹³. The Constitution confers equal powers on the two houses, apart from some exceptions regarding money bills¹⁴.

The scheme adopted by the Constitution for allocation of legislative power between the two levels of government is to confer a limited number of fairly specific powers, most of which are concurrent rather than exclusive, upon the federal Parliament, and to leave an undefined residual legislative authority with the state legislatures¹⁵. In the event of inconsistency between a federal law and a state law, the federal law prevails¹⁶.

The federal Executive is parliamentary. No Minister of State can hold office for more than three months unless he or she is or becomes a member of the federal Parliament¹⁷. The scope of federal executive power is not defined¹⁸.

The federal Judicature comprises the High Court of Australia and other federal courts that the Parliament creates from time to time to exercise federal judicial power. In addition, the Parliament may confer federal jurisdiction on state courts, in its discretion¹⁹.

The Australian Constitution acknowledges the existence of state constitutions at the time of federation and provides for their continuation²⁰. In this respect, the Australian Constitution is clearly dualist in nature, with each level of government having constitutional responsibility for maintaining a complete institutional framework comprising the three familiar branches of government, legislative, executive and judicial. State legislatures are usually bicameral²¹. All states have parliamentary executives, and their own courts.

The framers of the Australian Constitution decided that, in order to establish a common market among the original states, it was necessary for the federal Parliament to have *exclusive* powers to impose duties of customs and excise, and to grant bounties upon the production and export of goods²². At the time of federation, duties of customs and excise were the most significant colonial fiscal imposts, responsible for about 40% of colonial revenues. An inescapable consequence of this decision was substantial vertical fiscal imbalance, as it was never contemplated that federal responsibilities would require expenditures of such magnitude, and states would surely lack the capacity to discharge their responsibilities from their diminished tax base. The Constitution included provisions for federal transfers of “surplus revenue” to the states²³, including section 96 authorizing the federal Parliament to “grant financial assistance to any State on such terms and conditions as the Parliament thinks fit”. These provisions were intended to deal with the consequences of vertical fiscal imbalance, not to eradicate it. Vertical fiscal imbalance, severely exacerbated by judicial construction²⁴ and political opportunism²⁵, remains a significant design feature of the Australian Constitution.

In contrast, despite the disparities among the original states in wealth and income that were present at the time of federation, the federal Constitution did not attempt to alleviate horizontal fiscal imbalance, apart from a temporary measure acknowledging the particular disadvantages inflicted upon Western Australia by the imposition of uniform federal duties of customs²⁶. This issue was only tackled thirty years later, during the Great Depression, by adoption of a peculiarly Australian form of equalization.

The first century of the Australian federation has seen a relentless centralization of constitutional power. War, financial upheaval, globalization, vertical fiscal imbalance, judicial interpretation and political parties have all made a contribution. The growth of national political parties has been particularly significant. Fragmentation of political parties on regional lines has been exceptional and transitory in Australia, and the major political parties, regardless of philosophy and platform, have exerted a powerful unifying influence.

3.1 Onshore

(a) Ownership and jurisdiction

During much of the colonial era in Australia, control of natural resources was linked with ownership of land. The British colonists brought with them the English common law, which included a presumption that the owner of land is entitled to all that lies above or below the surface. Most minerals were regarded as part of the land in which they naturally occurred and accordingly passed into private ownership upon government grant of the land, unless specifically reserved to the government²⁷. However, during the last quarter of the nineteenth century the Australian colonies adopted the policy of reserving minerals from government land grants, thereby terminating the private acquisition of petroleum resources through land grants. In the early part of the twentieth century the Australian states took the further step of enacting legislation declaring that all petroleum in place was owned by the relevant state government regardless of the ownership of the land in which the petroleum was located. In effect, these provisions expropriated any petroleum resources that had passed into private ownership prior to the adoption of the policy of reservation of petroleum from government land grants²⁸.

The result is that each state owns all naturally occurring petroleum within its territorial boundaries. The Australian Constitution does not disturb this position. Moreover, in 1978 the federal Parliament placed the Northern Territory in a similar position when it conferred self-government on the territory²⁹.

As previously mentioned, the Australian Constitution confers a limited number of fairly specific powers, most of which are concurrent rather than exclusive, upon the federal Parliament, while leaving an undefined residual legislative authority with state legislatures. Section 51 of the Constitution contains a list of 40 concurrent powers of the federal Parliament, and section 52 contains a much shorter list of exclusive powers. No reference is made to natural resources (or to petroleum resources in particular) in either list.

Nevertheless, the federal Parliament is not bereft of all legislative authority over the exploitation of petroleum resources. Several of its powers conferred by section 51 of the Constitution allow the Parliament to exercise a significant measure of control over aspects of petroleum exploration and production. These powers include: s.51(i): interstate and overseas trade and commerce; s.51 (ii): taxation; s.51 (vi): defence; s.51 (xx): corporations; s.51 (xxvi): Aboriginal people; and s.51 (xxix): external affairs. The High Court of Australia has, by and large, been generous to the federal Parliament in determining the scope of these powers³⁰. While the Parliament can not supplant entirely the legislative authority of the states over their petroleum resources, it has the capacity to exert considerable influence over the development of these resources. Whether it chooses to exercise this capacity is a political matter.

However, the Constitution does impose some constraints on federal legislative authority. First, the Parliament is required to provide “just terms” in the event of acquisition of state petroleum resources: s.51 (xxxii). Secondly, in enacting any law of trade, commerce or revenue, the Parliament is precluded from giving preference to one state (or any part thereof) over any other state (or any part thereof): ss. 99, 51 (ii). Thirdly, the Parliament is precluded from imposing any tax on state petroleum resources: s.114³¹.

In the result, both the federal Parliament and state legislatures have considerable jurisdiction over onshore petroleum resources. The powers of the federal Parliament are extensive, but not unlimited; the state legislatures have broad residual authority derived from resource proprietorship and state constitutions. In this realm of concurrent power, federal laws prevail over inconsistent state laws. Intergovernmental relations are thus important, and Australia now has a plethora of ministerial councils, commissions and committees devoted to exchange of information and coordination of policies. The Ministerial Council on Energy and the Environment Protection and Heritage Council are two such bodies.

(b) Exploration and production regime

Despite government ownership of onshore petroleum resources, all states and the Northern Territory engage private enterprise rather than state corporations or authorities to undertake exploration and production activities. The approach adopted for this purpose is to establish statutory licensing regimes. The details of these regimes vary somewhat from state to state, but common features are nonetheless discernible. All regimes comprise at least two stages, one applicable to exploration, another to production. Some regimes include a third intermediate stage allowing retention of an area after discovery until commercial production is feasible. The allocation process for an exploration title is discretionary, allowing the government to take account of a wide range of factors in deciding when to grant a title, on what terms, to which applicant. An exploration title may initially be granted over a relatively large area, although that area will usually be reduced at prescribed intervals by obligatory relinquishment of parts thereof. The holder of an exploration title is required to perform specified work (such as the drilling of wells) or to spend specified sums on approved exploration operations, or both. Failure to fulfil these obligations will render the title liable to cancellation. In some states, the holder of an exploration title who discovers commercial deposits of petroleum is entitled on application to the grant of a production title in respect of that discovery. In others, the grant of a production title is subject to ministerial discretion. A production title is granted over a relatively small area, but there is usually no limitation placed on the number of production titles that can be acquired by an applicant. The holder of a production title is required to develop the deposits and produce petroleum, in accordance with a plan approved by the government.

Overall, these statutory licensing regimes confer a large measure of discretionary power on ministers and government officials at all stages of exploration and production operations, from the initial application for an exploration title to the abandonment of a

field upon exhaustion of commercial deposits. Although state and territory governments engage private enterprise to exploit their petroleum resources, they retain the capacity to subject petroleum operations to close scrutiny and supervision, and to influence the timing and scale of exploration, development and production. Their approval is also required for most commercial dealings with interests in petroleum titles. Decisions are usually made following consultation between government and company officials, with little scope for public participation unless a project has potentially serious environmental implications. In that case, an environmental impact assessment is required, and that process allows public participation. To date, however, onshore petroleum operations have provoked little public controversy due to the small scale of those operations and the location of discoveries in remote areas of the continent.

3.2 Offshore

*(a) Ownership and jurisdiction*³²

Uncertainty over offshore ownership and jurisdiction within the Australian federation provided a spur to intergovernmental cooperation when offshore petroleum exploration commenced in the 1960s. At first, there was no legislation dealing specifically with offshore operations. Exploration titles were acquired under the petroleum legislation of adjoining states. However, doubts were expressed about the capacity of the states to grant these titles. In 1962, the Commonwealth and the states began negotiations aimed at achieving “a national solution to the problem of offshore exploration and exploitation”. On 16 October 1967, the Commonwealth and the states concluded the “Agreement relating to the exploration for, and the exploitation of, the petroleum resources, and certain other resources, of the continental shelf of Australia and of certain territories of the Commonwealth and of certain other submerged land”.

The main object of this agreement was to set aside the competing jurisdictional claims of the Commonwealth and the states, without derogating from them. The governments recognized that if offshore petroleum operations were to proceed (and by this time major discoveries of oil and gas had already been made in Bass Strait), it was necessary to provide a method of granting exploration and production titles that would survive the ultimate resolution of the constitutional issue of offshore jurisdiction. Moreover, it was agreed that offshore petroleum should, as far as possible, be subject to a common legal code.

The device for achieving these objects was “mirror legislation”. The seven governments undertook to submit bills in identical terms governing offshore petroleum operations to their respective legislatures, and to refrain from amending the enacted legislation without prior unanimous agreement. Hence the federal Parliament passed the *Petroleum (Submerged Lands) Act 1967*, and each state enacted its own statute in virtually identical terms.

A major achievement of the 1967 agreement was the delineation of “adjacent areas”, one appertaining to each state and coastal territory. The federal statute applied to all adjacent

areas, while each state statute applied only to “its” adjacent area. In this way, two statutes (one federal, one state) purported to govern all petroleum operations conducted in each state adjacent area. Exploration and production titles were granted in duplicate, reflecting their two possible sources, but it was unnecessary to determine which of these was effective as both were in identical terms. Furthermore, both statutes were administered in each state adjacent area by a “Designated Authority” which derived its legal authority from both sources. In fact, the Designated Authority for each state adjacent area was the relevant state minister, who was required by the agreement to consult with his or her federal counterpart before exercising some of the more significant powers conferred by the offshore petroleum legislation. However, subsequent experience showed that when federal and state ministers disagreed on such matters, the federal government lacked the capacity to enforce its policies.

The 1967 agreement favoured the states in two other respects. First, private companies who had acquired offshore exploration and production titles under state legislation prior to the enactment of the *Petroleum (Submerged Lands) Acts* were entitled to convert these into corresponding titles under the new offshore regime. These titles covered vast areas of Bass Strait and the North West Shelf. Secondly, the agreement provided for sharing of revenues derived from offshore petroleum operations between the federal and state governments. Royalties were to be shared on the basis of 4 per cent to the federal government and the remainder (between 6 and 8.5 per cent) to the state in whose adjacent area the production occurred. The states were also entitled to area rental and cash bonus bid payments.

It was therefore unsurprising that, following a change of government some years later, the federal Parliament passed the *Seas and Submerged Lands Act 1973* asserting federal sovereignty over Australia’s internal waters (other than those within state territorial boundaries) and Australia’s territorial sea (which then extended 3 nautical miles from the ordinary low water mark or other internationally recognized baselines), plus federal sovereign rights to explore the continental shelf and to exploit its natural resources. The constitutional validity of these claims was challenged by all six states, but to no avail. The High Court of Australia held that the federal Parliament, by virtue of its power to make laws with respect to “external affairs”, had jurisdiction over all offshore areas beyond the territorial boundaries of the states as they were at the time of federation. Usually, these boundaries were represented by the ordinary low water mark.

The states then resorted to political action, with somewhat more success. In 1979, the federal and state governments reached a new accord on offshore jurisdiction. The Offshore Constitutional Settlement modified the 1967 agreement in several significant respects. First, the states acquired legislative authority over their “coastal waters” (extending 3 nautical miles offshore from their territorial boundaries) and ownership of the seabed beneath their coastal waters (including petroleum resources therein). The boundaries of their “adjacent areas” were revised to exclude these coastal waters. The states thus gained the capacity to control petroleum operations in their coastal waters, although they agreed to retain the common offshore legal code as far as practicable. Secondly, offshore petroleum operations in the revised adjacent areas were now subject

only to federal legislation, initially an amended *Petroleum (Submerged Lands) Act*, which was subsequently replaced by the *Offshore Petroleum Act 2006*. Thirdly, the administration of the more significant provisions of this federal legislation in each adjacent area was transferred from the Designated Authority (who retained day-to-day administrative functions) to a newly established Joint Authority (comprising the federal minister and the relevant state minister, with the views of the former prevailing in the event of disagreement). In this way the federal government obtained control of offshore petroleum policy without abandoning completely the devolved administrative structure. Fourthly, the 1967 arrangements for revenue sharing continued to apply in all coastal waters and adjacent areas, at least for the time being. Finally, in recognition of its recently won self-government, the Northern Territory was treated as a state for the purposes of the accord.

What is remarkable about the Offshore Constitutional Settlement, given the decision of the High Court of Australia in the *Seas and Submerged Lands Act* case, is the extent of the responsibility over offshore petroleum operations retained by the states. The states obtained jurisdiction over coastal waters, along with ownership of seabed resources. In addition, the states retained a stake (albeit diminished) in the administration of the federal legislation in their adjacent areas, along with a share of revenues derived from petroleum operations in those areas. It seems that the cooperative arrangements adopted in 1967 to deal with jurisdictional uncertainty still exert a powerful political influence upon the design and administration of Australia's offshore petroleum regime.

(b) Exploration and production regime

The *Offshore Petroleum Act* establishes a statutory licensing regime governing offshore petroleum operations conducted in all adjacent areas beyond the limits of coastal waters. It prohibits exploration and production otherwise than in accordance with the provisions of this regime. Three main statutory titles are provided, one for exploration, another for production, and a third for retention purposes. The Joint Authority invites applications for an exploration permit over specified blocks. Usually, applicants are required to submit bids indicating exploration programs and expenditures that they will undertake during the initial term (6 years) of the permit. The Joint Authority may reject any bid that does not meet statutory criteria. Otherwise, the permit is awarded to the applicant proposing the most extensive work program. In certain circumstances, the Joint Authority may seek cash bonus bids rather than work program bids, but this seldom occurs in practice. The holder of an exploration permit may engage in a wide range of exploration activities, including the drilling of wells. Most permits are renewable at the conclusion of the initial term, subject to relinquishment of at least half of the blocks in the permit area. In the event of a petroleum discovery, the holder of an exploration permit is entitled (after meeting detailed procedural requirements prescribed by the Act) to the grant of a production licence over the block or blocks containing the petroleum reservoir. A production licence remains in force as long as petroleum is produced from the licence area. The holder of a production licence may conduct exploration, development and production operations within the licence area, subject to any conditions imposed by the Joint Authority upon the grant of the licence. The holder of a licence acquires property in

petroleum produced from the licence area. If, following discovery of petroleum by the holder of an exploration permit, it appears that commercial production is not feasible for the time being, the holder of the permit may apply for a retention lease rather than a production licence in respect of that deposit. However, the Joint Authority may only grant a retention lease if satisfied that prescribed statutory criteria have been met.

The offshore petroleum regime confers substantial discretionary powers on the Joint Authority. Detailed procedural requirements must be satisfied prior to the exercise of these powers, but nevertheless the offshore regime has a strong discretionary character. The discretionary powers of the Joint Authority relate to the grant of exploration permits and retention leases, the imposition of conditions on the grant of all statutory titles (including production licences), the timing and extent of development expenditure, the rates of production from any field, the abandonment of production facilities and the surrender of a petroleum title. The Joint Authority must also approve any transfer of a petroleum title or the disposal of any interest in a petroleum title. There is little scope for public participation in the exercise of these discretionary powers, unless a project poses substantial risks to the natural environment. Usually, environmental concerns are resolved without public participation in environmental impact assessment.

4. Petroleum revenue arrangements in context of federal fiscal regime

States are severely constrained in deriving revenues from petroleum operations by section 90 of the Australian Constitution, which precludes them from imposing duties of customs and excise. The High Court of Australia has construed “duties of excise” to include taxes on the production, distribution and sale of goods, leaving little scope for state fiscal ingenuity. It is generally believed that a royalty falls outside this constraint on the basis that it constitutes part of the purchase price paid for acquisition and exercise of the statutory right to produce petroleum resources that are owned by the state, rather than a “tax”, but the matter has not been tested in the High Court.

Australian states impose a royalty, usually at the rate of 10% of wellhead value, on petroleum production within their territorial boundaries. In 2006-7, the value of production from onshore petroleum fields was only A\$2 billion: A\$890 million in South Australia, A\$803 million in Queensland, A\$189 million in Western Australia, and A\$88 million in the Northern Territory. Petroleum royalties collected in 2006-7 were A\$148 million, about 0.3% of state and territory taxation revenue in that year³³.

The only other fiscal instrument used by the states to raise revenues from upstream petroleum activities is an area rental levied on petroleum exploration and production titles, but the proceeds of this impost are insignificant in the wider budget context.

The federal government uses three specific fiscal instruments to raise revenues from upstream petroleum operations: royalty, crude oil excise (often described as the crude oil levy) and petroleum resource rent tax (PRRT). The *Offshore Petroleum Act* allows allocation of offshore petroleum titles on a cash bonus bidding basis in certain

circumstances, but this opportunity is seldom used in practice. The Act also imposes annual fees on offshore titles but these are not substantial. In addition, the federal government obtains revenues from upstream petroleum operations, onshore and offshore, from income tax and goods and services tax, but these taxes are not specific to petroleum operations. Royalty, crude oil levy and PRRT payments are all allowable expenditures in determining liability for federal income tax.

The *Petroleum (Submerged Lands) Act 1967* imposed a royalty of between 10% and 12.5% (depending on the size of the production licence granted in respect of a petroleum discovery) on the wellhead value of petroleum produced in offshore adjacent areas. As noted above, the 1967 agreement between the federal and state governments on offshore jurisdiction provided for the sharing of the proceeds of this royalty between the federal government (4%) and the state in whose adjacent area the production occurred (6% - 8.5%), and the Offshore Constitutional Settlement 1979 maintained this arrangement. However, this royalty now applies only to offshore petroleum title areas that are exempt from the PRRT, which was introduced in 1987. In fact, there are only two of these areas, on the North West Shelf. In 2006-7, Western Australia received A\$706 million as its share of royalty payments made in respect of these two exempt offshore areas³⁴, compared to less than A\$19 million in royalties derived from all onshore petroleum production in that state.

The crude oil levy was imposed in 1975 by the federal Parliament under the *Excise Tariff Act 1921* in response to dramatic increases in world oil prices in the early 1970s. At first it was a “flat” levy of A\$2 per barrel of crude oil, but when the federal government removed price controls on domestic crude oil production in 1978, the levy was imposed at variable rates depending upon the date of discovery of petroleum deposits. In 1983 the variable levy was replaced by a “sliding-scale” levy with a top marginal rate of 87% on production exceeding 600 megalitres per annum from any petroleum field. Subsequently the crude oil levy was restructured with different scales for three categories of petroleum deposits: “old” (discovered before 18 September 1975); “new” (discovered after 18 September 1975; and “intermediate” (discovered before 18 September 1975 but not developed before 23 October 1984). Since 2001 the top marginal rate for crude oil and condensate produced from old and intermediate deposits has been 55%, while the top marginal rate for crude oil and condensate produced from new deposits has been 30%. As with the federal royalty, however, the crude oil levy now applies only to offshore petroleum title areas that are exempt from PRRT. Moreover, since 1987 the *Excise Tariff Act* has provided an exemption from the levy for onshore petroleum fields producing less than 30 million barrels of crude oil per year. All onshore fields currently obtain the benefit of this exemption. As a consequence, the crude oil levy now applies only to crude oil and condensate produced from two offshore title areas on the North West Shelf. It has no application to natural gas.

On 18 April 1984 the federal government announced that offshore petroleum projects developed after that date (“greenfields projects”) would be subject to a new resource rent tax and exempt from royalty and the crude oil levy. Three years later, the federal Parliament enacted the *Petroleum Resource Rent Tax Act 1987* and related legislation

imposing the PRRT on petroleum production from offshore adjacent areas, other than Bass Strait and the North West Shelf. The desire of the federal government to extend the PRRT to onshore petroleum production, in lieu of state royalties, was thwarted by opposition from two states in particular, Western Australia and Queensland. In 1990 the PRRT was applied to Bass Strait, despite estimated costs to government revenue of A\$ 305 in 1990-91 and A\$450 in 1991-2³⁵. This left two title areas on the North West Shelf as the only offshore production areas exempt from PRRT (but remaining subject to the federal royalty and the crude oil levy).

PRRT is imposed on a project basis at the rate of 40% of “taxable profit” in any tax year. It is payable only in cash, not in kind. A production licence granted under the *Offshore Petroleum Act* usually constitutes a project for PRRT purposes. A taxable profit occurs when the assessable receipts derived from petroleum production in a tax year exceed deductible expenditure incurred in that year. Assessable receipts are the total receipts, whether of a capital or revenue nature, derived from a project (including the proceeds of sale of petroleum and project property). Deductible expenditure is the total expenditure, whether of a capital or revenue nature, incurred in a tax year in relation to the project, including exploration, development, production and closing-down expenditure. Exploration expenditure is transferrable among projects. Any expenditure that is not recouped in a tax year is carried forward and augmented at prescribed rates until recovered. The prescribed rate for exploration expenditure is the long-term bond rate plus 15%, while the prescribed rate for development and production expenditure is the long-term bond rate plus 5%. Several categories of expenditure are not deductible: the cost of capital, whether debt or equity; private overriding royalty payments; private payments made to acquire interests in petroleum titles; income tax, fringe benefit tax and goods and services tax payments; indirect administrative (“head office”) costs; and cash payments made to acquire petroleum titles under the *Offshore Petroleum Act*.

In 2006-7, the federal government derived A\$3.172 billion from the petroleum royalty, the crude oil levy and the PRRT, amounting to about 1.2% of federal government taxation revenues for that year. The federal royalty contributed A\$1.053 billion, the crude oil levy A\$525 million, and the PRRT A\$1.594 billion³⁶.

One further matter deserves mention. The federal *Resource Rent Royalty Act 1985* allows the federal government to waive the crude oil levy on an onshore petroleum project when the relevant state, pursuant to an agreement with the federal government, imposes a petroleum resource rent royalty (PRRR) on that project. Such an agreement was reached between the federal and Western Australian governments in relation to the Barrow Island field, located largely on Barrow Island (part of the state of Western Australia) and within the coastal waters of Western Australia adjoining Barrow Island. The state PRRR applicable to the Barrow Island field is similar to the federal PRRT, except that it places limits the deduction of exploration expenditure. Production from this field is exempt not only from the crude oil levy but also from the state royalty. The proceeds of the PRRR are shared between the two governments, 75% to the federal government and 25% to Western Australia. This agreement is the only one of its kind concluded so far under the *Resource Rent Royalty Act*.

As previously noted, vertical fiscal imbalance has been a feature of the Australian federation from the outset. This imbalance has recently increased to near record levels. Broadly speaking, state and local governments nowadays meet less than half their expenditures from their own revenue sources, and depend on federal government transfers for the rest. In 2006-7, the federal, state and local government shares of total Australian taxation revenue were 82 %, 15 % and 3 %, respectively³⁷, compared to their shares of total government expenditure of approximately 61 %, 33 % and 6 %, respectively³⁸. Federal government transfers to state and local governments represented almost 26% of federal government taxation revenue in that year. General purpose (unconditional) payments amounted to A\$40 billion, while specific purpose (conditional) payments were A\$28 billion³⁹.

During the first thirty years of federation, federal government transfers were made to the states on an equal per capita basis, together with additional payments to Western Australia, South Australia and Tasmania from time to time to meet their needs (as judged by the federal Parliament) for special assistance⁴⁰. However, these *ad hoc* arrangements did not alleviate a strong resentment felt in outlying states towards the federal tariff policy, with its adverse impact on economic activity in those regions. In Western Australia this resentment was long standing and particularly acute. During the Great Depression, it coalesced in a political movement for secession. In 1933, a state referendum for secession from the federation was carried by a majority of two to one, and the Western Australian government then petitioned the United Kingdom Parliament for legislation to give effect to this vote. The United Kingdom Parliament declined to act on the petition, and negotiations followed between the federal and Western Australian governments. The outcome of these negotiations was the establishment, by act of the federal Parliament, of the Commonwealth Grants Commission, an expert body responsible for advising the federal government on claims by the states for federal financial assistance under section 96 of the Australian Constitution.

In its early years, in assessing the needs of “claimant states” for special federal grants, the Commonwealth Grants Commission devised a principle of horizontal fiscal equalization, now enshrined in section 5 of the *Commonwealth Grants Commission Act 1973*, requiring the grant of “financial assistance to a State for the purpose of making it possible for the State, by reasonable effort, to function at a standard not appreciably below the standards of other states”. The Commission now gives practical effect to this principle by a comprehensive assessment of both the revenue-raising capacities and the expenditure needs of the states⁴¹. Since obtaining self-government, the Northern Territory and the Australian Capital Territory have been included in this assessment.

The amount available for distribution to the states and territories to achieve horizontal fiscal equalization was, until recently, determined by the federal government. Since 2001, pursuant to an Intergovernmental Agreement concluded with the object of implementing major tax reform, the proceeds of a newly-imposed federal goods and services tax (GST) have been devoted exclusively to unconditional federal grants to states and territories in

accordance with the established principle of horizontal fiscal equalization⁴². As noted above, this amount was A\$40 billion in 2006-7.

The Commonwealth Grants Commission, as a result of its assessment of state and territory revenue-raising capacities and expenditure needs, recommends “relativities” for all states and territories which are applied to state and territory populations to determine shares of the GST revenue. These relativities cover a broad range⁴³:

	2007-8	2008-9
New South Wales	0.89079	0.91060
Victoria	0.90096	0.92540
Queensland	1.00607	0.96508
Western Australia	0.94747	0.88288
South Australia	1.20791	1.20856
Tasmania	1.54465	1.52994
Australian Capital Territory	1.16293	1.17205
Northern Territory	4.36824	4.51835

Thus, the effect of the relativities proposed for 2008-9 is that the Northern Territory share of the GST pool will be approximately five times, per capita, the shares of Western Australia, New South Wales, Victoria and Queensland, while Tasmania’s share will be about 1.7 times, per capita, the shares of the four larger states. Unlike equalization schemes in many other federations, the Australian model involves horizontal transfers from contributor states to recipient states, rather than vertical transfers from the Commonwealth to recipient states.

Expenditure needs account for about two-thirds of the differences in relativities, while revenue-raising capacities account for only one-third⁴⁴. Expenditure needs are determined by demographic and social factors together with differential costs incurred in delivery of a standard “basket” of services to the populations of the states and territories. Revenue-raising capacities depend not on actual revenues but rather on the fiscal bases of the states and territories, calculated by reference to the taxes which the states and territories actually impose. Thus, the Commonwealth Grants Commission strives to ensure that a state or territory’s policies or political choices do not influence its relativity, and thus its share of GST revenue⁴⁵.

As previously noted, there are two arrangements for sharing of revenues derived from petroleum operations between the federal government and Western Australia. The first applies to two title areas on the North West Shelf, the last remaining offshore areas to which the federal PRRT does not apply. This arrangement generates substantial revenue for Western Australia, A\$706 million in 2006-7. The second applies to the smaller Barrow Island field, where the state PRRR is shared between the two governments, 75% to the federal government and 25% to the state. The Commonwealth Grants Commission includes all of the revenues obtained by Western Australia under both of these arrangements, along with other petroleum revenues, in its assessment of the revenue-

raising capacity of Western Australia for the purposes of horizontal fiscal equalization. It also includes all petroleum revenues derived by other states in its assessment, although these are less significant.

So far, state petroleum revenues have not been large enough to have a major impact on state relativities. For example, in 2006-7 Western Australian petroleum revenues provided only 36% of that state's assessed revenues from mineral commodities, compared to iron ore revenues of 60%. Queensland petroleum revenues contributed less than 5%, compared to coal revenues of 70%⁴⁶. Nevertheless, the significance of petroleum revenues in the equalization scheme could rise if new onshore projects (such as coal seam gas projects in Queensland and New South Wales) continue to attract substantial investment.

5. Macro-economic challenges

In recent years, substantial increases in mineral commodity prices produced great disparities in economic growth rates from state to state in Australia. For example, annual growth in gross state product from 2005-6 to 2006-7 ranged from a high of 6.3% (Western Australia) to a low of 0.8% (South Australia)⁴⁷. This trend was discernible for at least five years, with particularly high growth rates in Western Australia and Queensland, and below average growth rates in the other four states. It has now been arrested by the global economic crisis.

These disparities in economic growth rates had a significant impact on relative revenue-raising capacities of states and territories, one of the two factors (albeit not the more important one) in horizontal fiscal equalization in Australia. In determining state and territory relativities, the Commonwealth Grants Commission uses five-year averages to smooth the effects of annual fluctuations. Even so, the effect of different growth rates is now apparent, with the revenue-raising capacities of Western Australia and Queensland well above the state average. The four larger states (New South Wales, Victoria, Queensland and Western Australia) now share the burden of horizontal fiscal equalization, to the benefit of the four smaller states and territories (South Australia, Tasmania, Australian Capital Territory and Northern Territory)⁴⁸.

Disparities in economic growth rates also provided a challenge to the Reserve Bank of Australia in discharging its national responsibility for monetary policy. The booming regional economies of Western Australia and Queensland unleashed inflationary pressures which the Bank attempted to manage with higher official interest rates, provoking predictable political and economic reactions in other regions where economic growth was moderate. This problem has also been overtaken by the global economic crisis which has brought economic growth to an abrupt halt in all regions, and has led to substantial reductions in official interest rates.

Despite the recent dramatic volatility in world petroleum prices, the federal government has not deemed it necessary to adopt fiscal stabilization measures in Australia. Domestic petroleum production contributes only about 2% to gross domestic product, much less than coal and iron ore, both of which have also experienced price volatility. While all of these resources are significant in determining Australia's balance of trade, none is so dominant within the Australian economy as to require management by specific fiscal instruments.

In 2006, the federal Parliament enacted the *Future Fund Act* establishing the Future Fund to assist in meeting the cost of public sector superannuation liabilities. The assets of the Future Fund at 30 June 2008 were A\$64 billion. In 2008, the Parliament established the Higher Education Endowment Fund, with assets of A\$6 billion. These funds derived their assets from federal government budget surpluses in recent years of strong economic growth. Government revenues from petroleum resources have played no particular part in the establishment of these funds. The sharp deterioration in the global economy in recent months has already had such a severe impact in Australia that the federal government is expected to incur budget deficits in the short to medium term. Accordingly, the assets of these funds are unlikely to grow for the time being.

6. Environmental and social issues

High mineral commodity prices in recent years also stimulated regional development, as most new resource projects are located in remote, sparsely populated areas in the northern and western regions of Australia. One indicator of this development has been the migration of people from southern states to Queensland, Western Australia and the Northern Territory. The fastest population growth in the 5 years to June 2006 was in Queensland, with an average increase of 2.4% per year, followed by Western Australia, with an average increase of 1.6% per year. The remaining states and territories recorded annual population growth rates equal to or lower than the Australian average of 1.3% per year⁴⁹. During the year ending December 2007 the Australian population increased by 1.6%, with the fastest growth occurring in Western Australia (2.4%), Northern Territory (2.4%) and Queensland (2.3%), compared to New South Wales (1.1%), South Australia (1.0%) and Tasmania (0.8%)⁵⁰.

In Australia, state and territory governments play a crucial role in the promotion and regulation of resource projects, onshore and offshore, in their regions, thereby providing an established political forum for the resolution of contentious issues without (in most cases) resort to the federal government. From time to time, major environmental disputes draw the federal government into the fray, but these remain exceptions rather than the rule. Despite occasional conflicts between federal and state governments on environmental matters, the strong tendency has been for governments to work closely together. The record of government cooperation in resolving environmental aspects of upstream petroleum operations is remarkable.

7. Transparency and accountability

All government agencies in Australia, federal, state, territory and local, are subject to stringent public audit and reporting requirements relating to government revenues, government expenditures and administrative efficiency. These requirements provide a high level of transparency in the operations of public sector bodies. The level of accountability depends on the effectiveness of the political process in each government. The complex network of intergovernmental relations that has developed in Australia since federation has the capacity to obscure transparency and accountability, but progress has been made in recent years in exposing these arrangements to public scrutiny by requiring intergovernmental agreements to be tabled in federal, state and territory legislatures and by providing for commissions, councils and committees to report on their activities to these legislatures.

8. Discussion and conclusions

The Australian federation was homogeneous at the outset and remains so more than a century after its establishment. Perhaps that explains the preference for cooperation rather than conflict at most stages of its evolution. The management of petroleum resources exemplifies that preference.

Natural resources make a very significant contribution to the Australian economy, but minerals have always assumed greater importance than petroleum. Australia enjoyed a brief period of self-sufficiency in crude oil after the discovery of the Bass Strait deposits in the 1960s, but that period ended more than a decade ago and seems unlikely to return. Natural gas may well become more prominent as an export commodity and as a domestic fuel, but so far it has been overshadowed by coal and iron ore.

Nevertheless, petroleum resources have had a major regional impact in Australia and their management has presented substantial challenges to the federal system of government.

Onshore, state ownership of petroleum resources has provided the foundation for the establishment of state statutory licensing regimes governing upstream operations, allowing the states to resist federal attempts to encroach upon this management function and to gain a substantial share of government revenues derived from petroleum production. That said, the stakes involved in this contest have been modest. Onshore petroleum resources represent a very small fraction of the Australian total.

Offshore, the stakes have certainly been higher. In that contest the Commonwealth has clearly prevailed. Even so, the Offshore Constitutional Settlement 1979 provided major concessions to the states in conferring control over coastal waters, retaining joint administration of upstream petroleum operations in adjacent areas, and preserving revenue sharing arrangements (albeit substantially diminished after the imposition of

PRRT in 1987). The Offshore Constitutional Settlement provides a shining example of the Australian preference for cooperation over conflict. Nevertheless, its future is uncertain. The Productivity Commission has recently proposed that the Commonwealth establish a national offshore petroleum regulator with responsibility for resource management, pipelines and environmental regulation in Commonwealth waters⁵¹. This recommendation may well test commitment to cooperation in the management of offshore petroleum resources.

Maximization of government revenues has not been a major objective of petroleum management regimes in Australia, apart from the period of ten years or so after 1978 when the crude oil levy was in its heyday. The progressive replacement of the crude oil levy with the PRRT after 1987 coincided with the resurgence of energy security as the predominant policy consideration. The introduction of the PRRT also began the move away from the revenue sharing arrangements adopted in 1967 for offshore petroleum operations and preserved by the Offshore Constitutional Settlement in 1979. Since then the federal government has strengthened its grip on the revenues derived from offshore petroleum production, although Western Australia continues to benefit from revenue sharing arrangements applicable to two title areas on the North West Shelf, and the Barrow Island field.

However, the fiscal equalization model devised by the Commonwealth Grants Commission takes full account of state petroleum revenues (along with revenues derived from the exploitation of other natural resources). That model incorporates a comprehensive assessment of both the revenue-raising capacities and the expenditure needs of the states and the self-governing territories. While the Commission's recommendations inevitably provoke political reactions, especially from the contributor states, the fact remains that there has always been and still is a very strong political commitment to this unique approach to horizontal fiscal equalization. Perhaps this rather extreme manifestation of the egalitarian principle in Australian public policy amounts to more than a mere example of preference for cooperation over conflict. It may well also provide a powerful rationale for cooperation among the states and territories, insofar as it diminishes incentives for them to resort to conflict among themselves.

¹ Wilkinson, Rick, "Australia's Oil Exploration History" in *Petroleum in Australia: The First Century*, Sydney: Australian Petroleum Exploration Association Limited (1988), 15

² Australian Bureau of Agricultural and Resource Economics (ABARE), *Australian Mineral Statistics 2008: June Quarter 2008*, Canberra, 10 September 2008, 28

³ ABARE, *Energy in Australia 2008*, Canberra, February 2008, 15

⁴ Productivity Commission, *Review of Regulatory Burden on the Upstream Petroleum (Oil and Gas) Sector*, Draft Research Report, Melbourne, 2008, 13-15

⁵ *Ibid*, 11

⁶ *Ibid*, 12

⁷ ABARE, *op. cit.* note 2, 15-18

⁸ *Ibid*, 30-34

⁹ *Ibid*, 15-37

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- ¹⁰ Crommelin, Michael, “Federal-State Cooperation on Natural Resources: The Australian Experience” in Saunders, Owen (ed.), *Managing Natural Resources in a Federal State*, Toronto: Carswell (1980), 298-299
- ¹¹ Saunders, Cheryl and Katy Le Roy, “Commonwealth of Australia” in Le Roy, Katy and Cheryl Saunders (eds.), *Legislative, Executive and Judicial Governance in Federal Countries*, Montreal: McGill-Queen’s University Press (2006), 41-2
- ¹² Parliament of Australia, Parliamentary Library, *State economic and social indicators*, Research Paper No. 14, 2007-8, 17 December 2007, 3.1, 3.2
- ¹³ Constitution, ss. 7, 24. There is one exception to the proportionality requirement. Each original state is entitled to a minimum representation of 5 members in the House of Representatives. Tasmania remains dependent on this minimum entitlement, a departure from the symmetrical nature of the Constitution.
- ¹⁴ Constitution, s. 53
- ¹⁵ Constitution, ss. 51, 52, 107
- ¹⁶ Constitution, s. 109
- ¹⁷ Constitution, s. 64
- ¹⁸ Constitution, s. 61
- ¹⁹ Constitution, s. 71
- ²⁰ Constitution, s. 106
- ²¹ Queensland provides an exception. It adopted a unicameral legislature in 1922, by amendment of its constitution.
- ²² Constitution, s. 90
- ²³ Constitution, ss. 93-96
- ²⁴ The High Court of Australia has given a very broad meaning to “duties of excise”, further constraining the taxation capacity of the states.
- ²⁵ The federal Parliament successfully asserted exclusive authority to impose personal and corporate income taxes during World War II, relying substantially on its defence power, and has retained this authority since then, by various political means.
- ²⁶ Constitution, s. 95
- ²⁷ An exception was made in the case of the “royal metals”, gold and silver.
- ²⁸ Crommelin, *op. cit.* note 10, 296
- ²⁹ *Northern Territory (Self-Government) Act 1978* (Cth)
- ³⁰ Crommelin, *op. cit.* note 10, 297-299
- ³¹ *Ibid*, 299. The last of these constraints has, however, been construed so narrowly by the High Court of Australia that the federal Parliament can, by careful drafting of legislation, readily avoid it.
- ³² *Ibid*, 303-308
- ³³ Commonwealth Grants Commission, *Mining Revenue*, 2008 Update Report Working Paper, Canberra (2008) 7-8
- ³⁴ *Ibid*
- ³⁵ Commonwealth of Australia, *Parliamentary Debates*, House of Representatives, 9 May 1991, 3438 (Mr. Keating)
- ³⁶ Australia, Department of Resources, Energy and Tourism, *Australian Government Petroleum Revenues*, Canberra (2007), 2
- ³⁷ Australian Bureau of Statistics (ABS), *Taxation Revenue, Australia, 2006-7*, Canberra (5506.0)
- ³⁸ Morris, Alan, “Commonwealth of Australia” in Shah, Anwar (ed.), *The Practice of Fiscal Federalism: Comparative Perspectives*, Montreal: McGill-Queen’s University Press (2007) 55-56
- ³⁹ Australian Government, Budget 2007-8, Budget Paper No. 3, *Overview of Federal Financial Relations*, Canberra (2008) 2
- ⁴⁰ Morris, *op. cit.* note 38, 49
- ⁴¹ *Ibid*, 58
- ⁴² *Ibid*, 57
- ⁴³ Commonwealth Grants Commission, *Report on State Revenue Sharing Relativities 2008 Update*, Canberra (2008), 2
- ⁴⁴ *Ibid*, 5
- ⁴⁵ Williams, Ross, “Fiscal Federalism: Aims, Instruments and Outcomes”, 38 *Australian Economic Review* 351, 361-363 (2005)
- ⁴⁶ Commonwealth Grants Commission, *op. cit.* note 33, 15-16

⁴⁷ ABS, *Australian National Accounts: State Accounts*, Canberra (5220.0)

⁴⁸ Commonwealth Grants Commission, *op. cit.* note 43, 3-13

⁴⁹ ABS, *Regional Population Growth, Australia, 1996-2006*, Canberra (3218.0)

⁵⁰ ABS, *Population, Australian States and Territories, Dec 2007*, Canberra (3239.0.55.001)

⁵¹ Productivity Commission, *op. cit.* note 4, XLVIII (Draft Recommendation 10.6)