

Senate Standing Committee on Economics

ANSWERS TO QUESTIONS ON NOTICE

Treasury Portfolio

Budget Estimates

4 – 6 June 2013

Question: BET 22

Topic: Completing the Picture: Environmental Accounting in Practice

Hansard Page: Tuesday 4 June 2013, Page 103

Senator LUDLAM asked:

Senator LUDLAM: In the ABS publication *Completing the picture: environmental accounting in practice*, I draw from table 4.8 that the value of resource rents from subsoil assets is given as \$44 billion in 2009-10, which is very large relative to the revenue that was eventually raised by the MRRT. Do you depreciate the market value of the mines themselves when calculating resources rent, as occurs with the tax?

Mr Sutton: I might pass this question to Mr Hockman.

Mr Hockman: We take into account all changes to the value, so essentially the depletion of the value of those resources is certainly taken into account in that calculation, but at the same time it is also a net figure in which we also add the value of newly discovered or newly exploitable subsoil assets.

Senator LUDLAM: How do you figure in the depreciation of the mining facilities themselves? That is obviously calculated when the tax receipts—

Mr Hockman: So you are talking about the consumption of the fixed capital above the ground or whatever, which is counted in the investment data, and we make the allowance. I suppose the economic term for that is the consumption of fixed capital, which conceptually is very similar to depreciation.

Senator LUDLAM: What I am trying to get at is that the MRRT legislation allows companies to depreciate assets in a certain way, which has been a bit controversial. How close is the way that that legislation handles asset depreciation to the way the ABS calculates it for the purpose of assessing the value of resource rents?

Mr Hockman: Not especially close, because we are actually trying to measure economic value and economic profit and we do that effectively independent of the tax legislation based on a perpetual inventory model around the expected life of the assets and those calculations, and there is not necessarily a direct alignment between the expected life or the rates of depreciation applied for tax purposes and the actual rates of consumption of that physical capital, which is what we are trying to measure in the economic accounts.

Senator LUDLAM: That is what I thought. I realise this is a fairly technical area to just be doing off the cuff. Could you provide on notice for us some kind of note outlining in a bit more detail how you do it and how it departs from the methodology that is used in the MRRT bills?

Mr Hockman: Yes, we will certainly look to do that and we will probably have to study up on how it is calculated in the MRRT—

Senator LUDLAM: Not very well.

Mr Hockman: and consult with our colleagues in Treasury.

Senator LUDLAM: I very much appreciate it.

Answer:

Consumption of fixed capital or economic depreciation represents the value of capital that is used up in a particular period. It is based on the concept of the expected economic lifetime

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of an asset, as is designed to cover the loss in value due to normal wear and tear, foreseen obsolescence, and the normal amount of accidental damage which is not made good by repair. The ABS uses the Perpetual Inventory Method (PIM) to obtain estimates of consumption of fixed capital. The PIM is a 'rolling' inventory of capital stocks; in any particular period investment in capital assets is added to the stock, and retired assets are deducted. Consumption of fixed capital is also taken into account. This is dependent on average length of the asset life used in production, a retirement distribution function and an age-price function.

In regards to Tax depreciation, the asset life is given by the legislation and is not related to its use in production. Arrangements for the MRRT are given below. With accelerated depreciation some assets are written off in 5 years. However, Mining assets, broadly split into two classes, Machinery and equipment, and Non-dwelling construction have average asset lives of 18.7 and 29 years respectively.

From the Minerals Resource Rent Tax Costing Brief

http://archive.treasury.gov.au/documents/2247/PDF/FOI_2247.pdf

"Existing investment in iron ore and coal projects will be recognised through a credit that recognises the market value of that investment, written down over 25 years, or through accelerated write-off of the book value of project assets, excluding the value of the resource, over 5 years. New investment will be immediately deductible for MRRT purposes. Unutilised expenditure will be transferable to offset MRRT profits on other projects or will attract an allowance equivalent to the long terms government bond rate plus 7 percentage points. "

The following is a simple example of the difference between depreciation of assets for tax purposes and that for the National Accounts (referred to as Consumption of Fixed Capital).

A business makes an initial investment of \$5000m on an asset with an economic life of 20 years.

Under a tax arrangement with accelerated depreciation over 3 years, the asset is depreciated by \$1667m per year (i.e. \$5,000 m/ 3 years), over 5 years it would be \$1,000 m per year

In the National Accounts an asset is 'depreciated' over its productive life which in this example is 20 years. Using straight line depreciation which is written off over the life of the asset, Consumption of Fixed Capital of \$250m per year would be reflected in the National Accounts (i.e. \$5000 m / 20 years).

Alternatively, using a Geometric depreciation method there is a declining balance of 10 per cent per year. In this example consumption of fixed capital is 10% of the depreciated value, For example in year 1 Consumption of Fixed Capital is \$500, ie 10% of \$5000 m. In year 2 Consumption of Fixed Capital is \$450 m (10% of \$4500 m, which comes from \$5000-\$500) and so on.