

Senate Standing Committee on Economics

ANSWERS TO QUESTIONS ON NOTICE

Resources, Energy and Tourism Portfolio

Additional Estimates

15 February 2012

Question: AR12
Topic: Mining Economics
Proof Hansard Page: Written

Senator Brown asked:

1. We are still awaiting Treasury's response to Sen Brown's question at the October estimates about the optimal rate of minerals extraction. This is a related question. If one company owned every coal mine in Australia, do you think it would be digging up the coal faster, slower or at the same pace?
2. How much of the slowdown in multifactor productivity evident over the past decade is attributable to falling productivity in the mining sector?
3. Is the fall in mining productivity just a result of delays between investment spending and subsequent production, and if so when would you expect it to be reversed?
4. Is it because higher commodity prices are leading to exploitation of lower quality or less accessible reserves?
5. Or is it a reflection that high profits have led to mining companies being careless in controlling costs?

Answer:

1. The response to Senator Brown's question regarding the optimal rate of minerals extraction (from the October Supplementary Budget Estimates hearings) was answered by the Department of Resources, Energy and Tourism under question on notice SR41.

The related question is a hypothetical monopolistic situation far different to Australia's coal industry structure. A monopoly occurs when a single enterprise is the only supplier of a particular commodity. Monopolies are characterised by a lack of economic competition to produce a good or service and a lack of viable substitute goods. In such a situation a company gains the ability to raise prices or exclude competitors. As such the single seller would have significant market power. It is impossible to predict the actions of such an organisation in an Australian context.

The Australian coal industry is dynamic, growing and diversified. The Bureau of Resources and Energy Economics (BREE) forecasts that Australia's thermal coal exports will increase in 2011–12 by 14 per cent, relative to 2010–11, reflecting significant additions to production and export infrastructure capacity over the course of 2011.

BREE notes that supporting Australia's thermal coal production will be increases in production for a number of new coal mines that started up in 2010–11. New projects located in New South Wales include Mangoola (8 million tonnes a year) and Moolarben stage 1 (8 million tonnes a year), and the expansion of the Mount Arthur North open-cut mine (3.5 million tonne expansion). In Queensland, the start-up of the Ensham underground mine (1.5 million to 2.5 million tonnes a year) will also contribute to Australia's thermal coal production.

2. Most of the slow-down in Australia's productivity performance is concentrated in two sectors: mining and also 'electricity, gas, water and waste services' (EGW&WS). A Productivity Commission annual report of 2010 stated that these two sectors, and also the 'agriculture, forestry and fishing sector', accounted for almost 80 per cent of the decline in multi-factor productivity (MFP) growth between 1998-99 and 2007-08.
3. The Productivity Commission study cited in question 2 concluded that over the period 2001 to 2007, around one-third of the decline in mining MFP could be attributed to the temporary effect of long lead times between mining investment and the associated output. However, the study found that resource yield declines were the more dominant factor from 1975 to 2007 and exerted three times more negative effect on mining productivity than the lags between production and investment spending.
4. When mineral prices are high, as they have been in the past few years, mineral companies are profitably able to extract lower grade ores and ores that are costly to extract. For example, as the easily accessed resources (generally those closer to the surface) are depleted, extraction of resources that are harder to access (generally located deeper underground or further away) is required to maintain or increase production. In order to sustain higher levels of extraction as ore bodies are depleted, more labour and capital inputs are required. This, in turn, will tend to reduce productivity.
5. Overall, studies have found that the observed declines in mining productivity are mainly the results of the deterioration of the average quality of resources exploited, associated lags in production due to input growth, lagging innovation and technological progress, labour skills shortages, and greater environmental regulation,

In general, the trend of declining mining productivity growth is not confined to Australia. Similar trends have been found in overseas studies in various studies. The studies indicate that productivity challenges in the mining industry are an outcome of the strength of resource prices and increased extraction of lower grade ores.