WORKING TOGETHER *THE FACTS*

PRODUCTIVITY

WHAT IS PRODUCTIVITY?

Productivity is the ratio of outputs produced to inputs used, including labour, capital, resources and technologies. It measures how efficiently all of our inputs are allocated, combined and utilised to produce all of our outputs. Productivity increases if our outputs grow faster than our inputs (or shrink more slowly).

Multifactor productivity measures the output produced per unit of combined inputs of labour and capital. Labour productivity measures the output produced per unit of labour input (e.g. the hours that are worked).

Productivity growth is notoriously difficult to measure or to ascribe to individual factors, especially at an industry or economy-wide level. New technologies and investments can take several years to show up in the form of measurable productivity improvements. For these reasons, the change in productivity over a number of years (a productivity 'cycle') is generally considered to be a better indicator than in a single year.

PRODUCTIVITY GROWTH IS IN EVERYONE'S INTERESTS

Productivity growth is in everyone's interests because productivity is the main determinant of real growth in incomes (wages and profits) within businesses, across industries and across the whole economy.

As Professor Paul Krugman, Professor of Economics and International Affairs at Princeton University in the USA famously said: *'Productivity isn't everything, but in the long run it is almost everything*'.

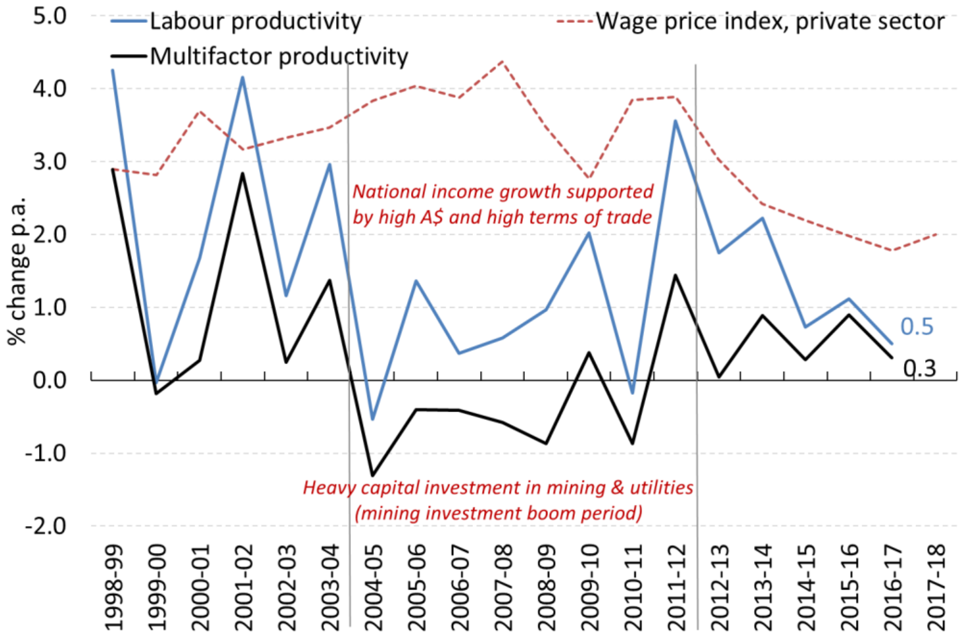
AUSTRALIA'S NATIONAL PRODUCTIVITY GROWTH IS RELATIVELY WEAK

The ABS' estimates of national productivity growth show that the most recent productivity cycle period from 2012 to 2017 (as identified by the ABS) is a period of decelerating productivity growth in Australia (chart 1).

Multi-factor productivity growth over this five-year period averaged 0.5% p.a., which is very close to the 0.4% p.a. growth observed in real wage growth. Labour productivity growth averaged 1.2% p.a. over this same period, which reflects ongoing capital investment per hour worked (e.g. in new technologies) during this period.

The Reserve Bank of Australia estimates that slower productivity growth accounted for about one quarter of Australia's deceleration in nominal wages between 2009 and 2017, with low inflation and ongoing labour market 'spare capacity' (that is, unemployment plus underemployment) accounting for much of the rest.

Chart 1: Australian productivity growth and nominal private-sector wages growth, 1998-99 to 2017-18



Source: ABS *Wage Price Index;* ABS *Estimates of multi-factor productivity, 2016-17.*

There are many theories about why productivity growth has slowed over the past decade in Australia and globally. The presence of a global trend toward slower productivity growth suggests some global causes. The global disruptions caused by the Global Financial Crisis has definitely had an impact since 2007, since productivity growth cycles tend to be related to economic growth cycles.

BUSINESSES WITH HIGHER PRODUCTIVITY CAN PAY HIGHER WAGES

Businesses with high productivity are able to pay higher wages. In contrast, businesses with lower productivity have less capacity to pay higher wages.

As mentioned above, productivity growth is in everyone's interests because productivity is the main determinant of real growth in wages.

Data sources

ABS, *Estimates of Multifactor Productivity 2016-17*, January 2018.

ABS, *Wage Price Index,* June 2018.

Ai Group 2018, *Recent Wages Growth in Australia: Trends and Causes.*

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Productivity Commission 2017, *5 Year Productivity Review: Shifting the Dial,* Aug 2017.