Submission to inquiry into the Mineral Resource Rent Tax Bill 2011 and related bills

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EXECUTIVE SUMMARY

- Strong increases in demand for mineral commodities in recent years has led to a renewed focus on the role of mining in the Australian economy and its taxation arrangements.

- The output, investment, employment and export performance of the mining sector have grown strongly, although the present contributions of mining to national output and employment is significantly lower than in previous generations.

- There are a number of risks to the outlook for Australian mining, including a continuation of recent falls in sectoral productivity, declines in our global share of exploration and production, and in the shorter term weaknesses in the global economy.

- The commonwealth government is proposing, from 1 July 2012, to introduce a new, additional tax, the Minerals Resource Rent Tax (MRRT) of 30 per cent on the resource rents of the coal and iron ore industries, affecting approximately 320 companies and potentially raising $11 billion in revenue during its first three years.

- The MRRT would lift effective Australian mining tax rates on the designated minerals above that of rival countries and adversely affect exploration and development, as well as diminish incentives to invest and expand production capacity in Australia.

- The argument that the MRRT can tax economic rents, with no consequence to production, is fallacious and does not recognise that the ability to extract resources is contingent upon entrepreneurs absorbing the costs of minerals exploration and development at their own risk.

- No mining tax is completely neutral in its economic effects, and attempts to tax rents will reduce entrepreneurship and innovation in the sector.

- The notion that the MRRT is needed to rectify the 'two speed economy' effect fails to appreciate the diversity required within a market economy to efficiently exploit potential gains from trade.

- Proponents of the MRRT effectively argue that the movement of economic resources in Australia should be from more productive uses (say, in mining) to less productive uses (say, in manufacturing).

- The proposition that the MRRT is necessary to ensure all Australians share in the proceeds of mining wealth ignores the constitutional reality that the ownership of minerals lies with the Crown in the right of the states, thus raising potential constitutional issues if the MRRT is implemented.

- The proposal that the commonwealth withholds infrastructure funding from states that implement royalty increases is an affront to the federalist principle that lower levels of government are free to unilaterally impose their own taxation arrangements (in this case, royalties) and bear the economic and political consequences of these changes.

- Using part of the MRRT revenue to fund an increase in the superannuation guarantee charge from nine to 12 per cent is simply placing an additional impost on one sector to defray an additional tax on other sectors.
INTRODUCTION

The Australian mining sector has long played a vital role in the development of the nation. Longstanding stability in terms of political risk and taxation and, though this has never been realised, regulatory arrangements, have allowed the sector in Australia to capitalise on demand for minerals and petroleum and to spawn businesses and experts that are world leaders in the sector, active in Australia and overseas.

There is a widely shared view that the benefits flowing from mining activities will persist into the foreseeable future. Such predictions, juxtaposed with a self-induced commonwealth budget deficit driven by unproductive fiscal stimulus expenditure, led to the Rudd and Gillard governments proposing new taxation arrangements for miners.

The latest iteration of taxation proposals, which recently secured legislative passage through the House of Representatives, entails a Minerals Resource Rent Tax (MRRT) of 30 per cent applied mainly to coal and iron ore projects.

Apart from extolling the virtues of extracting a 'fairer share' of revenue from mining compared with other sectors of the Australian economy, government ministers have made various related arguments to sell the planned mining tax policy to the electorate. These include an obligation to compensate Australians for the extractive activities undertaken by companies operating on Crown lands, and to slow or reduce the divergence of economic growth between resource intensive and non-resource intensive regions of Australia.

The MRRT has generated a wider debate about the merits of taxing economic success and the policy treatment of the mining sector more generally. The IPA has played an active role in undertaking research and advocacy on aspects of mining sector development and the effects of taxation upon the sector.

The IPA has also established a Northern Australia Project investigating the feasibility of a special economic zone (SEZ) in northern Australia that would significantly reduce taxation and regulatory burdens on industries, including mining, situated in the region.

The appendices to this submission are a sample of these materials, including an October 2010 IPA submission to the Senate Select Committee on the Scrutiny of New Taxes.
ECONOMIC CONTRIBUTION OF THE AUSTRALIAN MINING SECTOR

With recent increases in Australia's terms of trade, driven primarily by increases in contract prices for mineral commodity exports, increasing attention has been focused upon the economic implications of an expansion in the mining sector.

In 2010-11 mining activities accounted for about nine per cent of GDP compared to five per cent a decade earlier (Figure 1). While the current contribution of mining to the Australian economy is comparable with those of previous resource booms of the early 1900s and early 1980s, it is far less than mining's contribution to the economy 150 years ago.

**Figure 1: Mining sector gross value added, 1843 to 2011**

![Graph showing mining sector gross value added from 1843 to 2011.](image)

Calendar year data to 1900, and financial year thereafter. Data for 1939-40 to 1961-62 unavailable.


The increase in the relative importance of mining to national output of recent years is similarly reflected in the significant increase in actual (as opposed to expected) capital investments undertaken within the mining sector (Figure 2).
Figure 2: Mining sector investment, 1861 to 2011

Calendar year data to 1939, and financial year thereafter. Data for 1939 to 1949 and 1973-74 unavailable.


In 2010-11 mining investment accounted for almost 40 per cent of total private investments undertaken within the Australian economy, up from 12 per cent a decade earlier. The current mining investment share exceeds the previous high of 28 per cent recorded in 1971-72, which had resulted from previous discoveries of significant iron ore and oil deposits in Western Australia and the Bass Strait respectively during the previous decade.

Figure 2 also provides information on the share of mining investment to GDP, illustrating a highly covariant relationship with that of the sector’s share of total private investment.

While mining plays a particularly important role in absorbing Australia’s capital resources, its role as an employer of labour has tended to decline as a share of total employment over time (Figure 3).

Despite the long term trend towards a reduction in the relative importance of mining employment in the Australian economy, due to factors such as the increasing utilisation of labour-saving technologies within the sector, it is notable that upturns in the mining employment share have generally coincided with periods where the terms of trade have improved, including in the 1920s, early 1950s and late 2000s.

It should also be noted that the increase in outsourcing, common to most businesses, understates the relative share of mining employment in recent years compared to earlier periods.
Influenced in not inconsiderable part by the process of economic growth convergence between China and India and developed economies, Australian mineral exports by value have increased significantly in recent years (Figure 4). Combined with increases in the price commanded for selective Australian commodities traded internationally, the enhancement of the mining sector’s export orientation in turn has contributed to an increasing flow of income into Australia.
Whilst mining in recent years has made a significant contribution to national income, including through terms of trade effects, some observers have noted the decline in (multifactor) productivity within the sector (Figure 5). Deterioration in the productivity performance of the mining sector, other things being equal, would have a deleterious impact on the overall productivity of market sector industries.

A number of explanations have been posited to explain recent MFP trends, including the effect of long lead times between investment in new mining capacity and output gains, logistic difficulties associated with the extraction of ore bodies or reserves, and the quality of deposits being mined.\(^1\) Other factors, such as labour market and other regulations and the provision of quality infrastructure, may also affect mining productivity outcomes.\(^2\)

While the recent productivity performance of the mining sector is of some concern, at least to the extent that government policies impede the capacity of mining sector operators to discover and capitalise on opportunities to enhance their productivity, it remains likely that once existing and new projects reach their full production capacity much of the decline in productivity will be reversed.

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\(^2\) For a discussion of the effects of commonwealth labour market regulations on the mining sector, for example, see Steven Kates, 2011, *The AMMA Workplace Relations Research Project - A Survey Based Analysis*, Third Report, June.
Aside from its economic contribution, the mining sector makes a substantial contribution to the tax bases of Australian governments with analysis revealing that mining bears the highest effective tax rate after accounting for state and territory royalty payments (Table 1).
Table 1: Effective taxation rates paid by sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Effective tax rate (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>29.06</td>
</tr>
<tr>
<td>Mining</td>
<td>41.34</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>30.25</td>
</tr>
<tr>
<td>Electricity, gas, water and waste services</td>
<td>28.47</td>
</tr>
<tr>
<td>Construction</td>
<td>28.62</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>30.49</td>
</tr>
<tr>
<td>Retail trade</td>
<td>31.24</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>31.48</td>
</tr>
<tr>
<td>Transport, postal and warehousing</td>
<td>28.14</td>
</tr>
<tr>
<td>Information media and telecommunications</td>
<td>30.67</td>
</tr>
<tr>
<td>Financial and insurance services</td>
<td>22.37</td>
</tr>
<tr>
<td>Rental, hiring and real estate services</td>
<td>23.19</td>
</tr>
<tr>
<td>Professional, scientific and technical services</td>
<td>30.01</td>
</tr>
<tr>
<td>Administrative and support services</td>
<td>29.43</td>
</tr>
<tr>
<td>Public administration and safety</td>
<td>31.22</td>
</tr>
<tr>
<td>Education and training</td>
<td>30.54</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>28.92</td>
</tr>
<tr>
<td>Arts and recreation services</td>
<td>30.01</td>
</tr>
<tr>
<td>Other services</td>
<td>28.92</td>
</tr>
<tr>
<td>Other</td>
<td>18.44</td>
</tr>
<tr>
<td>Total</td>
<td>27.18</td>
</tr>
</tbody>
</table>

Effective tax rate = (net taxation + royalty) / net income


While much of the public commentary focuses on the domestic economic implications of an expansion in mining activity, what is often overlooked is that Australia operates in an increasingly competitive international environment; in which significant increases in the production of high-grade minerals has taken place across North and South America, Africa and Asia.

The growth in mining on a global scale has meant that Australia's share of production of commodities such as bauxite, black and brown coal, copper, gold, nickel and uranium has stagnated or declined over the past decade (Figure 6).
As noted by the IPA in its submission to the Senate Select Committee on the Scrutiny of New Taxes, the Australian share of global exploration expenditure has tended to decline since the early 1990s, despite an improvement since 2007. This trend is attributable to a wide range of factors, including taxation settings and regulatory impositions (including in the areas of environmental amenity and native title) preventing access to land for potential exploration.\(^3\)

While most economic analysts agree that the outlook for activity within the Australian mining sector remains robust, international economic uncertainties may play a role in moderating the short to medium term growth in mining activity, including for marginal investment projects, at least compared to previously held expectations.

Over the past year there has been a moderation in commodity price indices for base metals (Figure 7), although certain producers may be insulated from such price changes at least temporarily due to the fixing of previously agreed contract prices.

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\(^3\) Institute of Public Affairs, 2010, Submission to Senate Select Committee on the Scrutiny of New Taxes, October.
In late November 2011, BHP Billiton chief executive Marius Kloppers and Rio Tinto chief executive Tom Albanese both warned of the impact of a worsening European 'sovereign debt crisis' on the financial operations of mining companies. In particular restrictions on the availability of credit could lead to some operators within the sector reassessing their expansion plans and restricting their investments.\(^4\)

There is also some evidence of a modest slowdown in economic activity in China, one of our major mineral commodity trading partners, with implications for the sustainability of existing growth of the Australian mining sector.

Recent indicators of manufacturing activity in China have shown signs of contraction within that sector,\(^5\) while concerns over the sustainability of the construction sector contributed to a softening of iron ore prices in October.\(^6\)

The Chinese authorities recently announced an easing of reserve-ratio requirements for local banks in an attempt to bolster weakening economic activity.\(^7\) In addition concerns have been expressed about the prospect of recessionary conditions in Europe, and subdued economic growth in the United States, next year on the short term growth performance of the Chinese economy.

To be sure, doubts have been cast on the sustainability of the China boom in the past and such doubts have proved to be misplaced. Even so, the break-neck growth in China (and in India) is certain to expire at some stage and the growth impetus for Australian mining will similarly be curtailed in the absence of growth in alternative export markets.

DESIGN OF MINERALS RESOURCE RENT TAX (MRRT)

Under the *Minerals Resource Rent Tax Bill 2011* and associated bills it is proposed that, from 1 July 2012, the commonwealth government impose a tax on the 'economic rent' made by mining companies from the extraction (prior to any substantive processing or other value adding process) of iron ore, coal and some gases.

The tax is imposed on the mining company's mining profit, less MRRT allowances, at the rate of 22.5 per cent (comprising a 30 per cent nominal rate less a 25 per cent extraction allowance recognising the profit attributable to the extraction process).

Initially, operators with assessable profits below $50 million per annum were excluded from the MRRT. Under arrangements agreed to between the government and the independent federal Member for Denison, Andrew Wilkie MP, this threshold has been increased to $75 million per annum.

Under the MRRT positive cash flows are taxed, whilst allowing mining companies to carry forward and uplift losses with interest for use in later years. The uplift rate that applies will be the long term bond rate plus seven per cent. When applied to reduce a mining profit of the mining project interest in a later year, it is referred to as a 'mining loss allowance.'

Other allowances apply under the proposed MRRT regime. Miners are provided allowances for the mining royalties they pay to the states and territories, in an attempt to ensure that royalties and the MRRT do not double tax the mining profit.

The starting base of the project serves as another allowance under the MRRT system, in recognition of the value of investments the mining company made prior to the MRRT. Other allowances include losses transferred from the miner’s other projects, or from the projects of some associated entities.

As a consequence of negotiations between the Gillard government and the three largest mining companies in Australia (BHP Billiton, Rio Tinto and Xstrata), the MRRT replaced the Rudd government’s previous proposal for a Resource Super Profits Tax (RSPT). Table 2 provides a comparison of the RSPT and MRRT.

The commonwealth government has estimated that the MRRT will collect about $11 billion in its first three years, from a considerably smaller taxing base, compared to $12 billion under the RSPT in its first two years of operation.

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8 Unless otherwise specified, the material used in this section is drawn from the Explanatory Memoranda accompanying the *Mineral Resource Rent Tax Bill 2011* and associated bills.

9 The government also proposes to extend the Petroleum Resource Rent Tax (PRRT), currently applicable to offshore oil and gas projects, to onshore projects. The implications of this broadening of the PRRT base will not be considered in this submission.

Concerns have been raised in the past that the estimated revenue stream from the MRRT, off a much smaller taxing base of iron ore and coal producers, was not substantially lower than a RSPT to be imposed on a comprehensive basis. Such concerns have not been allayed by the publication of the latest MRRT revenue estimate in the 2011-12 MYEFO. As the June 2011 Senate Select Committee on the Scrutiny of New Taxes report noted, previous MRRT revenue estimates presented by the commonwealth have varied significantly, partly in accordance with changes in coal and iron ore prices.
Table 2: Comparison of Resource Super Profits Tax and Mineral Resources Rent Tax

<table>
<thead>
<tr>
<th></th>
<th>RSPT</th>
<th>MRRT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Starting base</strong></td>
<td>Most recent audited accounting book value of the project prior to 2 May 2010 or, if not available, the market value.</td>
<td>Book value (excluding mining rights) or market value (including mining rights) at 1 May 2010.</td>
</tr>
<tr>
<td><strong>Taxing point</strong></td>
<td>As close to the extraction of the resource as possible, i.e. the well head or mine gate. Where there is no observable value for the extracted commodity the taxing point should be extended to include processing and transportation costs in getting the commodity to a saleable commodity and observable price.</td>
<td>Assessable profits at the mine gate, being the commodity, determined at its first saleable form, less all costs to that point. In effect infrastructure assets outside the mine gate (i.e., port and rail) are excluded.</td>
</tr>
<tr>
<td><strong>Rate</strong></td>
<td>40%</td>
<td>30% (effective rate of 25%)</td>
</tr>
<tr>
<td></td>
<td>An extraction allowance of 25% of the otherwise taxable profits will be deductible to recognise the profit attributable to the extraction process.</td>
<td>Operators with MRRT assessable profits below $75 million per annum are excluded from the MRRT.</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Applied to the extraction of all non-renewable resources in Australia.</td>
<td>Applied to the mining of coal and iron ore within Australia.</td>
</tr>
<tr>
<td><strong>Transferability</strong></td>
<td>Transfer to other projects or carried forward.</td>
<td>MRRT losses would be transferable to offset MRRT losses the taxpayer has on other iron ore and coal operations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Losses refer to those generated by incurring expenses greater than revenues. Transferability does not apply in respect of credits arising from royalties.</td>
</tr>
<tr>
<td><strong>Deductibility</strong></td>
<td>An allowable deduction for income tax purposes.</td>
<td>An allowable deduction for income tax purposes.</td>
</tr>
<tr>
<td><strong>Royalties</strong></td>
<td>States and territories retain existing regimes, and remain payable with a rebate. Unused rebates can be refunded or transferred.</td>
<td>Royalties remain payable. State and territory royalties are creditable against any MRRT liability. Unused credits can be carried forward and uplifted but cannot be refunded or transferred.</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>2,500 companies affected.</td>
<td>Approximately 320 companies affected.</td>
</tr>
</tbody>
</table>

IMPACT OF MRRT ON AUSTRALIAN MINING SECTOR

Australia remains highly prospective for a range of mineral resources and has developed enviable political stability and a reputation for adherence to the rule of law and a lack of corruption. These are inherent competitive advantages that do not necessarily exist in other locations with an abundance of commodities.

In terms of global mining exploration share of expenditure, Australia at 13 per cent of the world total is second only to Canada and considerably ahead of the United States, Russia, Brazil, South Africa, China, Peru and other leading mining producers. However, as noted above, our share of total global exploration activity has steadily declined in trend terms over the past two decades.

Higher levels of taxation on mining activity will mean a diminished incentive to invest in Australia and a diversification of exploration funds to other, more fiscally hospitable venues.

Citibank estimated royalties and other taxes for the major mining countries (Table 3), outlining Australia’s present position as a relatively high taxing country.

| Table 3: Effective rates of taxation on mining sector, selected countries |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|                 | USA    | Australia | Brazil | South Africa | Peru | China | Chile | Canada |
| Revenue ($)     | 100    | 100.0    | 100.0  | 100.0    | 100.0 | 100.0 | 100.0  | 100.0  |
| Royalty ($)     | 3.2    | 5.2      | 3.1    | 2.5      | 3.0   | 3.1   | 5.0    | 2.0    |
| Cost ($)        | 50.0   | 50.0     | 50.0   | 50.0     | 50.0  | 50.0  | 50.0   | 50.0   |
| EBITDA ($)      | 46.8   | 44.8     | 46.9   | 47.5     | 47.0  | 46.9  | 45.0   | 48.0   |
| D&A ($)         | 4.0    | 4.0      | 4.0    | 4.0      | 4.0   | 4.0   | 4.0    | 4.0    |
| EBIT ($)        | 42.8   | 40.8     | 42.9   | 43.5     | 43.0  | 42.9  | 41.0   | 44.0   |
| Tax ($)         | 15.0   | 12.2     | 14.6   | 12.6     | 11.6  | 10.7  | 7.0    | 8.8    |
| Profit ($)      | 27.8   | 28.6     | 28.3   | 30.9     | 31.4  | 32.2  | 34.0   | 35.2   |
| Total tax ($)   | 18.2   | 17.4     | 17.7   | 15.1     | 14.6  | 13.8  | 12.0   | 10.8   |
| Total tax burden (%) | 40 | 38     | 38    | 33     | 32    | 30    | 26    | 23 |
| Royalty (%)     | 5.0    | 5.2      | 3.1    | 2.5      | 3.0   | 3.1   | 5.0    | 2.0    |
| Corporate tax (%) | 35 | 30     | 34    | 29      | 27    | 25    | 17    | 20 |

Source: Citi Investment Research and Analysis.

As illustrated by more recent analysis by the Association of Mining and Exploration Companies, the imposition of the MRRT by the commonwealth is likely to lift effective Australian mining taxation rates above those of countries who are rivals for exploration and therefore development funding (Figure 8).

Excessive rates in any single country with substantial resources will distort world development causing a reduction in world income levels; the diversion of activity to higher cost locations would be particularly detrimental to Australia.
OTHER ISSUES

The nature of economic rent, and its taxation

Arguably the primary basis for the imposition of a MRRT on iron ore, coal and certain gases is that it is necessary to tax the windfall, extra-normal returns - or 'economic rents' - received by mining companies in the process of extracting minerals from the earth. Taxing this profit in principle would have no effect on mining companies' behaviour.

An economic rent is usually defined as a profit from using an asset that is in excess of that necessary to maintain an asset and earn a standard return from it. In essence economic rents are a form of 'super' profit that accrues to owners-discoverers of valuable natural resources. Strictly speaking, they represent the unimproved value of a resource, such as a piece of land, or the net income that can be obtained from that resource.

To clarify, a rental return does not owe its value to the owner's capacity to withhold supplies, thereby driving up the price (as occurs with monopoly behaviour). Nor does it include the income or added value of the resource resulting from a wisely managed investment. There is no resource rent from a steel mill, say, although high profits might be possible as a result of skilfully coalescing raw materials and fashioning attractive end products.

Clear and practical distinctions between economic rent and profit, however, are very rarely seen. Furthermore, the rent that exists is often absorbed within the other values of the resource and its absorption is generally accepted. This is the case with farm land; whatever unimproved value the land might originally have had has often, over centuries, been augmented (sometimes depleted) and often cannot be disentangled from the aggregate price.

Economic rent differs from monopoly rent, which is a form of additional profit that is earned when a monopolist holds down supply of a particular product in order to raise its price. These profits differ from resource rents, in that they result from the monopolist's market dominance and consequent ability to determine the level of output in a particular industry or sector.
With resource rents the owner of the natural resource, such as a copper deposit, cannot affect the price of the product since he is typically a small player in a large (international) market. Given the inability to affect price or total output, the owner of a stream of such a deposit will attempt to increase profits through restricting effort and by paring production costs.

The owner is only able to do this because of the exclusionary nature of his property right. If the resource were open to all, additional producers would be attracted to work it until the overall effort was raised to a level that extinguished any 'excessive' profit. These situations sometimes occur in gold rushes before an adequate system of property allocation is arranged. With resource rents that accrue in such situations, profits are a return to the resource itself, rather than a reward for risk-taking or skilled management, and in this sense represents a pure profit.

High profits from a particular mine are what are known as 'quasi-rents.' They are actually a reward for effort, albeit a reward of temporary super-normal profits in the short run before factors of production can be reorganised into a long-run equilibrium. This is so even though much of the effort was expended by parties other than the one earning the reward from a discovery of a valuable mineral deposit. The profit from the successful particular mine is offset by many other failures, and their associated costs.

It is claimed that the MRRT would represent a legitimate rental payment to the people of Australia. However, this misdiagnoses the nature of rent, in that what is actually to be taxed are quasi-rents stemming from individual successes in R&D and innovation after costs have been absorbed from profitably selling outputs on the market.

Although individual mines can earn very high returns, these are offset by lower or zero returns on other searches for minerals. Only if the successful mines were known in advance of their discovery are there economic rents that could be taxed without affecting effort and therefore income levels.

In addition, there are no economic rents in mining unless barriers to entry prevent active competition. Hence, there is no more case for a general excess tax on this sector than there is on other sectors that involve discovering new means of meeting market needs, such as say in the IT industry.

The conventional argument in the economics literature is that a tax on rent will have no effect on production, as rental taxation has no behavioural response and hence no deadweight costs associated with it. However as Ergas et al. demonstrate there are no mining taxes that are truly neutral, implying that practical attempts to tax rents would only serve to discourage entrepreneurship and innovation.

The 'Brown tax,' where the government shares fully in all mining expenditure and receives a pro rata share of returns, comes closest to the ideal standard for taxation on economic rents. This might be legitimate only where genuine economic rents from mining can be correctly identified, an exercise fraught with intense difficulties for taxation administrators and other bureaucrats due to the existence of asymmetric information.

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12 Ibid.
Even a pure Brown tax diminishes incentives to ensure the most economical spending because the costs of a mining project are shared with the government, which is of necessity a passive shareholder.

**The management of the 'two-speed economy': Is there a role for the mining tax?**

Another rationale for a higher level of taxation upon the mining sector relates to concern about a so-called 'two speed economy.' The government has pledged to use some of the revenues gained from the MRRT to reduce corporate income taxes, with the intention of lightening the taxation burden on non-mining sectors that are alleged to be harmed by some aspects of the relative expansion of mining activities.

Some economists and social commentators have claimed that the possession of natural resources by a given country can exert a negative impact on economic growth. This phenomenon has been dubbed the 'resources curse.'

An element of the resources curse is the 'Dutch disease' hypothesis, first diagnosed in the Netherlands when North Sea oil raised Holland's exchange rate. The phenomenon suggests that an expansion of mining will tend to displace manufacturing activity and hence aggravate a process of de-industrialisation within the economy.

The two speed economy is a variant of this thesis whereby an increase in the terms of trade following an increase in the price of an exported commodity has two general effects:

- First, a 'spending effect' materialises due to the additional income generated by an expansion of mining. This leads to an expansion in demand for both tradeable and non-tradeable goods and services, raising the price of non-tradeables but not of tradeables (the prices of which are determined by the global market). These changes in relative prices, in turn, lead to an increase in the real exchange rate contributing to a loss in competitiveness of sectors such as manufacturing.

- Second, a 'resource movement' effect transpires in which a commodity boom leads to a shift of labour and capital from manufacturing and other non-mining sectors to the mining sector.¹⁴

The views expressed that growth of mining activities should be moderated in favour of growth of non-mining activities are at the heart of the now universally discredited industry protection policies, where support for certain sectors were always (although not always recognised as such) at the expense of others.

It is now widely recognised that measures that seek such reallocations of economic activity mean reducing the potency of the potentially successful activities more than they increase the strength of those purportedly being left behind.

If, for example, concerns about the collapse of Australian agricultural and allied employment (then about seven per cent of the workforce) subsequent to Britain joining the European Common Market in 1973 had dictated policy this would have severely retarded agricultural development where about three per cent now directly work in the agricultural sector but production volumes have risen by 60

per cent over the period.\textsuperscript{15} Similar concerns today revolve around the relative diminution of the economic importance of Australian manufacturing.

All economies are in fact 'multi-speed' economies: some activities are declining in relative and sometimes absolute terms, whilst others are increasing. Indeed, variations in activity are commonplace across a market economy where the drivers of growth are rarely, if ever, uniform.

This lack of economic uniformity is, in large part, a product of the millions of transactions undertaken by acting, discerning individuals - operating both within and across regions and nations - to produce, exchange and consume resources.

These transactions take place against the background of, and are influenced by, evolving supply and demand conditions and price adjustments that are in turn affected by changes to such variables as incomes, consumer tastes, production costs and technologies.

That economic plans are coordinated at all in this complex institutional space of the market hinges crucially on the basic idea that people, and the firms, industries and sectors they comprise, are different to each other thus leading to opportunities to trade and create wealth.

If there is to be any role for government to facilitate this process, it is to ensure that market processes proceed so that resources are shifted in a flexible manner to more highly valued uses. This often means dismantling blockages, such as regulatory measures that cause house prices to be excessive in areas where demand for labour is strong or that determine wages and employment conditions other than through market mechanisms.

The argument that it is the legitimate role of government to correct for variations in performance across economic sectors, including through taxation, is a fallacious one. The critics of increasing mining sector activity implicitly argue for the MRRT on the basis that the movement of resources should be from more productive to less productive uses, so as to ensure that Australia avoids the grip of a resources curse.

However, such a punitive approach to scale back the performance of the mining sector to a level more resembling non-mining sectors would achieve nothing but restrain Australia's long-run growth potential.

If anything, the argument for additional taxation of mining ignores the fact that dense networks with other sectors of the Australian economy have emerged as mining has grown, including in the areas of metals processing, machinery manufacturing, software development, legal, accounting and finance, that will all be detrimentally affected by a tax-induced slowdown of growth in mining activity.

\textbf{Commonwealth-state relations issues}

A key argument used by the commonwealth government in its advocacy for an MRRT is the notion that additional taxation of the mining sector is necessary to provide for greater returns to the Australian community. As stated by Treasury in the 2010-11 Budget Papers:

'[a]s owners of natural resources on behalf of the community, Australian governments have a responsibility to ensure that the community shares in the benefits from the sale of Australia's non-renewable resources. In

Australia, governments have generally allowed private firms to extract non-renewable resources in return for a charge that has not kept pace with the increased value of Australia’s resource deposits. This has resulted in Australia forgoing some of its potential national income gain from the stronger terms of trade.\textsuperscript{16}

In late November 2011, Treasurer Wayne Swan put forward a case for the MRRT in similar terms to that expressed by Treasury:

’[o]ur terms of trade are around 140 year highs. Now we don’t expect that to last forever and of course there will be swings and roundabouts. But what we know, given demand in the Asian region, given the Asian century, is that by putting in place a profits based tax now, we will maximise the opportunities for Australians to get a fair share from our mineral wealth, which is going to be worth a lot more as we go forward. That is why this is such a critical economic reform.’\textsuperscript{17}

On the same day the Treasurer alluded to an ‘extensive consultation process’ with industry in the development of enabling MRRT legislation, ‘which will give Australians a fair share of the mineral resources they own 100 per cent.’\textsuperscript{18}

However the implicit proposition underpinning these and similar statements - that Australians own all mineral and petroleum natural resources that are therefore subject to commonwealth taxation - is not supported by constitutional and legal conventions that instead provide states and territories with primary legal control over the conditions of exploration, extraction and sale of resources.

Prior to the 1850s the ownership of minerals and petroleum passed to those who were granted title of land by governors of the Australian colonies, acting on behalf of the British government, according to common law precepts. Specifically, the rights to subsurface commodities belonged to the landowner under the common law principle 

\textit{Cuius est solum ejus est usque as coleum, et ad inferos} (‘whosoever has the soil, also owns to the heavens above and to the centre beneath’).

This arrangement applied to all commodities, with the exception of the right to ‘Royal Mines’ (the precious metals of gold and silver) which remained vested in the Crown by virtue of Royal prerogative.\textsuperscript{19}

From the 1850s the primacy of common law with respect to minerals ownership was changed in that colonial parliaments legislated for the ownership of minerals to be retained by the Crown in future grants of freehold title.\textsuperscript{20}

The notion that ownership of minerals and petroleum lies with the Crown in the right of the states, regardless of who owns the land on the surface, was firmly entrenched by the time of Federation in 1901. As noted by Morgan, ‘[a]t no time during the constitutional debates of the 1890s did anyone suggest that crown ownership of minerals should be transferred to the new Commonwealth of Australia - and with good reason. Any serious attempt to carry out such a proposal would have sunk the whole Federation enterprise.’\textsuperscript{21}

\textsuperscript{17} Hon Wayne Swan MP, 2011, Transcript of interview to ABC World Today program, 23 November.
\textsuperscript{18} Hon Wayne Swan MP, 2011, Transcript of interview to ABC AM program, 23 November.
This convention has been maintained for over a century of Australian federalism, however the commonwealth has gradually acquired some powers that in some instances indirectly affect mining operations.

While there is no reference to minerals within the heads of power under Section 51 of the Australian Constitution, the commonwealth government possesses powers (including corporations powers) that indirectly affect mining operations. Any commonwealth legislation based upon these powers overrides any inconsistent state legislation.

The commonwealth maintains rights over commodities located in its territorial offshore waters beyond the three nautical mile territorial limit, as well as for uranium resources within the Northern Territory.

It is on this basis of legal understanding that royalties are levied to ensure that states and territories, as owners of the minerals, are compensated for the extraction of their natural resources. In general terms the types of mineral royalty collections that exist include:

- specific rate royalties, calculated as a flat rate per tonne produced
- *ad valorem* royalties, calculated as a proportion of the 'royalty value' of the mineral
- profit or income based royalties, calculated on the basis of the profitability of the mining operation.

As illustrated in Table 4, there is significant variation across the states and the Northern Territory in terms of the rates and structure of royalties that apply to specific commodities.

In 2009 former Treasury Secretary Ken Henry outlined a case for greater commonwealth involvement in the resource taxation arena on the basis that states and territories tend to rely upon output-based (whether fixed rate or *ad valorem*) royalties because they provide 'stable revenue flows' that better match states' expenditure activities.

However, as Henry correctly noted with respect to the Northern Territory, the states are free to substitute profit-based for *ad valorem* royalties if they so wish and with regard to their local conditions and circumstances.

While it may be argued that profit-based royalties are relatively more efficient than alternative royalty arrangements, it should also be recognised that any inefficiencies attributable to existing Australian royalties may be attenuated to some degree by the fact that:

*‘the states compete with each other to provide efficient and fair exploration regimes and, after discovery of an ore body ..., to impose royalty regimes that do not deter future exploration and discovery. ... states that are anxious to develop exploration and mining often offer attractive royalty regimes in the early years of a project to encourage the growth of the industry.’* 

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The absence of powers relating specifically to mining activities under Section 51 of the Constitution, and the condition under Section 114 that the commonwealth cannot impose any tax on state government property, appears to raise doubts over the constitutional validity of the tax. Issues have also been cited concerning whether the MRRT effectively discriminates against states, which is prohibited under the Constitution.²⁶

At hearings to a Senate inquiry in July 2010 commonwealth Treasury officials stated that they received legal advice that the previous Resource Super Profits Tax (RSPT) was constitutional and that the taxing point for the RSPT and MRRT are the same, i.e., the tax is imposed on profits made by mining companies and not on the minerals.²⁷

Regardless of the merits or otherwise of policy rationales for the MRRT the constitutional status of the tax will likely continue to be the subject of debate, if not a prospective legal challenge from the states and/or mining companies, in 2012 and beyond.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>NSW</th>
<th>Vic</th>
<th>Qld</th>
<th>WA</th>
<th>SA</th>
<th>Tas</th>
<th>NT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron ore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royalty rate</td>
<td>4.0% of ex-mine value (value less allowable deductions)</td>
<td>2.75% of net market value of ore mined</td>
<td>$1.25 per tonne plus 2.5% of value above $100 per tonne</td>
<td>5.0% (beneficiated); 5.625% (fines); 7.5% (lump)</td>
<td>5.0% of net market value</td>
<td>1.6% on net sales plus profit royalty up to maximum of 5.0% of net sales</td>
<td>20.0% of net value of mine's production value</td>
</tr>
<tr>
<td>Royalty system</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Hybrid</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Hybrid</td>
<td>Ad valorem</td>
</tr>
<tr>
<td>Coal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royalty rate</td>
<td>8.2% (open cut); 7.2% (underground); 6.2% (deep underground)</td>
<td>$0.0588 per GJ, adjusted for CPI (brown coal); 2.75% (other than brown coal)</td>
<td>7% (for coal valued at $100/tonne or less); 10% (for coal over $100/tonne)</td>
<td>7.5% (exported); $1/tonne, adjusted for comparative price increases (not exported)</td>
<td>3.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royalty system</td>
<td>Ad valorem</td>
<td>Ad valorem with quantum rate for brown coal</td>
<td>Ad valorem</td>
<td>Ad valorem and quantum rate</td>
<td>Ad valorem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royalty rate</td>
<td>4.0% of ex-mine value (value less allowable deductions)</td>
<td>Nil</td>
<td>Variable rate depending on average metal prices (between 2.5% and 5.0%)</td>
<td>2.5% of royalty value</td>
<td>3.5% of net market value</td>
<td>1.6% on net sales plus profit royalty up to maximum of 5.0% of net sales</td>
<td>20.0% of net value of mine's production value</td>
</tr>
<tr>
<td>Royalty system</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Hybrid</td>
<td>Profit</td>
</tr>
<tr>
<td>Petroleum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royalty rate</td>
<td>10.0% at well head</td>
<td>10.0% at well head</td>
<td>10.0% at well head</td>
<td>10.0% or 12.5% at well head</td>
<td>10.0% at well head</td>
<td>12.0% at well head</td>
<td>10.0% at well head</td>
</tr>
<tr>
<td>Royalty system</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
<td>Ad valorem</td>
</tr>
</tbody>
</table>

While the legal circumstances surrounding the concept of ownership of minerals remains longstanding practice in the Australian context, it should be recognised that any prospect of rents attained from the extraction of ores cannot materialise unless someone has discovered a deposit and capital, labour and entrepreneurial insight is applied to the task of developing mine production capacity that will generate sufficient value added.

By instituting legal arrangements, and imposing royalties and a prospective MRRT, on the fallacious basis that those mineral deposits are owned by ‘the people,’ the incentive for individuals to discover presently unknown reserves and exploit known resources in an efficient manner is diminished. As explained by Singleton and Howard, ‘[w]hat property we have, we have by permission, not by right. Until this right is recognised, miners and prospectors will have no real security, and hence diminished incentive to find and develop minerals.’

Under the arrangements for the MRRT, all state and territory royalties incurred on or after 1 July 2012 will be creditable (but not transferable or refundable) against a mining company’s MRRT liability. Any royalties paid and not claimed as a credit will be carried forward at the uplift rate of the LTBR plus seven per cent.

The MRRT royalty credit regime enables the states to continue to unilaterally adjust their royalties, and indeed the recent trend has been for resource-intensive states to increase their royalty rates:

- In 2008 the Queensland government introduced a two-tier rate structure for coal royalties, with revisions to royalty rates for base and precious metals taking effect from 1 January 2011
- In September 2010 the South Australian government increased royalty rates for concentrates and minimally processed products such as copper concentrate, uranium oxide and iron ore from 3.5 per cent to five per cent
- In May 2011 the Western Australian government announced the removal of concessional royalty arrangements for iron ore ‘fines’ relative to lump ore. The fines rate will be increased from 5.625 per cent to 6.5 per cent from 1 July 2012 and to 7.5 per cent from 1 July 2013
- In September 2011 the NSW government announced an increase in coal mining royalties, applicable to those companies liable to MRRT, in the absence of carbon tax compensation from the commonwealth.

In response to these policy decisions, the commonwealth has indicated that it intends to withhold from the states’ funds from a Regional Infrastructure Fund (with $6 billion funded by the MRRT) in the event that a state increases its royalties in the future (in addition to any loss in GST grants share due to increases in a state’s capacity to raise royalty revenue).

Short of taking over the entire mining taxation field, this proposal represents an unprecedented attempt by the commonwealth to interfere with the autonomy of states to unilaterally impose their own taxation arrangements - in this case, royalties - and incur the economic and political consequences of such unilateral changes.

30 Queensland State Budget 2008-09; South Australian State Budget 2010-11; Western Australia Department of Treasury, op cit.
Perversely, the proposed infrastructure funding clawback by the commonwealth may also discourage any state initiatives to improve the economic efficiency of their royalty arrangements that coincidentally raise additional state-own revenues in a meaningful fashion. Indeed, the clawback of potential funds to a state that increases royalty revenues would be in addition to existing fiscal equalisation arrangements that penalise jurisdictions with greater mineral tax capacity through a smaller share of GST revenue.

**Use of revenues acquired by MRRT**

In an effort to enhance the political palatability of the MRRT the commonwealth government has associated a number of expenditure, taxation and other benefits to be introduced upon the passage of the enabling MRRT legislation.

According to a government Senator’s dissenting report to the Senate Select Committee on the Scrutiny of New Taxes main report on the mining tax, these benefits may be summarised as follows:

- a company tax cut for all companies to 29 per cent on 1 July 2013
- a new tax break for up to 2.7 million small businesses from 1 July 2012
- additional investment through a Regional Infrastructure Fund
- simplifying personal tax with a $500 standard deduction from 1 July 2012 and a $1,000 deduction from 1 July 2013
- a 50 per cent tax discount on up to $500 of interest income from 1 July 2012, increasing to up to $1,000 of interest income from 1 July 2013
- a boost to superannuation, with the Superannuation Guarantee (SG) charge to increase from nine per cent to 12 per cent from 2013-14 to 2019-20
- expanded superannuation concessions for low income earners and over-50s from 1 July 2012.  

While experts and the general public alike have been given the impression that revenues from the MRRT will be hypothecated for the provision of the benefits outlined above, the linkages outlined by the government are, in some important respects, tenuous or nonexistent. In any event it remains contestable that the government will successfully raise sufficient amounts of MRRT revenue, on a taxable base at least likely to be subject to high levels of volatility, to fund the cost of these initiatives.

As an example, the government has stated that one of the key advantages of the MRRT is that it would 'fund' the increase in the SG charge to 12 per cent over a seven-year period. However, under the SG employers are obligated under separate legislation to pay an amount based on a proportion of employees' wages and salaries (currently nine per cent) into a superannuation fund.

The *Superannuation Guarantee (Administration) Amendment Bill 2011*, passed by the House of Representatives in November 2011, provides for the SG to increase to 12 per cent. While the bill states that its provisions cannot commence until various MRRT legislation is enacted, there are no

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provisions in the MRRT bills stating that revenues from the tax will be explicitly used to fund the SG increase.

It will be all Australian employers, not just mining companies statutorily liable to MRRT, that will bear the increase in the compulsory superannuation contribution, which in turn is likely to flow onto employees in the form of lower wages. If anything, MRRT and other general revenues might be used by the commonwealth to help compensate for the loss of revenue due to the existence of taxation concessions on superannuation.

As argued by the Australian Chamber of Commerce and Industry, in its submission to the House of Representatives Economics Committee on the SG Bill, there are potentially serious consequences of the proposed increase in the SG charge for the capacity of small business owners to fund their own retirements:

‘[m]ost of the employers who will be paying the proposed levy rise are small and medium business owners who are business people that do not decry a good retirement income for their staff. Yet most business people don’t have the capacity to squirrel away 9% let alone 12% of earnings each year for their own superannuation. Not only do they take the risk to employ others, but they carry the burden of funding retirement incomes and taking pension pressure off future government budgets. No-one in government is talking about their retirement. Their retirement capital is their business assets, if any is left that survives competition, family break up or partnership collapse.’

While some businesses may receive benefits associated with the receipt of tax concessions or improvements to cash flow through the marginal reduction (for incorporated businesses only) in general corporation income tax, these will be offset at least in part by increases in the costs of employment attributable to a significant increase in the SG charge.

Indeed, the broader debate that is required concerning the economic and social implications of an increasing emphasis on compulsion in savings is unhelpfully obfuscated by the government’s attempts to link superannuation policy with a tax imposition on what is perhaps Australia’s most competitive sector.

Where there are broader economic gains to be procured from other initiatives that the government attempts to tie in with the MRRT, these tend to be insufficient to meet the objectives of improving the economic competitiveness of Australian industries.

In recent years there has been heightened attention accorded to the need for Australia to reduce its corporate income taxes in an effort to attract foreign investment and promote economic growth domestically. A wide ranging economic literature reveals that high corporate tax rates tend to depress business investment and, as a consequence, economic growth.

Despite episodic reductions in its corporate tax rate over the last two decades or so, Australia’s statutory corporate tax rate of 30 per cent exceeds the rates that exist in some of our major mining export competitors (Figure 9) as well as other countries within the Asia-Pacific region that compete for foreign capital inflows.

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The Henry taxation review concurred with the prevailing economic view that a reduction in taxes on corporate income would not only attract investment, but encourage innovation and entrepreneurial conduct. In turn, national income would be increased as a larger and more productive capital stock is developed that would improve the productivity of businesses and employees.\textsuperscript{34}

The government proposes to reduce the corporate tax rate from 30 per cent to 29 per cent, in turn to be funded by the imposition of the MRRT. Although the proposed measure to reduce the rate of corporate taxation is a welcome one, the marginal reduction in the tax rate will do little to redress what the Henry review observed to be Australia’s excessive reliance on taxes on corporate incomes.

APPENDICES


APPENDIX 2 - Australia’s Resource Future: An Institute of Public Affairs Policy Paper

APPENDIX 3 - Submission to the Senate Select Committee on the Scrutiny of New Taxes: Minerals Taxes & Carbon Taxes
The Resource Super Profits Tax and the 2010/11 Federal Budget

How the Henry Review and 2010/11 Federal Budget will harm Australia’s economic interests

Julie Novak
Research Fellow

June 2010
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Executive Summary

- The 2010/11 federal budget announced a $41 billion deficit for the coming financial year, on the back of a record $57 billion deficit in 2009/10.

- The federal government intends to reduce this multi-year deficit by pursuing the growth-retarding strategy of tax and revenue hikes.

- Government revenues are expected to rise by $93 billion from 2009/10 to 2012/13, on the back of policy decisions such as a 40 per cent Resource Super Profits Tax (RSPT), tobacco excise hikes, an LPG excise, standard income tax deductions, and a tax compliance crackdown.

- The RSPT will be a punitive tax regime that will hurt emerging resource projects that require sufficient return to become a commercially viable proposition.

- The RSPT also undermines the need for capital-intensive mining investors to have certainty and stability in government policy decisions, ameliorating sovereign risks.

- The rationale for a RSPT to correct a 'two speed economy' is fallacious, ignoring the need for scarce labour and capital to move to their most valued uses in the economy. The RSPT will hurt manufacturing and services industries on the eastern seaboard of Australia that are closely linked to mining.

- Mining windfall taxes implemented in other countries have been associated with capital flight of mining investments to safer destinations.

- The government's mining tax plan was inspired by the recently released Henry Review, which in itself is a plan for a significantly higher tax take on Australians into the future.

- Instead of a plan to burden individuals and businesses with new and increased taxes, the Henry Review and the 2010/11 federal budget should have contained plans to: reduce spending; rule out the implementation of the RSPT; and decentralise income taxing powers to the states.
Taxing our way to prosperity? The Rudd government’s approach to fiscal management

The Rudd government implemented a host of fiscal and economic policy changes in response to the ‘global financial crisis’ (GFC) of late 2008.

These included the provision of $900 tax rebate cheques to eligible taxpayers, subsidies for home insulation, capital works on school halls and libraries, and grants to local governments for miscellaneous projects.

Apart from the adverse effects of these policies on Australia’s long run productivity growth prospects, the fiscal implications of this significant increase in spending was profound. In response to one quarter of negative GDP growth, recorded in late 2008, the Rudd government plunged the federal budget into a multi-year deficit cycle (Figure 1).

Figure 1: Underlying cash balance forecasts for 2008/09 and 2009/10

From an initial forecast in the 2005/06 federal budget papers of a $9 billion surplus in 2008/09, the actual result was a $27 billion deficit. The federal budget turnaround for 2009/10 is even worse, with an initial $12 billion forecast surplus deteriorating into a massive $57 billion deficit.

From a negative net debt position attained by the previous government, Australians are also now burdened with a federal general government sector debt increasing to $94 billion by 2012/13.

Sensitive to the charge that it has recklessly managed Australian public finances, the Rudd government has announced in the latest federal budget that the budget will return to a cash surplus (of $1 billion) as soon as 2012/13. This was compared to a previous forecast of a surplus by 2015/16.
It is possible to discern from the budget papers the process by which the government intends to restore fiscal sustainability. In essence, the government plans to plug the fiscal gap by pursuing the growth retarding strategy of tax and revenue increases.

The available data shows that from 2009/10 (the year of the estimated peak deficit of $57 billion) to 2012/13 (the year in which the federal budget is forecast to return to surplus), general government sector receipts will increase from $285 billion to $378 billion – an increase of $93 billion, or 33 per cent over the period.

In absolute terms expenditure will continue to rise from $339 billion to $374 billion (an increase of $35 billion, or 10 per cent) over the same period, with additional expenditure commitments such as the broadband rollout concealed in the federal budget’s contingency reserve.

A major revenue source at the disposal of the government is the corporate income tax, with receipts expected to jump substantially from a global financial crisis affected $53.7 billion in 2009/10 to over $78 billion in 2011/12 (a $24.4 billion - or 45 per cent - increase over the period).

This expected outcome is reliant on assumptions of buoyant economic activity, including a one-in-sixty-year boost in the terms of trade, the strength of which have been questioned by leading economists.1

A number of other policy adjustments have been made which is expected to yield further revenues for the federal government:

- A 25 per cent increase in the tobacco excise rate, announced in late April, is anticipated to yield an additional $5 billion in revenue.
- A new excise on liquefied petroleum gas of 2.5 cents per litre from July 2011 and rising to 12.5 cents per litre in 2015, affecting 700,000 motorists.
- The government announced a $500 standard deduction on income tax returns from 2012/13 (rising to $1,000 from 2013/14). The government will be able to claw back additional revenue from those taxpayers who nominate the standard deduction, but have allowable deductions in excess of the standard amounts.
- Efforts by the Australian Taxation Office, supported by federal government funding, to recover at least $1.3 billion in revenue through a tax compliance crackdown.

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Killing the golden goose: The Resources Super Profits Tax

Arguably the centrepiece of the Rudd government’s budget is the Resource Super Profits Tax (RSPT), announced prior to the federal budget in response to the final report of the Henry Review.

In brief, the RSPT will apply a 40 per cent tax to the ‘super’ profits (calculated as the long term government bond rate) from non-renewable resource projects, after allowing for extraction costs and recouping capital investment. The government intends to commence this tax on 1 July 2012, with revenues anticipated to total $12 billion over the forward estimates.

The government’s contention - that the RSPT arrangements may be implemented without adverse consequences for the Australian economy - appears to ignore the circumstances faced by mining sector participants.

In reality, mining investments are typically capital-intensive that involve long gestation periods of a decade or more to realise an operating profit. Mining is also a high risk activity, with investments based on numerous long term economic and financial assumptions such as commodity price levels, production capacity, and expected operating costs.

As noted by Sinclair Davidson, ‘[m]ining, like all other industries and businesses, relies on entrepreneurial insight for success. Miners do not accidentally or suddenly become wealthy. Like all other businesses they have to forecast future sales, and acquire resources to meet future demand. They need to carefully manage their costs which are often fixed while selling into highly competitive global markets.’

Due to the unique conditions prevalent in mining it is essential that policy institutions, such as taxation settings, remain stable and competitive so as to facilitate long term investments in the sector.

It has been estimated that under the proposed RSPT the effective tax rate for a mining company operating in Australia will be 57 per cent, up from 43 per cent previously. This would place Australia in an uncompetitive tax position compared to alternative mining investment destinations such as the United States (40 per cent effective mining tax rate), Brazil (38 per cent), Chile (26 per cent) and Canada (23 per cent) (Figure 2).

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In addition, the inherent riskiness of mining investments implies that the cost of capital to fund projects are usually well above the long term bond rate. This implies that the RSPT represents a punitive tax regime that will particularly affect emergent resource projects that require substantial returns to become a commercially viable proposition.

Support for the RSPT has been predicated, in part, on the need to prevent the re-emergence of the so-called ‘two speed’ economy – with the resource states of Western Australia and Queensland growing strongly on the back of an improved terms of trade, with an attendant reallocation of capital and labour favouring lucrative mining projects in those jurisdictions, while the ‘rust belt’ southern states of NSW, Victoria and Tasmania languish in the growth and production factor attraction stakes.

This proposition ignores the complex interlinkages across industries and locational space. Mining provides critical support to industries including metal fabrication, machine construction and repair, transportation, carpentry, plumbing, welding and other manual services.

People in these associated industries may work on a contract basis with mining companies, repatriating some of their incomes to family members living in other towns or states. A considerable proportion of mine workers operate on a ‘fly-in, fly-out’ basis from capital cities and major regional centres, with beneficial flow on effects for other areas that are far flung from mining sites.

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5 For example, the Deputy Governor of the Reserve Bank of Australia, Ric Batellino, was reported to have recently stated that ‘from the viewpoint of the whole Australian economy, the best thing that could happen is for one of the big projects to fall over’ against the context of easing capacity constraints in the face of an impending mining boom. John Kehoe, 2010, ‘RBA deputy governor rejects miners tax threat’, The Australian Financial Review, 11 May.
The corporate headquarters for a host of major Australian mining companies are based in eastern states, with the in-house logistical services (for example, accountancy, corporate governance, legal and regulatory affairs) providing an important source of white-collar employment in non-resource jurisdictions.

The attainment of economic efficiency requires that resources flow freely to their best valued uses, and thereby to more profitable industries. A diminution of economic activity in the mining heartland as a result of the RSPT will inevitably flow through to other regions of Australia in the form of lower economic growth and fewer job opportunities.

As attested by the experience of various countries in recent years, the implementation of mining windfall taxes is commonly associated with the flight of capital to safer, lower taxing nations:

- Mongolia introduced a 68 per cent windfall profits tax on gold and copper in 2006, at thresholds significantly below going market prices. The tax led to a reduction in exploration activity, an increase in smuggling of the affected metals, and falling share prices of numerous mining companies.6
- New Zealand introduced special levies for coal and oil production that subsequently induced capital flight for more than a decade following the repeal of the taxes.7
- Papua New Guinea introduced an Additional Profits Tax on the Bougainville copper mine project in the 1970s. In response to a sustained reduction in the country’s share of global exploration investment, the government abolished the tax in 2003. The tax was reintroduced in 2008 for a major liquefied natural gas project.8

While other factors – such as the integrity of the legal framework, and the degree of security over tenure – impinge on the location of mining activities around the world, the anecdotal evidence presented above suggest that higher mining taxes are associated with the 'capital flight' of mining investments to more hospitable business environments.

In the Australian context, a number of mining companies have already announced their intentions to shelve or defer their operations in response to the RSPT (Box 1), with significant implications for the future development of the sector.

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8 World Growth International, Ibid.
Box 1: Mining sector participant reactions to Resource Super Profits Tax

Mining companies with significant operations, existing or potential, in Australia have announced that they are reassessing selected resource projects in anticipation of a higher tax burden and lower sectoral rates of return.

On 10 May the Xstrata Copper North Queensland Division announced the suspension of its $30 million, three-year copper exploration project in the Mt Isa and Cloncurry area. The chief operating officer, Steve de Kruijff, stated ‘the proposed tax has introduced great uncertainty about the potential impact on the economics of developing resources into viable operations in Australia.’

Santos recently announced it would defer for up to six months a decision on whether to build a $15 billion liquefied natural gas plant in Gladstone, Queensland.

Other companies, such as BHP Billiton, Rio Tinto and AngloGold Ashanti, indicated that they were reviewing the status of selected projects in light of the Rudd government’s RSPT announcement.

US based company Peabody Energy recently reduces its takeover bid for Queensland coal entity Macarthur Coal, citing the RSPT as a factor in reducing the value of its offer.

Fortescue Metals Group chief executive Andrew Forrest recently stated that ‘the proposed introduction of an unfair tax on mining profits will force companies to pursue offshore projects,’ while Rio Tinto chief executive Tom Albanese expressed concerns ‘about the inclusion of existing businesses and the arbitrary nature of the 40 per cent tax rate.’

News of the proposed introduction of the RSPT also led to almost immediate falls in share prices for major mining stocks.


The notion that the RSPT is necessary to obtain a ‘fair’ return on the extracted natural endowments that the community ‘owns’ needs to be challenged if Australia is to avoid backsliding into outright property rights expropriation commonly associated with developing countries.

Mining companies routinely invest billions of dollars in exploration, build their own infrastructure to bring their products to port, and then compete on volatile world commodity markets as price takers. This requires not only the combination of scarce capital and labour resources, but the application of entrepreneurial flair and ingenuity.

In exchange, it is reasonable that miners anticipate a reasonable financial return on commercially viable projects to justify their substantial investments. A punitive tax on legitimately acquired returns sends a worrying signal that Australia is closed for business not only in mining, but in other sectors of the economy that stand to enjoy success on their own terms.

The Henry Review

The Rudd government’s budget plan for new and increased taxes is heavily drawn from the 1,072 page final report of the Australia’s Future Tax System Review (Henry Review), commissioned to examine the Australian taxation (including federal, state and local taxes) and transfer system.

The report claims that ‘the reform vision is estimated to be broadly fiscally neutral, after taking into account the net fiscal gain from the estimated increase in national output.’ Such a design for a tax reform package is a classic pea-and-thimble trick of orthodox public finance, whereby some taxes are downscaled or abolished outright to be replaced by alternative taxes with potentially higher revenue yields.

A host of largely state based imposts (payroll tax, stamp duties, insurance taxes, mining royalties, and some taxes on the ownership and use of motor vehicles) are slated for abolition by the Henry Review, with the federal corporate income tax rate reduced to 25 per cent (and still above the rates of Asia-Pacific competitors such as Hong Kong and Singapore).

In its place the Review recommends that governments establish taxes within four broad tax bases (personal and business incomes, private consumption and economic rents). Some of the new and increased taxes proposed by the Henry Review include:

- A uniform resource rent tax, applied at a rate of 40 per cent, to onshore non-renewable resource projects;
- A broader land tax base to incorporate all forms of land;
- A destination based 'cash flow' tax imposed by the Commonwealth, with revenues to be disbursed to the states;
- A regime of variable congestion pricing on road networks;
- Indexation of the federal fuel excise to the CPI;
- Taxation of all alcoholic beverages of a volumetric basis, with effective tax rates on some products increased in accordance with their higher alcohol content;
- A 'substantial' increase in tobacco excises, and indexed to wages instead of CPI;
- Ensuring that gambling taxes ‘are focused on recouping economic rent generated by government restrictions on the supply of gambling services or are being used efficiently to impose such restrictions,’ and the elimination of gambling tax concessions;
- Removal of certain tax concessions for not-for-profit organisations, and raising the gift deductibility threshold for the purpose of income tax; and
- Removal of grandfathering arrangements relating to assets acquired before the commencement of capital gains tax.

The Review also recommended that the government proceed with a further investigation into the merits of wealth taxes.

To be sure, the Rudd government has released a statement ruling out some of the more politically charged

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11 Ibid.
12 Ibid, p. 80-106.
tax base broadening proposals, such as a land tax on the family home.\textsuperscript{13} However, as the official response to the Henry Review made clear, governments can readily cherry pick from, and in some cases redefine, the 138 recommendations to raise additional revenue from taxpayers.\textsuperscript{14}

Like the 1975 Asprey Review and the 1985 Tax Summit before it, the intention of 2010 Henry Review is that it is built to last. The spectre of long term fiscal deficits in the face of population ageing led the Treasury Secretary to remark earlier this year that 'it would be prudent to plan on the basis that the tax system will have to generate revenues to meet substantially larger fiscal costs.'\textsuperscript{15}

Should policymakers have insufficient appetite to roll back spending by the 'demographic state,' including allowing the more efficient private sector to deliver more services to the aged, the Henry Review might provide future governments with avenues to impose new taxes upon relatively fewer people of working age.

Even if it were no part of the Review Panel's intention the Henry Review is likely, in practice, to inspire an increase in the size of the Australian public sector into the future, with all the attendant inefficiencies and losses of economic liberties involved.


\textsuperscript{14} According to the government's response to the Henry Review (outlined in the statement 'Stronger, Simpler, Fairer: A tax plan for our future'), the net fiscal effect is to increase revenue (including from the RSPT) by about $3.2 billion over four years.

What was missing from the Henry Review and 2010/11 Federal Budget?

A genuine commitment to smaller government

The scope of the terms of reference for the Henry Review was limited to issues of taxation policy design. Importantly, the terms of reference also insisted that the Review’s recommendations not presume a smaller general government sector.16

When it is recognised that government revenues and spending are two sides of the same fiscal coin the orthodox public finance presumption of efficiency gains through tax base broadening are substantially weakened. As once explained by Australian public choice theorist Geoffrey Brennan:

the broadening of the tax base makes it easier for the government to raise additional revenue, and ... government will in the long run adjust to this greater ease by increasing its total claim on resources. Suppose one believed, however, that the resultant increase in government spending would involve substantial waste, or would yield to taxpayers lower benefits than they would have received if they had spent the proceeds privately. Then even if there were gains in terms of more neutral choices among private goods to be obtained from broadening the tax base, these would have to be set against the efficiency losses attributable to the expansion of public spending.17

In other words, the Henry Review represented a lost opportunity to advocate an unambiguously low taxation future that would constrain the ability of governments to engage in spending misadventures of the like witnessed during the aftermath of the GFC.18

The 2010/11 federal budget similarly failed to lay out a meaningful, effective platform conducive to smaller government. On the revenue side, as discussed above, the Rudd government has devised a concoction of discretionary tax and revenue hikes that, in combination with rosy economic assumptions, is supposed to deliver a return to surplus budgeting.

The government has also touted its previously announced 2 per cent cap on real spending growth as an instrumental factor in delivering an expected federal budget surplus in 2012/13.

16 The terms of reference also specify that the recommendations be consistent with the federal government’s tax-to-GDP commitments. As explained by former ministerial advisor David Alexander, ‘before the election Labor’s promise was to “not increase taxation as a proportion of gross domestic product.” But the government’s new formulation, as expressed by Kevin Rudd … is to “ensure that the level of taxation remains lower on average than the level we inherited in 2007-08.” … The pre-election tax level that was promised as a hard upper-bound limit has morphed into an average-level limit with no timeframe, thereby allowing for large increases in tax.’ While the Henry Review was finalised prior to the reformulated tax-to-GDP objective, the policy revision nonetheless provides additional leeway for the government to significantly increase its revenue take. David Alexander, 2010, ‘Be prepared for a fatter, big-taxing government’, The Australian, 16 April.


18 In an important contribution to the debate over the effectiveness of stimulus spending, Sinclair Davidson adjusted information published in the budget papers that show, contrary to Treasury assertions, a statistically insignificant relationship between the size of stimulus packages by nations and growth forecasting errors. Sinclair Davidson, 2010, ‘Did the stimulus work?’, Catallaxy blog, 13 May, http://catallaxyfiles.com/2010/05/13/did-the-stimulus-work/ (accessed 18 May 2010).
However the purported adherence to the spending cap is in fact based on a series of arithmetical and other fiddles buried deep within the fine print of the budget papers. Two cases in point include:

- The treatment of the deferral of the Carbon Pollution Reduction Scheme (CPRS). The government has removed the fiscal effects of the CPRS from the forward estimates, but has allowed up to $30 billion in household and industry compensation under the Scheme to be spent elsewhere.
- The treatment of the National Broadband Network (NBN). Spending under the NBN is being treated as an 'equity investment' contained within the budgetary contingency reserve, that does not appear in the operating statements of the budget.\(^{19}\)

It should also be recognised that the spending cap applies to the average of total general government sector expenditure, allowing a host of program spending items to grow in excess of the cap.

The federal budget papers reveal that items that would require further cost constraints in 2012/13 include carers' income support (12 per cent), defence support (9 per cent), assistance to states for public hospitals and health care (8 per cent), seniors' income support (8 per cent), and Medicare services (6 per cent).

There is an abundance of empirical evidence demonstrating that government taxing and spending should remain as low as possible if nations are to sustain economic prosperity and individual freedoms.\(^{20}\) With the Henry Review having been released in recent weeks, now is an opportune period for the Rudd government to proceed with a comprehensive audit of Commonwealth expenditure activities identifying potential savings to be pursued by current and future governments.

### Allowing Australia to succeed on the international economic front: No new mining taxes

The country's future prosperity is too important for mining - arguably Australia's most pivotal sector in an increasingly integrated global economy - to be placed at risk in order to mop up the fiscal spills of its stimulus packages.

Industry sources have noted that mining enterprises already make a significant contribution to the revenue collected by governments.

Over the past decade Australian mining companies paid $80 billion in company tax and royalties - approximately the size of the six month federal fiscal stimulus programs rolled out during 2008/09. Since 2004/05 it has been estimated that the expansion of mining activities have delivered an additional $334 billion to the Commonwealth Government alone.\(^{21}\)

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\(^{19}\) Terry McCrann, 2010, 'Treasurer Wayne Swan's hidden $50bn', *Herald Sun*, 13 May.


For the reasons outlined above, the federal government should not proceed with a new, exorbitant mining tax that risks the future development of the sector.

The role of state and territory governments in the taxation of mining activities also should not be overlooked in the broader picture. As a preliminary paper by the Henry Review Panel indicated, there currently exists a multiplicity of royalty arrangements (Table 1).

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Mineral</th>
<th>Royalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>All states</td>
<td>Generally</td>
<td><em>Ad valorem</em> royalty, generally ranging between 2.5 and 7.5 per cent of the value of mine output</td>
</tr>
<tr>
<td>All states</td>
<td>Certain low value commodities (e.g., clay, sand)</td>
<td>Specific royalty (amount per tonne)</td>
</tr>
<tr>
<td>Queensland</td>
<td>Coal</td>
<td>Base rate of 7 per cent of value. Additional 3 per cent applies to value over $100/tonne</td>
</tr>
<tr>
<td>Tasmania</td>
<td>Most minerals</td>
<td>Hybrid arrangements comprised of <em>ad valorem</em> and profit based royalty</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>Most minerals except petroleum</td>
<td>Profit based royalty</td>
</tr>
</tbody>
</table>


While the inter-jurisdictional variation in royalties (and prospective increases recently announced by resources states) presents a legitimate cause for concern for the mining sector, it is important to note that there is nothing precluding the states from imposing more efficient, low rate royalties on the profit derived from the sale of onshore natural resources. This option was not actively explored by either the Henry Review or the federal government in its initial response.

Such profit based royalty arrangements can already be investigated by states pursuant to the objective of reducing the overall burden of taxation upon the mining sector.

**A plan to decentralise taxing powers, and revitalise the Federation**

It has long been understood that our excessive vertical fiscal imbalance (VFI), or the discrepancy between taxing powers and expenditure activities across levels of government, has led to an increasingly dysfunctional Australian federalism.

The insufficiency of decentralised revenue powers in Australia tends to blur political accountability of public sector financial decisions, particularly at the state and local levels. One of the chief manifestations of this is the intergovernmental ‘blame game’ - where the Commonwealth can blame the states for inefficient services delivery, all the while that states blame the Commonwealth for a lack of financial assistance to rectify services inefficiencies.
The Henry Review acknowledged that state and territory governments need a degree of fiscal autonomy to function well. This would promote public accountability for spending decisions by premiers and chief ministers, improve the relative efficiency of public service provision and enhance state fiscal discipline.

However, the final report of the Review proposed in effect a substantial diminution of state fiscal autonomy. In one of the surprises to come from the report, it was suggested that states abolish their payroll taxes, often seen as a potentially efficient tax but plagued by numerous exemptions, with a tax on business cash flows.

With the possibility that such a replacement cash flow tax may be subject to constitutional challenge, such a tax would need to be imposed by the Commonwealth with revenues subsequently disbursed to states and territories.

Any illusions that a tax on cash flows would represent a state tax would have been shattered by the Rudd government’s recent policy earmarking 30 per cent of GST revenue, a much hyped ‘state tax’ in the Commonwealth’s care, to public hospitals.

As noted above, the Henry Review also suggested that the states abandon stamp duties and existing motor vehicle taxes. The Review urged states to abolish their mining royalties, however the federal government is instead proposing a convoluted scheme whereby mining companies receive refunds for royalty payments made to states.

Ultimately the Henry review needed to contain a blueprint for a financial settlement between the Commonwealth and the states, centred on a timetable for the return of full personal income taxing powers to the states.

This would have secured sufficient revenues for states to fund their core public services, while giving jurisdictions the freedom to adjust taxes accounting for voter preferences.

The national interest would also have been served by the consequent elimination of the blame game bedevilling Australian intergovernmental relations.
Conclusion

The Henry Review and the 2010/11 federal budget provide the textbook and action plan respectively for an Australian future characterised by new and higher taxes, including on a mining industry which is playing a fundamental role in underpinning our success through a turbulent economic period on an international scale.

The Rudd government’s arguments that heavily taxed mining companies are not paying their ‘fair share’ of government revenue could potentially have serious economic consequences.

Indeed, the price of such folly is being keenly felt today by holders of mining company shares, and superannuants whose nest egg savings were being invested in the sharemarket. The mining sector is actively reconsidering its capital investments in Australia in light of the punitive RSPT, with the cost of the tax to be felt by all Australians as companies either close existing operations, relocate to other countries, or abstain from future opportunities to develop resources in Australia altogether.

The key to economic prosperity was highlighted by Adam Smith two centuries ago, when he referred to the role of 'easy taxes' as a key to opulence. The federal government should pay heed to Smith’s advice, through a commitment to lower (and decentralised) taxes funded by expenditure reductions.
APPENDIX 2 - Australia’s Resource Future: An Institute of Public Affairs Policy Paper
Executive summary

- The proposed federal mining tax, and proposals in various states to restrict mining developments in selected tourism or agricultural regions, is a product of a host of anti-mining sentiments concerning the role and contribution of mining to Australian prosperity.

- The recent cropping land restrictions proposed by the Queensland Government will prevent access to significant Coal Seam Gas reserves in the state and is an example of the anti-mining sentiment in Australia. It is estimated that this proposal will cause an annual $1.6 billion reduction in the value of Queensland’s mineral and energy production.

- The key arguments expressed against mining activities, that tend to preoccupy the popular media and political discussion, are that:
  - Mining activities perpetuates Australia’s position as a ‘quarry’ to the rest of the world at the expense of developing sophisticated, tangible industries domestically, and at the risk of resource depletion and environmental degradation.
  - The growth of Australian mining, including as a result of rising commodity prices flowing through an improved terms of trade, exacerbates the de-industrialisation of the national economy as well as creates a ‘two-speed economy’ divide between resource intensive and non-resource intensive states.
  - The growth and development of the mining sector has benefited foreign interests more so than Australian interests.

- On the basis of a critical assessment, these anti-mining sentiments simply cannot be sustained.

- Australia is predominantly a services economy but, even so, mining is highly innovative and has extensive and complex links to the rest of the economy.

- Fears concerning the imminent depletion of Australia’s non-renewable resources base are ill-founded and disregard the important impacts of price conditions, technological change and human ingenuity.

- The Australian mining sector makes a major contribution toward environmental remediation, and indeed is a world leader in such practices.

- While the movement of resources towards mining activity and resource intensive regions are in Australia’s national economic interest, there is scant evidence to suggest that manufacturing has been damaged by the growth in Australian mining.

- It is fanciful to suggest that non-resources states do not benefit from mining, given the roles of services to mining, widespread share ownership in mining companies and taxation revenues.

- The role of foreign investment in mining has been indispensable in the growth of Australian mining, to the benefit of residents in this country.
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1.0 Introduction

The Australian mining sector has long played a critical role in the nation’s economic and social development. These beneficial contributions can be usefully summarised as follows:

- Economic activity: The minerals resources industry accounted for more than six per cent of Australia's economy in 2008-09
- Employment: The minerals resources industry directly employs 161,500 people, and indirectly supports hundreds of thousands of additional jobs through its purchases of goods and services from other Australian industries
- Investment: Over the past ten years the industry invested more than $125 billion in the Australian economy
- Exports: In 2008, minerals resources accounted for about one in every two exports dollars earned by Australia making it the country's largest export industry
- Social contribution: The minerals resources industry has played a vital role in the development of Australian communities (particularly in regional and rural areas), contributes to indigenous and non-indigenous employment, participates in community development and environmental amenity initiatives, and tax revenues acquired from the industry help to underpin the provision of public sector services.\(^1\)

There is a widely held view that the benefits flowing from mining activity will continue at least in the short term. The Commonwealth Government is estimating a spike in Australia's terms of trade this financial year due to 'substantial increases in the contract prices of Australia's commodity exports, including iron ore and coal.'\(^2\) The latest estimate of an increase in the terms of trade by 17 per cent for 2010-11 exceeds the estimate made available at the time of the May Budget.

Such predictions, juxtaposed with a self-induced federal budget deficit driven by unproductive stimulus expenditure, led to the Rudd-Gillard government proposing new taxation arrangements for miners. This entails a Minerals Resource Rent Tax (MRRT) of 30 per cent applied to coal and iron ore projects, with the tax to apply to resource profits over and above the long term government bond rate plus seven per cent, as well as an extension of the Petroleum Resource Rent Tax (PRRT) to onshore oil and gas projects.

Apart from extolling the virtues of extracting a 'fair share' of revenue from mining relative to other sectors of the economy, government ministers have made various related arguments to sell its planned mining tax policy. These include:

\(^1\) Minerals Council of Australia, 2010, Minerals resources, tax, and the prosperity of all Australians, Policy Brief, June.

\(^2\) Commonwealth of Australia, 2010, Pre-Election Economic and Fiscal Outlook 2010, Departments of the Treasury and Finance and Deregulation, Canberra.
• the need to use the revenues to fund a 'productivity agenda' centred on infrastructure and innovation benefitting other sectors of the economy with value-added potential

• an obligation to compensate Australians for the extractive activities undertaken by foreign companies operating on Crown and other lands

• to mitigate the impact of exchange rate movements due to a terms of trade boom upon non-tradeable, and other tradeable, segments of the national economy

• to slow or prevent the divergence of economic growth rates between resource intensive and non-resource intensive regions of Australia.

The recent federal election result of a hung parliament has created new uncertainties regarding the application of the proposed mining tax.

Despite assurances by Bob Brown in September 2010 that the Greens would not push for an extension of the MRRT base, the Greens leader stated earlier in the year that ‘I’m going to the election saying I want a bigger return from the big miners and I would expect more than one million people will vote for that, so I will have a mandate from where I sit in the Senate.’

Consistent with this the Greens member for Melbourne Adam Bandt – who currently shares balance of power status in the House of Representatives with various independents – expressed support for the original RSPT model applied across a wide spectrum of mineral resources.

The International Monetary Fund recently stated that the MRRT ‘is a step in the right direction’ and that ‘[c]onsideration should be given to broadening the coverage to other mineral resources.’

In addition, the proposed federal mining tax has generated a wider debate about the merits of mining activities in Australia more generally.

On the one hand, it could be reasonably argued that the repeal of the original Resource Super Profits Tax (RSPT) proposal was the product of a highly effective ‘tax revolt’ by the industry and many sections of the community, including in key resources provinces within Queensland and Western Australia, based on an appreciation of the economic and social benefits of mining.

On the other, there have remained strong voices of criticism against mining expressed by some quarters. For example, the politically influential Australian Greens have repeatedly characterised Australia as a ‘quarry economy’ under the control of ‘mining barons.’

As this paper illustrates, such sentiments levelled against Australian mining are not new. In some instances they stretch back to the nineteenth century, associated with the explosion of

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economic activity generated by the discovery and extraction of gold in Victoria during the mid-1800s.

As longstanding as many of the major anti-mining sentiments might be, this paper shows that they are ill-founded and thus do not represent a strong intellectual platform supporting policies constricting the growth of a sector that has proven itself to be pivotal to Australia’s prosperity.
2.0 Arguments against mining in Australia, and rebuttals

A host of propositions have been formulated in the Australian context that all purport to expose the extensive costs surrounding mining activities. The following sections summarise these arguments levelled against mining, and provide rebuttals against each argument.

2.1 Mining perpetuates Australia’s position as a ‘quarry’ economy

Various critics of mining have depicted its activities as resembling little more than the digging of quarries, or holes, in the ground yielding little by way of additional value-added for our economy. The maintenance, if not expansion, of the quarry economy of mining implies lost opportunities for Australia to diversify its industrial structure.

The economics editor for The Age newspaper, Tim Colebatch, lamented the notion that ‘the implicit argument from our officials is that we should allow otherwise-viable industries to be put down in the interests of making room for us to extract as many minerals now as possible.’

He went on to contend in the same article that ‘this is wrong: not just because they are picking winners, or just because China, too, has its vulnerabilities and could fall, but because you don’t put all your eggs in one basket.’

Swinburne University academic Michael Gilding characterised the effects of mining as follows: ‘Mining sucks oxygen from the rest of the Australian economy. It attracts investment capital, which might otherwise go into innovative technologies or creative industries. As a result, our best and brightest often cannot find the venture capital they need to support their innovations.’

Writer John Legge recently invoked the Lee Kuan Yew-inspired image of Australia as the ‘poor white trash of Asia’ when warning of the risk that, without knowledge-based manufacturing products and infrastructures, ‘Australia will be no more than a quarry and tourist resort, catering to the whims of people from countries where knowledge creation is taken seriously.’

In a 2009 edition of Quarterly Essay, public commentator Guy Pearse castigated the ‘quarry vision’ of widespread political, business and media support for the non-renewable resources industries: “[d]ebate rages about virtually everything else, but there's perfect harmony on the importance of the quarry. It's a given.”

The Australian Greens criticised the Building Australia Fund, an infrastructure financing initiative announced in the 2008-09 federal budget, on the basis that it would deliver ‘quarry economy handouts.’ According to spokesperson Senator Scott Ludlam, ‘pouring money into more roads and ports to service the mining industry does not benefit the majority of Australians, or help improve our long-term economic future.’

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8 John Legge, 2010, ‘Without support for industry, we’re no more than a quarry’, The Age, 13 August.
The chief executive of the Federation of Automotive Products Manufacturers, Anna Greco, invoked a sense of manufacturing-nationalism when stating: ‘I’m a proud Australian who wants to live in a country that produces things. If the day comes that Australia reverts to being no more than a ... quarry ... I'll join the estimated 1 million Australians who have taken their knowledge and skills overseas.’

In his first speech as Opposition Leader in late 2006 Kevin Rudd asked ‘Will we still make things? Or is that all gone?’ to then declare prior to the 2007 federal election that he wanted Australia to be ‘a country that actually makes things.’

This declaration was closely associated with arguments made by other political figures at the time, such as now-Treasurer Wayne Swan, that the mining boom, induced by strongly rising commodity prices, would be of a temporary nature and thus Australia should refocus its economic energies toward investing in infrastructure and innovation activity benefiting non-mining industries.

Recently there has emerged a view that growth in mining necessarily threatens to displace other activities, such as tourism and agriculture, and thus reduce diversity of the national economic structure.

In Western Australia there has been growing community pressure placed on the state government to introduce legislation preventing mining activity in the Margaret River wine growing region. The possibility of such a restriction against mining could threaten a proposal to access a coal seam some 15 kilometres north of Margaret River.

The Queensland Government has announced a process to establish a ‘policy framework’ for protecting what it calls ‘the state's valuable and scarce strategic cropping land’ (see the Appendix for further details and critical assessment). Specifically, the proposal is that future legislation would require any proposed development, which may impact on selected areas of cropping land, to be assessed to ensure that it does not cause ‘permanent damage’ to such resources.

As noted by various mining and other stakeholders, such a proposal risks interfering with the property rights of landowners and constraining the extent of potential economic gains as a result of limiting legitimate resource exploration and mining activity.

The proposition that mining activity positions Australia as an economic quarry, squandering alternative opportunities for sustainable growth, is not a modern one.

The 1964 book by Donald Horne, *The Lucky Country*, develops a narrative of an Australia gripped by a culture of innovative complacency as a consequence of its natural resources endowment. Horne conceded that our mineral bounty, including new discoveries of iron ore in Western Australia, helped ensure our position as one of the wealthiest countries in the world. Yet, this was a mixed blessing; due to the stock of minerals available, Australians ‘showed less enterprise than almost any other prosperous industrial society.’

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11 Anna Greco, 2008, 'Nation to feel bumps of car industry's rocky road', *The Age*, 8 September.
Delving even further into Australian history, there is evidence of a dismissive attitude toward the efforts undertaken by miners to extract economically valuable resources for the benefit of consumers. In 1877, legislators in Queensland derided miners as being little more than ‘wandering diggers roving over the face of the country, and making holes for sheep and cattle to fall into.’

Associated with these arguments is the view that since non-renewable natural resources are finite, the ‘quarry’ economy of mining cannot last forever.

For example, entrepreneur and political commentator Dick Smith recently outlined a neo-Malthusian vision of population growth juxtaposed with the depletion of mineral resources: ‘Australia earns its living mainly through selling non-renewable resources, and sooner or later this wealth will begin to decline. With more people, the pie will be sliced thinner and our quality of life will most likely decline unless we act now. We're exhausting our soils, draining our rivers and destroying our environment at an accelerating rate.’

Citing the Mark Twain refrain, ‘What is a definition of a gold mine? A hole in the ground owned by a liar,’ the environmental pressure group Friends of the Earth castigated the operations of a mining company involved in ‘an easy quick-grab profit that will be taken out of the country scarring the land, flora, fauna and people for decades to come.’

Similar sentiments have been expressed in Australian literature with, for example, the Queensland indigenous poet Kath Walker describing the work of mine operations as follows:

‘The miner rapes
The heart of earth
With his violent spade.’

The pollution and destruction of the landscape were also commonly expressed in Judith Wright's poetry and by other Australian poets and writers.

2.1.1 Rebuttal: Australia is not a quarry economy

Despite protestations by mining critics to the contrary, Australia is not a quarry economy.

According to the latest National Accounts data supplied by the Australian Bureau of Statistics (ABS), the contribution of the mining sector to Australia's Gross Domestic Product (GDP) is small. In 2008-09 the share of mining to GDP was eight per cent. Finance and insurance (12 per cent of GDP) makes a greater contribution to the economy, as does manufacturing (ten per cent).
Services (including those provided by the public sector) accounted for over two-thirds of GDP in 2008-09, however criticisms of Australia as somehow being a ‘checkout’ economy are sparse at best.

While the relative share of mining in national economic output has increased slightly over the past decade in response to an upswing in demand for commodities from China and India, the relative economic importance of mining has actually declined over the long run (Figure 1). According to economic historian Noel Butlin, at the peak of the 1850s gold rush mining comprised about 35 per cent of GDP.

**Figure 1: Contribution of mining sector to GDP**

![Graph showing the contribution of mining sector to GDP](http://www.bis.org/review/r100224d.pdf)

Mining value added, per cent of nominal GDP.


Similar historical trends can be observed in relation to the total employment share of mining in the Australian economy.

Much attention has been focussed on the impact of recent strong increases in commodity prices on Australia's terms of trade. However, as noted by economist Stephen Kirchner '[t]he terms of trade boom has led to an exaggerated sense of the importance of commodities to the economy.'

If anything, the secular trend has been for commodity prices to decline in real terms albeit with considerable short run volatility, even as consumption of base metals and fuels have increased. An analysis of real base metals prices by the Reserve Bank of Australia (RBA) shows a trend decline in price over the past century, partly offset by more recent price increases.

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The RBA paper tracks long run changes in real iron ore contract prices, noting that ‘[a]fter 
rising in the 1950s in the context of strong world demand for steel - for which iron ore is 
primarily used - real iron ore prices declined for the next five decades. These price declines 
reflected in part large iron ore discoveries in Western Australia and Brazil in the 1960s and 1970s, and technological advances in the steel industry.’

Meanwhile, a Commonwealth Treasury analysis showed no discernable trend in the price of coal relative to overall prices over the last one hundred years.

2.1.2 Rebuttal: Australian mining has extensive links to the rest of the economy

The quarry economy narrative invokes misleading pejorative images of mining activities as representing nothing but digging holes in the ground for precious base metals or fuels. However, such a depiction overlooks the elaborate structure of production entailed in mining exploration and extraction processes, and the extensive inter-industry linkages that this structure implies.

Mining involves much more than drawing picks and shovels. It is a relatively capital intensive 
sector of the economy, with large scale expenditure on exploration, the development and 
construction of open cut and underground mines and off-shore drilling platforms in the oil and 
gas industries. These types of capital are highly specialised by nature, and are associated 
with a high degree of sunk costs.

Considerable expenditure by mining companies is also necessary for infrastructure, such as transport and communications facilities (roads, rail, aerodromes, ports, telecommunications) and water and power supply. Mining also make a significant contribution to the development of social infrastructure services for mine employees and local communities.

ABS data provides some insight into the composition of capital used by the mining sector, sourced from domestic and foreign suppliers of manufactures and other materials (Table 1).

Mining accounts for the second largest amount of non-dwelling construction, machinery and equipment, and research and development (R&D) net capital stock of all sectors in Australia. The value of computer software used by mining as net capital exceeds that of the agriculture, construction, tourism (accommodation and food services), and arts and recreational sectors.

The highly specialised capital used by the mining sector is combined with labour services to produce ore for domestic and international markets. As at May 2010, 179,400 people were directly employed by the mining sector compared to 74,800 people ten years ago - an increase of 140 per cent over the period. About two thirds of direct mining sector employment is situated in Queensland and Western Australia.

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19 John O’Connor and David Orsmond, Ibid, p. 5.
20 Angelia Grant, John Hawkins and Lachlan Shaw, 2005, ‘Mining and commodities exports’, Economic Roundup (Spring): 1-15. There was a significant increase in relative coal prices during the 1970s energy crisis, however prices subsequently fell back to long term trend levels. Prices have risen again in recent years due to an uplift in global commodity demand.
Inconsistent with the depiction of miners as merely earth shovellers, a recent analysis of the mix of labour in mining shows occupations as diverse as drillers, miners and shot firers, metal fitters and machinists, engineering technicians, truck drivers, production managers, plant operators, geologists and geophysicists, accountants, project administrators, clerks and power plant operators.23

Nearly two thirds of mining workers had completed a non-school educational qualification, with the need to attain a qualification becoming increasingly important given the growing complexity of mining operations.24

Table 1: Net capital stock in selected industries, by selected capital types, 2008-09, $ millions

<table>
<thead>
<tr>
<th>Industry</th>
<th>Machinery and equipment</th>
<th>Non-dwelling construction</th>
<th>Computer software</th>
<th>Research and development</th>
<th>Exploration</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>40,235</td>
<td>45,824</td>
<td>298</td>
<td>518</td>
<td></td>
<td>104,929</td>
</tr>
<tr>
<td>Mining</td>
<td>77,056</td>
<td>148,297</td>
<td>1,339</td>
<td>10,716</td>
<td>42,383</td>
<td>279,792</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>87,752</td>
<td>56,149</td>
<td>2,718</td>
<td>19,071</td>
<td></td>
<td>165,690</td>
</tr>
<tr>
<td>Construction</td>
<td>23,769</td>
<td>13,907</td>
<td>922</td>
<td>2,094</td>
<td></td>
<td>40,692</td>
</tr>
<tr>
<td>Retail trade</td>
<td>27,203</td>
<td>27,228</td>
<td>2,234</td>
<td>199</td>
<td></td>
<td>56,865</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>18,136</td>
<td>33,856</td>
<td>246</td>
<td>48</td>
<td></td>
<td>52,285</td>
</tr>
<tr>
<td>Transport, postal and warehousing</td>
<td>74,788</td>
<td>190,816</td>
<td>3,291</td>
<td>428</td>
<td></td>
<td>269,324</td>
</tr>
<tr>
<td>Information media and telecommunications</td>
<td>17,235</td>
<td>79,847</td>
<td>2,375</td>
<td>2,763</td>
<td></td>
<td>na</td>
</tr>
<tr>
<td>Financial and insurance services</td>
<td>16,517</td>
<td>63,407</td>
<td>7,663</td>
<td>3,959</td>
<td></td>
<td>91,546</td>
</tr>
<tr>
<td>Public administration and safety</td>
<td>21,592</td>
<td>124,055</td>
<td>4,345</td>
<td>5,983</td>
<td></td>
<td>na</td>
</tr>
<tr>
<td>Education and training</td>
<td>10,846</td>
<td>95,707</td>
<td>2,153</td>
<td>5,429</td>
<td></td>
<td>114,135</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>16,790</td>
<td>65,644</td>
<td>1,495</td>
<td>1,845</td>
<td></td>
<td>85,776</td>
</tr>
<tr>
<td>Arts and recreational services</td>
<td>6,381</td>
<td>39,146</td>
<td>649</td>
<td>279</td>
<td></td>
<td>na</td>
</tr>
<tr>
<td>Total</td>
<td>575,544</td>
<td>1,469,794</td>
<td>40,807</td>
<td>73,627</td>
<td>42,383</td>
<td>3,827,386</td>
</tr>
</tbody>
</table>

(a) Total includes dwellings, ownership transfer costs, weapons systems, cultivated biological resources, and artistic originals.


In addition to this, mining retains extensive linkages to the remainder of the Australian economy including services. As recently remarked by economist Judith Sloan, the ‘spin-off … [of mining] … for the service sector is immense – for contractors, accountants, lawyers, caterers and many others.’25

24 DEEWR, Ibid.
This is confirmed by the total requirements coefficients data contained in the latest ABS input-output tables, which shows the value of output of mining industries required directly and indirectly to produce $100 of final output by other industries throughout the economy.26

Numerous Australian companies also engage in adding value to extracted ore through mineral processing activities, including smelting and refining of alumina, aluminium, copper, gold, iron, lead, nickel, silver and zinc (Table 2). A significant proportion of these processed outputs are exported to international markets.

Table 2: Production of selected manufactured products by mineral origin, 2007-08

<table>
<thead>
<tr>
<th>Product</th>
<th>Volume measure</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alumina</td>
<td>'000 t</td>
<td>19,359</td>
</tr>
<tr>
<td>Refined aluminium</td>
<td>'000 t</td>
<td>1,964</td>
</tr>
<tr>
<td>Refined copper</td>
<td>'000 t</td>
<td>444</td>
</tr>
<tr>
<td>Lead bullion</td>
<td>'000 t</td>
<td>152</td>
</tr>
<tr>
<td>Refined lead</td>
<td>'000 t</td>
<td>203</td>
</tr>
<tr>
<td>Refined zinc</td>
<td>'000 t</td>
<td>507</td>
</tr>
<tr>
<td>Raw steel</td>
<td>'000 t</td>
<td>8,121</td>
</tr>
<tr>
<td>Refined gold</td>
<td>t</td>
<td>364</td>
</tr>
<tr>
<td>Refined silver</td>
<td>t</td>
<td>605</td>
</tr>
<tr>
<td>Diesel automotive oil</td>
<td>ML</td>
<td>12,177</td>
</tr>
<tr>
<td>Industrial and marine diesel fuel</td>
<td>ML</td>
<td>3</td>
</tr>
<tr>
<td>Fuel oil</td>
<td>ML</td>
<td>979</td>
</tr>
<tr>
<td>Automotive gasoline</td>
<td>ML</td>
<td>17,079</td>
</tr>
</tbody>
</table>

Source: Australian Bureau of Statistics, Year Book Australia, 2009-10, cat. no. 1301.0.

2.1.3 Rebuttal: Australian mining is a major source of technological innovation and R&D

Far from retarding Australia’s industrial development, the mining sector has contributed to this process by encouraging domestic innovation activity including through cutting-edge research and development.

Data supplied by the ABS on the extent of research and experimental development by the private sector shows that, in 2007-08, Australian mining businesses invested some $3.3 billion in R&D expenditure.27 This represents a significant increase on expenditure of $392 million undertaken a decade ago.

The mining sector today accounts for 23 per cent of total business expenditure on R&D, up from ten per cent in 1997-98. It is significant to note that the sector sources about 96 per cent of its R&D expenditure from its own funds.

Australia has made numerous contributions to technological change in the mining sector, such as exploration assessment technologies, mine planning and design innovations, mineral processing, and technologies improving environmental amenity and worker safety at mine sites.

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26 ABS, Australian National Accounts: Input-Output Tables, 2005-06, cat. no. 5209.0.55.001.
27 ABS, Research and Experimental Development, Businesses, 2007-08, cat. no. 8104.0.
It has been estimated that the mining technology services industry alone contributed over $3 billion to GDP in 2000-01, with exports in the order of $1.2 billion in 2004-05.28 Over 60 per cent of the world’s mining operations utilise software developed by Australian companies.

The information presented above paints a picture of mining as an elaborate set of economic processes, rather than merely digging holes in the ground. Contrary to the beliefs expressed by the critics, Australian mining has contributed extensively to innovation by displaying significant enterprise and initiative in response to complex production and supply problems.

2.1.4 Rebuttal: The scarcity of mineral reserves are contingent on a wide range of economic and other factors, including human ingenuity

Ever since the writings of Rev. Robert Thomas Malthus in the late 1700s, there has existed a strain of thought suggesting that mankind is verging toward the complete exhaustion of the natural resource base. This view appears to have become increasingly popular in public opinion, as evidenced by the ‘Club of Rome’ thesis, the ‘peak oil’ proposition and the growth of the environmental movement.

One way in which critics attempt to illuminate the degree of mineral resource finiteness is to calculate an effective number of production years remaining by comparing existing levels of mining production against known economic resources (Table 3).

The data provided in the Table implies that, with the exception of brown coal, nickel and uranium, Australia will run out of significant mineral commodities within a century on current production levels. It is sometimes postulated, as Dick Smith did recently, that continuing population and economic growth will only exacerbate the rate of resource depletion.

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Table 3: Economic resources versus production rates, 31 December 2009

<table>
<thead>
<tr>
<th>Units</th>
<th>Economic demonstrated resources</th>
<th>Mine production</th>
<th>Production years remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bauxite</td>
<td>Gt</td>
<td>6.2</td>
<td>0.065</td>
</tr>
<tr>
<td>Black coal</td>
<td>Gt</td>
<td>43.8</td>
<td>0.445</td>
</tr>
<tr>
<td>Brown coal</td>
<td>Gt</td>
<td>37.1</td>
<td>0.068</td>
</tr>
<tr>
<td>Copper</td>
<td>Mt Cu</td>
<td>80.4</td>
<td>0.853</td>
</tr>
<tr>
<td>Gold</td>
<td>t Au</td>
<td>7,399.0</td>
<td>227.0</td>
</tr>
<tr>
<td>Iron ore</td>
<td>Gt</td>
<td>28.0</td>
<td>0.394</td>
</tr>
<tr>
<td>Lead</td>
<td>Mt Pb</td>
<td>29.4</td>
<td>0.57</td>
</tr>
<tr>
<td>Nickel</td>
<td>Mt Ni</td>
<td>24.0</td>
<td>0.165</td>
</tr>
<tr>
<td>Silver</td>
<td>Kt Ag</td>
<td>69.4</td>
<td>1.63</td>
</tr>
<tr>
<td>Tin</td>
<td>Kt Sn</td>
<td>176.0</td>
<td>5.63</td>
</tr>
<tr>
<td>Uranium</td>
<td>Kt U</td>
<td>1,224.0</td>
<td>7.985</td>
</tr>
<tr>
<td>Zinc</td>
<td>Mt Zn</td>
<td>55.9</td>
<td>1.29</td>
</tr>
</tbody>
</table>


However, it is fanciful to consider the question of physical resource finiteness in the absence of changing economic conditions. Consider, for example, the important role of commodity prices in shaping actions by mining sector participants.

A reduction in the price of a given commodity, other things being equal, suggests that the supply of the commodity is increasing relative to its demand and is hence becoming less costly to deliver onto market.

The implied prospect of a lower return on investment will encourage existing miners to mine their ore bodies less intensively, or to abandon mine sites with lower grade ore altogether. Potential entrants could be discouraged from investments in the affected commodity class.

A falling commodity price could also discourage exploration activities. As explained by Geoffrey Blainey in the late 1960s, ‘[t]he discovery of mineral deposits is to a considerable degree the result of the amount of intelligent searching, both horizontally and vertically. In turn the intensity of the search depends heavily on the incentives to search,’\textsuperscript{29} such as changes to commodity prices.

Another potential reaction to a fall in the commodity price is that firms could seek to divert their investments into seeking and extracting alternative, albeit more profitable, resources.

What this all means is that proven reserves are a function of economics and not geological abundance.\textsuperscript{30} In the example provided above, the consequence of a reduction in the commodity price is to stretch out even further into the future the years of available supply for the material.


Despite recent increases due to rising commodity demands by industrialising China and India, in the long term commodity prices ‘have generally trended down or sideways rather than up since the late 19th century ... [which] ... argues against the notion that ‘non-renewable’ resources are becoming more scarce in an economically meaningful sense.’

Other factors in addition to the role of price must be considered when assessing the finite nature of resources. Technological change is an important factor, as described by Barnett and Morse:

‘[f]ew components of the earth’s crust ... are so specific as to defy economic replacement, or so resistant to technological advance as to be incapable of eventually yielding extractive products at constant or declining cost. When coal, petroleum, hydroelectric power, and the atomic nucleus replace wood, peat, and dung as sources of energy; when aluminium yields its secrets to technology and is made to exist, as never before, in the form of metal; when the iron in taconite, once held there inseparably, becomes competitive with that in traditional ores - when all this happens, can we say that we have been forced to shift from resources of higher to those of lower economic quality?’

Other man-made factors, such as changes in incomes, consumer tastes and government tax and regulatory policies, have critical implications for mining sector production.

Indeed, as the economist Julian Simon famously explained the very concepts of a resource, and what are valuable resources, is a function of the human mind. Human creativity and innovativeness was capable of converting a previously useless liquid - oil - into a lucrative resource, while previously useless sand has been found to have an economically useful application in the production of computer chips and fibre optic cabling.

Far from being responsible for exhausting the planet’s treasures population growth is necessary in order to attain more minds to resolve problems, including finding new ways of combining scarce resources to furnish products that satisfy consumers. For that matter, economic growth is indispensable in ensuring that the greater number of creative minds have the capacity to put mineral and other resources – and ever changing conceptions of these – to good work for human development.

2.1.5 Rebuttal: The mining sector invests substantially in promoting environmental amenity

The environmental implications of mining sector activity are varied. During the exploration stage, ground level activities could involve the development of bore holes and excavation pits. Mineral extraction and processing may involve the generation of wastes, such as mine tailings and gaseous emissions, which if not managed appropriately could disseminate into local environments through air and water systems.
While the extent of environmental impact is contingent on a wide range of factors, including accessibility and other characteristics of the ore body, the types of technologies used in exploration and extraction as well as unique local conditions, they have become a source of growing public scrutiny over the past two decades or more.

Like any other private sector business attuned to the attitudes and concerns of customers and local communities, the mining sector undertakes numerous activities to minimise its impact on the environment.

Companies routinely undertake rehabilitation of sites, including restoration ensuring that an area is returned as close as possible to its pre-mined state and other techniques such as land recontouring and revegetation.

According to the Minerals Council of Australia, there exists an accumulated provision of about $3.5 billion for rehabilitation with the sector forecast to spend more than $200 million annually on rehabilitating disturbed sites.

Complementing existing state and federal environmental legislation, the mining sector enforces its own Australian Minerals Industry Framework for Sustainable Development. Alongside addressing economic and social concerns, the framework obligates signatory companies to seek continual improvement in environmental performance, contribute to biodiversity conservation and integrated land use planning, and encourage responsible product design, use, re-use, recycling and disposal.

2.2 The curse of resource endowment: Growth in the mining sector accelerates Australia’s de-industrialisation and fractures the macroeconomy

Some economists and social commentators have claimed that the possession of natural resources by a given country can exert a negative impact on economic growth, instead of a positive contribution as outlined in the conventional economic literature. This negative effect has been dubbed the ‘resources curse.’

An element of the resources curse is the ‘Dutch disease’ hypothesis, outlined by Australian economist Bob Gregory in 1976, which hypothesises that an expansion of mining will tend to displace manufacturing activity and hence aggravate a process of de-industrialisation within the economy.

An increase in the terms of trade following an increase in the price of an exported commodity has two general effects according to the Dutch disease thesis:

First, a ‘spending effect’ materialises due to the additional income generated by the commodity boom. This leads to an expansion in demand for both tradeable and non-tradeable goods and services, raising the price of non-tradeables but not of tradeables (as its prices are

35 ABS, 2003, Ibid.
determined by the global market). This implies an increase in the real exchange rate, reducing the competitiveness of sectors such as manufacturing.

Second, the Dutch disease entails a ‘resource movement’ effect, in which the commodity boom leads to a shift of labour and capital from manufacturing to the mining sector.38

Goodman and Worth paint a neo-Marxist perspective on the role of an expanded mining sector in promoting conflict between economic ‘haves’ and ‘have-nots.’ With the resources curse, ‘the internal contradictions of capitalist development are laid bare. The class contradiction, a labour-capital antagonism between those who benefit from and those who bear the costs of accumulation, is borne out in sharp social divisions created by resource extraction. Spatial antagonisms between contending localities, regions, and states, as played out in political tensions and confrontations, reflect underlying capital-to-capital contradictions.’39

There has been a significant growth of interest in recent years on the geographic implications of the resources curse, with commentators and policymakers increasingly referring to a ‘two-speed economy’ trend between the resource intensive states of Queensland and Western Australia, on the one hand, and the remainder of Australia (NSW, Victoria, South Australia and Tasmania) on the other.

A 2006 Discussion Paper by the Victorian Department of Treasury and Finance used a computable general equilibrium model to estimate the short run effects of a commodity price boom on state and territory economies.40

It was estimated that increases in commodity prices would lead to a decline in economic output (of 0.22 per cent) compared to what it otherwise would have been. Victorian and NSW Gross State Product (GSP) is about 0.5 per cent lower due to, in part, the impact of exchange rate appreciation on manufacturing in these two jurisdictions.

In a recent letter to The Australian newspaper, University of Technology Sydney economics lecturer Gordon Menzies offered support for a ‘substantial mining tax’ on the basis that ‘a booming sector or state drains workers out of other parts of the economy, and bids up wages’ implying that a tax is required to slow down the growing mining sector.41

Previously the Australian Marxist economist Ted Wheelwright opined that the growth of mining will inevitably create divisions between resource rich regions and others. Since the resource intensive states ‘come to have more in common with foreign capital and markets than with the federation ... economic forces begin to exert pressures which tend to pull the nation apart.’42

2.2.1 Rebuttal: The spatial reallocation of labour and capital is an indispensable aspect of a well functioning economy

It has long been understood by economic theorists that wealth creation and material prosperity is enhanced when regions and nations specialise in sectors and industries where they have a comparative advantage.

It is no coincidence that mining companies have invested to ensure Australia’s position as a major global producer of minerals – such as alumina, bauxite, black coal, copper, diamonds, gold, iron ore, lead, lithium, nickel, silver, uranium and zinc – with the nation reaping the substantial economic benefits from these investments.

As noted recently by the Commonwealth Treasury, ‘[h]igher mineral resource export prices, combined with reduced prices of imports (especially imports from low cost producing countries in Asia), have translated into an improvement in Australia’s terms of trade. An improved terms of trade provides for an increase in Australia’s national income, creating an opportunity for an improvement in the wellbeing of all Australians.’

It follows that the shift in the terms of trade requires the reallocation of capital, labour and other resources towards mining and associated activities in order to optimise the gains to national income.

According to analysis by the Productivity Commission for the period 1974-75 to 2006-07, the Australian mining sector has exhibited a consistently high level of labour productivity. Indeed, mining productivity has exceeded that of manufacturing and that of the market sector of the economy as a whole. To continue to capture these economic gains the transfer of workers (and other resources) to mining regions, and into mining sector activities, should not be impeded by regulatory or taxation barriers.

The various critics of mining sector activity implicitly argue that the movement of resources should be from more productive to less productive uses, so as to ensure that Australia avoids the grip of a resources curse. However this would achieve nothing but impairing market productivity and restraining Australia’s long run growth potential.

2.2.2 Rebuttal: Concerns that mining growth is hurting Australian manufacturing are misplaced

Despite intense protestations to the contrary, there is little evidence that the Australian manufacturing sector has been seriously damaged by the implications of a resurgence in mining.

The contribution of the manufacturing sector to the economy, in absolute terms, has increased substantially over time from $65 billion in 1974-75 to $103 billion in 2008-09 (an increase of 58 per cent over the period) (Figure 2).

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43 Commonwealth of Australia, 2010, Budget Strategy and Outlook 2010-11, Budget Paper No. 1, Commonwealth Treasury, Canberra, p. 4-4
45 Vernon Topp, Leo Soames, Dean Parham and Harry Bloch, 2008, op cit, p. 20.
Since 1977-78, when disaggregated statistics were collected for the manufacturing sector, the metal products industry has made the largest (net) contribution to growth, accounting for almost a third of the increase in total manufacturing gross value added.

Critically, the value of merchandise exports by the manufacturing sector has also increased significantly in recent years. In 1999-2000 the value of manufacturing merchandise exports was about $58 billion increasing to over $92 billion by 2008-09 – an increase of 59 per cent over the period.46

An important contributing factor to the increasing international orientation of Australian manufacturing has been the reduction in effective rates of industry assistance over the past three decades. In 1970-71 the estimated effective rate of assistance to manufacturing was about 35 per cent, falling to about five per cent since 2000.47 The reduction in tariff and other protective barriers not only reduced the cost of capital imports for use by domestic manufacturers, but also encouraged the development of niche products of greater value for sale to export markets. This has facilitated the emergence of a relatively smaller, but more sophisticated, manufacturing sector more resilient to economic shocks.

Figure 2: Manufacturing production, $ millions

![Manufacturing gross value added](chart.png)

Chain volume measures.


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47 According to the Productivity Commission, ‘[m]ajor influences on this decline have been the 25 per cent across-the-board tariff cut of 1973, the abolition of (subsequent) tariff quotas and the broad programs of tariff reductions that commenced in the late 1980s. Recent declines have been associated mainly with reductions in tariff assistance to the TCF [textile, clothing and footwear] and passenger motor vehicle industries’ (p. 22). Productivity Commission, 2010, *Trade and Assistance Review 2008-09*, Annual Report Series, Canberra.
While the recent appreciation of the Australian dollar will increase the price of exported outputs by manufacturing, and other sectors, this movement in the exchange rate should also reduce the cost of imported inputs and further encourage manufacturers to develop additional value added products that command a price premium in international markets.

It has not been clear that the recent expansion in Australia mining, caused by growth in global demand for minerals and other resources, has led to a one-to-one correspondence in terms of a diminution of manufacturing activity. Studying the effects of the terms of trade boom prior to the 2008 global financial crisis, McKissack et al found growth in manufacturing profits which was ‘driven by those parts of manufacturing that are connected to the resources sector, such as petroleum, coal, chemical and associated products and metal products.’\(^48\) Investment in manufacturing, relative to GDP, increased since 2003-04 while the long run decline in manufacturing employment had moderated.

They concluded by stating ‘we have not seen so-called ‘Dutch disease’ effects associated with a higher exchange rate flowing through as strongly as could be expected in the manufacturing industry and other traded parts of the economy.’\(^49\)

2.2.3 Rebuttal: The benefits of mining are also enjoyed by non-resources states

As noted above, the mining sector has extensive linkages with the remainder of the Australian economy including manufacturing and services. Many of these related activities are based in non-resource intensive states.

For example, Victoria is the home to many global and Australian mining company head offices, such as BHP Billiton, Rio Tinto, Alumina, OZ Minerals, Newcrest Mining, Oxiana, Western Mining Corporation and others. Sydney is the location of company headquarters for mining firms such as Xstrata and Centennial Coal.\(^50\)

It is estimated that these head offices employ thousands of people alone, and purchase professional and business services in the areas of legal, accounting, communications, finance and recruitment on behalf of mining operators in resource rich regions of Australia.\(^51\)

In addition, there are many superannuation funds based in Sydney and Melbourne which invest substantially in mining shares on behalf of their members. Many individuals, including those resident outside of Queensland and Western Australia, also benefit by virtue of their share ownership in mining companies.

These indirect benefits were affirmed by a 2008 Treasury paper analysing interstate growth trends, which found that ‘[w]hile recent output growth in the non-mining states has been slower than average, growth in employment and real household disposable incomes has been


\(^49\) McKissack et al, Ibid, p. ii.


significantly faster. This suggests that the benefits of the resources boom have spread well beyond the sectors and regions most closely linked with the mining sector.\footnote{Phil Garton, 2008, ‘The resources boom and the two-speed economy’, Economic Roundup 17-30.}

Similarly, as Richard Blandy explained earlier this year, ‘everyone across Australia has a stake in the good fortunes of their fellow Australians, wherever they may be located. A bonanza within one’s own state or territory may be popularly regarded as the most desirable outcome to be achieved, but because of mobility of labour, capital and goods within Australia, the economic gains from particular state bonanzas are rapidly dispersed and shared with Australians all across the country.’\footnote{Richard Blandy, 2010, ‘Minerals boom benefits us all’, The Australian, 21 April.}

Finally, it must be acknowledged that direct mining activity itself has a presence in most states and territories. According to ABS statistics, mineral exploration expenditure was undertaken in all jurisdictions (except the ACT) in 2008-09 (Figure 3).

**Figure 3: Mineral exploration expenditure, state and territory share of total, 2008-09**

Table 4 also suggests that mining sector activities are distributed throughout most of Australia, in terms of employment, wages and sales incomes. While the distribution of activity is not, and never will be, uniform it is misleading to suggest that most areas of Australia completely miss out from accruing at least some direct benefits attributable to a growth in mining.
Table 4: Selected economic indicators for mining sector, state and territory, 2008-09

<table>
<thead>
<tr>
<th>State</th>
<th>Employment ('000)</th>
<th>Wages and salaries ($m)</th>
<th>Sales and services income ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>24</td>
<td>2,490</td>
<td>24,806</td>
</tr>
<tr>
<td>Victoria</td>
<td>8</td>
<td>740</td>
<td>10,723</td>
</tr>
<tr>
<td>Queensland</td>
<td>37</td>
<td>4,116</td>
<td>45,907</td>
</tr>
<tr>
<td>Western Australia</td>
<td>56</td>
<td>6,777</td>
<td>79,094</td>
</tr>
<tr>
<td>South Australia</td>
<td>8</td>
<td>888</td>
<td>4,307</td>
</tr>
<tr>
<td>Tasmania</td>
<td>2</td>
<td>np</td>
<td>np</td>
</tr>
<tr>
<td>Australian Capital Territory</td>
<td>np</td>
<td>np</td>
<td>np</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>np</td>
<td>342</td>
<td>5,656</td>
</tr>
<tr>
<td>Total</td>
<td>135</td>
<td>15,549</td>
<td>171,654</td>
</tr>
</tbody>
</table>

np = not published.

Source: ABS, Australian Industry, 2008-09, cat. no. 8155.0.

In April 2010 the Australian Bureau of Agricultural and Resource Economics provided a list of major minerals and energy development projects. At the end of April 2010 there were 75 projects at an advanced state of development in every state and territory except the ACT (Table 5).

Table 5: Advanced mining projects, April 2010

<table>
<thead>
<tr>
<th>State</th>
<th>Energy projects</th>
<th>Mining projects</th>
<th>Minerals and energy processing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Cost ($b)</td>
<td>No.</td>
<td>Cost ($b)</td>
</tr>
<tr>
<td>New South Wales</td>
<td>13</td>
<td>5.2</td>
<td>3</td>
<td>2.2</td>
</tr>
<tr>
<td>Victoria</td>
<td>2</td>
<td>2.7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Queensland</td>
<td>16</td>
<td>6.8</td>
<td>3</td>
<td>1.6</td>
</tr>
<tr>
<td>Western Australia</td>
<td>6</td>
<td>64.1</td>
<td>21</td>
<td>19.7</td>
</tr>
<tr>
<td>South Australia</td>
<td>1</td>
<td>0.1</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Tasmania</td>
<td>1</td>
<td>0.3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>2</td>
<td>0.8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Australia</td>
<td>41</td>
<td>80.0</td>
<td>28</td>
<td>24.0</td>
</tr>
</tbody>
</table>


As economist Richard Blandy noted earlier this year, although the ACT has no mining activity of significance it has recorded the highest level of average household disposable income per head last year. This is because ‘Canberra does have first crack at the federal budget.’

The increasing profitability of mining companies, and wages growth for mining workers, in the resource intensive states flow through the Australian Taxation Office through company and

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54 Richard Blandy, Ibid.
personal income tax receipts, respectively, and then spill out across Canberra and the rest of the country via government expenditures.\textsuperscript{55}

The complex interconnections between mining and other sectors of the economy, including those based in non-resource intensive jurisdictions, and the distribution of a considerable amount of mining activity outside of Queensland and Western Australia, it is a gross oversimplification to contend that Australia can be effectively consigned into mining ‘winners’ and ‘losers.’

2.2.4 \textit{Rebuttal: An excessive focus on the ‘two-speed economy’ risks overlooking the sources of economic underperformance of non-resources states}

A recent analysis of disparities in economic performance between states and territories, and by industry, reveal that variations are commonplace across a complex market economy where the drivers of economic growth are rarely, if ever, uniform.\textsuperscript{56}

This lack of economic uniformity is, in large part, a product of the millions of transactions undertaken by acting individuals – operating both within and across regions and nations – to produce, exchange and consume resources.

These transactions take place against the background of, and are influenced by, evolving supply and demand conditions and price adjustments that are in turn affected by such variables as incomes, consumer tastes, production costs, technologies, and government policies.

Notwithstanding that recent disparities in economic growth between states and territories are low by historical standards, there is a clear risk that a focus on the ‘winners’ and ‘losers’ from growth of mining activity can cloud assessments of other factors that can influence the degree of interregional disparity in economic performance.\textsuperscript{57}

For example, an inordinate focus on the ‘two speed economy’ – separating Queensland and WA from the rest – has tended to overlook the real problems associated with the disparity in economic performance between New South Wales – Australia’s largest state economy – and the rest of Australia.\textsuperscript{58}

In general, the best policy response in response to a commodity boom is not to slow down the pace of mining growth through additional taxation or regulation but to ensure that policy

\textsuperscript{55} The above-average capacity of the resources states to attain mining royalty revenue implies that they receive a relatively lower share of the total GST revenue distributed across the states and territories, in accordance with Commonwealth Grants Commission revenue assessments.


\textsuperscript{57} Ibid, p. 5.

institutions permit adjustments to occur relatively smoothly and at low cost.\textsuperscript{59} The implementation of widespread economic reforms that boost productivity should also ease the extent to which competition for labour and capital between firms, industries and sectors place upward pressure on inflation, and hence interest rates.

State governments, including those in non-resource intensive areas, can do much to improve the international competitiveness of their regions – through the implementation of low taxes, low levels of government expenditure, efficient regulation, and competitive infrastructure provision.

The Commonwealth Government, for its part, should maintain, and where necessary enhance, a policy regime of flexible capital, financial, labour and product markets, floating exchange rates, low tariffs and other import protections, monetary stability, and fiscal sustainability underpinned by low taxation and low government spending.

2.3 Growth in mining benefits foreigners at the expense of Australians

The maintenance and growth of the Australian mining sector is reliant upon a number of factors such as the inflow of foreign capital to finance mining operations.

According to the ABS, the level of foreign direct investment (FDI) in the mining sector as at 31 December 2008 was $99.7 billion (Figure 4). This was the largest amount of FDI for all sectors of the economy, accounting for 25 per cent of the total FDI of $392.9 billion.

By contrast, in 2001 the level of FDI in mining was $36.8 billion accounting for only 17 per cent of total FDI in Australia.

Information on the extent of foreign ownership of businesses operating in Australia shows that about 13 per cent of businesses in the mining sector have a level of foreign ownership greater than 50 per cent, followed by information media and telecommunications (eight per cent), wholesale trade (seven per cent), manufacturing (three per cent) and rental, hiring and real estate services (two per cent).\(^{60}\)

While these developments have been welcomed by many, there exists a number of groups who have expressed intense opposition to foreign investment in the mining sector.

Arguably one of the most vociferous critics against this development was Ted Wheelwright. His central proposition was that the infiltration of foreign capital into the mining sector would create a new form of exploitative colonialism or ‘client state whose main function is to shape the future development of the economy in such a way that the profits of foreign corporations have first priority, and the needs of the Australian people the last priority.’\(^{61}\)

According to Wheelwright, an implication of this is that ‘transnational investment decisions, based on their short-term profitability criteria, could leave Australia as a large hole in the ground by the end of the century, with a large population to support, accustomed to a high

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\(^{60}\) ABS, Selected Characteristics of Australian Business, 2007-08, cat. no. 8167.0.

standard of living, but with few renewable resources and even fewer skills and industrial equipment than exist now.’\textsuperscript{62}

The role of foreign investment in promoting ‘excessive mineralisation,’ according to Wheelwright, will also create a situation whereby the ‘economy is assimilated further into the bowels of world capitalism, the country may well begin to look less like a developed country, with its economy as an integrated whole, a dense network of internal exchanges, and a broadly diversified industrial structure. It is probable that within a decade or so, Australia will look more like an underdeveloped country.’\textsuperscript{63}

Sentiments against foreign ownership and control in the Australian mining sector have also been episodically raised by politicians over the past few decades. In 1964, Liberal federal backbencher William Wentworth raised concerns about foreign investment concerning a bauxite mine at Gove in the Northern Territory: ‘We have been inclined to give away our national resources a little too cheaply.’\textsuperscript{64}

Former Country Party Prime Minister John ‘Black Jack’ McEwen also stated during the 1960s that the ‘independence of our people was at the mercy of people in other countries to the extent to which foreign capital controlled our industries, mines, farms, and fields.’\textsuperscript{65}

Such concerns at the time were widely shared by Labor politicians, which later materialised into a set of restrictive policies affecting mining sector investment by the Whitlam Labor government from 1972 to 1975.

Whitlam appointed Rex Connor as his Minister for Minerals and Energy, who elucidated the government’s position on external involvement in Australian mining as follows:

‘There shall be at least a majority Australian control over both equity and policy in resources development, and that we will devise and implement an integrated and coordinated national fuel and energy policy. In particular we will regulate exploration, development, transportation, marketing, and use of oil, natural gas, and all related hydrocarbons.’\textsuperscript{66}

Initially the Whitlam government sought to implement these objectives, and stymie foreign investment in mining, through the following policy initiatives:

- full Australian ownership in new minerals and energy projects
- extensive public sector participation through a Petroleum and Minerals Authority with the power to explore, produce, transport and market minerals in competition with the private sector (later ruled by the High Court as being unconstitutional)
- energy self-sufficiency through a centrally planned and directed national pipeline grid.\textsuperscript{67}

\textsuperscript{62} Ibid, p. 212.
\textsuperscript{63} Crough and Wheelwright, op cit, p. 128-129.
\textsuperscript{65} Ibid, p. 102.
\textsuperscript{66} Ibid, p. 104.
It also enacted the *Foreign Acquisitions and Takeovers Act 1975* to impose regulatory restrictions on foreign ownership in the mining sector, including uranium mining.

While the more extreme elements of the Whitlam agenda were not pursued by subsequent governments, the anti-foreign investment policies proposed or implemented from 1972 to 1975 has served as something of a clarion call for economic nationalists seeking to reduce the contribution of foreign capital in mining and other sectors.

More recently a debate has emerged about the merits of greater investment by state owned enterprises (SOEs) and sovereign wealth funds (SWFs), including from China, in the Australian mining sector.

The Australian Workers’ Union couched its call for stricter government controls over capital inflows from these investment vehicles on the basis that ‘[f]or too long, Australia has tendered [sic] to undervalue the true economic value of its resource endowment which has assisted the industrialization of trading partners ... We should not panic and be forced into accepting any offer for core and strategic businesses – and particularly not in the resources sector.’\(^{68}\)

The Nationals Senate leader Barnaby Joyce instigated a ‘Keep Australia Australian’ campaign in 2009 to prevent Chinese SOE Chinalco from purchasing a greater stake in Rio Tinto, stating that minerals are ‘our sovereign asset, and this is the government of another country buying into our asset, buying into the nexus between the Australian people and the wealth that’s created by our minerals.’\(^{69}\)

In February 2008 Treasurer Wayne Swan amended the Commonwealth Government’s foreign investment guidelines by outlining six additional criteria to apply to investments by SOEs and SWFs. This has had the effect of ‘providing more, not less, uncertainty to investors by introducing prejudgement into a non discriminatory FDI policy.’\(^ {70}\)

2.3.1 **Rebuttal: Without foreign capital a large scale Australian mining sector, and its many benefits, cannot be sustained**

Australia has had a long history of using foreign investment to access greater funds than that available from domestic savings. As the former Commonwealth Treasury Secretary, Ted Evans, stated over a decade ago, ‘[i]t is a fact that, for all of its modern history, Australia has borrowed from abroad – our prosperity has been built on foreign investment.’\(^ {71}\)

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The injection of foreign sourced funds has enabled the Australian mining sector to grow to a size beyond that implied by the extent of the small domestic market alone. This in turn allows Australia to sell its mineral and fuel commodity treasures around the globe, generating economic prosperity in both Australia and those countries purchasing our mining exports.

Makin has estimated that over the decade to 2006 additional real national income stemming from total foreign investment in Australia has been approximately $25 billion, equivalent to an extra $2,500 per worker each year over the period.72

Mining has played a significant role toward the achievement of the substantial macroeconomic gains attributable to foreign investment. Foreign owned businesses operating in the Australian mining sector contributed over $15 billion in value added to the national economy.73

From a historical perspective, Drysdale observes that ‘[f]oreign direct investment has accounted for more than one third of capital formation in all Australian industry since the turn of the ... [twentieth] ... century; in mining and resources it has accounted for almost half, and in some years a much higher proportion, of total capital formation in the sector.’74

Foreign direct investment in 2006 was equal to over 80 per cent of new mining capital expenditure, underpinning the continuing growth of the sector.75

A benefit associated with growth of foreign investment in Australian mining that is not directly captured in official statistics has been the propagation of technical, managerial and commercial knowledge and skills otherwise scarce or unavailable in the Australian economy. This in turn has augmented Australia’s innovative and entrepreneurial capacities.

As described by R. B. McKern, in his study of foreign investment in the minerals industries in the 1960s, ‘there were very few Australian firms in existence at the beginning of the decade of the 1960s which could have served as vehicles for investment in the large mining projects which came to fruition during that period. The list of Australian owned companies with the necessary financial, technical, entrepreneurial and marketing resources at that time is probably restricted to no more than three.’

Since that period, the inflow of foreign capital has made a significant difference to levels of skills and expertise accessible to the domestic mining sector. Recently economist Peter Drysdale attested that Australia’s position as ‘perhaps the most efficient mining sector in the world’ is attributable, at least in part, to the know-how and access to markets associated with foreign investment.76

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Of course, there are other economic benefits associated with foreign investment in the mining sector. These include job creation, particularly in regional and rural areas, and the attainment of disposable incomes by mining workers used to underpin living standards for them, their families and communities, and the flow of substantial tax revenues to government.\(^\text{77}\)

Contrary to the view expressed by Wheelwright and others that foreign investment represents a diminution of Australian wealth, it is estimated that for every dollar of mining income generated in Australia 95 cents remains in Australia with only five cents repatriated overseas.\(^\text{78}\)

2.3.2 Rebuttal: Concerns over the loss of national sovereignty are overstated, as foreign investors must accede to Australian laws

All foreign investments, regardless of source, are subject to federal, state and local government laws. This should be sufficient to ensure that a foreign SOE or SWF investor will not create monopolistic industry conditions, evade taxes or abrogate corporate or other legal standards in Australia.\(^\text{79}\)

With respect to the Australian mining sector, a recent paper by ITS Global states unequivocally that:

> ‘Australia retains ultimate control of Australian resources. Full control is never handed over. Businesses are given rights to exploit resources on the condition they pay taxes, support the local community, protect the environment and abide by national laws. Sometimes the right to use the resources is limited in time.

> Governments can take those rights back if they think it necessary, though they should be careful how they do it. They might deter future foreign investors.’\(^\text{80}\)

One aspect of concern about national sovereignty relates to the capacity of multinational corporations operating in Australia to perform transfer pricing. This is a situation whereby firms may under-price exported minerals to reduce their Australian tax liability, thereby earning higher profits in downstream activities in another country that imposes lower tax rates than Australia.

In response to this, economist Peter Hartley suggested that ‘[e]ven if transfer pricing occurs it is not clear that restrictions on foreign ownership are an effective method of handling this problem. Rather, it would seem the problem can only be solved by changes in the (implementation of) taxation laws and income reporting requirements. Australian owned firms would appear to be just as capable of setting up foreign subsidiaries in low tax areas as are foreign firms. ... it would seem that requiring Australian ownership would do little to control transfer pricing.’\(^\text{81}\)

\(^{77}\) In the ten years to 2008-09 the mineral resources industry combined corporation income tax and royalty payments totalled some $80 billion, a fourfold increase over the time period. Minerals Council of Australia, 2010, op cit.

\(^{78}\) Doug Ritchie, 2009, op cit.


3.0 Conclusion

The viability of mining, just like any private economic activity in Australia, is heavily contingent upon its ability to attain sufficient financial and economic returns.

The process of exploration for new mineral deposits is a time consuming and costly venture, requiring the application of time, resources and entrepreneurial ingenuity. Depending on the location of exploration, this process can often be inherently risky and uncertain for those involved. Yet, without such painstaking activities, the value of resources laying remnant underground remain worthless.

If an economically valuable deposit is discovered, there is then the question as to whether extraction of the resource should proceed.

Again, the mining company to be responsible for extraction needs to attract specialised capital (given the nature of the ore body to be mined), draw in skilled labour often from other regions, and may have to develop its own infrastructure to transport the minerals to destination markets. These processes entail their own costs, which are often sunk by their nature, and risks.

The factors that can influence the decision to mine include the expected economically demonstrated amount of ore available, actual and expected commodity price conditions, the availability of factors of production, infrastructure adequacy and the quality and durability of supply chain relationships.

However, there exist yet even more factors that can influence the viability of mining in Australia. Nearly thirty years ago the esteemed Australian historian Geoffrey Blainey warned of the potential damaging consequences of anti-mining sentiments for the future vitality of the mining sector.

Negative portrayals of the mining sector that preoccupy the popular media and political discussion – driven either by a lack of understanding of the fundamental economics of mining, or the product of an emerging ‘cringe’ rhetoric concerning mining’s effects – have the clear potential to lead to poor public policy outcomes.

It can be reasonably argued that the proposed federal mining tax, which will dramatically increase the effective rate of taxation on mining in Australia to amongst the highest in the world, is a clear case in point. This is because its rationale has been based on a mix of misplaced arguments about averting Australia from ‘quarry’ status, helping to spread mining wealth to laggard industries and states, and to get a fairer return from multinationals digging into our sovereign grounds.

As the information presented above suggests, all aspects of these biases against mining can be satisfactorily addressed. In so doing, it is possible to appreciate the significant ‘up side’ to mining activities in Australia:

- the direct and indirect contributions of mining sector participants to aggregate wealth and prosperity, while maintaining first class stewardship over the environment
• the capacity of Australians – regardless of location – to share in the economic benefits of mining undertaken in specific locations of the country

• the beneficial role of foreign investors in building our economic capacity.

If future generations of Australians are to enjoy the economic bounty offered by our resources, and policy settings are to avoid damaging the value proposition that are mining exploration and extraction activities, it is essential that such an appreciation of the strong benefits that mining delivers to Australia be heeded.
4.0 Appendix

Protecting Queensland’s Strategic Cropping Land: A Critical Assessment

Dr Alan Moran
Director, Deregulation Unit
Institute of Public Affairs

4.1 The proposal

The Queensland Government has indicated that it wishes to reserve from mining activity four per cent of the state’s prime cropping land.

Establishing a value of this cropping land is difficult.

Based on properties for sale in the areas identified by the policy framework identifies, land values (excluding those mixed farming properties with a substantial residence and those affected by their development potential stemming from their location near major urban areas) range between $1000 per hectare (Tallwood) and $1700 (Hanneford). One sugar property near Mackay was listed at $8,000 per hectare.

On the evidence available it is unlikely that the average value of the farmland with its improvements in levelling, dams and bores and fencing is greater than $3,000 per hectare. At present only 2.2 per cent of Queensland land is used for cropping – presumably the most valuable land available for that purpose - and it is proposed that this and additional land to a total of four per cent of all state land, will be sterilised from alternative uses.

If the land reserved from alternative uses is four per cent of the state (7.4 million hectares) and it is worth $3,000 per hectare, then its value is $22 billion. If $22 billion were to be lost to agriculture this would be a major cost to the state. However:

- According to the Department of Environment and Resource Management, only 0.08 per cent of Queensland’s land area has been disturbed by mining over the past century or so. It would take a tenfold increase in mining activity over the next century for this to reach one per cent of the land area; such a level of activity is most unlikely.

- Rarely will a mining activity render the associated agricultural land unproductive. Even strip mining after remediation, can leave the land little changed in terms of fertility and productivity once mining is completed. While restoration activity has not been undertaken on a major scale in Australia because there are few places where a mining resource has been depleted, dozens of examples have been assembled in the US.\(^{82}\)

- It is argued that large scale coal seam gas (CSG) processing brings additional ‘externality’ costs and is likely to have deleterious effects on the Great Artesian Basin (GAB) as well as

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causing subsidence as a result of it depleting the water table. It is necessary to address such issues but also to recognise that many such adverse spillovers are found to be relatively minor or easily controlled. Issues are:

a) The estimated amount of water extrated for coal seam methane is 350,000 ML per annum. This is not large. Irrigators’ annual extractions from the Murray Darling are 11,000,000 ML. Moreover the GAB is replenished by flows from the eastern range, and if the flows are determined by the Basin’s replenishing capacity the evaporative loss of the water used in mining would simply mean water that no longer flows to the sea.

b) The water extracted becomes saline after it has been used in the CSG processing and salt might need to be removed prior to reinjection if its presence is likely to become significantly contaminated.

c) These issues are of less concern in the case of open cut strip mining of coal by open cut. Issues in regard to that activity may well include inconvenience of trucks on local roads. However perhaps offsetting this are benefits from upgraded roads and the appearance of other services to meet the demands of the mining activity and its workforce.

4.2 Costs and benefits likely to emerge

Even if all of the land which might face disturbance over the next hundred years were to be rendered worthless to agriculture because it had been mined there would still be a net gain to the state since the procedures which permit mining projects to go ahead require that full compensation be paid.

- The resource value for mining (sometimes called the rental value) is usually many times that of farming where a mineral deposit is uncovered. Such a magnitude of higher rental value is unlikely in much of the area which is being considered for mineral exclusion since the coal deposits are relatively well known and require considerable capital investment to extract.

- There is evidence that the mining companies (in particular Xstrata) are buying farming properties in the Darling Downs area that they are seeking to mine, at a value said to be twice that of the market value.  

- The value of minerals and energy production for Queensland in 1998-99 was $7.4 billion and in 2008-09 was $49.4 billion dollars. Adjusted for inflation, that is approximately a fourfold increase in minerals and energy production in 10 years. We can reasonably expect the mineral and energy production will increase in the next 10 years or so by a similar amount. Accordingly, the prospective removal of four per cent of Queensland’s

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83 See for example, Ian Hayllor, Coal seam gas extraction and the environment, Address to the Australian Environment Foundation, October 2010
84 Pers. Com. Ron Bahnisch, Property Rights Australia
land from mining activities can be estimated at an annual loss of some $1.6 billion. There are many reasons to suggest this might be a conservative estimate. Among these is that the proposed restriction includes land that is highly prospective as for significant Coal Seam Gas reserves. In addition, as the land in question is largely located relatively close to major urban centres, the value of its deposits is likely to be higher than average because of the availability of infrastructure.

Removing a resource from uses the market considers most valuable is a serious step to take. Governments have a role of seeking to maximise the nation’s income subject to the availability of capital and labour and consistent with defending underlying capacities. Farm produce is valuable as are mining outputs. In both cases export markets are likely to be the major target. And both activities are likely to bring spin-offs in terms of employment and service provision.

In some cases the excision of the land from mining uses will amount to a retrospective action, as exploration – and even land purchases – has already taken place.

A key reason why there are political pressures to introduce a mining ban is that mineral rights are not part of land rights in Australia. This position is similar to many other jurisdictions with the common law framework, though not the eastern part of the USA where the land was vested alongside its mineral rights before the current ownership rules evolved.

Elsewhere, exploration rights are granted to the first comer (with requirements for these to be either converted into a production lease or surrendered back to the crown). Production leases incorporating a reasonably certain royalty rate are readily expected to be granted on demand (otherwise the risks to exploration would escalate and far less searching activity would take place).

It is barely conceivable that Australian rights to land use and minerals will ever be conjoined. Experience has shown that where the rights are jointly vested, there is sub-optimal energy allocated to searching for minerals. This is because the finder, instead of getting to keep the greater part of the deposit’s worth, would be hostage to the land owner who would, in any event, not normally be willing to grant access for exploration except for a fee or guaranteed share of the benefits. Such a fee or share would simply result from passive action and would therefore dilute the value that accrues to the successful explorer and seriously diminish the incentive to undertake that activity.
Submission to the Senate Select Committee on the Scrutiny of New Taxes:

Minerals Taxes & Carbon Taxes

ALAN MORAN
Institute of Public Affairs

October 2010
Part A: Resource Rent Tax

Introduction and Summary
Australia is one of the world’s most important suppliers of mineral products and developments over recent years have been a key reason behind the nation’s growing prosperity. Looking forward, Australia continues to be among the leading nations in new developments. Exploration expenditure, the precursor of new developments, remains high.

Exploration in Australia as a share of the world total has however been falling. While prospectivity is doubtless a major cause of this, the relative profitability of operating in Australia may be contributing. Laws that make it more difficult to access land in national parks and as a result of native title would have reduced the relative attractiveness of Australia. If taxes on mining output are to be raised – and the current proposals are for taxes considerably higher than in the countries with which we are competing – this will be an additional factor in firms’ investment location decisions.

Australia has excellent procedures and skills to develop infrastructure and has all of the corporate skills necessary to do so. But as a supplier of minerals we have no position of privilege and if other areas prove to be more receptive in tax, environmental and other facets, a diminished share of the world markets would be experienced.

Current Proposals
With her replacement of Mr. Rudd as Prime Minister, on 23 June 2010, Ms Gillard announced the scrapping of the Resources Super Profits Tax (RSPT) and its replacement by the Mineral Resource Rent Tax (MRRT).

While mining directly represents only six per cent of GDP, its importance is far in excess of this since a great deal of the service sector is also dependent upon it. Mining is directly responsible for half of the nation’s exports.

The RSPT involved the Commonwealth taking a 40 per cent interest in the profits of mining companies after their expenses were deducted. Commissioned by Minerals Council of Australia, KPMG made the following estimates of the effective tax rates at present and following the tax’s introduction. These estimates were similar to those of other reputable accountancy practices.

Table A1

<table>
<thead>
<tr>
<th>Effective Tax Rate</th>
<th>Iron Ore</th>
<th>Coal</th>
<th>Nickel</th>
<th>Copper</th>
<th>Bauxite</th>
<th>Gold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status quo</td>
<td>43.6%</td>
<td>41.1%</td>
<td>34.3%</td>
<td>34.4%</td>
<td>50.1%</td>
<td>34.6%</td>
</tr>
<tr>
<td>RSPT Today</td>
<td>54.7%</td>
<td>55.0%</td>
<td>55.1%</td>
<td>55.0%</td>
<td>54.0%</td>
<td>54.1%</td>
</tr>
</tbody>
</table>
KPMG also estimated the Effective Tax Rate (ETS) and compared this with the Corporate Tax Rate (CTR) in Australia and in other economies under the RSPT.

<table>
<thead>
<tr>
<th>Table A2</th>
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</thead>
<tbody>
<tr>
<td><strong>Iron Ore</strong></td>
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<td>Australia RSPT</td>
</tr>
<tr>
<td>Canada (Quebec)</td>
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<tr>
<td>Brazil</td>
</tr>
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<td>China</td>
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<table>
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<tr>
<th><strong>Coal</strong></th>
<th><strong>Calculation</strong></th>
<th><strong>Rate</strong></th>
<th><strong>Tax base</strong></th>
<th><strong>CTR</strong></th>
<th><strong>ETR</strong></th>
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</thead>
<tbody>
<tr>
<td>Australia RSPT</td>
<td>profits-based</td>
<td>40.0%</td>
<td>Profits</td>
<td>28.0%</td>
<td>52.2%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>ad valorem</td>
<td>13.5%</td>
<td>f.o.b. value or sales revenue</td>
<td>28.0%</td>
<td>47.4%</td>
</tr>
<tr>
<td>India</td>
<td>per unit &amp; ad valorem</td>
<td>9.40</td>
<td>180 Rs / tonne + 5% price -- A$9.40 / tonne</td>
<td>34.0%</td>
<td>47.0%</td>
</tr>
<tr>
<td>South Africa</td>
<td>ad valorem</td>
<td>7.0%</td>
<td>unrefined, sales (5% refined)</td>
<td>34.0%</td>
<td>43.7%</td>
</tr>
<tr>
<td>Canada (Saskatchewan)</td>
<td>ad valorem</td>
<td>15.0%</td>
<td>Mine mouth value</td>
<td>28.0%</td>
<td>38.8%</td>
</tr>
<tr>
<td>Canada (Alberta)</td>
<td>profits-based</td>
<td>13.0%</td>
<td>Two tier: 1% on op. income, 12% on cumul net profit</td>
<td>28.0%</td>
<td>37.4%</td>
</tr>
<tr>
<td>Canada (Ontario)</td>
<td>profits-based</td>
<td>10.0%</td>
<td>profit &gt;= C$500,000</td>
<td>27.0%</td>
<td>34.3%</td>
</tr>
<tr>
<td>China</td>
<td>unit-based</td>
<td>$0.60 per tonne, 2.4 CNY ~ A$0.60</td>
<td>25.0%</td>
<td>25.9%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Nickel</strong></th>
<th><strong>Calculation</strong></th>
<th><strong>Rate</strong></th>
<th><strong>Tax base</strong></th>
<th><strong>CTR</strong></th>
<th><strong>ETR</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia RSPT</td>
<td>profits-based</td>
<td>40.0%</td>
<td>Profits</td>
<td>28.0%</td>
<td>52.8%</td>
</tr>
<tr>
<td>Brazil</td>
<td>ad valorem</td>
<td>2.0%</td>
<td>Sales</td>
<td>34.0%</td>
<td>36.9%</td>
</tr>
<tr>
<td>Canada (Ontario)</td>
<td>profits-based</td>
<td>10.0%</td>
<td>profit &gt;= C$500,000</td>
<td>27.0%</td>
<td>34.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Copper</strong></th>
<th><strong>Calculation</strong></th>
<th><strong>Rate</strong></th>
<th><strong>Tax base</strong></th>
<th><strong>CTR</strong></th>
<th><strong>ETR</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia RSPT</td>
<td>profits-based</td>
<td>40.0%</td>
<td>Profits</td>
<td>28.0%</td>
<td>52.7%</td>
</tr>
<tr>
<td>USA (Arizona)</td>
<td>ad valorem</td>
<td>2.0%</td>
<td>market price (2% minimum)</td>
<td>42.0%</td>
<td>44.8%</td>
</tr>
<tr>
<td>Canada (Quebec)</td>
<td>profits-based</td>
<td>14.0%</td>
<td>net income</td>
<td>29.9%</td>
<td>39.7%</td>
</tr>
<tr>
<td>USA (Nevada)</td>
<td>profits-based</td>
<td>5.0%</td>
<td>net proceeds</td>
<td>35.0%</td>
<td>38.3%</td>
</tr>
<tr>
<td>Canada (B.C.)</td>
<td>profits-based</td>
<td>13.0%</td>
<td>Two tier: 2% on op. income, 13% on cumulative net profit</td>
<td>28.5%</td>
<td>37.8%</td>
</tr>
<tr>
<td>Chile</td>
<td>ad valorem</td>
<td>5.0%</td>
<td>Sales</td>
<td>17.0%</td>
<td>27.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bauxite</strong></th>
<th><strong>Calculation</strong></th>
<th><strong>Rate</strong></th>
<th><strong>Tax base</strong></th>
<th><strong>CTR</strong></th>
<th><strong>ETR</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia RSPT</td>
<td>profits-based</td>
<td>40.0%</td>
<td>Profits</td>
<td>28.0%</td>
<td>53.4%</td>
</tr>
<tr>
<td>Brazil</td>
<td>ad valorem</td>
<td>2.0%</td>
<td>Sales</td>
<td>34.0%</td>
<td>38.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Gold</strong></th>
<th><strong>Calculation</strong></th>
<th><strong>Rate</strong></th>
<th><strong>Tax base</strong></th>
<th><strong>CTR</strong></th>
<th><strong>ETR</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia RSPT</td>
<td>profits-based</td>
<td>40.0%</td>
<td>Profits</td>
<td>28.0%</td>
<td>53.5%</td>
</tr>
<tr>
<td>South Africa</td>
<td>ad valorem</td>
<td>7.0%</td>
<td>unrefined, sales (5% refined)</td>
<td>34.6%</td>
<td>45.4%</td>
</tr>
<tr>
<td>Argentina</td>
<td>ad valorem</td>
<td>3.0%</td>
<td>Sales</td>
<td>35.0%</td>
<td>39.6%</td>
</tr>
<tr>
<td>Brazil</td>
<td>ad valorem</td>
<td>1.0%</td>
<td>Sales</td>
<td>34.0%</td>
<td>35.6%</td>
</tr>
</tbody>
</table>

A basic rationale for the new tax was that a profits based levy might be less distortive than a fixed royalty. This is the case in two sets of circumstances.
First, where a mine is marginal, a royalty at a fixed rate adds to the cost irrespective of the project’s viability and may prevent it from proceeding, leaving its owners with no profits and the government with no associated revenue. A profits related royalty would not prevent such a mine from proceeding because the tax itself would not cause the venture to be unprofitable.

Secondly, a profit based royalty would not cause premature closure of a mine nearing the end of its life since it would not add to costs, simply share in the after cost revenues.

This classic case for a profits-based resource rent tax however applies to only a narrow range of circumstances. Situations where such circumstances might prevail and profits based charges are preferable are made all the less common because of the uncertainties of costs and prices. In rare cases where profit-based royalties would be superior, ad hoc modifications to a fixed royalty rate may be just as easily negotiated.

In any event, it would be relatively easy and invite little controversy if current fixed rate royalties were converted to profit related measures. Such approaches apply in several North American jurisdictions (e.g. Nevada and Ontario) as well as in the Northern Territory.

*Comparing the Resources Super Profits Tax (RSPT) and the Minerals Resource Rent Tax (MRRT)*

RSPT comprised two aspects. One was its retrospective nature in seeking to take the benefits of decades of shareholder investment. The other was a tax increase on new mines, the effect of which would be to reduce the returns and therefore the incentive to embark on new mining developments.

A tax is retrospective where it increases the impost on sunk investments that were committed under a less onerous regime. And while any government has the right to set the taxation regime it sees as best for its own nation’s circumstances, a retrospective tax will have an adverse impact of investor perceptions and hence future investment opportunities.

Retrospectivity is an accusation governments are keen to deny since it implies a general risk to capital investment. Hence the RSPT proposals were accompanied with claims that the existing tax take has become inadequate as a result of the change in prices.

The focus of the MRRT as a replacement of RSPT is on substituting current output based royalties with profit based royalties. Many see advantages in this and profits based royalties are quite common throughout the world. But a mechanical change of this nature is not consistent with the Government’s revenue estimates. The RSPT was
estimated to raise an additional $9 billion a year. Though the Government may not have been totally transparent in its statements, based on these MRRT still raised $7.5 billion a year.

On the information that the Government has presented, it is however difficult to see how the replacement MRRT collects that level of additional revenue. The RSPT applied to the written down assets of mines but MRRT is levied on their current valuations. This removes the retrospective tax aspect which accounted for almost all the previously envisaged tax revenue. Furthermore, MRRT is restricted to iron ore and coal and its rate is reduced from 40 per cent to 30 per cent or perhaps 22.5 per cent since there is a “25 per cent extraction allowance”.

Other elements of the MRRT would also reduce its revenue raising capacity. Thus, the tax free threshold becomes the bond rate plus 7 per cent - about 16 per cent compared with under 6 per cent for the RSPT and new investment is eligible for an immediate write-off.

Moreover, in the case of iron ore, with the removal of state royalties MRRT is likely to bring a reduced tax rate. This is because MRRT is to be levied “as close as possible to the point of extraction”, whereas the present royalty is levied at the port. As demonstrated by the prolonged litigation over the use of BHP and Rio’s Pilbara rail lines, iron ore at the mine head is worth very little.

Treasury’s estimate that the MRRT would reduce RSPT’s estimated tax collections by only $1.5 billion was never credible. The key differences between the two taxes are illustrated in Table A3.
Analysts assessing the costs of the Government’s proposals are hampered by lack of information, a secrecy that seems also to extend to the committee charged with furthering the proposals. For this reason there remains uncertainty about the provisions agreed to by the Government and the three largest miners: BHP Billiton, Rio and Xstrata in particular concerning the deductibility of state royalties should they be increased in the future.

Even so, some estimates are available of the tax implications of the MRRT. Analysts have used these to assess corporate valuation effects. According to Citibank, RSPT would have devalued the major mining business’s worth by 13-25 per cent; Citibank puts the cost of MRRT on BHP, Rio and Fortescue at 1-3 per cent of value. Deutsche Bank estimates the MRRT’s adverse effect on two of the three main listed coal miners at less than one per cent of value. Citibank’s estimates of the effects of the two taxes on key firms are illustrated in Figure A1.

### Table A3

<table>
<thead>
<tr>
<th></th>
<th>MRRT</th>
<th>RSPT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tax rate</strong></td>
<td>30%</td>
<td>40%</td>
</tr>
<tr>
<td><strong>Starting base</strong></td>
<td>Book value (excluding mining rights) or market value (including mining rights) at 1 May 2010</td>
<td>The most recent audited accounting book value of the project prior to 2 May 2010 or, if this is not available, the market value.</td>
</tr>
<tr>
<td><strong>TAXING point</strong></td>
<td>Assessable profits at the mine gate, being the commodity, determined at its first saleable form, less all costs to that point. In effect infrastructure assets outside the mine gate (i.e. port and rail) are excluded.</td>
<td>As close to the extraction of the resource as possible i.e. the well head or mine gate. Where there is no observable value for the extracted commodity, the taxing point should be extended to include processing and transportation costs in setting the commodity to a salable commodity and observable price.</td>
</tr>
<tr>
<td><strong>Interim capital expenditure</strong></td>
<td>Capex between 1 May 2010 and 1 July 2012 added to starting capital base and indexed at augmentation rate and depreciated over life of mine (up to 25 years).</td>
<td>Indexed at the LTBR up until implementation and then depreciated (assumed straight line over life of mine).</td>
</tr>
<tr>
<td><strong>Capital expenditure post 1 July 2012</strong></td>
<td>Deductible 150% immediately. Unused expenditure can be carried forward and indexed at the augmentation rate.</td>
<td>Exploration expenditure is depreciated immediately. General project expenditure is depreciated (assumed over life of mine).</td>
</tr>
<tr>
<td><strong>Augmentation rate</strong></td>
<td>10-year Govt. bond rate + 7%</td>
<td>10-year Govt. bond rate</td>
</tr>
<tr>
<td><strong>Allowances</strong></td>
<td>25% extraction allowance deductible on taxable profits subject to MRRT</td>
<td>RSPT allowance = Augmentation rate x (written down value of starting capital base. WDV of project expenditure + losses carried forward)</td>
</tr>
<tr>
<td><strong>Refundability of project losses</strong></td>
<td>Not applicable</td>
<td>Refundability of up to 60% of project losses in the event the project fails</td>
</tr>
<tr>
<td><strong>Transfer of losses</strong></td>
<td>Unutilised MRRT losses carried forward and indexed at augmentation rate and transferrable between iron ore and coal projects.</td>
<td>Losses can be transferred to other Group projects or group entities up to the amount of their RSPT income. Losses are refunded when a project is closed and cannot be transferred.</td>
</tr>
<tr>
<td><strong>Royalty credit</strong></td>
<td>Royalties paid are credited against MRRT liability. Unused royalties are carried forward and indexed (not refunded/cashed out) and not transferrable between projects.</td>
<td>Stated based royalties paid are then credited to determine the RSPT liability payable or royalty refund. A refund arises in any year where the royalties paid exceed the RSPT liability payable.</td>
</tr>
</tbody>
</table>

Source: Australian Government MRRT Fact Sheet, GSIB Research estimates.
According to Goldman Sachs, the combined effect of MRRT plus profits tax on a future coal mine will be 45 per cent, which is down from 57 per cent under the RSPT but up from 37 per cent at present. Among major competitors the equivalent tax rate in India is 41 per cent, South Africa 35 per cent, and Russia 24 per cent. For iron ore the MRRT plus profits tax combined is also 45 per cent up from the existing 35 per cent and somewhat above the 36 per cent equivalent in Brazil.

RSPT was founded upon an assumption that the measures would have no impact on the affected sector’s decisions. The government actually argued that its new tax grab would provide firms with increased assurances that the future taxation regime will be more stable. Senator Wong maintained that the RSPT, “would strengthen the Australian economy, increase productivity and increase mining output”. By torturing economic data, Treasury even claims its modelling shows that the RSPT would lead to an incredible 5.5 per cent increase in the resources sector’s output.

**Addressing the Case for Mineral Specific Taxes**

On May 27 2010, Treasury Secretary Ken Henry said of the RSPT:

- he could not understand how it represents a risk to retirement savings;
- it is a legitimate return to the owners, the people of Australia; and
- mining pays too little tax because of the generosity of its deductions.
How does RSPT represent a risk to superannuation?

Henry argued that RSPT was a bonus to superannuation since, unlike at present, 40 per cent of the costs of the mineral development was guaranteed by the government.

In fact this cannot be the case. First, unlike with the classic “Brown tax” on which RSPT claims to be modelled, the refund is “on tick” and there is no possibility that Parliament can bind its successors not to renege on the agreed sums. This sovereign risk issue was made all the more intense by the government saying that the refund will be on a “reasonable basis” and not, as in the classic Brown Tax, automatically paid as part of the up-front expenditure of the developer.

The payment to failed projects would be strongly resisted. Western Australia Premier Colin Barnett pointed out that Ravensthorpe nickel project has lost $2 billion and that, “Under this proposal the Australian taxpayer would be writing out a check for $800 million to the company that ran a failed project." Resistance to such outlays would be even greater with projects that were seen by the Government as incompetently run.

More importantly from the perspective of current shareholders, including superannuation funds, the tax raises $9 billion initially (Mr Henry acknowledged that it would raise more than this in out-years though dismissed estimates as high as $20 billion). This is profits from existing activities which were developed under a tax regime that was far less onerous than that now planned. It is a direct transfer from shareholders to the government and also reinforces fears about sovereign risk. If this profit earned under previous fiscal systems were to be taxed then it would require reciprocal action in providing support for all the ventures that failed.

Resource rent justification

Claiming the tax is a legitimate rental payment to the people of Australia mistakes the nature of rent. High returns are earned from two sorts of activities: the application of excellence in management, marketing and production processes so that a firm consistently outperforms its competitors; and from innovation or discovery of previously hidden wealth. Nobody is claiming the former should attract an additional tax.

Rent is a payment for a resource as compensation to the owner. It is levied at the maximum rate the owner considers a renter will pay, hence it is an efficient means of ensuring the resource is used most productively.

Economic rent is sometimes defined as the surplus that is earned from an activity over and above a normal profit. It is difficult to see this ever being defined well enough for it to be taxed without it affecting productivity. Firms often earn what are referred to as quasi rents. Those stem from individual successes in R&D and exploration. The firms earning them are stand-outs, sometimes likened to successful gamblers, as the
industries as a whole earn no more than normal profits, with gains offset by losses. Taxing winners therefore involves increasing the average tax on these industries and this brings about sub-optimal expenditure and activity.

This is underlined by the fact that, over time and across all jurisdictions, mining businesses do not earn super profits. If they did they would quickly be competed down to normal levels, as there are no barriers to entry into the industry and as skills within firms can readily be detached and employed in other firms or in new firms.

Because of these factors, a special tax on the successful firms is actually a general tax on all firms. If the average profit from mining activities is 11 per cent, this is an amalgam of many different ventures’ returns. Probably only one in ten of major expenditure programs earns a return of, say, 100%. Another one might earn a 10% return and the rest earn zero hence the average is 110 or 11%. If the success is to be subject to an additional tax at for example 36% (40% of 90%) the aggregate return to the industry is reduced 84% (64% plus the 10% not subject to the tax of the successful firm 10 per cent and 10% of the semi-successful firm). That means, in the example given, the prospective return to the entrepreneur is reduced by 16 per cent even if the entrepreneur can be convinced that the tax regime will not again move in an adverse direction. A 16% reduction or increase in income is a very potent incentive to action.

There are no economic rents in mining unless barriers to entry prevent active competition. Hence there is no more case for a general excess tax on this industry than there is on other industries that involve discovering new means of meeting market needs, as we see in the IT industry.

The alternative justification for a special tax on mining is as recompense for the resources that are owned by the people as a whole and once used can never be replaced. This depletion issue is not straightforward. Resources may be used up but, with a few exceptions, they are abundant and even though the most readily mined deposits are depleted first, prices in real terms have continued to fall. This reflects the improvements in mining and transport technology over time as well as a reduction in the quantities of minerals per unit of expenditure as a result of quality requirements and improved technologies in production and distribution. But mining, like any other process whereby hidden value is intended to be uncovered, involves great uncertainties.

Mineral deposits have long been vested on the basis of ‘finders-keepers’. This is analogous to the vesting of ownership of intellectual property generally. It provides strong incentives to the search for hidden value. The mineral vesting regime though has other variants that are associated with the ownership having some different features than an invention, namely that the ownership rights among the nation that has sovereignty over the land on which the minerals are located.
That has given rise to the notion of royalties. In turn, this has led to measures that bring penalties to firms that do not take sufficient effort to explore and then develop any subsequent find. The ‘compact’ between those granted an area of exclusive exploration rights is that in return for having the vast bulk of any value from a successful find, the explorer must undertake a work program to seek out resources and report for public information the results of the program. Tenements normally have to be progressively surrendered back to the authorities to provide opportunities for other explorers to seek out mineral wealth, and in the process building upon the data that has been gathered by the previous explorers.

An alternative approach might involve formally vesting the rights to minerals so that the owner has incentives to seek them out or on sell them to maximise profits. However, as with an analogous exclusive vesting of areas of presently unknown new technological developments, this is unlikely to bring about optimal search activity. This would remain true even if an area’s mineral rights were to be sold in perpetuity. The owner would have an incentive to remain inactive in the area hoping to gain additional information from the activities in neighbouring blocks. In that way there would be a lesser degree of effort into searching for undiscovered wealth than if the explorer were to be obliged, as a condition of his (temporary) license to undertake serious expenditures in seeking out hidden value.

This highlights the fallacy about rental income being a legitimate reward from the exploitation of mineral resources that are owned by the people. Rents do not exist unless someone has discovered a deposit, just as high profits in IT industries do not exist without an innovation having been made.

Governments have imposed royalties on the fallacious basis that the deposit is owned by the people. This is only true of deposits that are already known. Thus, the original discoverer of a mineral province like the Sydney Basin coal deposits could not hope to maintain a monopoly over the information covering hundreds of thousands of square kilometres. Without that monopoly, however, there would be a wasteful scramble for the rights to exploit the resource, since there would be incentives for each mining company to extract as much as possible before its competitors.

In such cases, the rights to mine the resource might best be auctioned and the auction price would represent the resource rent. No adverse effects on production would take place, and the revenue raised by the auction would therefore be a true rent.

Examples such as the Sydney Basin are, however, rare, and certainly do not apply across the whole of the mining industry. As discussed below, it is not clear that resource rents generally exist in the mining industry. Consequently, taxing mining may have serious adverse implications for investment and research and development expenditures.
Mining pays too little tax because of the generosity of its tax deductions

Mr Henry argues that the profits of the mining companies are swollen by the generous tax treatment they receive. A deviation of the statutory tax rate of 30 per cent from some other rate can only come about because the latter has a different system of deductions.

Commonly this is brought about by redefining the “generous” deductions on depreciation of capital investments or of R&D/exploration expenditure, which may receive some favourable taxation treatment and is also usually deductible in the year of expenditure instead of constituting investment-type expenditure deductible over a number of years. Mr Henry said that the Treasury estimates of tax paid by mining would still be low even if depreciation expenditure rules were revised.

This is difficult to reconcile with the information issued by the Tax Office which shows Effective Tax Rates for mining to be higher than those of other industries.

Table A4

<table>
<thead>
<tr>
<th>Sector</th>
<th>Effective Corporate Tax Rate (Net Tax/Net Income)</th>
<th>Effective Tax Rate including royalties (Net tax + royalties/Net income)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry &amp; Fishing</td>
<td>26.07</td>
<td>29.06</td>
</tr>
<tr>
<td>Mining</td>
<td>27.81</td>
<td>41.34</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>28.38</td>
<td>30.25</td>
</tr>
<tr>
<td>Electricity, Gas, Water and Waste Services</td>
<td>26.11</td>
<td>28.47</td>
</tr>
<tr>
<td>Construction</td>
<td>28.44</td>
<td>28.62</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>28.61</td>
<td>30.49</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>28.76</td>
<td>31.24</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>27.18</td>
<td>31.48</td>
</tr>
<tr>
<td>Transport, Postal and Warehousing</td>
<td>27.90</td>
<td>28.14</td>
</tr>
<tr>
<td>Information Media and Telecommunications</td>
<td>29.11</td>
<td>30.57</td>
</tr>
<tr>
<td>Financial and Insurance Services</td>
<td>21.54</td>
<td>22.37</td>
</tr>
<tr>
<td>Rental, Hiring and Real Estate Services</td>
<td>22.77</td>
<td>23.19</td>
</tr>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>27.98</td>
<td>30.01</td>
</tr>
<tr>
<td>Administrative and Support Services</td>
<td>28.48</td>
<td>29.43</td>
</tr>
<tr>
<td>Public Administration and Safety</td>
<td>29.65</td>
<td>31.22</td>
</tr>
<tr>
<td>Education and Training</td>
<td>29.15</td>
<td>30.54</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>28.76</td>
<td>28.92</td>
</tr>
<tr>
<td>Arts and Recreation Services</td>
<td>28.86</td>
<td>30.01</td>
</tr>
<tr>
<td>Other Services</td>
<td>28.01</td>
<td>28.92</td>
</tr>
<tr>
<td>Other</td>
<td>18.07</td>
<td>18.44</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24.56</strong></td>
<td><strong>27.18</strong></td>
</tr>
</tbody>
</table>

In any event, if a notional tax rate deviates from the statutory rate this stems from alternative treatment of income and expenditure. It the government is saying this is inappropriate, it should change the existing tax law on deductions across the board.

It is not possible to argue that the mining industry uniquely pays excessive levels of taxation unless the industry faces a unique taxation regime.

**Effects on the Economy of Increased Mining Taxes**

Any increased level of tax will reduce the revenues from an activity. Mining has been unquestionably the dynamic behind Australian economic growth and prosperity in recent years. Mineral production has been favoured by increased demand as a result of the rapid industrialisation of China. The outcome has also seen some price improvement but, placed in long term perspective, this has been quite modest as the following chart illustrates.

**Chart A1  Mineral Commodity Prices**

Australia has an abundance of resources but so also do other countries. Having resources and converting these into assets of value are different matters.

Resource development starts with exploration and Australia has 13 per cent of the global mining exploration share of expenditure, behind Canada but ahead of the US, Russia, Brazil, South Africa, China, Peru, Mexico and other leading venues.
Australia’s share of exploration expenditure has tended to dip somewhat over recent years. The causes of this are doubtless manyfold and include policies and prospectivity assessments in Australia and other countries.

One matter counting against Australia is regulatory impediments to new exploration. Among these is native title, with recognised claims now covering 11 per cent of the continent and a large backlog of applications still to be considered. Some estimates put the area prospectively under Native Title at over 40 per cent of the continent. Whether recognised or not, native title claims create an additional complexity in negotiating mining rights and, where title is granted would require a *de facto* increase in royalties.

National parks also reduce the amount of land that might be mined (and in some cases explored). National parks, not all of which are off-limits to mining, now account for a further 7.5 per cent of the continent’s land area.

Other matters that are likely to increase costs stem from environmental obligations. At the very least, the requirement to undertake assessments requires a longer time lag to development of a productive asset. And, starting with a ban on sand mining in Fraser Island in 1977, some proposals – the latest being this year’s NSW decision to reject the Bickham coal mine – that had been confidentially expected to proceed have been rejected. This must have an impact on investors’ assessments of sovereign risk.

The trend in Australian exploration expenditure relative to the rest of the world is shown in Figure A2
**Concluding Comments**

Australia has developed a world class mining industry and this has underpinned the economic growth the nation has enjoyed over the past few decades. Though the existence of prospective reserves is essential to this development, so also is the ability of firms to see supportive policies in place and anticipate that they will remain so.

Among these are clear property rights that are not subject to expropriation. The originally planned RSPT unmistakably fell into that definition with its retrospective taxation applied onto sunk assets.

The proposals presently before us with the MMRT do not appear to have a retrospective element. However, by definition, they are estimated to increase the revenue collected from the industry and do entail higher levels of taxation. The uncertainty about how state royalties are treated brings a further complication.

In recent years several policy developments outside of taxation have reduced the availability of land for exploration and mineral development. Chief among these is the “discovery” of the concept of a native title claim and this has been added to by increased environmental stringency and an expansion of national parks.
All of these developments will tend to make Australia perceived as being less supportive of new mining activity. From the perspective of major world operators, this is of limited importance since all jurisdictions are in competition with each other and one that becomes more onerous tends to simply slip down the priority list. This is, of course, less the case for smaller Australian miners who tended to be focussed exclusively on Australia. And, although a tightening of conditions of operation or a raising of tax levels in a particular jurisdiction is relatively unimportant for any major global miner, it does mean a reduction in opportunities and eventually wealth in the nation that sees its priority position slip.

This competitive situation is widely recognised. Indeed, the Canadians were jubilant at the launch of the Australian RSPT super-tax on mineral profits. Recognising the new proposal as a massive new handicap on its most important rival for exploration dollars, Canadian Finance Minister Jim Flaherty said, "If it is what it appears to be, a significant tax increase, that's another competitive advantage for Canada. We're reducing our corporate taxes."

Even though the taxation arrangements that appear to be planned with the MRRT are less onerous than those of the RSPT, the tax rates appear to be considerably higher than those in Australia’s major competitors for new mining. And the government statements about the relatively small reduction in revenue collections MRRT entailed compared to RSPT have further enhanced uncertainty.

Accordingly, we see no case for an increase in taxes on mining and consider such measures would detract from future activity and hence national prosperity.
Part B: Carbon Taxes

The Magnitude of the Carbon Reduction Task
To arrive at the sorts of greenhouse gas emission levels the IPCC estimates are needed to limit temperature increases to around 2-3°C, world emissions have to be reduced by a quarter of the current levels (by 80 per cent for Australia). This is a major task for the developed nations and would even require a considerable cut back for developing nations. Chart B1 illustrates the magnitudes

Chart B1

<table>
<thead>
<tr>
<th>CO2 levels for 2050 stabilisation ~590 ppm (adjusted for population growth)</th>
</tr>
</thead>
</table>

Mechanisms for Reducing Emissions
In examining the different approaches to forcing a change in consumption and production, it is best to treat as measures in terms of their taxation equivalents. This involves making no distinction between regulatory measures forcing a particular approach and conventional tax measures.

A straightforward tax or the creation of fully tradeable property rights are widely recognised as the most efficient means of combating an externality like global warming from greenhouse gas emissions, should this be taking place. A carbon tax or tradeable
right to emit, like that envisaged in Australia’s proposed cap-and-trade scheme, are similar in their effectiveness in reducing carbon dioxide emissions.

They differ largely in the initial allocation of the costs. Normally under a cap-and-trade system, incumbent emitters are given free emission rights in recognition of investments they made prior to the impost. The costs therefore fall on consumers (and in some respects new producers). Under a tax, incumbent producers receive no recognition for their property in the form of “sunk” costs that are devalued by the tax. Shareholders of those suppliers pay a higher share of the cost, a payment that many regard as equivalent to expropriation, and consumers a correspondingly lower share.

In practice all proposals deviate from a stylised pure tax or pure property rights allocation. Thus, under cap-and-trade, only major energy users are compensated and their free allotments are gradually phased down, while under a tax based system there are usually some forms of mitigatory provision envisaged for businesses especially vulnerable to unfair competition from firms located in countries with low carbon taxes.

With taxes, the initial focus is on price with the quantitative reductions being derived from this. Quantitative rights work the other way round but both approaches are established with both price and quantity outcomes in mind. This is because price and quantity are recognised as trade-offs. Under a tax, the rate is set with a particular quantitative outcome in mind. With a quantitative cap the number of tradeable rights is set with a price outcome in mind.

The magnitude the tax rate or its quantitative equivalent is balanced by their respective outcomes. The issues in deciding the level of tax or quantitative restriction entails:

- Estimating the costs incurred by economies as a result of the higher human induced emissions that are forecast as a result of business-as-usual
- Determining the costs of abating these emission levels in the light of:
  - costs of alternative technologies that emit no or less carbon dioxide;
  - costs to consumers of diverting their purchases to low carbon goods and services; and,
  - the transition costs entailed in replacing existing energy supply and replacing them with low carbon dioxide emitting facilities.

Aside from a tax or cap-and-trade, there are more interventionary measures. Among these is targeting the more promising areas where it is thought that emission reductions can be bought more cheaply. This approach was behind the ill-fated Australian measures to install rooftop insulation and has been the basis for a range of subsidies managed by the Department of Climate Control.

The other areas where regulation is in place to bring about reduced emissions are with a range of direct regulations on houses (5 Star) and consumer durables.
Falling between these command-and-control type regulatory measures and the market based approaches of a tax or cap-and-trade are regulations that force the use of renewables.

**Costs of Business-as-Usual**

Peer reviewed estimates assembled by Richard Tol put the world’s cost effects of a 3°C warming (and Lindzen, perhaps the world’s most eminent climate scientist, puts the maximum possible at slightly over 1 °C, most of which has already occurred) as ranging between plus and minus 2.5 per cent of GDP. As illustrated in Chart B2, the Stern estimates (which were not independently reviewed) are outliers with a 12.5 per cent cost.

**Chart B2**

![Global Cost Estimates](chart)

The projected temperature changes would take place over a period of 100 years, during which the average Australian under business-as-usual is estimated to see a 77 per cent increase in income by 2050 and a two and a half fold increase by 2100. Most other countries would see even faster per capita growth.

The relatively small changes to the economy that are estimated to take place if the earth’s atmosphere warms tend to be lost in alarmist projections. If atmospheric warming is taking place, we are in fact discussing an issue with only a moderate economic impact and therefore fairly minor effects world income levels.
Costs of Abating Emissions Using Carbon Taxes

In taking action to curb CO₂ emissions, Australia would need to eliminate over four fifths of current emissions.

Critical in estimating the costs is the CO₂ price necessary to drive the changes and this in turn depends on the ease with which carbon emitting energy can be substituted for other forms of energy or energy substituted by other goods and services. Once assumptions are made about consumer and producer responsiveness to price changes and about new technology developments, costs are estimated on the basis of a comprehensive tax on carbon dioxide emissions. In modeling the costs for Australia, it is assumed that as countries adopt a similar tax on carbon dioxide emissions.

Estimates of the carbon price necessary to force the required emission reductions range from around 50 to hundreds of dollars per tonne of CO₂. In Australian terms this translates into a doubling to a sevenfold increase in electricity costs. The IPCC put the tax at $100 per tonne.

The Australian Treasury has many price estimates, the lowest of which is initially $23 per tonne of CO2 (or around $30 per MWh). Under the Treasury scenarios, Australia buys emission rights that have been given to other countries, which requires a reduction in real incomes for consumers.

Treasury projects the costs of reducing Australian emissions at only 2-3 per cent of GDP over the course of fifty years, using carbon taxes that treble electricity prices. Renewables plus CCS are put at 50% by 2050. Chart B3 is an illustration of the energy profiles Treasury predicts in one of its scenarios.
But Treasury’s projections of the outcome of carbon taxes in terms of GDP are guesses. They are derived from bold technological assumptions coupled with the experience of consumers’ responses to minor price changes that have taken place in the past.

The only experience of the sort of substantial price changes thought to be needed has been the quadrupling of oil prices during the 1970s. However, that event brought substitutions of oil by coal, natural gas and nuclear as well as increased oil discoveries. Climate change policy would prevent similar developments.

Unless some unknown breakthrough occurs (or we move to nuclear power), throttling back fossil fuel use by 80 per cent would impose massive costs and, contrary to the rosy Treasury scenarios, would bring drastic reductions in living standards.

Forecasting models have to be based on projections from quite small changes experienced in supply and demand over relatively short periods. And they have no technological forecasting capability.

It is argued that energy cannot be that important since it is only 5 per cent of GDP and rather less than this if its distribution costs are excluded. But much the same can be
said of food, which in rich countries comprises only some 12 per cent of GDP and most of this is distribution and value-added features.

While no modern economy could run on renewables, even if it could, to force this would mean a tax equivalent well in excess of $40 per tonne of CO2 displaced. For Australia, this would collect over $18 billion a year, over $1000 a year for the average worker.

Research undertaken indicates that people would not willingly accept such an impost.

Following US research results about public resistance to paying the costs of carbon restraint, the IPA commissioned Australian research through the Galaxy polling company asking how much Australians would be prepared to pay in carbon taxes. The findings are reproduced in Table B1.

**Table B1**

<table>
<thead>
<tr>
<th>Amount willing to pay</th>
<th>Total</th>
<th>The world is warming and man's emissions are to blame</th>
<th>The variation in global temperature is just part of the natural cycle of nature</th>
<th>There is conflicting evidence and I'm not sure what the truth is/don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>over $1000</td>
<td>6</td>
<td>12</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>$1,000</td>
<td>9</td>
<td>14</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>$500</td>
<td>22</td>
<td>26</td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td>$300</td>
<td>14</td>
<td>17</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>$100</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>nothing</td>
<td>35</td>
<td>15</td>
<td>57</td>
<td>4</td>
</tr>
<tr>
<td>don't know</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Only six per cent said they would pay over $1000 a year to reduce greenhouse gas emissions. Fully 35 per cent said they were not willing to pay any form of impost.

**Current Australian Provisions for Carbon Reduction**

Rather than a broad emission reduction mechanism, Australia has a range of budget and regulatory measures, the most important of which requires substitution of carboniferous fuels by designated forms of renewables. The lowest cost of these is wind power.
As previously discussed, regulatory measures are a form of taxation when they penalise particular products in order to pressure consumers to use other products. This creates a cost that is usually hidden from view but is no less real as a result.

**Australia’s Renewable Energy Requirements**

The Mandatory Renewable Energy Target requires 9,500 GWh of renewable electricity by 2011 - about 4% of the total supply. The states have supplementary schemes. Victorian Premier Bracks in November 2005 argued that a, “lack of national leadership” by the Federal Government in not increasing the MRET scheme from the 9500 GWh target, “is costing Victoria – economically and environmentally - and cannot be allowed to continue.” Victoria’s scheme requires an additional 3,274 GWh a year of renewable electricity by 2016. It was expected to create “up to 2,000 new jobs, most of them in regional Victoria”, although none emerged.

The state schemes are to be folded into the federal requirement for 20 per cent renewable energy by 2020. This is set at 45,000 GWh, which is to be progressively reached year by year, and excludes the established hydro-electricity production.

Under the “20 per cent by 2020” legislation, the renewables have two components.

The first covers the small providers, and is budgeted at 4,000 GWh (comprising Renewable Emission Certificates (RECs) with each REC equivalent to 1 MWh). It includes household solar hot water heating systems and roof top photovoltaic panels. Both attract a fixed price REC of $40 per MWh.

In addition photovoltaic panels currently enjoy a 5:1 multiple (i.e. a $200 REC) which is being phased down. Photovoltaic panels also attract a subsidy mandated by state and territory governments of up $600 per MWh feed-in tariff. The electricity distributor is obliged to pay this and covers the costs by taxing other consumers. Some jurisdictions define this as a gross subsidy on all power generated, others have it only on the power fed back into the grid, though the commercial sales are ensuring a very high proportion of the electricity generated is so exported. In NSW the subsidy was estimated, until its recent modification, to give a guaranteed return of 120 per cent.

The Australia-wide feed-in subsidy is estimated at around $350 per MWh on average placing (though this has changed now that NSW has reduced its subsidy from $600 per MWh to $200) the aggregate subsidy of the scheme at $340 per MWh (excluding the 5:1 multiple). Information is not readily available regarding the split between those small installations receiving the feed-in tariff and the average level of that tariff.
In addition, there are further subsidies available, including the Solar Homes and Communities Plan which offers up to $8,000 per installation. In 2009/10 $272 million was budgeted for this scheme. Other programs would add to these subsidies.

The second component of the “20 per cent by 2020” renewables legislation is the large scale RECs set at 41,000 GWh. The fall back penalty cost to a retailer of failing to meet its target for these is set at an after-tax rate equivalent to $93 per GWh. Currently the REC price is under $40 as the attraction of the more heavily subsidised (but intrinsically less efficient) small scale RECs has led to a temporary saturation of demand.

The least cost form of renewable energy is wind, which is estimated to cost $110 per MWh if the energy can be fed into the grid at the time of the seller’s choosing. Coal based electricity costs under $40 per MWh and gas generation about $50. Because of its intrinsic unreliability and its unavailability in a great many of the hottest periods (when the air is often still), once wind reaches a significant share of supply, it attracts a lower average pool price. This discount would be incurred by the wind seller as part of the contract to the retailer. Hence with a market price at $42, and a reliability penalty of $10\(^1\) the price for RECs would be $88. For the large producers’ 41,000 GWh, this entails a subsidy of $3.6 billion a year by 2020.

The subsidy on the small installations is currently equivalent to a subsidy of $340 per tonne, almost double that in the now modified NSW scheme. A 2020 cost of $200 billion for a saving of 16 million tonnes was estimated by the Department of Climate Change if every household had a solar system. The legislation covering these facilities has a cap on their take-up and it is assumed that the cost of feed-in tariff, whether gross or net, will soon become apparent and that parliaments will move to terminate them. If this occurs and a consistent scheme gave the same subsidy to all 45,000 GWh renewables, in 2020 the overall cost would be $3,960 million.

The taxation equivalent of this can be estimated from the 202 million tonnes of CO\(_2\) equivalent emissions attributed to electricity generation. If the fuel displaced by the renewables is coal the KWh to tonne is around 1 (1.3 tonnes of CO\(_2\) for brown coal; 0.9

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\(^1\) One option is to buy a $300 cap at a cost estimated from dcypha of around $12. Other data indicates the discount was rather greater than this in recent years

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume Weighted Price for Wind Generators</th>
<th>Volume Weighted Price for Other SA Generators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full Year ($/MWh)</td>
<td>Summer ($/MWh)</td>
</tr>
<tr>
<td>2004–05</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>2005–06</td>
<td>32.57</td>
<td>39.59</td>
</tr>
<tr>
<td>2006–07</td>
<td>49.69</td>
<td>51.55</td>
</tr>
<tr>
<td>2007–08</td>
<td>63.31</td>
<td>63.94</td>
</tr>
<tr>
<td>2008–09*</td>
<td>48.56</td>
<td>91.80</td>
</tr>
</tbody>
</table>
tonnes for black coal). On that basis the $3.96 billion annual expenditure would save 45,000 GWh or 45 tonnes at $88 per tonne.

However the intermittent nature of wind means the fuel source displaced is more often gas where it is available since gas based plant has got the flexibility to back-off when the price is low. Gas has around 60 per cent of the CO2 equivalent of coal and to the degree it, rather than coal, is displaced the tax equivalent is around $147 per tonne of CO2.

**Carbon Tax Equivalents of Renewable Requirements**

It is unclear what level of emission reduction is anticipated by these measures but it is presumably between 27 and 45 million tonnes of CO2 depending on whether the renewables displace gas or coal. Such quantities represent reductions on current levels of emissions from electricity of between 13 and 22 per cent (2.4-4.1 per cent reductions on total emissions).

The tax rate equivalent is very high – a likely $88-147 per tonne of CO2 for the 41,000 GWh represented by wind, and $340 per tonne or more for the photovoltaics.

Other countries with forced levels of renewable may also be expected to incur high costs, though because Australian electricity supply is low cost, the relative costs in this country are likely to be higher. In Spain a 2007 law guaranteed producers a so-called solar tariff of as much as 44 cents per kilowatt-hour for their electricity for 25 years – more than 10 times the 2007 average wholesale price of about 4 cents per kilowatt-hour paid to mainstream energy suppliers. This is being reduced by a reported 40 per cent.

Of countries with a more straightforward carbon tax equivalent, relatively low taxes are in place. In the EU CO2 contracts are trading at about €15. The New Zealand carbon tax (the revenues of which are directed to forest growth) is $NZ 12.50. Finland has a tax of €18.05 and some US states and Canadian provinces also have carbon taxes. (Though the federal US trading scheme has seen the carbon price at 10 cents, indicating the market sees little prospect of abatement measures, even though these were promised by Presidential candidate Obama).

**Other Emission Reduction Measures**

The more direct command-and-control carbon reduction measures have had a history of mismanagement in Australia and it is unlikely such approaches would prove less costly than the tax/cap-and-trade systems. One measure, the 5 Star energy requirements for new houses, is estimated to increase new house prices by $7,000 and thereby represents a highly discriminatory impost on new house buyers. In raising the cost, and therefore the price of new houses, this also delivers a windfall gain to existing house owners who are not required to pay the impost.
Concluding Comments
The household rooftop installations subsidies should be abolished immediately since they represent an almost unimaginably egregious waste of money to the electricity consumer (especially less well off consumers since it is largely the better off who are installing these facilities).

The renewable program should also be phased out. It is a “winner picking” program that operates at a carbon tax equivalent of $88-$147 per tonne. The mooted levels of carbon tax equivalent (in 2005 dollars) under the CPRS were said to reach $35-60 per tonne in 2020 and even under the highly ambitious carbon reduction goals of 2050 were estimated to be only $114-197².

There is no justification for adopting a partial scheme impacting on only one component of one sector of total emissions. Practical operational results in Australia confirm the theoretical superiority of general rather than specific measures as the cheapest means of achieving goals. If the goal is carbon reduction the means of achieving this must be at the lowest cost.

At present, the measures appear to be designed to obscure rather than illuminate the actual cost to consumers. This is not a sound basis for governance in a democracy.

Accordingly, the renewable program and the command-and-control regulatory measures should be abolished. The issue of whether to impose a carbon tax or other such measures to reduce carbon dioxide emissions, the level of the tax/emission reduction and when and under what circumstances it might be introduced should be left for parliament to determine. That determination should be made with full information about the costs involved in legislative options as well as the costs of failing to undertake them.

² Australia’s Low Pollution Future, Treasury, 2008, P.139