

# Is MRRT competitively neutral?

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## ABSTRACT

*Financial modelling of the iron ore mine development example provided by the Commonwealth in their MRRT legislation Exposure Draft and Explanatory Material, indicates that there may be significant differences between the Net MRRT and consequently the total level of taxation (corporate income tax + Net MRRT + Royalties) paid by projects which existed before 2 May 2010 (when the MRRT was first announced) and those that will start after the introduction of the MRRT on 1 July 2012. This lack of competitive neutrality is due to the fact that the owners of pre 2 May 2010 projects may select the market value of their projects as at 2 May 2010 as their starting base.. As this market value is largely represented by the value of resources and that large multi-national, multi-project companies hold the lion share of Australia's iron ore resources, the MRRT legislation, at present, not only favours the existing projects but also reinforces the major producers' oligopoly. Another benefit for major miners is that they can transfer the unutilised losses against profits from other projects in their portfolio, while the small to mid-tier emerging producers cannot do so, as they tend to invariably be single-project companies.*

## INTRODUCTION

The submission by the Association of Mining and Exploration Companies (AMEC, 2010) to the Policy Transition Group (PTG) in October 2010 details all the points of differentiation and the disadvantages to its members, primarily the smaller iron ore and coal companies.. These were the result of the three major multinational, multi-project and multi-commodity corporations, negotiating the general terms of the proposed Mineral Resource Rent Tax (MRRT) legislation with Government, presumably with their interests in mind and with a low awareness of the implications for smaller and emerging producers.

The disadvantages include amongst others:

- Lower economies of scale and consequently higher unit-cost of production,
- Inability to individually fund dedicated transport and port infrastructure. Also, inability to access in spite of significant efforts on their side and on Government's side, proprietary transport infrastructure belonging to existing major producers even if declared open to third party access. This severely limits the scope of their developments in spite of the magnitude of their resource base;
- Their often single-project status which prevents the transfer of unutilised losses and royalty allowances to a related project, thus delaying cash flows, reducing profitability and introducing the risk that some losses will never be recovered;
- Generally, their higher risk profile reduces the availability and increases the cost of both equity and debt and this would be aggravated by the higher level of taxation due to the MRRT;
- Inability to attract and retain high-quality key professional personnel, other than at very high cost, because of more restricted career paths and significant demand from major companies.

As for the current corporate income tax regime, these disadvantages are not taken into consideration by the proposed MRRT legislation and results in single-project companies, which do not have the capacity to off-set unutilised losses against taxable income from other projects or associated companies, already being at a distinct disadvantage.. Additionally a recent article in the 22 June 2011 edition of the Financial Review, based on an analysis by Mr. Stephen Pearce, Chief Financial Officer of Fortescue Metals Group, suggests that the proposed MRRT would be further biased in favour of existing, large iron ore producers at the expense of emerging smaller developers starting operations after the MRRT implementation date, i.e. after 1 July 2012.

This lack of competitive neutrality is attributable to the fact that major established producers have secured tenure on and largely delineated the vast majority of the high-grade Australian iron ore resources, and that as a consequence, the market value of their projects is so large as to provide them with significant future MRRT tax shields over a long period of time. This in combination with their capacity to set-off unutilised MRRT losses and royalty allowances from one project against MRRT liabilities incurred in other projects in their portfolios, also accelerates their cash flows significantly increasing their rate of return on equity compared to that of generally single-project emerging producers.

The purpose of the financial modelling and analysis in this paper is to independently test this hypothesis.

## OUTLINE OF THE PROPOSED MRRT LEGISLATION

It is proposed that an MRRT should apply as from 1 July 2012 at a rate of 30% to the mining profit realised by all iron ore and coal projects upstream of the taxing point which is placed at the Run of Mine (ROM) pad. The mining profit is derived by subtracting from the mining revenue at the taxing point all capital and operating costs upstream of that point. Unutilised losses can be carried forward and uplifted at the long term bond rate (LTBR) plus 7%. The MRRT is subsequently reduced by 25% by way of an Extraction Allowance recognising the value of the miners' expertise to a net 22.5%. Royalties paid to States and Territories are then deducted by way of a Royalty Allowance. Any unutilised royalty credit is also carried forward and uplifted at the LTBR plus 7%. Projects with an annual mining profit less than \$ 50 million do not pay any MRRT. This benefit is, then progressively reduced to zero for mining profits between \$ 50 million and \$ 100 million.

Apportionment of revenue between that derived from activities upstream and downstream of the taxing point, can be done by the most appropriate of five methods, as described in the OECD Guidelines. Operations with an annual throughput of less than 10 million tonnes of ore, or integrated to steel mills or power generation, can elect to use the "alternative" MRRT accounting method which estimates the revenue at the taxing point by netting back from the revenue derived from the first at arm's length sale of a product and all the costs incurred below the taxing point.

Small miners with a profit below the \$ 50 million threshold can elect to use a "simplified" MRRT accounting method, which however implies foregoing the starting base and other deductions, if their profit were to exceed this threshold in future years.

Multi-project corporations can transfer their unutilised losses (other than starting base losses) and allowances from any of their projects against the mining profits derived from other projects in their portfolio.

To the extent that the MRRT will also be applied retrospectively, i.e. to projects which were in existence before it was first announced on 2 May 2010, a range of transitional rules have been drafted to recognise capital investments which were incurred before this date and in the transitional period between 2 May 2010 and 1 July 2012. Owners of projects which were in existence before 2 May 2010 have two choices to determine the starting value for their projects, i.e. either the:

- Book value as at 1 July 2012, excluding the value of the resource or
- Market value at 1 May 2010 plus any capital investment which takes place in the transitional period. The market value of a project includes the value of the resource which may constitute the bulk of it.

Under the MRRT regime the book value of the project can be depreciated over 5 years on an accelerated basis, e.g. at the rate of 36%, 24%, 15%, 15% and 10% respectively. The written-down starting base balances will be uplifted yearly at LTBR + 7%.

The market value starting base will be depreciated over the remaining life of the project on a straight line. The relevant written-down balances will be uplifted yearly at the rate of change in CPI (March to March quarters).

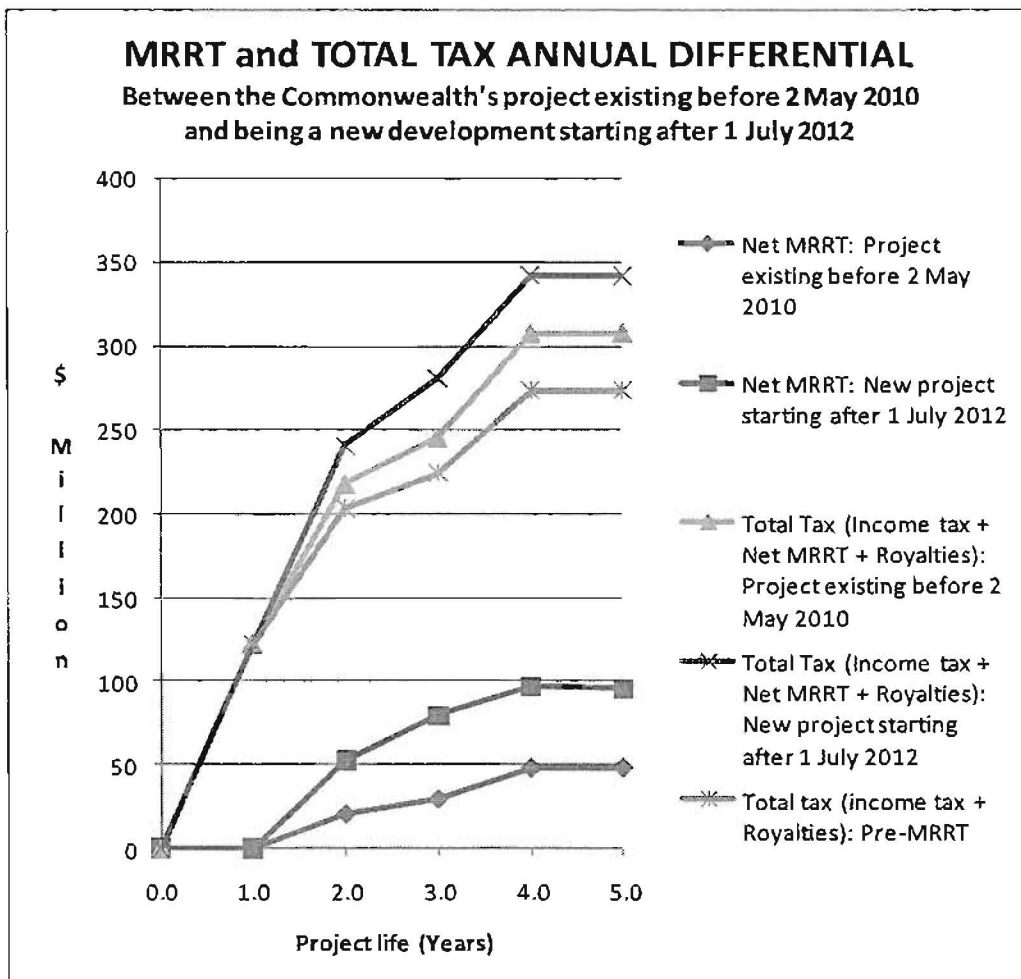
As discussed below, it is the option of adopting the market value of a project as its starting base that is the source of potentially significant differences between the tax paid by new projects starting after 1 July 2012 compared to that paid by projects which were in existence before 2 May 2010.

## GENERAL RESULTS

The worked out example of how the MRRT would be calculated, included in the Commonwealth Government Exposure Draft and Explanatory Material released on 10 June 2011, was modified in the present study to find out whether and to what extent the MRRT would in fact be discriminative by not being competitively neutral.

While essentially retaining the Commonwealth's model assumptions other than for introducing more realistic capital cost, two versions of the same iron ore mine project were developed. The first is analogous to the Commonwealth's model with the project starting with capital investment in financial 2012-13, i.e. after the MRRT is introduced. The second model portrays the same project as if it had been in existence before 2 May 2010 (the date when MRRT was first announced) with the same capital investment taking place in the transition year 2011-12 and operations starting after the introduction of the MRRT on 1 July 2012.

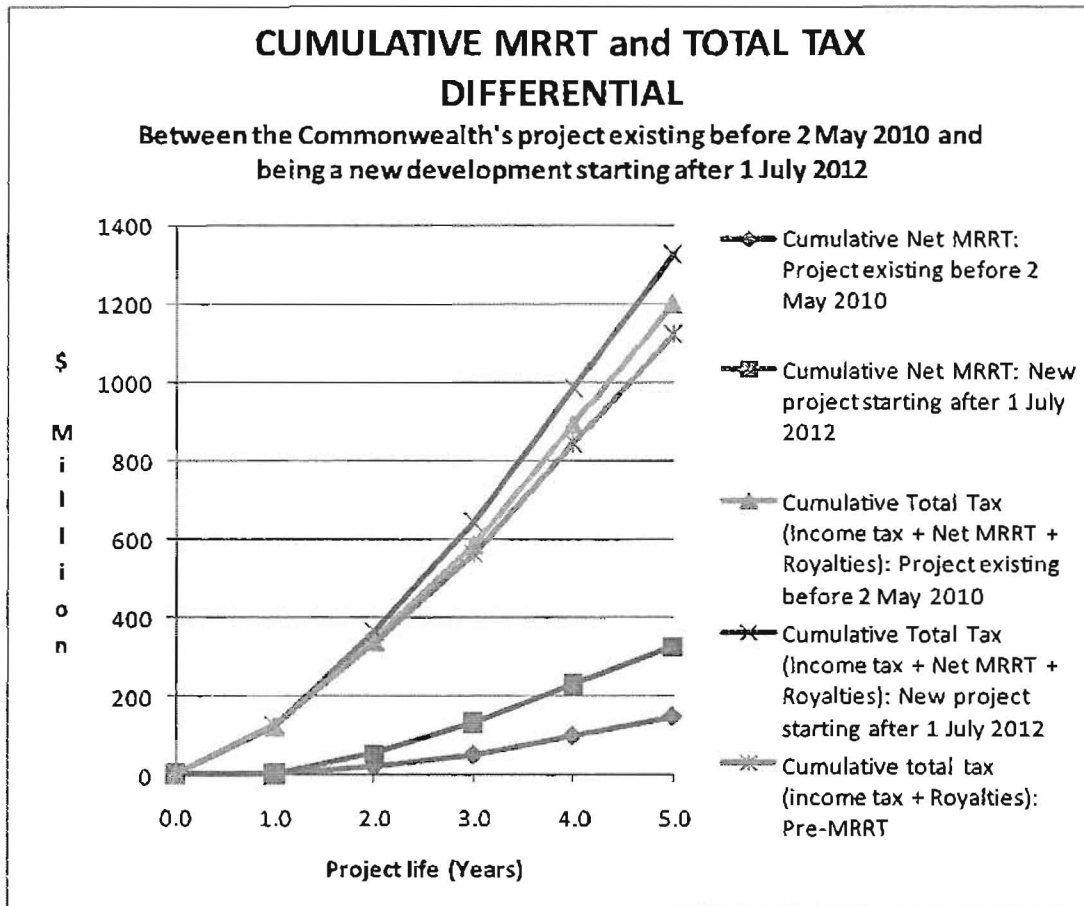
A comparison between the two models (see Figures 1 and 2) indicates that, at least in the example in question, there is evidence that the project which was in existence before 2 May 2010, with an average tax rate of 40.5%, would enjoy a much lower level of annual and cumulative Net MRRT, resulting in a much lower level (about 4.3% less) of total taxation (including corporate income tax, Net MRRT and Royalties), than that paid by the same project (44.7%) if starting after 1 July 2012.



**Figure 1 – MRRT and total tax (income + Net MRRT + Royalties) differential between the scenario of the Commonwealth’s project existing before 2 May 2010 and that of it starting after 1 July 2012.**

The Net Present Value (NPV) of the project starting after 1 July 2012 at \$ 1,072.5 million is also, not surprisingly, lower than that of the existing project at \$ 1,157.0 million, reducing its attractiveness to investors and making it harder and more costly to raise exploration and development equity capital and to secure project finance, than for the established project.

The 44.7% average rate of total taxation to be levied on the project following the introduction of the MRRT represents a 6.8% increase over that which would have been levied in the absence of this tax (i.e. 37.9%). This higher level of taxation will reduce the NPV of the project at a discount rate of 12% by \$ 152.1 million, i.e. from \$ 1,224.6 million to \$1,072.5 million.



**Figure 2 – Cumulative MRRT and total tax (income + Net MRRT + Royalties) differential between the scenario of the Commonwealth’s project existing before 2 May 2010 and that of it starting after 1 July 2012.**

It is likely that a similar conclusion may be reached for projects with lives longer than the five years used in the example. Thus, owners of very large projects which were in existence before 2 May 2010 can opt to use the market-value as a starting base, which includes the potentially high value of their often large resources, and benefit from very significant tax shields in some cases over very long periods of time. They would continue to pay a much lower rate of total taxation compared to that paid by emerging and particularly smaller developments, until all starting base losses have been set off, after which the effective rate of taxation will become the same.

It is hoped that the conclusions of the present paper may encourage the Commonwealth Government to expand the scope of this type of analysis, and if a systemic inequity is confirmed, amend the draft MRRT

legislation to redress any inequities and establish a higher degree of competitive neutrality. Failing to address this issue would re-enforce the current iron ore oligopoly and lock potential new smaller/mid-tier producers out of the market, thus acting as a significant disincentive for new developments and supply diversification of the industry.

## **SUPPORTING FINANCIAL MODELLING**

### **Project parameters**

The MRRT legislation Exposure Draft and Explanatory Material released by Government on 10 June 2011 provide among others a worked out example of how the MRRT should be calculated for an iron ore mining project with a production life of five years. This example, while clear and useful, is strictly prospective, i.e. it focuses exclusively on an entirely new, single equity project starting after 1 July 2012.

The example does not provide any physical parameters for the project as for instance its total recoverable diluted reserves, their grade and related annual ore throughputs.

However, an idea of the scope of this project can be derived by dividing the total operating cost over its life (\$ 1,120 million) by an order-of-magnitude estimate of the average operating cost per tonne of ore (\$ 22.5 per tonne), which indicates that the total recoverable reserves are of the order of 50 million tonnes of ore and that the annual ore throughput is just over 10 million tonnes of ore per annum after a ramp up in the first year. This would make the project a typical mid-tier one.

If the total revenue over the life of the project (\$ 4,450 million) is divided by the above total reserves of 50 million tonnes, the project will realise on an average of \$89 per tonne of ore sold at the taxing point. Although, we are not aware of the iron ore price forecasts and protocol to net the project revenue back to the taxing point used in the Commonwealth's model, we consider this mining revenue estimate to be somewhat optimistic in light of current more modest industry projections for iron ore prices, even if the ore is assumed to be quite high grade.

However, for consistency and ease of understanding the following modelling will make use of the revenue and cost assumptions presented in the Commonwealth's example as doing so, while making comparisons easier, does not significantly impact on the logic and conclusions of our analysis.

The capital expenditure estimate in the original Commonwealth's example of \$1 billion is considered unrealistically high for an emerging producer developing a project with a limited five year life. This is because most small to mid-tier emerging iron ore producers make significant use of mining contractors. As a consequence they do not own high levels of fixed assets particularly up-stream of the taxing point in their balance sheet. Accordingly, a more realistic capital investment of \$250 million was used in the present analysis to reflect the fact that the project would benefit from capital plant and equipment in large part owned by the contractors, which cannot be depreciated and deducted by the project owners for the purposes of assessing its taxable profits for both MRRT and corporate income tax. A premium of ten percent was applied to the recurrent operating costs of the project provided in the Commonwealth's model to recognise that contractors' charges need to include an allowance to compensate them for their capital costs.

### **Prospective and retrospective project taxation and values**

Two differently timed version of the same project are presented at Table 1 and 2. The first (Table 1) is analogous to the Commonwealth's model with the project starting for simplicity sake with an instantaneous \$ 250 million capital investment in financial 2012-13, i.e. after the MRRT is introduced. The second model (Table 2) portrays the same project as if it had been in existence before 2 May 2010 (the date when MRRT was first



announced) with the same \$ 250 million capital investment taking place one year earlier in the transition year 2011-12 with operations starting after the introduction of the MRRT on 1 July 2012.

YEAR	0	1	2	3	4	5	
<b>Resource charge</b>	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>	
Revenue	0.0	520.0	830.0	910.0	1090.0	1100.0	
In-house operating expenses	0.0	130.0	210.0	230.0	270.0	280.0	
Contractor premium	0.10						
Operating expenses		143.0	231.0	253.0	297.0	308.0	
Depreciation	250.0						
MRRT allowance @13%		32.5	0.0	0.0	0.0	0.0	
MRRT unutilised losses		250.0	0.0	0.0	0.0	0.0	
MRRT profit/loss	-250.0	94.5	599.0	657.0	793.0	792.0	
MRRT @30%	0.0	28.4	179.7	197.1	237.9	237.6	
Extraction allowance @25%	0.0	7.1	44.9	49.3	59.5	59.4	
MRRT after extraction allowance	0.0	21.3	134.8	147.8	178.4	178.2	
							<b>Total</b>
Royalty @7.5%	0.0	39.0	62.3	68.3	81.8	82.5	333.8
Uplifted royalty offset	0.0	0.0	20.0	0.0	0.0	0.0	
Net MRRT	0.0	0.0	52.5	79.6	96.7	95.7	324.4
Total resource charge	0.0	39.0	114.7	147.8	178.4	178.2	658.2
<b>Company tax</b>							
Revenue	0.0	520.0	830.0	910.0	1090.0	1100.0	
Operating expenses	0.0	143.0	231.0	253.0	297.0	308.0	
Depreciation		50.0	50.0	50.0	50.0	50.0	
Total resource charge	0.0	39.0	114.7	147.8	178.4	178.2	658.2
Company taxable income	0.0	288.0	434.3	459.2	564.6	563.8	
Company tax @29%	0.0	83.5	125.9	133.2	163.7	163.5	669.8
Profit before tax	0.0	327.0	549.0	607.0	743.0	742.0	2968.0
Total resource and company tax	0.0	122.5	240.7	281.0	342.2	341.7	1328.0
Total tax as a percentage of profit		37.5%	43.8%	46.3%	46.1%	46.1%	44.7%
							<b>Weighted</b>
Net Cash Flow	-250.0	254.5	358.3	376.0	450.8	450.3	average effective
NPV@12%	1072.5						tax rate

**Table 1 – Exposure draft MRRT model modified to reflect lower level of capital investment.**

Table 1 shows that a project starting after 1 July 2012 would over its life, pay a total of \$ 333.8 million in State royalties, \$ 324.4 million in MRRT and \$ 669.8 million in corporate income tax, amounting to total taxation including income and resource imposts of \$ 1328.0 million. This figure represents a weighted average rate of taxation of 44.7% out of a total taxable income of \$ 2,968.0. The projected annual mining profits never dip below the minimum \$ 50 million profitability threshold.

The Net Present Value (NPV) of this project at a nominal discount rate of 12% is \$ 1072.5 million. As already mentioned we feel that this value may be somewhat optimistic in light of more modest industry projections for future iron ore prices. This difference in value, however, is irrelevant in relative terms in the present comparison.

Table 1 was modified in Table 2 to include the market value of this project as of 2 May 2010 assuming that it had been in existence before that date. For the purpose of the exercise the project has been attributed a market value at that date of \$ 783 million. This is consistent with the NPV obtained in the model of Table 1 net of the \$ 250 million in capital investment which we assumed would be invested in 2011-12 and after accounting for inflation over two years @ 2.5% p.a. The bulk of the market value of the project is, of course, attributable to the value of the resource.

According to the retrospective transitional provisions, if the market value option is selected, the \$ 783 million market value starting base plus the \$ 250 million capital investment in the transitional period are depreciated on a straight-line basis over the five-year life of the project. The written down value of the unused starting base losses would be uplifted at the rate of change in the CPI (March quarter on March quarter).

The project which was in existence prior to 2 May 2010 is subject to a much lower rate of total taxation (corporate income tax plus net MRRT and royalties) at 40.5% relative to the same project starting after 1 July 2012 at 44.7%. This 4.3% difference is mainly due to a much lower Net MRRT of \$ 146.2million compared to \$ 324.4 million balanced by a slightly higher level of corporate income tax at \$ 721.5million compared to \$ 669.8 million.

In addition the established project has a higher NPV of \$ 1157.0 million (compared to \$ 1072.5 million for the corresponding new development starting after 1 July 2012) making the established project more attractive to potential investors and financiers thus lowering its relevant cost of equity and debt funding.

YEAR	0	1	2	3	4	5	
<b>Resource charge</b>	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>	
Revenue	0.0	520.0	830.0	910.0	1090.0	1100.0	
Operating expenses	0.0	143.0	231.0	253.0	297.0	308.0	
Market value starting base	783						
Transitional CAPEX	250						
Depreciation		206.6	206.6	206.6	206.6	206.6	
MRRT allowance @CPI		0.0	20.7	15.5	10.3	5.2	
MRRT unutilised losses		826.4	619.8	413.2	206.6	0.0	
MRRT profit/loss	0.0	170.4	371.7	434.9	576.1	580.2	
MRRT @30%	0.0	51.1	111.5	130.5	172.8	174.1	
Extraction allowance @25%	0.0	12.8	27.9	32.6	43.2	43.5	
MRRT after extraction allowance	0.0	38.3	83.6	97.9	129.6	130.6	
							<b>Total</b>
Royalty @7.5%	0.0	39.0	62.3	68.3	81.8	82.5	333.8
Uplifted royalty offset	0.0	0.0	0.7	0.0	0.0	0.0	
Net MRRT	0.0	0.0	20.6	29.6	47.9	48.1	146.2
Total resource charge	0.0	39.0	82.9	97.9	129.6	130.6	479.9
<b>Company tax</b>							
Revenue	0.0	520.0	830.0	910.0	1090.0	1100.0	
Operating expenses	0.0	143.0	231.0	253.0	297.0	308.0	
Book value	250.0						
Depreciation		50.0	50.0	50.0	50.0	50.0	
Total resource charge	0.0	39.0	82.9	97.9	129.6	130.6	479.9
Company taxable income	0.0	288.0	466.1	509.1	613.4	611.4	
Company tax @29%	0.0	83.5	135.2	147.7	177.9	177.3	721.5
Profit before tax	0.0	327.0	549.0	607.0	743.0	742.0	2968.0
Total resource and company tax	0.0	122.5	218.1	245.5	307.5	307.9	1201.5
Total tax as a percentage of profit		37.5%	39.7%	40.4%	41.4%	41.5%	40.5%
		Weighted average tax rate from model of Table 1					44.7%
							<b>Difference</b>
							<b>4.3%</b>
Net Cash Flows	-250.0	254.5	380.9	411.5	485.5	484.1	
NPV @ 12%	1157.0						

Table 2 – Commonwealth’s model modified to portray a project that existed prior to 2 May 2010, where the market-value method was used to determine the starting base and \$ 250 million in capital expenditure was incurred in the transitional financial year 2011-12.

## CONCLUSIONS

Financial modelling using modifications of the Commonwealth’s model provided with the MRRT legislation Exposure Draft and Explanatory Material indicates that:

- An emerging producer starting after 1 July 2012 would be paying a much higher level (i.e. 44.7% versus 40.5%, a difference of 4.3% more) of total taxation (corporate income tax plus net MRRT and royalties) compared to an identical project which was already in existence prior to 2 May 2010, i.e. before the MRRT was first announced.
- The NPV of the established project is also higher at \$ 1157.0 million (compared to \$ 1072.5 million for the corresponding new development starting after 1 July 2012), making the established project \$ 84.5 million more valuable and therefore more attractive to potential investors and financiers thus lowering its relevant cost of equity and debt funding relative to the new development.
- The larger the value of the resource relative to capital investments in the market-value of the starting base of a project existing before 2 May 2010, the larger will be the total taxation difference between the two project valuations. There will also be a time lag before the project which was in existence before 2 May 2010 will pay the same effective annual rate of total tax as that of a new project starting after 1 July 2012.
- It would be justifiable for the Commonwealth Government to expand the scope of this type of analysis and, if a systemic inequity is demonstrated and quantified for projects of various sizes and lives, amend the draft MRRT legislation to redress it and establish a higher degree of competitive neutrality. Failure to do so would re-enforce the current iron ore oligopoly, lock potential new smaller/mid-tier producers out of the market and act as a significant disincentive for new developments and diversification in the future sources of iron ore supply.

## REFERENCES

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