



Quarterly productivity bulletin – September 2024

Key points

- * **A year has passed since the ‘COVID-19 productivity bubble’ and Australian productivity growth appears to have reverted to the same stagnant pattern as before the pandemic, despite the very different economic conditions.**
- * **Labour productivity declined by 0.8% for the whole economy in the June 2024 quarter (an increase of 0.5% over the 12 months to June 2024).**
 - Growth in hours worked (1.1%) outpaced growth in output (0.2%) resulting in a decline in labour productivity.
 - Labour productivity decreased in both the market sector (-0.7%) and the non-market sector (-0.9%).
- * **Hours worked has regained momentum after two quarters of negative growth in the September and December 2023 quarters, suggesting the labour market remains tight.**
 - Hours worked increased as the number of people employed increased by 0.8%, and hours worked per worker increased by 0.3%. Administrative and support services contributed to largest increase in hours worked growth, followed by retail trade and education and training.
- * **Labour productivity increased in half of the market sector industries.**
 - Labour productivity grew the most in arts and recreation services (7.6%) and electricity, gas, water and waste services (6.1%). In contrast, the largest falls were in administrative and support services (-4.2%) and retail trade (-3.6%).

This quarterly productivity bulletin describes the most recent trends in labour productivity from the June 2024 quarter National Accounts (released in September 2024). Productivity data and their revisions are included in the accompanying appendix.

Whole economy productivity

Back to where we started

A year has passed since the ‘COVID-19 productivity bubble’¹ burst, and it appears that Australian productivity growth has reverted to a similar stagnant pattern that was observed in the 5 years leading up to the pandemic (figure 1). The similar productivity growth is occurring within a different economic environment, with near record high labour force participation, low unemployment and higher interest rates relative to the 5 years leading up to the pandemic.

The Productivity Commission (PC) is planning to release a research paper ‘*Productivity before and after COVID*’ in early 2025, which will unpack the factors which led to the sharp rise and subsequent decline in labour productivity observed during the COVID-19 pandemic, as well as longer-term trends in labour productivity.²

Labour productivity fell in the June quarter

Labour productivity growth fell by 0.8% for the whole economy in the June 2024 quarter. Growth in hours worked (1.1%) outpaced growth in output (real Gross Domestic Product (GDP)) (0.2%) resulting in a decline in labour productivity. Despite the decrease over the June quarter, labour productivity still increased by 0.5% over the 12 months to June 2024 (ABS 2024b). Labour productivity currently sits at about the 2015–2019 average level (figure 1).

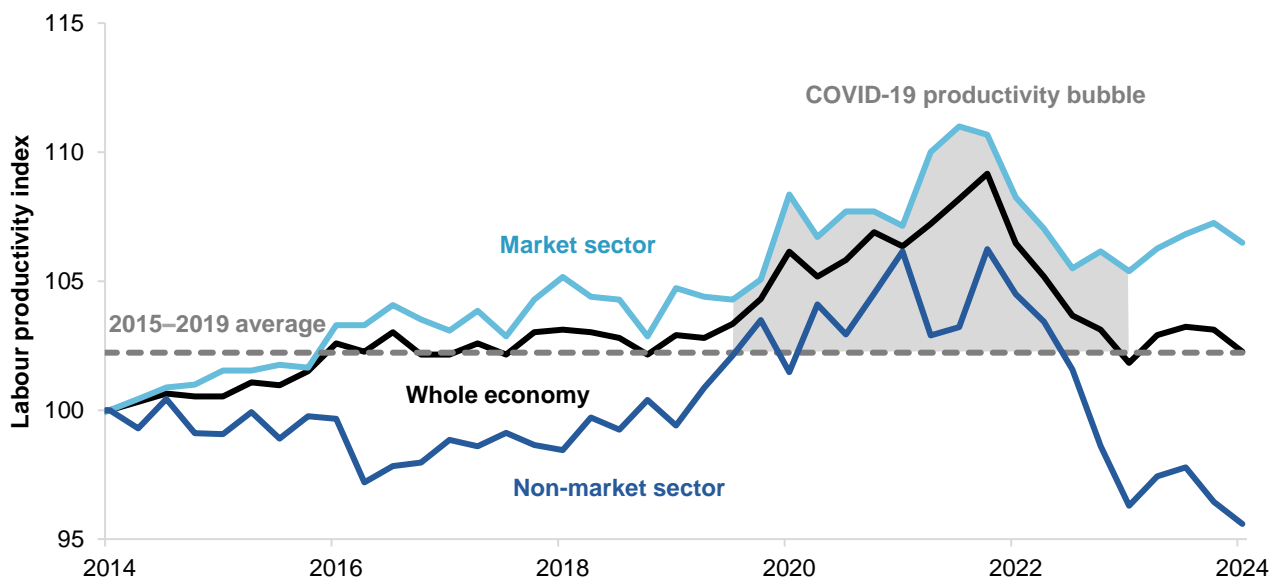
In the June 2024 bulletin, the PC noted³ that since March 2023 productivity growth in the non-market sector was well below productivity growth in the market sector (PC 2024, p. 2). In the June 2024 quarter, both the market and the non-market sectors experienced a similar decline in labour productivity (figure 1). The market sector registered a 0.7% decrease in labour productivity (as a 0.9% increase in hours worked outpaced a 0.3% increase in Gross Value Added (GVA)), while the non-market sector experienced a 0.9% decrease in labour productivity (as a 1.4% increase in hours worked outpaced a 0.5% increase in GVA).

¹ The Australian productivity bubble describes the rapid rise and decline in productivity as a result of the COVID-19 pandemic. The PC has previously hypothesised that labour productivity rose sharply as workers temporarily shifted away from relatively low productivity sectors towards high productivity sectors due to lockdown restrictions, before declining as restrictions eased (PC 2023, pp. 5–6).

² More details can be found on the [PC’s website](#).

³ When combined these sectors make up the whole economy. The market sector refers to industries where prices are set in markets. The non-market sector includes industries that provide goods or services free of charge, or sold at highly subsidised prices. The three non-market sector industries include education and training, health care and social assistance, and public administration and safety. The most accurate estimates of productivity are for the market sector where it is easier to measure output based on prices. The non-market sector also has lower average productivity relative to the market sector.

Figure 1 – Whole economy productivity declined in the June 2024 quarter
Labour productivity (index, June 2014=100) between June 2014 and June 2024



Source: PC estimates using ABS 2024, *Australian National Accounts: National Income, Expenditure and Product*, June 2024, Cat. No. 5206.0., tables 1 and 6, and ABS 2024, *Labour Account Australia*, June 2024, Cat. No. 6150.0.55.003, industry summary table.

Hours worked grew strongly, but output did not keep pace

Hours worked has regained momentum over the past two quarters, after two quarters of negative growth in the September and December 2023 quarters. Hours worked increased by 1.1% in the June 2024 quarter, as the number of employed persons increased by 0.8% and employed people worked on average 0.3% more hours. Over the 12 months to June 2024, hours worked increased by 0.5% (ABS 2024c).

Strong growth in hours worked in the June 2024 quarter suggests that the labour market remains tight, although conditions have softened since 2022-23 (ABS 2024c). Job vacancies fell 3.5% during the quarter, with the proportion of vacant jobs at its lowest rate in more than three years (ABS 2024c). Further, there has been a slowing in the Wage Price Index from its peak in September 2023, suggesting that competition for labour could be easing (ABS 2024b).

Growth in hours worked was primarily driven by three industries in the June 2024 quarter. Administrative and support services contributed the largest increase in hours worked (0.3 percentage points), followed by retail trade (0.3 percentage points) and education and training (0.2 percentage points). In contrast, the health and social assistance industry – the most significant contributor to hours worked across the whole economy in recent years – had its smallest increase in hours worked (0.6%) since March 2022.

Output growth did not match pace with the increase in hours worked, with real GDP growing by only 0.2% in the June 2024 quarter. GDP growth was driven by government expenditure (contributing 0.3 percentage points), while weak household consumption and private investment detracted from growth (contributing -0.2 percentage points) (ABS 2024b). Although output growth increased, Australia experienced its 6th consecutive quarter of negative GDP per capita growth (ABS 2024a), which has fallen 1.6% since December 2022.

Industry-level productivity

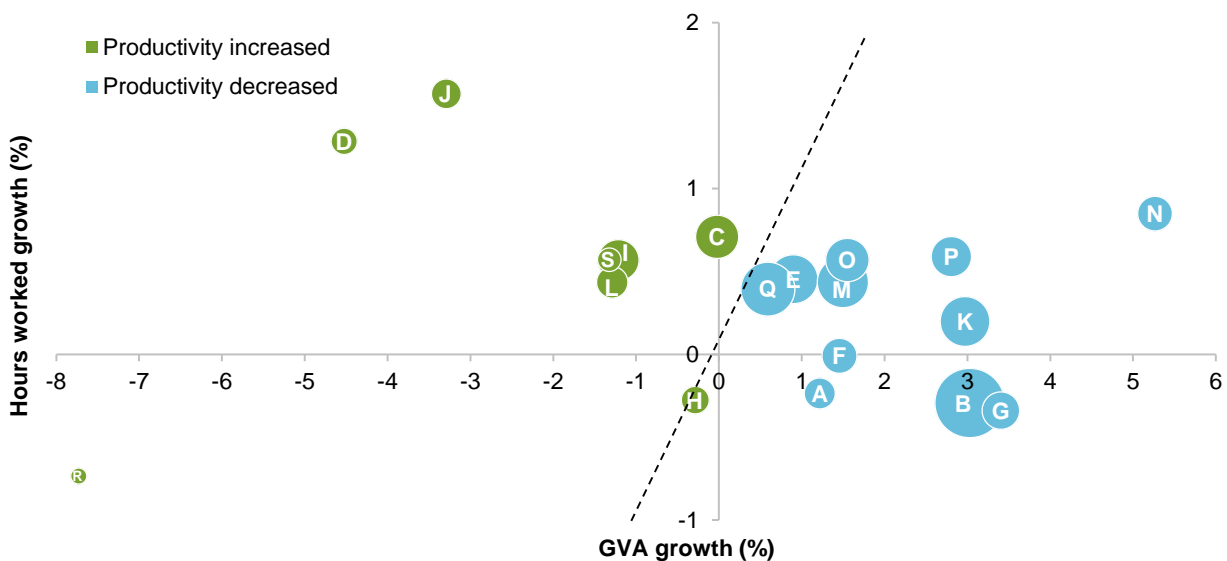
Half of the 16 market sector industries experienced positive labour productivity growth in the June 2024 quarter. Productivity grew the most in arts and recreation services (7.6%) and electricity, gas, water and waste services (6.1%). In contrast, the largest falls in labour productivity were in administrative and support services (-4.2%) and retail trade (-3.6%). As productivity declines occurred in relatively larger industries, total market sector labour productivity declined by 0.7%.

All industries had a negative relationship between hours worked and labour productivity growth (figure 2).

Three industries drove the decrease in total labour productivity

Three industries primarily drove the 0.8% decrease in labour productivity for the whole economy. The retail trade industry contributed most to the decrease (-0.3 percentage points), followed by administrative and support services (-0.3 percentage points) and education and training (-0.2 percentage points). This was offset by small increases in labour productivity in the arts and recreation services (0.1 percentage points), transport, postal and warehousing (0.1 percentage points) and information media and telecommunications (0.1 percentage points). The market and non-market sectors contributed -0.4 and -0.3 percentage points respectively to the total decline in labour productivity.⁴

Figure 2 – All industries had a negative relationship with hours worked and productivity
Growth in gross value added (chain volume) and hours worked^a by industry, June 2024 quarter



a. Hours worked by industry uses the hours actually worked by industries in the quarterly labour account. Bubble sizes indicate relative GVA weights of the industry in the December 2023 quarter. Industries are represented by their Australian and New Zealand Standard Industrial Classification (ANZSIC) letter code. A=Agriculture, forestry and fishing, B= Mining, C= Manufacturing, D=Electricity, gas, water and waste services, E=Construction, F= Wholesale trade, G=Retail trade, H=Accommodation and food services, I=Transport, postal and warehousing, J=Information, media and telecommunications, K=Financial and insurance services, L= Rental, hiring and real estate services, M=Professional, scientific and technical services, N=Administrative and support services, O=Public administration and safety, P=Education and training, Q=Health care and social assistance, R=Arts and recreation services, S=Other services.

Source: PC estimates based on ABS 2024, *Australian National Accounts: National Income, Expenditure and Product*, June 2024, Cat. no. 5206.0, table 6, and ABS 2024, *Labour Account Australia*, June 2024, industry summary table.

⁴ The remaining 0.1 percentage point decline is attributable to rounding.

Revise, revise and revise again

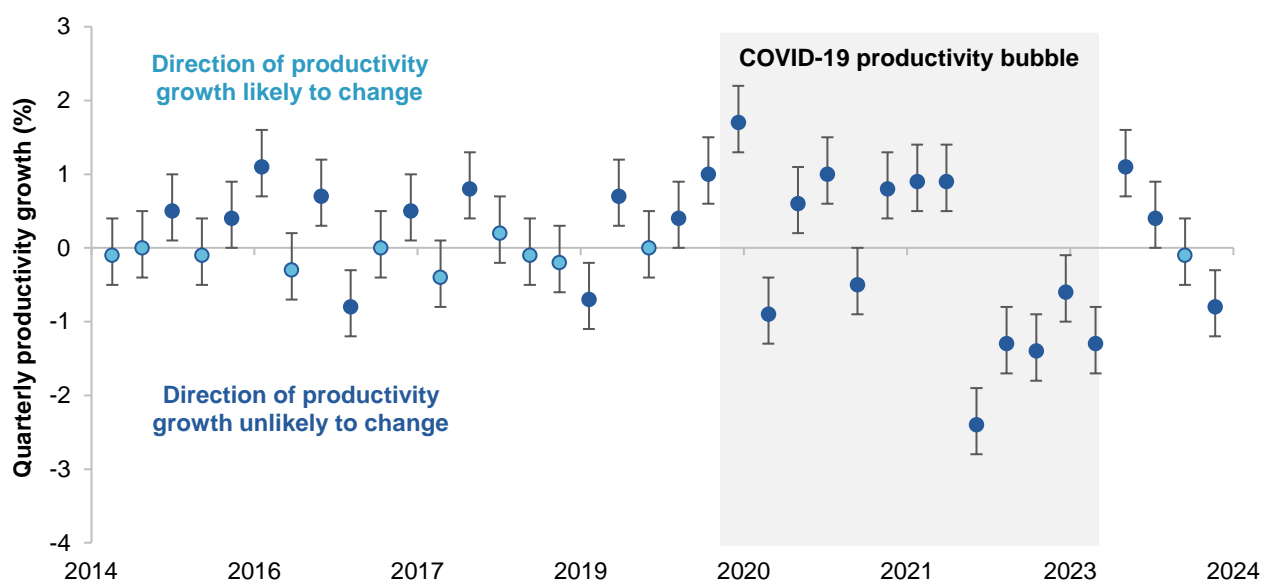
Quarterly data can be volatile and is subject to revisions in subsequent ABS publications. This warrants caution in interpreting the meaning behind the numbers in any particular quarter.

The PC examined the extent to which quarterly productivity data is revised (paper forthcoming). The paper found that productivity estimates do not approach a final or ‘true’ value – they are constantly being revised.

Applying confidence intervals can help inform the reliability of the quarterly estimates. For example, approximately 70% of productivity estimates fall within -0.4 to 0.5 percentage points of the original quarterly estimate three years after the original release⁵. Figure 3 shows the 70% confidence intervals for quarterly labour productivity since 2014.⁶ Applying such intervals can change the direction of productivity growth from previous releases – for instance, smaller productivity increases (or decreases) may be revised at a later date to become productivity decreases (or increases).

The research paper also shows that – consistent with ABS advice – using estimates over a longer time span (such as looking at growth through the year) can reduce the volatility of estimates.

Figure 3 – Revisions to productivity estimates can change the direction of growth
Quarterly productivity growth with 70% confidence intervals, June 2014 to June 2024



a. Confidence intervals for revisions for each quarter since the original release were estimated using a non-parametric cumulative density function that uses percentiles within the data. That is, the 15th and 85th percentile of the sample data can provide an estimate of the 70% confidence interval for revisions under the assumption that future revisions will follow the same process as previous revisions. See the PC’s forthcoming paper *Revisions to quarterly labour productivity growth* for more details.

Source: PC estimates using ABS 2024, *Australian National Accounts: National Income, Expenditure and Product*, June 2024, Cat. No. 5206.0., table 1.

⁵ The size of the confidence interval does not change significantly after three years.

⁶ It is worth noting that the direction and magnitude of the revisions are conditional on the original estimate (for example, a larger quarterly estimate is likely to be subject to a larger revision). For illustrative purposes, a consistent 70% confidence interval has been applied in figure 3.

References

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An appropriate reference for this publication is:

Productivity Commission 2024, *Quarterly productivity bulletin – September 2024*, PC productivity insights, Canberra.

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