

# THE NEW AUSTRALIAN RESOURCE RENT TAX

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Let me first declare two poignant interests, and on one matter make it clear that I have no interest to declare.

The non-interest first. I had no role whatsoever in the development of the Government's proposal, and had no knowledge of any kind of the announcement before it was made, beyond that which was available to all interested Australians.

The first poignant interest comes from my role as the Chairman of a large mining company with mostly international assets, but one small and profitable Queensland mine. When the Government unveiled its Resource Super Profits Tax on Sunday 2 May to a surprisingly unsuspecting Australian community and mining sector, I was, with others, putting to bed an arrangement to create one of the world's great gold mining companies. The value for the Lihir Gold shareholders of the arrangements that we were negotiating would be affected by any material change in the taxation of Australian mining income. In the end, Lihir Gold's Board of Directors on May 4 accepted an offer, on the basis of the four layers of assurances for Lihir shareholders on the effects of the tax that I explained on May 4.

The second poignant interest comes from my work on resource rent taxation, as an economist and as a policy adviser in quite a few countries on several continents. This was a while ago, in the years before and to a small extent after the publication by The Clarendon Press, Oxford, of my book with Anthony Clunies Ross. *The Taxation of Mineral Rents* was published in 1983. That work provided a small and specialised part of the foundations of an historically unusual period of Australian economic reform, when ideas about the public interest were analysed closely and discussed widely before being absorbed into policy. Public education on the ideas helped to protect the public interest, and governments seeking to promote that interest, against the inevitable pressure from private interests. The Australian Petroleum Resource Rent Tax (PRRT) was one practical consequence of that work. If the Resource Super Profits Tax had been announced on May 2, 1990, the community would have been able to put it in that context.

This subject—the proposed reform of Resource Rent Taxation and the Government fiscal program within which it is now embedded—has a big context.

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This is a dangerous time for our country in a dangerous world. Europe is floundering, as Governments wake up to the consequences of socialising the losses of private financial institutions in response to the global financial crisis. In the United States, a clever and politically skilled President is battling with domestic problems on a daunting scale. The United States has fewer political and fiscal reserves than at any time since the 1930s, with which to come to the aid of a North Atlantic world in trouble. We will learn over the year ahead whether it has the political and fiscal reserves to help itself.

This is all the legacy of the Great Crash of 2008.

The Great Crash raises fundamental questions about the capacity of contemporary Governments of democratic capitalist countries to implement policies in the public interest that are contested by powerful private interests. This was a theme of my address in this lecture theatre on 30 March, on the Australian climate change policy debacle.

As Paul Kelly said in *The Australian* yesterday, the governments of democratic capitalist economies “face a constant war against almost unlimited financial demands on the state by citizens and lobby groups...”.

The outcome of this war in relation to financial regulation and management will determine the prospects of democratic capitalism. The outcome of this war in relation to climate change policy will probably determine the prospects for human civilisation. In Australia, the developed country that stands alone, outside the economic, trade and monetary blocs of the North Atlantic, the outcome of this war on these issues and more generally has implications that are even more immediate and acute.

Australia is for the moment faring better in the aftermath of the Great Crash of 2008 than other rich countries. The sustained rapid growth in large Asian developing economies has helped, by lifting our terms of trade and investment in the resources sector. It will continue to be an advantage to be located on the edge of a dynamic Asian region. But the essential reason why Australia is faring better is that we went through a couple of decades in which our policy-making processes were opened up for a while to influence from an informed and independent centre of the polity. This allowed the building of support for reform in the national interest, against the private interests that received benefits from the unreformed system.

On 30 March, I expressed concern that Australian political culture had reverted to type through the early twenty first century. We were back in the old world, in which policy was the resultant of pressure from vested and other sectional interests.

After the capitulation on climate change policy, it might have seemed unlikely that the Australian Government would bring down a budget that honoured the critically important fiscal straightjacket that it had draped around itself, and confronted the resource sector interests to which it had yielded in the climate change debate on an issue that was much more consequential to the interests concerned.

Unlikely, but it has happened.

A Committee chaired by the Secretary of the Treasury has prepared an uncompromising statement of one conscientious perception of the national interest in an important area of policy. The Government has embraced the statement, and made it a central feature of an overall fiscal program that, if maintained, would have no near comparator in the developed world for rigour or suitability to the circumstances.

The budget and the Resource Rent Tax have drawn a powerful negative response from businesses in the resources sector. There is nothing unexpected about that. What we do not yet know, is whether this episode will confirm the descent of Australian political culture into a North Atlantic malaise, or represent a revival of the capacity of the Australian polity to take positions in the national interest, independently of sectional pressures.

Let me be clear about what I am and am not saying.

We have before us a public policy issue of great complexity and importance. I am saying that the Australian Government has taken a position on the basis of advice of people of knowledge and standing, that asserts some hard propositions about the national interest, at the expense of some private interests that exercise considerable influence in our polity. Australia is a country that must make its way on its own, outside the monetary and trade and economic blocs of the North Atlantic, in a democratic capitalist world in crisis. It is critically important to our future that we are able to discuss hard policy proposals on their merits, so that an informed perception of the public interest can emerge and eventually win broadly based support.

I am not saying that the Secretary's proposals are right in every detail, or that it is in any way illegitimate to contest them.

What is important is that this time, on this subject, we demonstrate that we can still discuss policy proposals with clarity and rigour, listening to interested parties, with their words having influence according to their content, and not according to the cruder instruments of political influence that accompany them.

This is now a difficult subject to address analytically in a public way. The polarisation between the positions of the major political parties means that every one of my words will be judged by some listeners by whether it seems to add weight to one side or the other of the political divide.

I have many good friends in senior places in the mining industry, and most of them are opposed to the new tax with a passion that has no near comparator in my memory; not even the car industry when it was the home of the great passions and trade liberalisation was the public policy issue of the day. I hope my friends can accept my being analytical about the object of great passion.

We are all aware that the manner of public disclosure of such a new, large and complex policy was not world's best practice, taking industry by surprise with announcement of changes of immense financial consequence. Given the manner of the announcement, the immediate industry reaction was understandable. But we cannot continue the debate with slogans from the Australian automotive industry's political kit of two decades ago, or with talk of industry leaders organising like shop stewards of any era. The quality of the policy proposals is not determined by the manner of their announcement. Now, the future prospects of the resources industries and the living standards of the Australian people depend on the assertion of private interests soon being balanced by considered, independent and soundly based assessments of the public interest.

Having set the scene, I am going to focus on the substantive issues, and not on the political context.

## SUPER PROFITS, RESOURCE RENTS AND NEUTRALITY IN TAXATION

An accepted ideal in any system of taxation is that it should as far as possible be "neutral". The ideal of neutrality is that, without good reason, the tax should not alter decisions on investment, production or trade.

The quest for neutrality does not exclude the use of special taxes to correct what are called "externalities", that is to say, cases in which the market itself does not provide the best use of resources. In a market economy, efficient outcomes require governments to tax or to regulate the external costs of various activities. "Neutral" taxation then allows efficient allocation of resources after private participants in markets have taken the constraints on externalities into account. These points are, of course, highly relevant to the current discussion of climate change mitigation policy.

It has been recognised that the quest for neutrality in taxation reduces itself to finding ways of extracting no more and no less than what is called the

“economic rent”. Economic rent is the excess of total revenue derived from some activity over the sum of the supply prices of all capital, labour, and other “sacrificial” inputs necessary to undertake the activity. The rent can be extracted by the owner of the resource, or the taxation authority, without affecting the amount of investment or production.

The effects of a tax on investment and production cannot be ascertained by examining only the amount of revenue that it collects. As Clunies Ross and I said on the first page of our book a few decades ago:

“Many people believe that the only important characteristic of a tax is how much it takes. This is far from true. The form of the tax may have extremely weighty effects in encouraging some activities or discouraging others. It is easy to assume, as governments often seem to have done in meeting the question of taxing mining companies, that there is a simple dilemma between heavy taxation, which discourages mining, and light taxation, which yields little in the way of revenue. On the contrary, provided that the form of the tax regime is chosen prudently, it is possible to improve the trade-off considerably...”

The more that taxation can be concentrated on economic rent (and, it could be added, external environmental costs), rather than on transaction, income, consumption and other tax bases that in varying degrees introduce distortions, the less the economic burden of taxation.

Mineral taxation is an area in which the identification of rent has a clear and practical meaning. Of course, there are other sources of economic rent. These include ownership of land, or access to a government licence to conduct some kind of business, or monopolistic control of some technology or of a market. Mineral rent is distinguishable from some of these other sources of rent in two ways that are relevant to taxation. One is that mineral resources are immobile between countries—the reality that is emphasised as a theme in the Henry Review.

The other way in which resources are different from some other sources of rent is that under the constitutions of Australia and of most other countries, minerals are owned by the State, and their extraction is dependent on an exclusive licence provided by the State. (Our Constitutional history has us saying that mineral resources are owned by the Crown). When a State or Territory Government, or the Commonwealth in the case of the offshore areas, allocates a mining lease, it is giving away a piece of State property to a private party, in the same way as it is giving away State property when it allocates land to a

private firm or citizen, or privatises a State-owned business, or appropriates money from the budget for transfer to a private person or entity. The community has a reasonable expectation that when some of its property is given to a private party, that party will pay its full value. The value of the mining lease being made available to a private party is its economic rent. (See Chapter 2 in *The Taxation of Mineral Rents* for an exposition and for the history of thought on mineral rent).

There are therefore two reasons to expect Australian governments to seek to extract the economic rent as revenue: it has lower economic costs than other forms of taxation; and it represents the value of public property that is being transferred to private ownership. Many Australians would add a third reason: that the recovery of mineral rent from the companies to which rights to mine have been allocated for the community represents a move to more equitable distribution of income, in a way that has lower economic costs than other measures to promote distributional equity. However, we have a strong basis for efficient resource rent taxation without going into the distributional issues.

Whenever a case arises in which it appears appropriate to tax a rent, one has to be careful that the apparent rent is not what economists since Alfred Marshall have called “quasi-rents”. Quasi-rents are payments that in the longer term provide some incentive to an established and economically valuable allocation of resources. The return that a company expects from investment in mining includes a part that represents a return on exploration, that might have been undertaken a long time ago. That return is a quasi-rent of exploration. A current mine will not be closed down because a tax does not allow the generation of a satisfactory return on exploration; but new exploration will be affected. Similarly, after a mine is in operation, part of its expected income represents a return on the original development of the mine—if you like, is a quasi-rent on that mine development expenditure. While a tax could transfer part or all of that quasi-rent from a mining company to the Government without affecting production at established mines, it would remove the incentive for new mine development.

#### FORMS OF MINERAL RENT TAXATION

Anthony Clunies Ross and I identified six main forms of mineral rent taxation. These can be combined in various hybrids. Rates can, in principle, be set in general legislation, or negotiated, or established through a competitive process.

The six forms of mineral rent taxation are the flat fee; the specific or ad valorem royalty; the higher rate of proportional profits tax; the progressive profits tax; the Resource Rent Tax (as in the Australian Petroleum Resource Rent Tax); and the Brown Tax. The Brown Tax is named after a paper by American economist E Cary Brown, published in 1948 in a now-obscure volume in honour of Alvin

Hanson. The Brown Tax is the least familiar of the six forms to people who know the practice of taxation. Brown originally suggested it as a substitute for standard profit tax, but it could be applied as a special tax on mining income.

With a flat fee, an investor makes a once-for-all payment for rights to extract minerals from a leased area. This was and is a major source of resource rent tax in many developed country jurisdictions in which resource industries are prominent—for example, Alberta in Canada and Alaska in the United States. In jurisdictions in which the flat fee is a major source of revenue, its level is set through competitive bidding. It was tried for a while for offshore Australia, but was disliked by industry and abandoned in the 1990s. It is likely to be a more effective instrument for taxing rents if it is combined with some form of rent tax that is conditional on the outcome of an investment (ie on the value of production or cash flow or net present value). Competitive cash bidding is recommended for new leases by the Henry Review. It would need to be applied by the level of Government with constitutional authority for mineral leasing—the Commonwealth offshore, and the States elsewhere. The Commonwealth Government's announcement on May 2 was silent on this recommendation of the Henry Review.

Specific and ad valorem royalties are the form mostly applied by the States. They are applied to the volume or value of production. There are some instances of profit-based taxes in the States and Territories, most importantly in the Northern Territory and Western Australia, but also in South Australia. Western Australia applied a royalty in a form similar to the Petroleum Resource Rent Tax on the Barrow Island petroleum field.

The Resource Rent Tax allows a mining company a deduction for all expenses against revenue in the year in which the expenses are incurred. All capital expenses are treated in the same way as current expenses. Financial expenses (most importantly, interest on debt) are not allowed as deductions, as they are part of the return on investment. If in any year the expenses exceed revenues—that is, if cash flows are negative—the negative cash flows are carried forward at an interest rate that corresponds appropriately to the return on capital thought to be required ex ante by a mining company in considering an investment.

The Brown Tax is structurally similar to the Resource Rent Tax, except that instead of carrying forward any negative cash flows with interest, the negative cash flows attract a payment equal to the product of the tax rate and the amount of the negative tax flow.

Clunies Ross and I evaluated the forms of rent taxation by a number of criteria, of which we emphasised neutrality, Government revenue maximisation and stability.



Stability is important for neutrality and Government revenue maximisation. Perceptions of instability raise the supply price of investment (the rate of return sought in advance by investors to compensate for risk). Some forms of resource rent taxation—principally those which automatically increase their shares of revenues when profitability turns out to be high—are intrinsically more stable than others.

The Resource Rent Tax and the Progressive Profits Tax were judged to be superior for stability, followed by the Brown Tax. The flat fee and the Brown Tax were judged to be best from the point of view of neutrality, with Resource Rent Tax a close second (see Garnaut and Clunies Ross, 1983, p110).

It was a conclusion of the intense Australian work of the 1970s and early 1980s—that of Craig Emerson and Peter Lloyd as well as Clunies Ross and I—that in the then circumstances of Australia, there were advantages in combining competitive bidding for a fixed fee for leases, with a Resource Rent Tax.

The taxes differ in other important respects, including ease of administration. The Resource Rent Tax and the Brown Tax can be administered mainly by reference to data that are required by the revenue agencies for income tax purposes.

Any new form of tax takes time to be understood, and for development of case law to handle the many special issues that invariably arise. There is inevitable uncertainty as investors learn the details of a new tax. This is the source of the adage, “an old tax is a good tax”.

The Henry Review advocates a modified version of the Brown Tax, accompanied by competitive bidding for leases. The Commonwealth Government has accepted the first of the recommendations.

The modifications of the Brown Tax are of two kinds. The first is that rather than providing for a cash payment to the investor on negative cash flows at the Brown Tax rate in any year in which cash flows are negative, it allows for the depreciation of capital expenditure over a number of years as with the standard income tax. The second involves delay in payments against negative cash flows, until such time as an investment is abandoned as being unsuccessful, or until there is an assessment for Resource Super Profits Tax against which it can be credited. Any unutilised tax credits are accumulated at an interest rate equal to the Government’s bond rate, and carried forward.

#### THE BROWN TAX AND THE MODIFIED BROWN TAX VERSUS THE RESOURCE RENT TAX.

The Brown Tax is, under specified conditions, almost completely neutral.

The essential conditions for neutrality are all to do with uncertainty about whether the investor can rely on the cash offsets when cash flows are negative. The Henry Review acknowledges that the neutrality condition is only met if investors are certain that the cash payments for negative cash flows will be paid. I will come back to the question of uncertainty about payments for negative cash flows.

The Henry Review makes the case that it is appropriate to carry uncompensated negative cash flows forward at the Government's bond rate, because there is no risk that the credit will not be turned into cash at some point. The Henry Review explains that the Government bond rate applies not to money used for a risky investment in mining, which would require a higher rate of return, but for a riskless loan to the Commonwealth Government.

This line of argument has ample theoretical justification, for example in the work nearly a quarter of a century ago of George Fane and Ben Smith at The Australian National University, to which the Henry Review refers. In its own terms, it is an elegant answer to a complex question. On the conditions presumed by the Henry Review, the modified Brown Tax is neutral.

Clunies Ross and I accepted that the Brown Tax was more nearly neutral than the Resource Rent Tax if the former were presumed to be credible. It is neutral for the simple reason that if 100% of cash flows, positive and negative, discounted at any rate, generates a positive net present value, then (100 minus X)% of cash flows will also generate positive net present value, where X is the percentage rate at which the Brown Tax is applied.

Nevertheless, we noted a number of disadvantages, that have some echo in the past fortnight's discussion of the government's response to the Henry Review:

“A disadvantage of the Brown Tax (BT) is that... it entails the greatest risk to the government. On a very large project, this risk might be unacceptable... subsidising a project for making losses might also be difficult to “sell” politically, even though the subsidies would not in principle convert the losses into gains for the investor... A final possible disadvantage is on grounds of stability of the fiscal regime, as seen by the investor. It may be difficult for investors to be completely confident that subsidies to future capital outlays will continue to be paid at some very high rate. Thus investors may just possibly react to a BT system as one involving greater risk or a higher expected tax burden than its formal character justifies.” (Garnaut and Clunies Ross, 1983, p100)

The Henry Review's modification of the Brown Tax requires some additional faith on the part of the investor in the stability of the regime. What is at stake is not only the risk that future negative cash flows will not be fully compensated as they occur at the Resources Super Profits Tax Rate, but also the risk that credits associated with past negative cash flows may not be recovered with interest. The Henry Review acknowledges that, to preserve neutrality, any such perception of risk would need to be compensated by some increase in the rate of interest paid to compensate for the delays in having access to cash from the credits.

There is another issue in the modification. The investor will have to raise finance to carry the delay in recoupment of a proportion of its negative cash flows. The Henry Review refers to some perfectly respectable finance theory that suggests that, at the margin, the cost of raising this capital will be the cost of riskless capital. This is what would happen in a world of zero transactions costs and competitive finance, in which financial institutions were perfectly informed, and acted in the interests of maximising the wealth of their shareholders. This may or may not be the world in which the finance has to be raised. To the extent that the actual cost of capital for funding the delayed tax credits to a mining company exceeds the sovereign borrowing rate, the modification of the BT would introduce a disincentive to investment.

Clunies Ross and I acknowledged one clear advantage of the BT over the Resource Rent Tax. In the pure form of the BT, since no accumulation of negative cash flows over time is required, there is no necessity for the government to decide upon the appropriate discount rate at which negative cash flows are carried forward. Since the precise relevant private discount rate varies across projects and investors, and with phases of investment (above all having to deal with the greater uncertainty of exploration), this is a considerable advantage. It would be a decisive advantage if the conditions for neutrality of the BT were met.

## SOVEREIGN RISK, STABILITY AND TRANSITIONAL ARRANGEMENTS

Perceptions that taxation arrangements may change for the worse for investors raise the supply price of investment. Such perceptions typically raise the discount rate that investors apply in evaluation of a project. This reduces the rent value of the resource, and therefore the amount of revenue that can be extracted without deterring the investment.

Instability is an inherent feature of the specific and ad valorem royalties that are traditional means of collecting revenues from mines. They are typically set initially at low rates, but adjusted upwards if outcomes turn out to be favourable for investors. This was the history of taxation on Australia's offshore petroleum.

Prior to production in the 1960s, ad valorem royalties on oil were set at around 10 percent. Taxation rates were raised by the addition of a specific excise with the oil price increases of the early 1970s, and the excise rates were then raised as profitability increased with oil prices. By the time that they were replaced by the Petroleum Resource Rent Tax in 1990, there had been a considerable period during which there were more years in which royalty rates were changed than years in which they stayed the same. As specific and ad valorem royalties rose to high levels, they blocked production from higher cost parts of the oilfields that could otherwise have been developed profitably. Ad valorem royalties on hard rock minerals have tended to remain steadier over longer periods, but to be revised upwards when changes in circumstances make projects highly profitable. Important examples of the tendency for royalty rates to change have been playing out on iron ore in Western Australia and coal in Queensland over the recent and current resources boom.

Rent taxes which have a larger impact on more profitable projects, and so adjust automatically to changes in circumstances, can be expected to be more stable. This expectation has been evident in practice in many countries. Since the introduction of the Petroleum Resource Rent Tax twenty years ago, its parameters have been stable. Indeed, there has not been any suggestion that they might be changed, excepting only the current proposal that investors be free to convert from the PRRT to the resources Super Profits Tax if they choose to do so.

The greater stability of forms of resource taxation based on profits or cash flows—the Resource Rent Tax and the Brown Tax amongst the forms of resource taxation discussed above—can be expected to reduce the supply price of investment and to increase both the level of investment and the amount of revenue generated from the resources sector.

The expectation of changes in taxation may raise the supply price of investment to an extent that low rates of taxation are required to attract investment. But the low rates are controversial when high profitability is achieved in practice. This, in turn, generates pressures for change in the arrangements, and further increases the supply price of investment. Such cycles of instability were once thought to be an inherent feature of the resource industries. This spurred a mainly North American literature on instability in relations between Governments and investors (Garnaut and Clunies Ross, 1983, Chapter 6). The Resource Rent Tax was developed with the advantages of breaking this damaging cycle in mind.

The benefits of stability are evident in all areas of policy, and not only in relation to taxation. But what to do when established arrangements are unfavourable for economic efficiency, and even for the prospects for stability in future?

It is sometimes asserted that investors have rights to stability of arrangements under which they made investments.

Such an approach would rule out much reform to improve national productivity or to inhibit activities that were damaging to the environment or otherwise to the community. There would need to be compensation to individuals and firms for the effects of trade liberalisation on the profitability of protected industry; for the effect of industrial relations reform on the income and working conditions of workers benefitting from anti-productive work practices; and for firms in monopolistic industries for the introduction of competition policies. Unsatisfactory arrangements of any kind, once established, would continue forever unless their beneficiaries were bought out by the community. And there has never been any reciprocal suggestion, that exceptional benefits to individual firms or individuals from economic reforms should be recovered for the community.

In any case, there are no grounds for expecting permanent stability in established royalty regimes.

Transition arrangements on the introduction of a new tax system have to be developed by Governments on the basis of all of the circumstances.

When the Petroleum Rent Tax was introduced in Australia, one existing project, the Northwest Shelf, was excluded, and others, notably Bass Strait, included. The Northwest Shelf project accepted the continuation of ad valorem royalties at rates higher than any currently applying to other resources projects in Australia. This singular exclusion was judged by the Government at the time to be justified in all of the circumstances. This was a response to one set of circumstances.

Investors and Governments share an interest in stable arrangements. Stability requires sound arrangements for securing economic rent for the public revenues, in forms that adjust automatically to changes in conditions affecting profitability. Uncertainty has increased for the time being as a result of far-reaching reform of resources taxation having been placed on the public policy agenda by the Commonwealth. It is in the interests of everyone affected by the prosperity of the resources industries that current circumstances lead to new arrangements that have good prospects of meeting the test of time.

While there is no general rule or presumption that firms should be compensated for the effects of taxation or regulation on the profitability of past investments, it is an established general principle of taxation law that past income should not be affected by current changes in taxation. The application of this principle in other areas of taxation—for example, the taxation of superannuation lump sums, and of capital gains, and changes in corporate and individual income rates—has not inhibited changes in taxation of future income, even though past investment and employment commitments are affected by prospective changes.

The absence of property rights in established arrangements does not mean to say that the transitional arrangements do not matter for perceptions of stability. There will be adverse consequences for the supply price of investment if the treatment of past investments does not pass tests of reasonableness. It would be damaging to perceptions of reasonableness on future treatment, if the changes affecting future income from established projects left a company in a less favourable position than it would have occupied if the new laws had been in place from the beginning. I will say no more about transitional arrangements in this lecture.

Stability in taxation for the resources industries is one dimension of the wider issue of perception of sovereign risk. Other dimensions include security in property rights, security from civil disorder or of financial instability of a dimension that threatens the operations of resource projects, and stability in regulatory arrangements, and in taxation beyond resource rents. The combination of factors affecting sovereign risk has made the supply price of investment to Australian resource projects lower than to projects in most other countries with relatively rich endowments of minerals. The prospects for the supply price of investment to Australia remaining relatively low would be enhanced if the current focus on resource taxation settles the matter for a long time, as the introduction of the PRRT did a generation ago.

## THE RATE OF TAX

The most important limit on the total rate of taxation out of income is the maintenance of incentives to economising behaviour for people working within the industry. Here it is the compound marginal taxation rate out of profit that matters—the combined effects of the corporate income tax and the resource rent tax. The resource tax rate proposed by the Government, alongside a 29% or 28% income tax rate, does not breach that limit.

## IMPLICATIONS FOR INVESTMENT AND PRODUCTION (AND OPTIMAL RATES OF DEPLETION)

Resource Taxation can distort and inhibit investment and production at four different margins. It can constrain investment in exploration; investment in new mines; investment in expansion of old mines; and production from each mine (that is, the “cut-off grade” applied in the mine).

Specific and ad valorem royalties will raise to some extent the cut-off grade in established mines, leaving some economically valuable material in the ground. Resource Rent Tax and Brown Tax will not.

Specific and ad valorem royalties are likely to have some effect in inhibiting investment in exploration, and (less likely) in new mine development and (less likely again) brownfields expansion of established mines; the Resource Rent Tax may do so possibly do so, especially for exploration; and the pure Brown Tax will not, so long as investors have full confidence in the stability of the system. The modified Brown Tax will not, so long as investors have full confidence that the tax credits with interest will be recouped, and that investors really can obtain finance for the delayed tax credits at the Government’s borrowing rate.

The Government in its announcement of the Resource Super Profits Tax presented the results of private sector modelling of the economic gains from shifting from established resource taxation arrangements to the modified Brown Tax. These were based on the presumption that the modified Brown Tax was perfectly neutral. The modelling is plausible on that assumption, as established arrangements do inhibit investment and production at the four margins.

If, however, there were imperfect confidence in the stability of new arrangements, or if the cost of capital to some investors for funding the delayed tax credits exceeds the Government’s borrowing rate, then the new arrangements, too, will be associated with distortion, and dissipation of economic value. If these departures from the conditions of neutrality are ultimately judged to be considerable in extent, it would be worth considering a hybrid of the pure Brown Tax (applied to exploration), and Resource Rent Tax (applied to all other expenditures and to all revenues). The structure of the Petroleum Resource Rent Tax would be an appropriate starting point in design of the Resource Rent Tax component. The inherent disadvantages of the Brown Tax—doubts that it would be stable when large payments were required at times in future, perhaps in times of extreme budgetary pressure—are not present in anything like comparable degree at the exploration stage. And it is at the exploration stage that the difficulties are most acute in setting an appropriate discount rate under the Resource Rent Tax.

Implicit in this discussion is that the rate of depletion of Australia's resources would be optimal in the absence of distorting taxation. Is there any reason why this might not be the case, justifying intervention to accelerate or decelerate the rate of expansion of production? And, as has been asked in the Australian discussion since May 2, if the Australian rate of taxation out of resources income exceeds the rate in some competing countries, will this cause the rate of investment and production in Australia to fall? And if so, would this be a good or bad thing?

There is an optimal rate of depletion of any non-renewable resource for the world as a whole, and for the allocation of that depletion across countries. If the economic institutions of all countries were working efficiently—if there were secure property rights in the hands of Governments until allocated unambiguously to individuals or firms; and systems of resource taxation that collect economic rent in place everywhere—then markets would secure the optimal rate of depletion. The rent value of each resource in each country would tend to rise over time at the interest rate, generating a tendency for the prices of natural resource-based products to rise over time. This tendency can be disrupted by changes in expectations of growth in global demand, and by exceptionally rapid technological improvement in exploration, mining, processing or transporting minerals. Mineral deposits would be developed sequentially, with the higher quality deposits—those with greatest rent value per unit of production—going first. This market-determined order would maximise value in resource exporting countries and in the world as a whole.

The efficient extraction of economic rent will not change the order of development of mines. A rent tax system that taxes marginal mines at low rates, and highly profitable mines at high rates will not cause one country's high quality deposits to be developed later than low quality deposits elsewhere. Inefficient rent tax regimes, which raise the cost of marginal mines, may do so. Australia's established royalty regimes do this to a small degree. Established rent tax regimes in many petroleum-rich economies and the old specific and ad valorem duties in Australia do and did this to a large extent, holding back development of marginal production.

Other features of mineral leasing policies in many countries, and the effects of perceptions of sovereign and wider country risk on the supply price of investment, also influence the order in which mines are developed on a global scale. Incomplete property rights under most resource management systems can lead to premature development of mineral deposits: firms increase early production for fear of losing their rights or being subject to higher taxation later. This was a major factor causing uneconomically low prices for oil in the early postwar decades. This distortion caused countries which left more of their oil in



the ground at that time to realise much higher value at a later date. Differences in the supply price of investment also affect the order in which mineral deposits are developed: poorer deposits are likely to be developed earlier in countries that are perceived as being more stable, and which therefore have lower supply prices of investment. Perceptions of instability and a high supply price of investment have held back resources development in many developing countries.

We have insufficient information on matters affecting current and optimal depletion for this to be an objective of public policy in current circumstances. On balance, I would judge these factors on average to cause resource depletion in Australia to be proceeding now at a rate in excess of that which would be generated in a world of perfect information and markets. An efficient system of resources taxation in Australia would cause a small acceleration of the rate of depletion. The current uncertainty about the Australian resource rent taxation regime is causing some delay in commitments to new resource developments. Considerations of optimal depletion would not seem to be strong enough to seek to change the profile of resource development from that which will emerge from thorough but focussed continuation of the discussion that was commenced on May 2, to a timely and most importantly a sound conclusion.

#### FEDERAL-STATE FINANCIAL RELATIONS

The proposed Resources Super Profits Tax raises issues of Federal fiscal relations that have the potential to be destabilising to the resource industries and Federal-State relations. It is important that they be resolved alongside the settling of the structure of resources taxation. This will not be easy.

The Secretary of the Treasury said to Australian Business Economists on Tuesday that Australian resources belong to all Australians, so that the economic rent should be collected for the benefit of all Australians. The Western Australian Premier responded by saying that resources belong to the people of the State in which they are mined.

Certainly the constitutional responsibility for on-shore mineral leasing lies with the States. Nevertheless, the Commonwealth has constitutional authority for corporate taxation, and by dint of constitutional interpretation by the High Court and of the practice of Federal financial relations an over-riding authority over fiscal matters.

Why have the States not used their powers over mineral leasing to introduce efficient means of resource rent taxation?

Administrative and political capacity, and misconceived ideas about interstate competition for investment, have held back the States. Even more important has been the destruction of State interest in efficient financial management of the resources under their control through horizontal fiscal equalisation, as developed by the Commonwealth Grants Commission, and its transfer to other States of most of any increase in revenue.

But while the States have not made good use of their constitutional powers to tax mineral rent, they will not lightly let go of the power.

The expedient recommended by the Henry Review and adopted by the Government is as good as can be suggested prior to comprehensive renegotiation of Federal financial relations: the rebate to resources companies of any royalties paid to the States and in place or in train on May 2. This is expedient, but far from ideal.

For one thing, it introduces a new layer of administrative and compliance costs without removing any of the old.

For another, it raises some awful questions of definition. How should we regard the proposed increases in iron ore royalties on the large established producers? Or the increases in gold and coal royalties that have been the subject of recent discussion?

The Western Australian Premier has said that he will not be constrained in his imposition of higher royalties by the presence of the Resources Super Profits tax. We should take him at his word in a State in which the weight of opinion is uneasy about the accelerated corrosion of the old Federal compact over the past decade, and on an issue in which all the domestic political incentives favour conflict with the Commonwealth.

Best practice would require fundamental reform of Federal-State financial relations, through which the Commonwealth becomes the sole collecting agency for mineral rents, and the States of origin share the revenue (and perhaps accept some power to vary the Resource Super Profits Tax rates, alongside acceptance of the fiscal consequences of variation). In the meantime, good order will require the Commonwealth to err on the side of accommodation of the States in transitional arrangements, but without providing open ended incentives to pre-empt the Commonwealth revenue.

## WHERE DO WE GO FROM HERE

At first sight, we seem to be at an impasse. The resources industries are responding to the Henry Review and Government proposal with concerted pressure and noise, but not yet with analytical statements. But we are at an

early stage of a long debate, and there is time to get it right. It is important that the current noise eases into constructive discussion of the public interest, in which resource sector perspectives are expressed and over time understood, without crowding out representation of the public interest.

Part of the discussion of the national interest will focus on the neutrality of the proposed Resources Super Profits Tax. In this lecture, I have identified two issues requiring analysis. Will investors come to see the loss offsets, and companies' capacity to carry them forward with interest and to redeem them in cash in the case of failure of an investment, as a reliable and permanent feature of the taxation environment? And is it really the case that, with all their imperfections, Australia's financial institutions will fund delayed credits at the Commonwealth's borrowing rate?

If the debate provides reasonable if incomplete comfort on these issues, the proposed resources tax will have the qualities claimed for it in the documents released on May 2. The case will be substantially made.

Within a sound discussion of the public interest, the Treasury and the Commonwealth would be prepared to listen to the debate and to contemplate variations on their approach. Within a sound discussion, it would be possible for the authorities to accept that the conditions for neutrality of the modified Brown Tax were not present in sufficient degree, and to contemplate variations on the Henry Review theme that achieve the desired objectives through related but different means.

My own suggestion for consideration in that eventuality has two elements.

At the exploration stage, a full loss offset in cash at the tax rate (that is, a pure Brown Tax). The rebate would cancel any need for carrying forward exploration expenditure against revenue in assessment of resource rent tax. This is quite independent of the proposed rebate of exploration expenditure within the company income tax system.

At the mine development and production stages, a Resource Rent tax in roughly the form and at the rates of the Petroleum Resource Rent Tax. The special arrangements in the Resource Super Profits Tax to cash out past losses with interest and to transfer losses across projects would not be relevant and would not apply.

At the production stage, the Resource Rent Tax and the Brown Tax and the Modified Brown Tax would be similar in their effects, and the structure of the Petroleum Resource Rent Tax would serve.

I hope that the relevant Governments would also accept the Henry Review's recommendations on allocation exploration rights by competitive tender where they can reasonably be expected to generate positive value.

The new arrangements—the modified Brown Tax, or the variations suggested in case the conditions for neutrality of the modified Brown Tax were not met—would have good prospects for future stability. This would serve the interests of investors and the community. They would be consistent with healthy growth in the resources industries in the period of great opportunity that lies ahead.

That is my view. There will be others.

It is important that the range of views be tested analytically from various perspectives on the national interest in the period ahead.

At this dangerous time for the world and for Australia, it is important that we restore a capacity for Australian Governments to implement policy in the public interest, independently of pressures from private interests.

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