
Mining Australia's productivity

The role of the mining industry in driving
down Australia's productivity growth

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The recent debate about productivity trends in Australia has revolved around the reported decline in labour productivity growth. For example, the new Secretary of the Treasury, Dr Martin Parkinson recently stated:

*Australia's productivity growth — measured in terms of both labour productivity and multifactor productivity — has slowed, and there is little reason to believe it will improve in the immediate term.*¹

Similarly, the latest Reserve Bank of Australia (RBA) Board minutes stated 'Australia's productivity growth over the past five to ten years had been weak'.²

The national decline in the trend rate of productivity growth has in turn been used to justify the need for further labour market reform, for workers to lower their expectations about future wage rises and for further microeconomic reforms.

The problem is, however, that a detailed examination of the national productivity figures makes it clear that the productivity of Australian workers is actually rising quite rapidly. In fact, the apparent decline in labour productivity vanishes once the data is adjusted for the very large *reductions* in productivity in the small, but rapidly growing, mining sector.

The problem with averages

Averages are often used to summarise complex situations. We often talk about average wages, batting averages in cricket and average monthly rainfall. But in many situations it is neither helpful, nor meaningful, to refer to the average. For example, it is rare for a weather forecast to report what the average temperature will be, either across Australia or even in a city. Minimum and maximum temperatures for each city provide a far better guide to what to expect. Similarly, if we designed door frames for people of average height then half of the population would have to stoop every time they entered a room.

The problem with the recent commentary about Australia's declining productivity is that commentators are drawing general conclusions from national averages when in fact a closer examination reveals how misleading such an approach is. While much is made of the 'two speed economy' what the data below shows is that it is productivity in the non-mining sectors of the economy that is growing rapidly while productivity in the mining sector has declined dramatically.

Underlying trends in Australia's productivity

Recent data from the Australian Bureau of Statistics (ABS) suggests that Australia's trend rate of labour productivity has declined in recent years. According to the national accounts figures from the ABS annual productivity growth slipped from 2.1 per cent in the 1990s to 1.5 per cent in the 2000s.³

¹ M Parkinson (2011) 'Sustaining Growth in Living Standards in the Asian Century' *Address to the Melbourne Institute Economic and Social Outlook Conference*, 30 June 2011
<http://www.treasury.gov.au/contentitem.asp?NavId=008&ContentID=2077>

² Reserve Bank of Australia (2011) *Minutes of the Monetary Policy Meeting of the Reserve Bank Board – 2 August 2011*, Sydney <http://www.rba.gov.au/monetary-policy/rba-board-minutes/2011/02082011.html>

³ Australian Bureau of Statistics (2010) *Australian System of National Accounts, 2009-10*, Cat no 5204.0, 29 October
[http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/556894E44C26469ECA2577CA00139858/\\$File/5204_2009-10.pdf](http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/556894E44C26469ECA2577CA00139858/$File/5204_2009-10.pdf)

While this paper does not question the accuracy of the national statistics, it does question the relevance of relying on data for average labour productivity for all industries as a tool for understanding the drivers of this trend, and, in turn, for prescribing solutions.

Since the beginning of the mining boom in the early part of the 2000s the productivity of workers in the mining industry has almost halved. That is, the Gross Value Added (GVA) per hour worked in the mining industry has declined steadily. In fact, on an annualised basis and using constant prices mining output per worker fell from \$1,214,000 per annum in 2000-01 to \$666,000 per annum in 2009-10. A major explanation of this decline is related to the fact that high commodity prices are encouraging mining companies to pursue less and less productive mine sites.

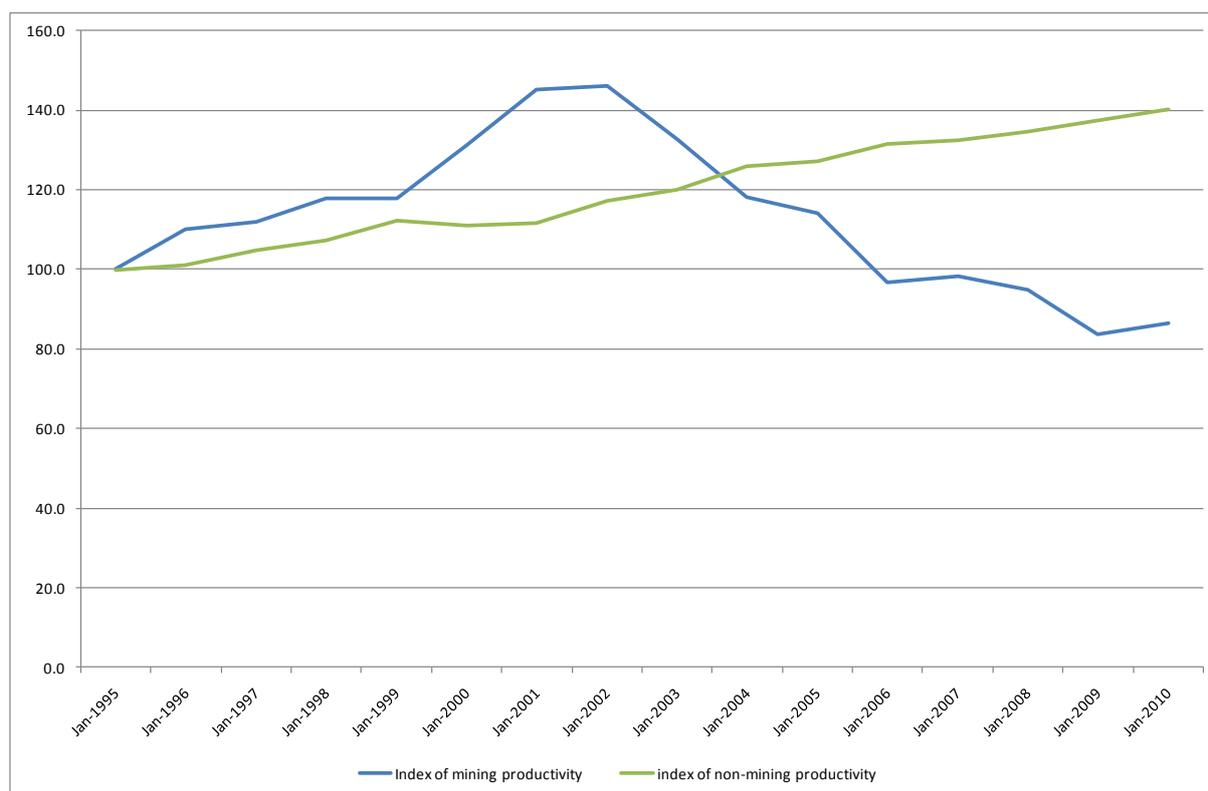
Productivity in the non-mining sector

In his speech Dr Parkinson quoted figures showing that Australia's annual productivity growth slipped from 2.1 per cent in the 1990s to 1.5 per cent in the 2000s. It is far more illuminating, however, to describe the productivity performance of the non-mining and mining sectors of the economy separately. This can be done by removing both mining output and the hours worked in the mining industry from the national figures and analysing the residual. When such an adjustment is made productivity growth actually increases from the 2.1 per cent cited by Dr Parkinson to 2.4 per cent in the 2000s in the non-mining sectors of the economy. Figure 2 provides a comparison of the trend in productivity in the mining and non-mining industries over the period 1995 -2010.

The results of this disaggregation make clear that the existing industrial relations and wage setting arrangements in Australia are not acting as an impediment to productivity growth. The measured decline in average labour productivity is being caused by the unprecedented haste with which Australia's mineral resources are being extracted. That is, high commodity prices are encouraging mining companies to exploit mineral deposits that require more energy, more capital and more labour to extract an additional tonne of output.

As more and more workers flood into the rapidly growing mining sector the adverse impact on the average rate of productivity growth will be exacerbated. It would be inequitable, not to mention ironic, if policy makers were to confuse this measured decline in average productivity with some failing on the part of employers and employees in the non-mining sector. On the contrary, if it were not for the high rate of productivity growth in the non-mining sectors then Australia's average labour productivity would be much lower.

Figure 1: Index of mining and non-mining productivity levels



It is important to note that other analysts have confirmed the analysis provided above. Gary Banks, Chair of the Productivity Commission has, for example, stated that:

A key influence on Australia's recent productivity slump has been the massive injection of labour and capital, together with more costly production and resource depletion effects, directed at satisfying minerals demand. However, this can hardly be described as a 'problem', given its flipside of higher prices, profits and national income growth.⁴

However, the implications of such observations, to date at least, appear to have been lost on many commentators and policy makers.

Policy implications

The rapid growth of the Australian mining industry has been widely discussed. While this boom has delivered some benefits to some parts of the Australian economy the macroeconomic impacts, and the distribution of those impacts, has been much less widely discussed.

The analysis presented above highlights the importance of looking past the simplistic claims made by the mining industry and disaggregating national data in order to better understand both the causes of Australia's economic performance and to design the appropriate policy responses.

⁴ G Banks (2011) 'Australia's mining boom: What's the problem?' Address to the Melbourne Institute and Social Outlook Conference, 30 June http://www.pc.gov.au/_data/assets/pdf_file/0018/110592/mining-boom-what-problem.pdf

The unprecedented haste with which mining companies are seeking to extract Australia's mineral resources is inevitably driving down the efficiency and productivity of our mining industry. As companies rush to build new mines as quickly as possible and dig deeper than they previously considered efficient the output per worker will continue to decline. As more and more people are employed in the mining industry national labour productivity growth will continue to decline.

Mining companies, and the 1.8 per cent of Australians employed in the mining industry, have been the largest beneficiaries of the windfall gains that have flowed from the rapid increases in the world price for Australian commodities. Other sectors of the Australian economy are struggling to cope with the high exchange rate and higher interest rates that are associated with the mining boom. The recent decisions by BlueScope Steel and Qantas, for example, provide clear evidence of the impact of the high Australian dollar on the ability of non-mining industries to export.

Under such circumstances it would be both inefficient and inequitable to suggest that workers in the non-mining sector should accept lower than average wage growth due to the big decline in the productivity of the mining industry.

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