

# FUTURE DIRECTIONS IN AUSTRALIAN PRODUCTIVITY MEASUREMENT

**MARCH 2006** 



### Work in progress

- Industry MFP.
- Human capital.
- Labour input measures.
- Wages, productivity and unit labour costs.
- Capital input measures.



### **Labour inputs**

- Industry level hours worked measures, are currently published as an index.
- The index is base on the actual hours worked, which is the product of average hours worked per employee and total employment.
- Currently using the Labour Force Survey estimates of industry employment.
- Investigating the use of business survey based data on employment.
- Developing improved aggregate hours worked estimates.



### Wages, productivity and unit labour costs

- Investigating the links between wages and productivity.
- Distribution of productivity improvements, focussing on wages.
- Examine relationships between compensation of employees, unit labour costs and the labour price index.
- theoretical links.
- measurement issues.
- Focus on economy-wide and non-farm aggregate measures of unit labour costs.

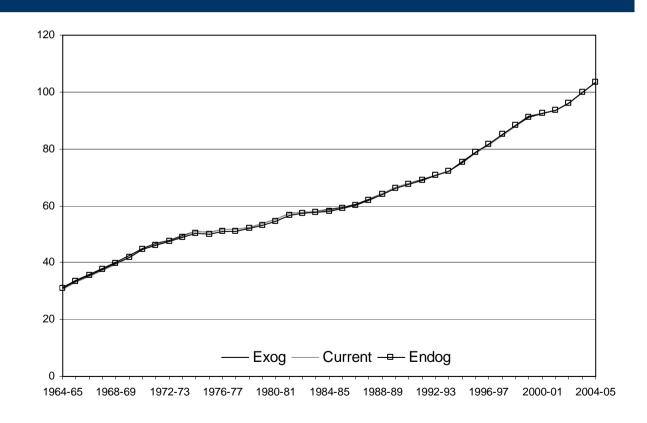


#### Issues with the rate of return

- The use of the endogenous rate requires that several assumptions are upheld, including constant returns to scale, perfect markets, and that all capital inputs have been captured and accurately represent all non-labour income.
- Increased potential for negative user costs.
- Same rate of return for all asset types within an industry.
- An alternative approach is to use an exogenous rate of return.
- What rate?
- Ex-ante or ex-post?
- Reconciliation of capital income and GOS.

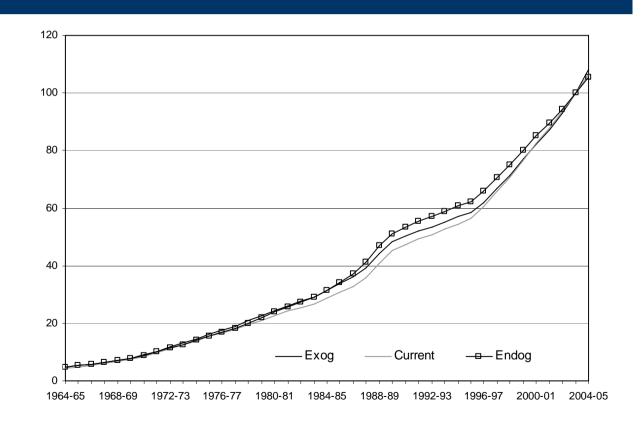


# Manufacturing capital services (2003-04 = 100)





# Finance & insurance capital services (2003-04 = 100)





#### **Future work**

- Aggregating to the market sector from industry MFP.
- Growth cycles and industry MFP.
- Splitting gross mixed income for labour and capital income shares at the industry level.
- Splitting taxes by industry.
- Measuring MFP for the Property & business services industry.
- Improving non-market sector output measures.
- Productivity measurement database.
- Business longitudinal database.



### Business longitudinal database

- Panels of 3000 mainly small/medium businesses lasting for 5 years each.
- A new panel commences annually.
- Contains a range of characteristic/activity indicators.
- Contains financial data and employment data.
- Initial release of Confidentialised Unit Record File CURF in late 2006.
- Issue of large businesses, as the focus is on SMEs.



#### Business longitudinal database (cont)

- Data enables crude labour productivity measures, eg IVA to employment or wages.
- Links to innovation:
- use of IT; and
- exports.
- No data on capital stock at this stage.
- Can analyse capacity-cause-effect by type of business.
- Capacity in the work program to add/change topics.