THE IMPACT: AN INITIAL EMPIRICAL ANALYSIS

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Presentation to Conference
The Resources Boom: Understanding National and Regional Implications

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Key Issues

The key questions to be addressed here are:

- Through what channels does the resources boom impact on the economy?
- What is the nature and extent of that impact?
- What are the key issues for policy that emerge?

This is intended only as a preliminary analysis

The Structure of the Presentation

1. The distinctive characteristics of this resources boom
2. The channels of impact
3. The exchange rate
4. The terms of trade
5. The investment phase
6. The production phase
7. Some implications
    - How expansionary is the resources boom?
    - The shift to services
    - Generating a benefit for Australia
    - Interpreting the productivity data

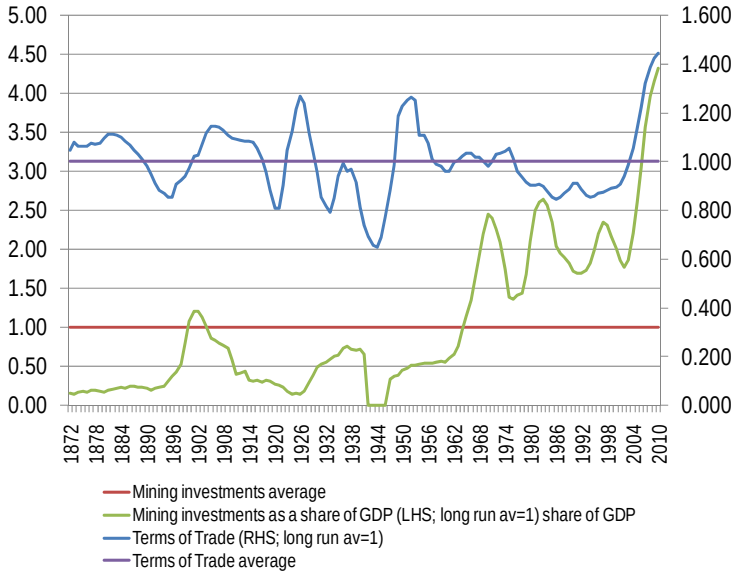
The Distinctive Features of the Current Resources Boom

Australia has had a number of resources booms, variously defined. The unique features of this boom seem to be:

- This is the only boom in which both the terms of trade and the level of resources investment as a share of GDP are at high levels (Chart 1)
- Each of these are at record levels (Chart 1)
- It takes place in a globalised world, both for capital and increasingly for labour
- Mining is now highly capital intensive

These unique features complicate the analysis

Chart 1. Terms of trade and mining investment: Historical perspective



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The Channels of Impact

The impact of the resources boom is considered as operating through four channels:

- The appreciation of the exchange rate, and the impact on import prices and the competitiveness of trade exposed industries
- The terms of trade and the impact on household income, corporate profits and wealth
- The higher demand for domestic goods and services in the investment phase
- Output and exports in the production phase

The appreciation of the exchange rate

The broad facts are clear:

- Since March 2002 the $A has increased by 90% relative to the $US and by 46% relative to the TWI
- Over this period export prices (in $A) have increased by about 50% and import prices have fallen by about 14%
- Since March 2002 the volume of exports as a share of GDP has fallen slightly, while imports as a share of GDP has risen by 8.5 percentage points
- In volume terms, exports have risen by 25% over that time, while imports have doubled.

Chart 2. $US and trade weighted index exchange rates, 2002-2011

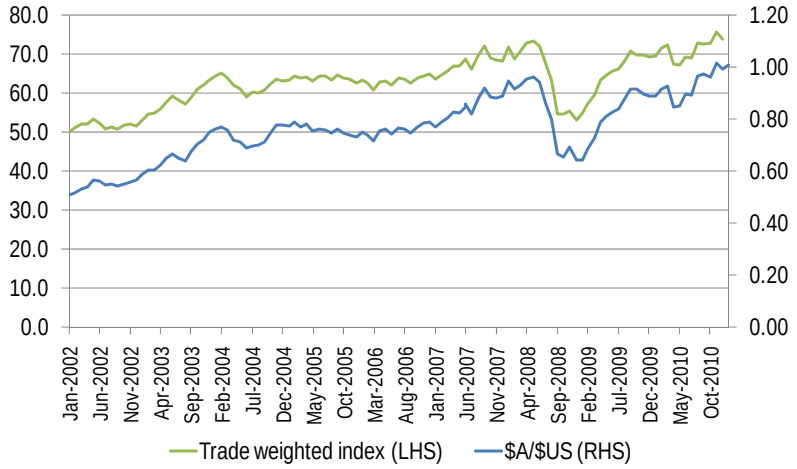


Chart 3. Export prices, import prices and the terms of trade (index March 2002 = 100)

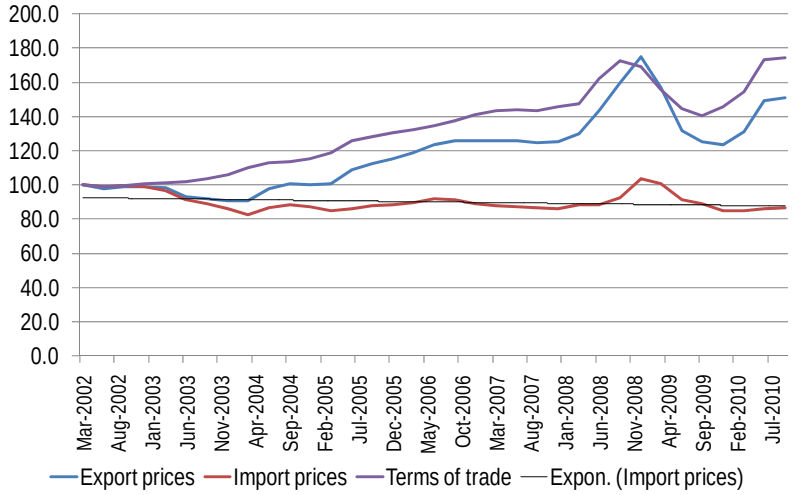


Chart 4. Actual and relative import prices (March 2002 = 100)

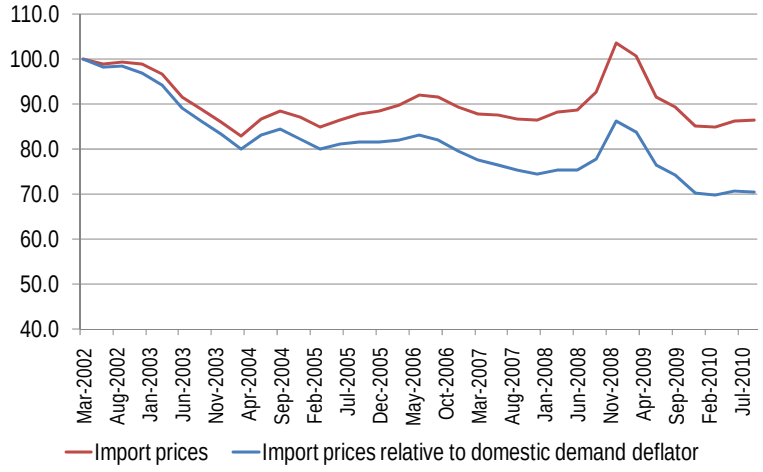


Chart 5. Import and export volumes as a share of GDP, 1959 to 2010

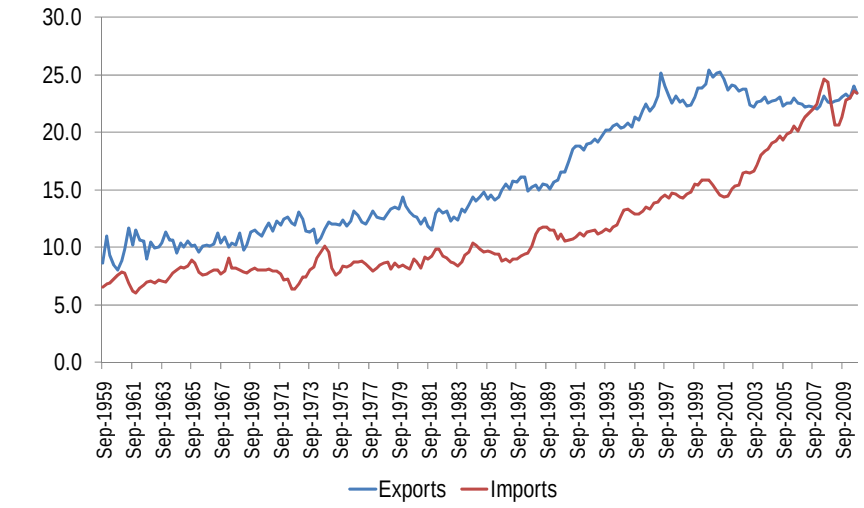
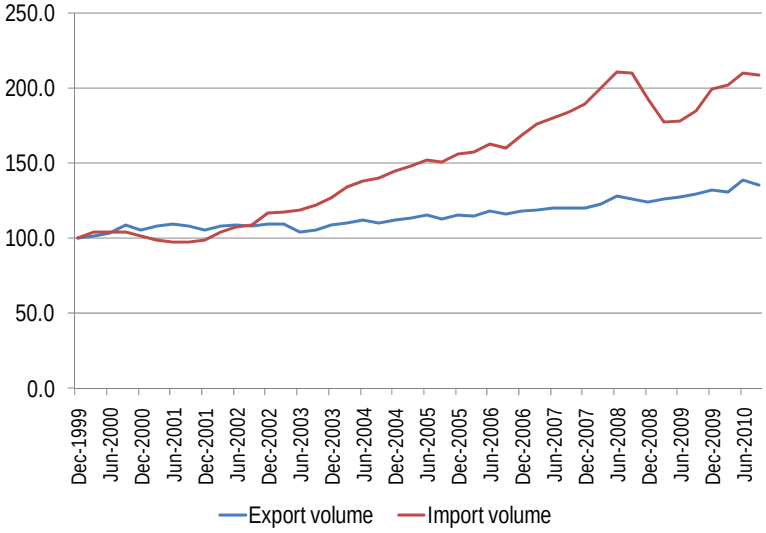


Chart 6. Export and import volumes (December 1999 = 100)



The appreciation of the exchange rate

The effect of changing export and import prices will be analysed below, but the shift of about 9 percentage points of GDP into net import is a strong restraining influence on the economy

This includes:

- Trade exposed manufacturing and related sectors
- Key service sectors, such as tourism and international education
- The extent to which resources boom investment can be meet from domestic supplies

The terms of trade – impact on household income

Many factors affect household incomes, but there is clear evidence of some increase in real household incomes above trend, as a result of lower import prices. These effects are however modest.

- Real household disposable income per capita (deflated by the personal consumption deflator) was about 4% above the post 1993 trend by September 2010
- This is due more to non-wage income components (such as property income) than to employee compensation

Chart 7. Real household disposable income per capita, 1973-2001

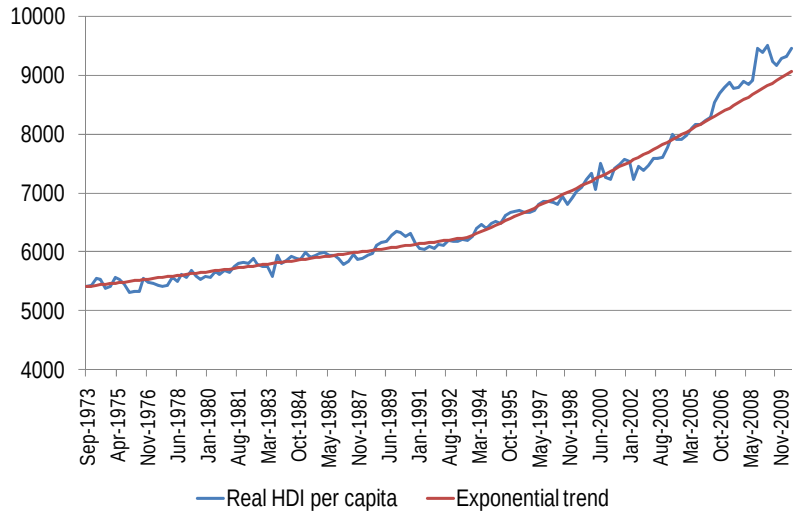


Chart 8. Real employee compensation, per capita and per employee (December 1995 = 100)

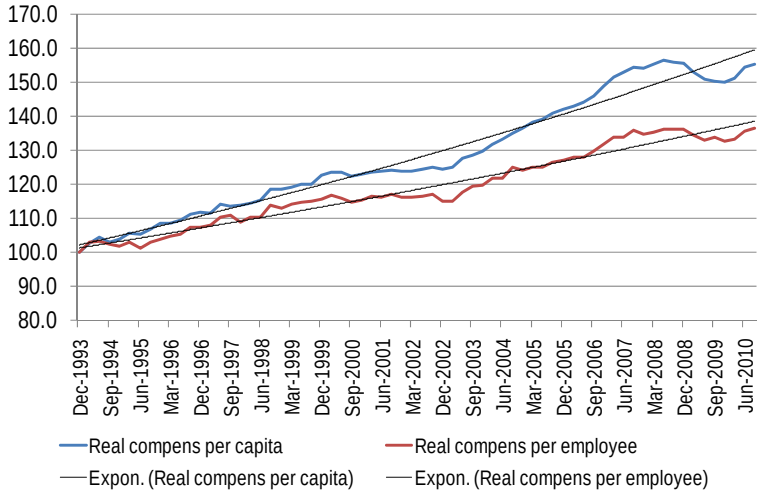
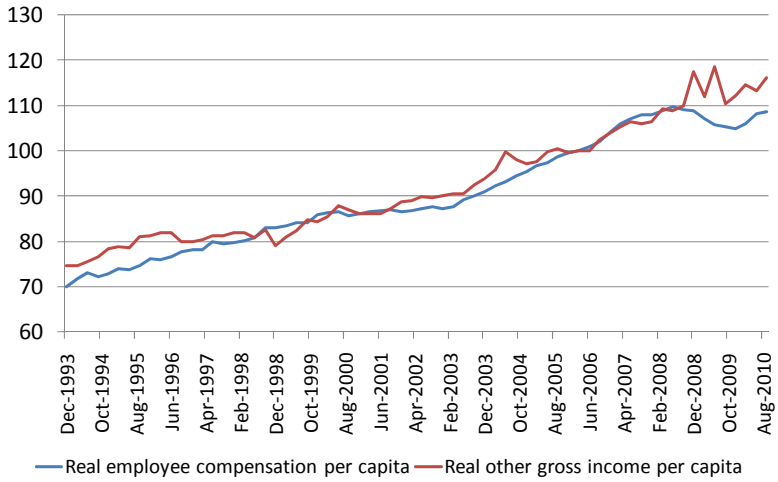


Chart 9. Employee compensation and other gross household income, real terms December 1993 = 100)



The terms of trade – impact on company profits and asset values

The share of gross domestic income going to corporate profits has risen sharply since 2000, and especially since 2007:

- GOS share of GDI up from 30% in 2000 to about 35% in 2010
- About 3 percentage points of this rise has come from the fall in the employee share
- This has been driven by the surge in mining GOS, from $26 billion in 2003-04 to about $80 billion in 2009-10
- The mining share of total GOS has risen from 7.5% in 2003-04 to 15% in 2009-10

These profits figures has had a major impact on share markets and asset values

Chart 10. Employee and company share of gross domestic income, 2000-2010 (%)

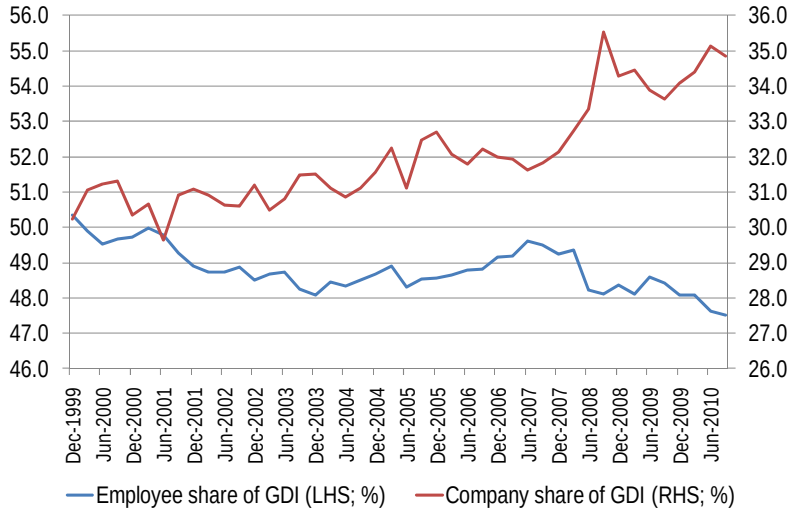


Chart 11. Employee compensation and gross operating surplus, mining ($ billion)

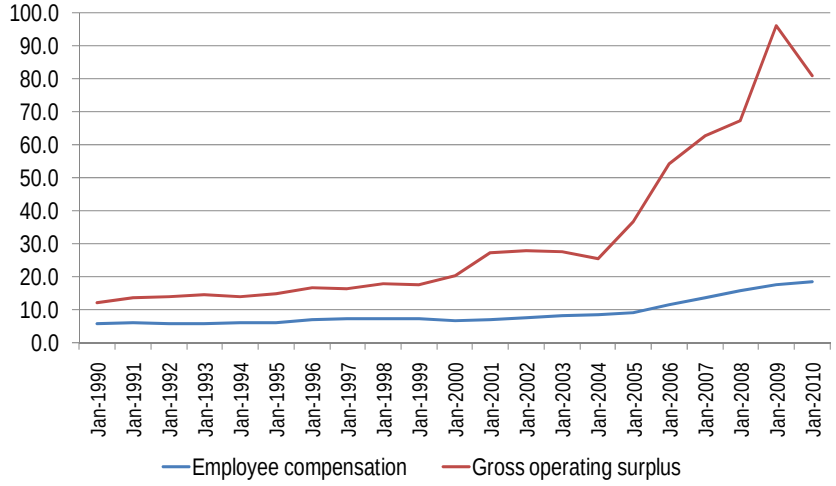


Chart 12. Mining shares of national total: Employee compensation and gross operating surplus (%)

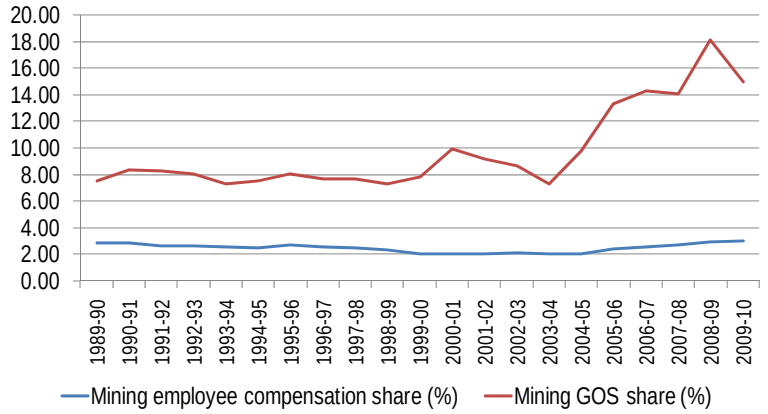


Chart 13. Market capitalisation of domestic listed equities ($billion)

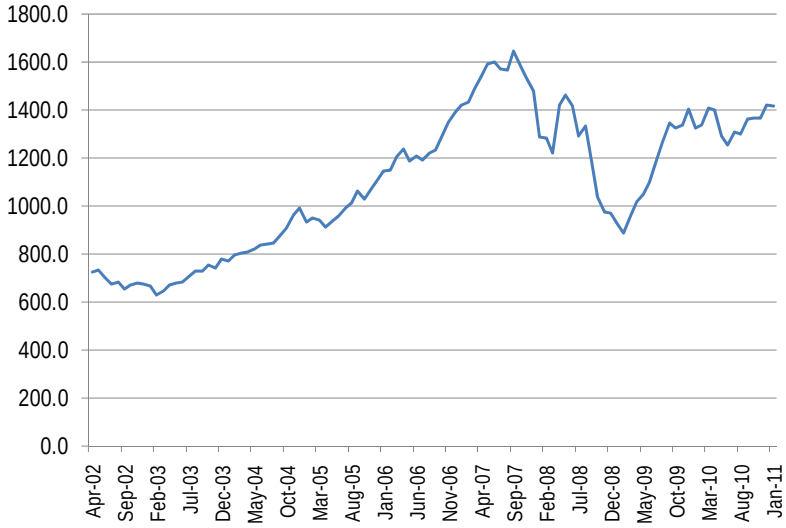
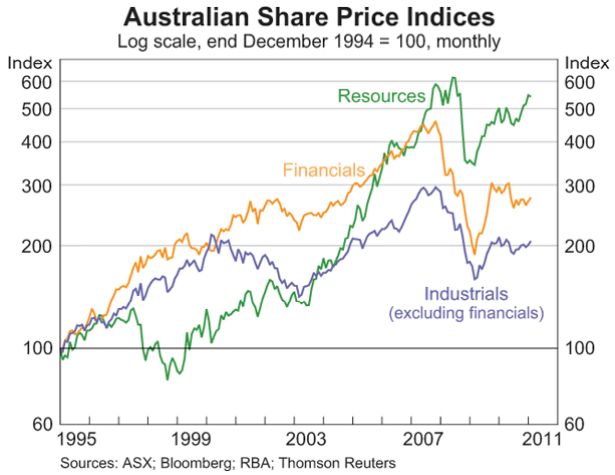


Chart 14. Australian and world share prices indices, log scale (end December 1994 = 100), monthly



Source: RBA 2011, Share Markets, at http://www.rba.gov.au/chart-pack/share-markets.html

The Investment Stage

Mining investment is currently about 4% of GDP and rising – could reach up to 6% of GDP. These are very high figures historically, but need to be seen in a broader context :

- Partially offset by downward investment trends in other sectors (eg manufacturing)
- High levels of use of imported supplies of goods and services, intensified by exchange rate movements
- The mix of construction, equipment and services
- The substantial reliance on the use of short-stay migrants

Chart 15. Share of gross fixed capital expenditure, mining and manufacturing, 1960 to 2010 (% of total)

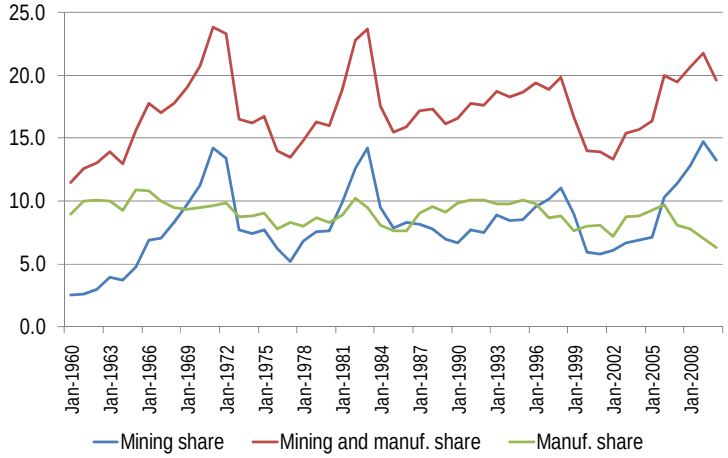


Chart 16. Composition of mining gross fixed capital expenditure (% of total)

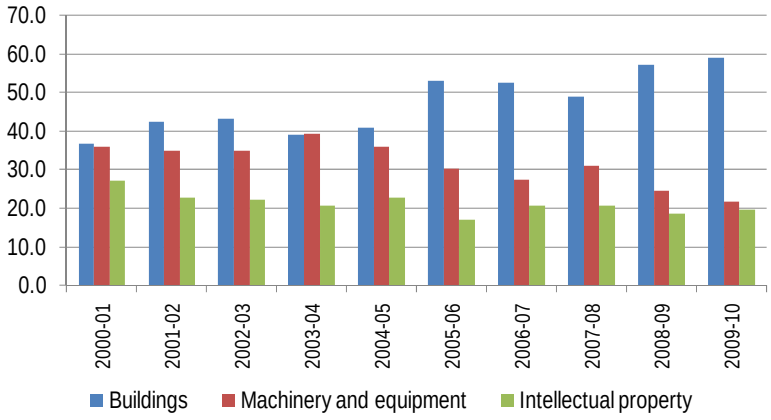
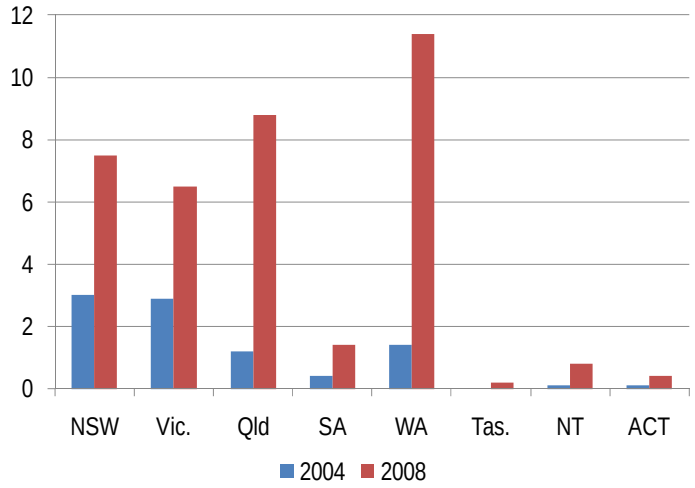


Chart 17. Net overseas migration: long-stay (subclass 457) visas(b), Australia, 2004 and 2008 ('000)



The Production Stage

Limited comments here:

- Hard to estimate the scale of forthcoming increases in mining output, but they must be very substantial
- Production uses few labour or other resources, with most value flowing to operating surplus
- The production stage will be more like the terms of trade phase, although future prices are difficult to predict

Some Implications of the Analysis

Four implications of the analysis to date will be briefly discussed:

- How expansionary is the resources boom?
- The shift to services
- Generating a benefit for Australia
- Interpreting the productivity data

How expansionary is the resources boom?

To make an overall assessment of the expansionary impact of the resources boom we need to balance four factors:

- The impact of falling import prices on household incomes
- The adverse impact on trade exposed goods and services industries
- The impact of higher profits on Australian incomes and asset values, after taking account of high levels of foreign ownership
- The net investment impact, after taking account of increased foreign supplies of goods, services and labour

It should also be noted that the continuing (?) rise in the $A limits the impact on inflation

The shift to services

Several features of the boom imply a shift to services within Australia, and this is observed in the output and employment data:

- The strong demand for construction, professional and other services from mining investment
- The reduction in the cost of tradeable goods making room for increase spending on services
- The sharp increase in assets values of higher income earners, facilitating increased spending on services

Generating a benefit for Australia

It is clear that increased revenues from the resources boom will mainly flow to the company's involved, many of which are largely or completely foreign owned. The level of foreign ownership may increase over time as large gas projects come on stream. There seems to be a strong case for:

- An effective resources rent tax, to provide increased benefits to Australians
- Effective local content policies to maximise direct benefits to local suppliers

Understanding labour productivity

Such a major structural change make the data difficult to interpret, and easy to misinterpret.

A current example is the current debate about Australia's productivity slowdown

It is likely that this can largely be explained by

- Sharp productivity changes in mining and electricity, gas and water
- A shift to increasing hours worked in services with low recorded productivity

Chart 18. Labour productivity and multi-factor productivity, 1983-84 to 2009-10

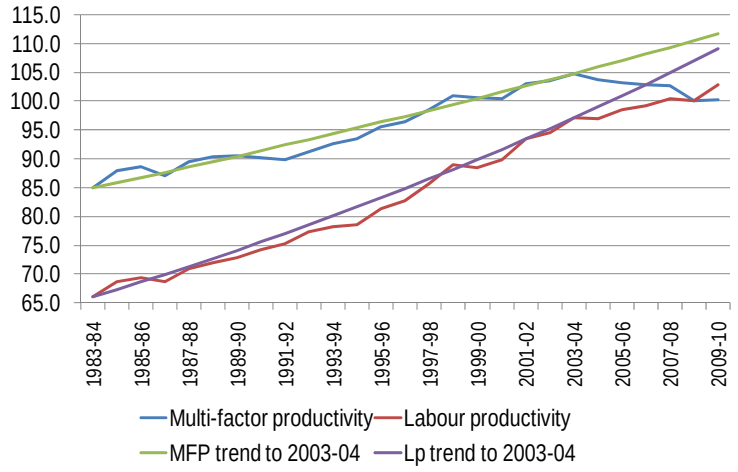


Chart 19. Labour productivity indexes, selected industries, 198-86 to 2009-10

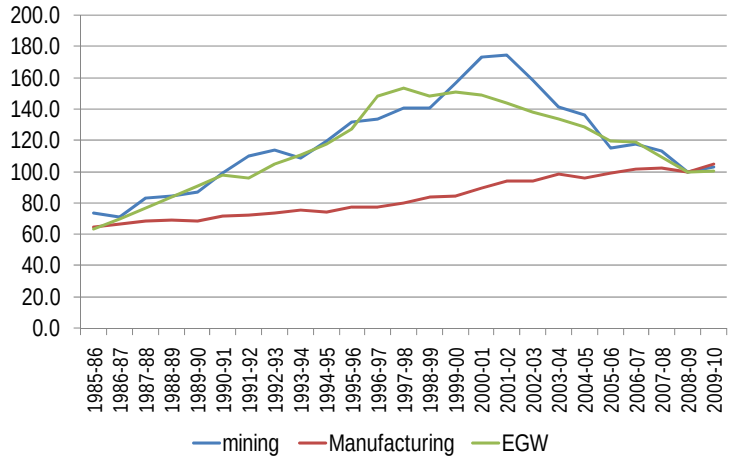


Chart 20. Labour productivity excluding mining and EGW, 1989-90 to 2009-10

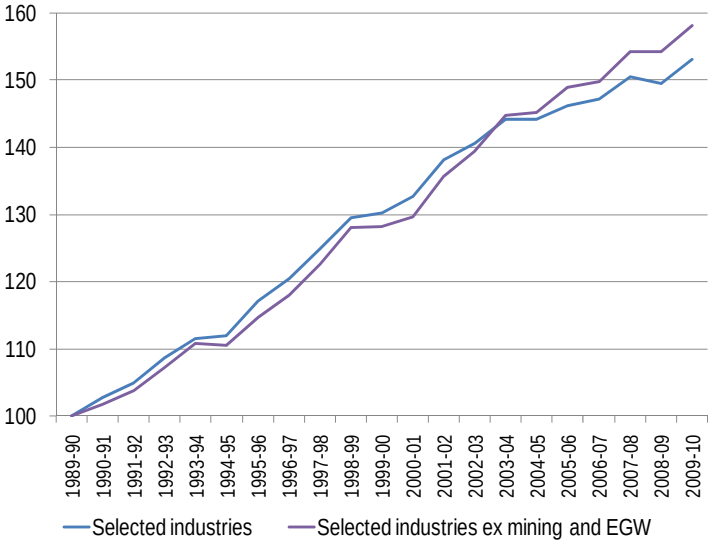


Chart 21. Labour productivity indexes, selected service industries, 1994-95 to 2009-10

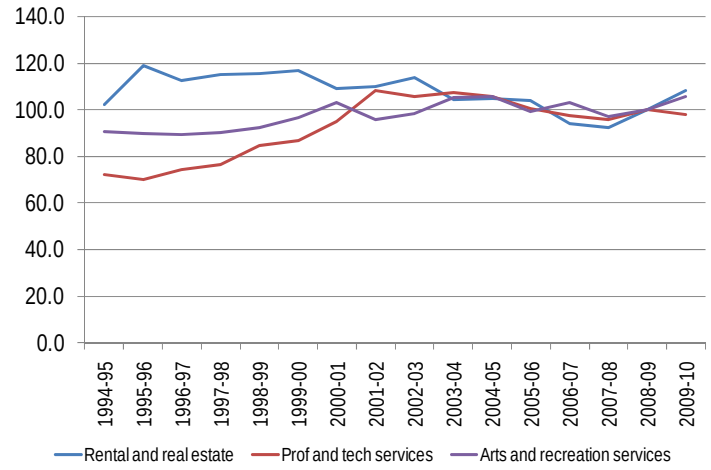
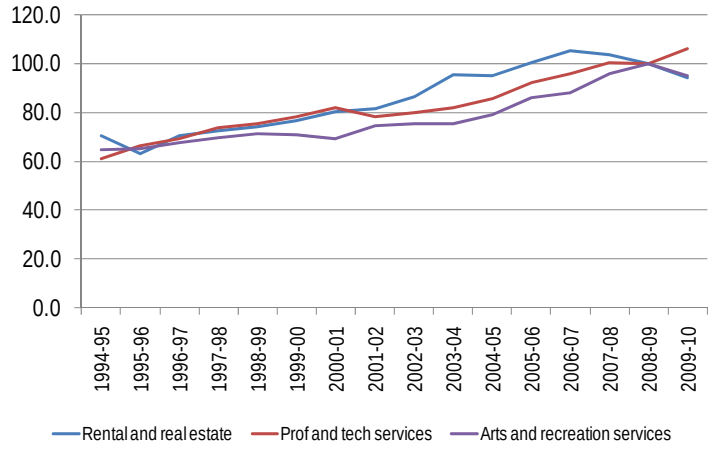


Chart 22. Hours worked in selected industries (indexes 2008-09=100)



Conclusions I

The impact of the boom is felt through four main channels:

- The impact of lower import prices on household and other incomes
- The impact of higher export prices and higher output on company profits, with consequent asset, wealth and demand effects, net of a substantial leakage overseas
- The direct impact of mining investment on the demand for goods and services, net of an increasing propensity to import
- The effect of a rising exchange rate on the competitiveness of local trade exposed goods and services industries

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