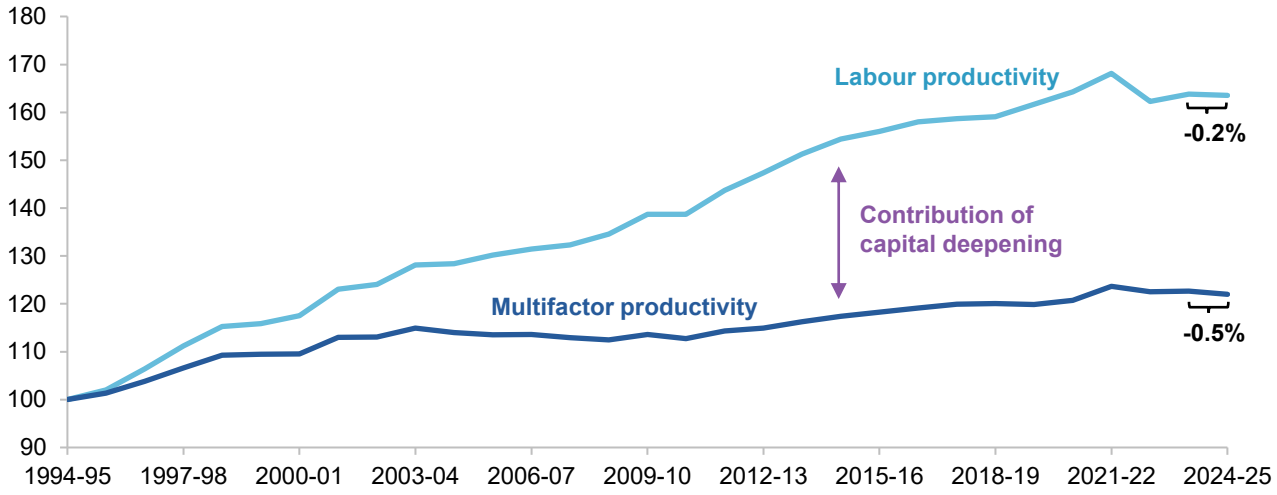
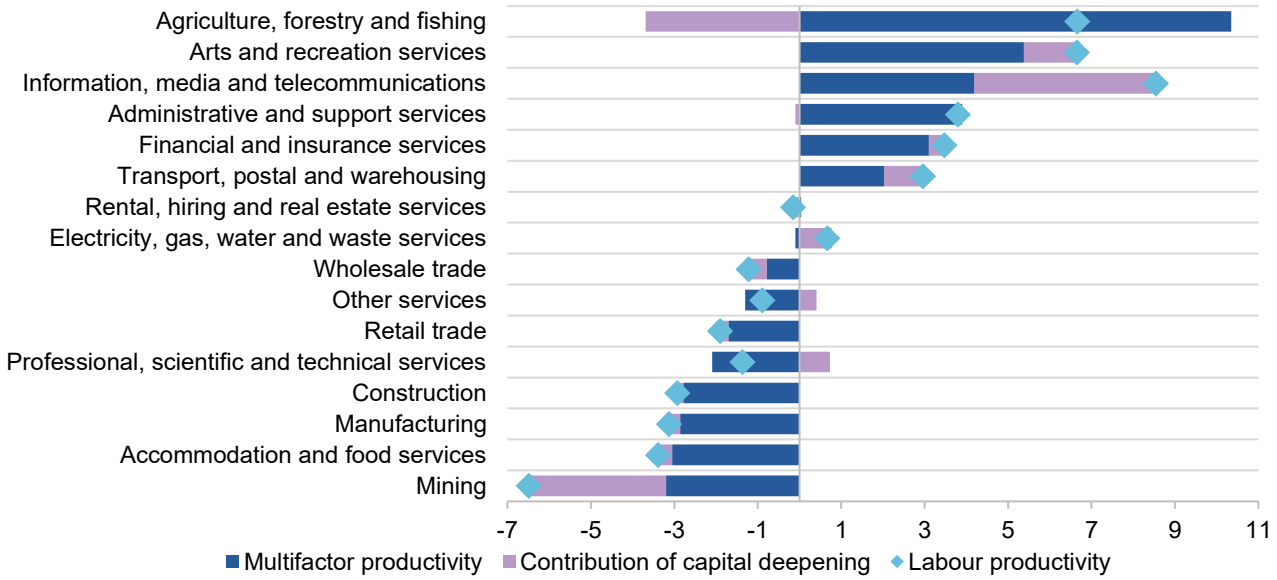
Australian Government
Productivity Commission

Annual productivity bulletin 2026

Market sector productivity (index, 1994-95 = 100)



Productivity growth by industry, 2023-24 to 2024-25 (percentage change)



These figures will differ slightly from the ABS estimates as the PC reports productivity growth using percentage changes whereas the ABS reports productivity growth using natural log growth.

Source: PC estimates based on ABS (2026).

Update from Alex Robson
Deputy Chair, Productivity Commission

Multifactor productivity (MFP) is a measure of how well labour and capital inputs are combined to produce outputs and is a key determinant of growth in income and living standards. Unfortunately, the most recent ABS data shows that Australia's MFP has declined over the 12 months to June 2025.

MFP decreased by 0.5% over 2024-25, below the 20-year average of 0.4% growth per year and well below the of 1.6% annual average increases between 1994-95 to 2003-04. At an industry level, agriculture, forestry and fishing led MFP growth at 10.4% over the last year. Mining saw its fifth consecutive year of declining MFP and had the largest fall of any industry in 2024-25 at 3.2%.

There are many possible reasons for Australia's recent poor track record of MFP growth. One possible reason is slowing accumulation of human capital – while our labour force continues to grow, we also need a skilled workforce that can adapt to changes and meet employer demands. Our recent report, *Building a skilled and adaptable workforce*, identified a number of ways government can improve the quality of the workforce.

Likewise, our workers need capital to be their most productive. While the amount of capital is crucial, the *quality* of our capital matters too – it is important that we invest in the right types of assets and use new and existing capital effectively.

In the feature article in this year's annual productivity bulletin, research economist Joseph Christensen examines Australia's capital productivity performance over time and in an international context. He finds that market sector capital productivity in Australia has fallen by more than 18% since 1995, with most of this decrease occurring during the mining boom when capital investment in the mining sector grew rapidly.

But he also notes that decreasing capital productivity on its own is not necessarily a bad thing. Joseph examines the relationship between labour productivity and capital intensity, and finds some positive signs for Australia – we used our capital more efficiently than average in 2023, achieving higher labour productivity with a slightly lower capital intensity. However, there is still room for improvement – workers in the most productive countries are 12% more productive with the same amount of capital.

This analysis highlights the importance of investing in innovation and promoting conditions that encourage productive investment, the efficient maintenance of existing capital, and the efficient utilisation of new and existing capital to increase productivity and improve living standards.

Beyond the accumulation of capital: Australia's capital productivity performance

By Joseph Christensen, Research Economist

> For humans, whose production and consumption are spread over time, capital … is a necessary condition for labour and natural resources to be productive. (Robinson 2013, p. 311)

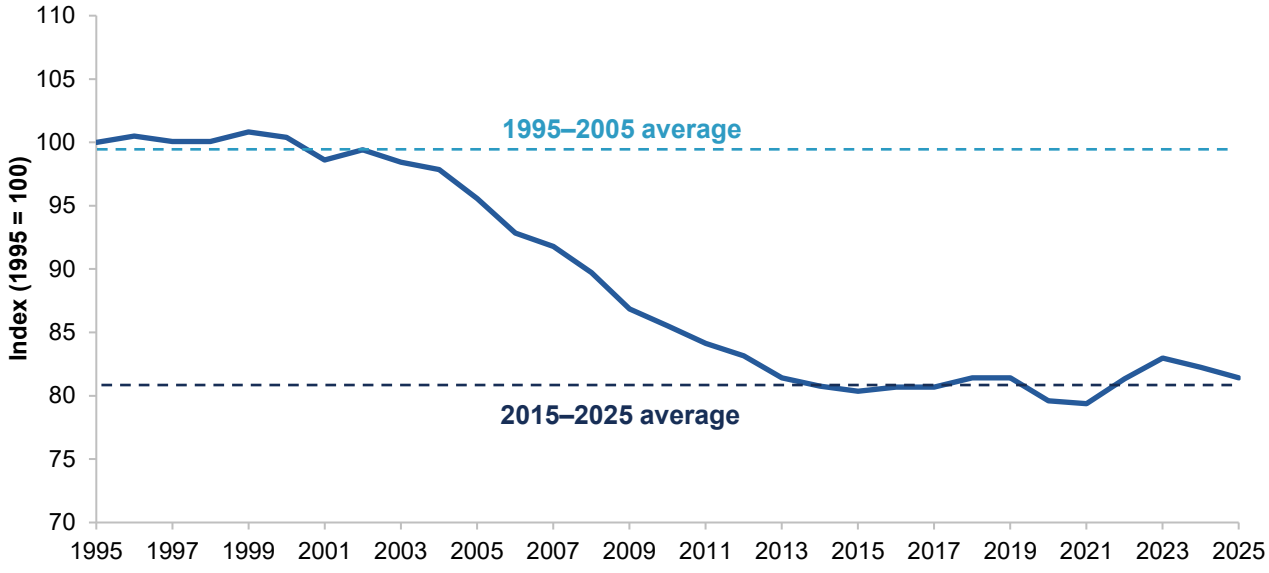
Increasing capital investment is key to addressing our labour productivity problem.[1] With greater access to capital, such as equipment or software, workers can produce more of the goods and services we consume. However, we also need to ensure that we are investing in the right capital and using it effectively. This article uses ABS and OECD data and the approach from Börsch-Supan (1998) to dig into the productivity of Australia's capital, offering some insight into whether we are making the right investment, allocation, and management choices.

Capital productivity in Australia has decreased a lot since 1995

Capital productivity is analogous to labour productivity. Where labour productivity measures how much output workers produce per hour worked, capital productivity measures how much output every 'unit of capital' produces.[2] Capital productivity in Australia's market sector has fallen dramatically over the last three decades, decreasing by 18.6% between 1995 and 2025 (figure 1).

Figure 1 – Market sector capital productivity in Australia has decreased significantly

Market sector capital productivity index, 1995–2025



The market sector is defined as all Australian and New Zealand Standard Industrial Classification (ANZSIC) divisions except: O – Public administration and safety; P – Education and training; Q – Health care and social assistance.

Source: PC estimates based on ABS (2025).

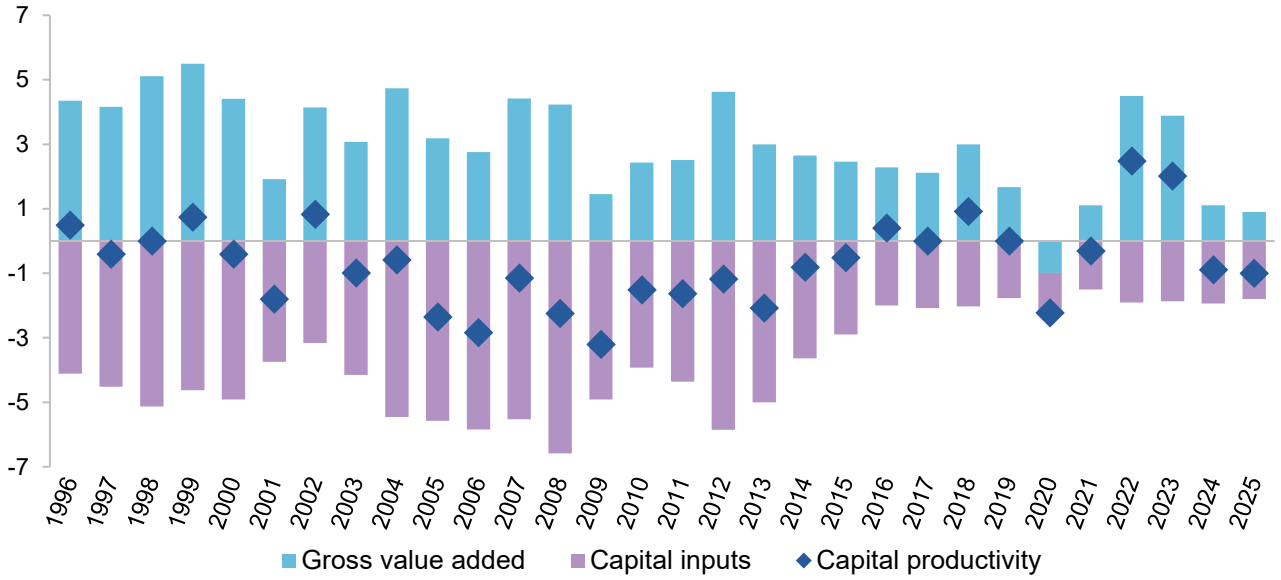
[1] The PC has recently highlighted the importance of improving capital investment (PC 2025a, 2025b).

[2] Capital productivity is defined as the value of gross value added divided by the value of capital services. The appendix to this bulletin provides more details on measuring capital inputs.

Most of the decline occurred between 2005 and 2014, when capital input growth was higher on average than in the preceding or following decades (figure 2).

Figure 2 – Capital input growth coincided with large decreases in capital productivity between 2005 and 2014

Annual percentage change in market sector capital productivity decomposed into the contributions of gross value added and capital input growth, 1996–2025



Source: PC estimates based on ABS (2025).

The total value of gross fixed capital formation (GFCF) from 2005 to 2014 was almost double that of the preceding decade (ABS 2025). This capital growth was driven largely by the mining boom – the mining industry contributed to more than 46% of total market sector GFCF over this period. This may explain part of the decrease in measured capital productivity, as higher prices for minerals can incentivise mining firms to look for harder-to-reach resources in lower productivity areas.

More generally, declining capital productivity is not necessarily a bad thing. In the absence of technological progress, workers may simply be using more capital to produce the same output in less time. All else being equal, we would expect an increase in investment to be accompanied by a decrease in capital productivity because capital accumulation typically exhibits diminishing returns (Romer 1990). Simply put, the more capital we have, the less productive additional investment is likely to be.

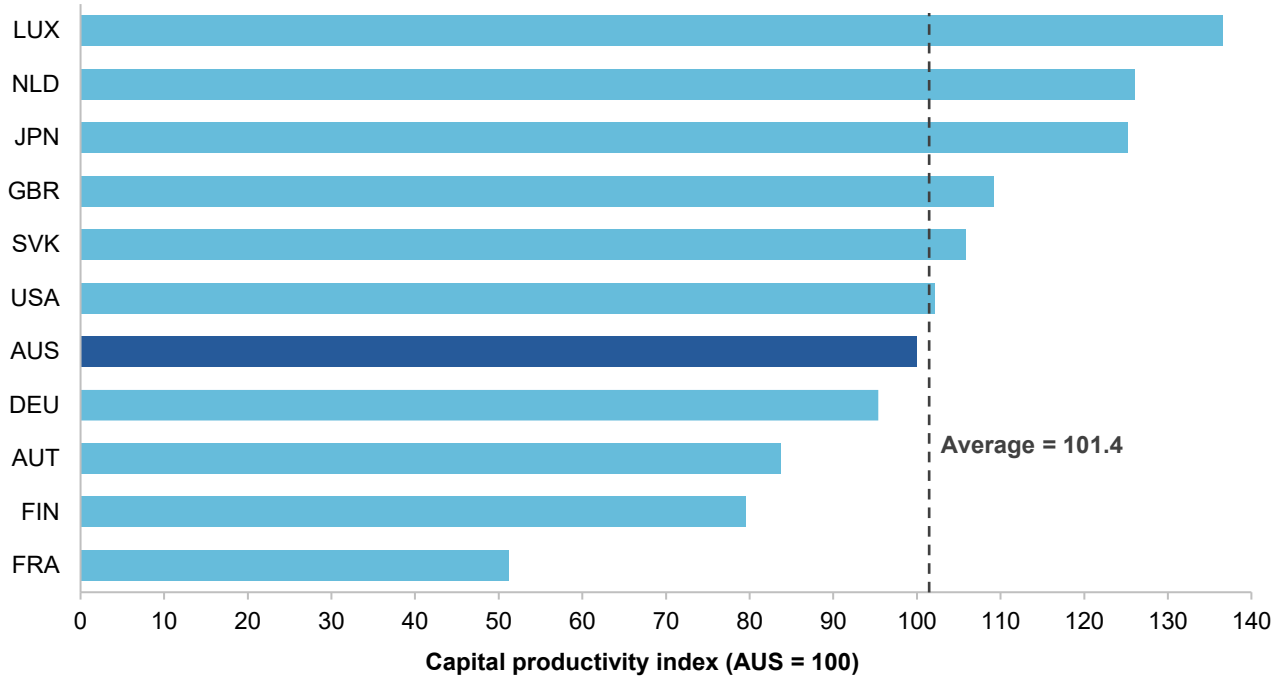
On the other hand, declining capital productivity could also be a sign that we are investing in unproductive capital or mismanaging the capital we already have. To determine whether the decline in Australia's capital productivity is a problem, we can compare our performance to that of other countries.

Australia's capital productivity looks about average, but there is room for improvement

Comparing data on the non-agricultural market sectors of 11 different OECD countries shows that Australia's capital productivity was slightly below average in 2023 (figure 3).[3]

Figure 3 – Australia's capital productivity is slightly below average

Non-agricultural market sector capital productivity in selected OECD countries indexed to Australian levels, 2023



OECD country identifiers: AUS – Australia; AUT – Austria; DEU – Germany; FIN – Finland; FRA – France; GBR – United Kingdom; JPN – Japan; LUX – Luxembourg; NLD – Netherlands; SVK – Slovakia; USA – United States of America. The most recent year with data available for meaningful cross-country comparisons was 2023.

Source: PC estimates based on OECD (2025a, 2025b), ONS (2025).

Levels of output and capital varied significantly across countries. For example, France had a very low level of capital productivity – it had around 3.7 times more capital inputs than Australia but generated less than double our output. By contrast, the Netherlands achieved above average capital productivity, having generated about two-thirds of Australia's level of output with just over half the quantity of capital inputs.[4]

However, as our above discussion makes clear, simply looking at capital productivity in isolation can be misleading. It is effective capital investment and management that will increase the productivity of workers. Therefore, it is important to not only compare the levels of capital productivity across countries, but to also examine the relationship between labour productivity and capital intensity (Börsch-Supan 1998, McKinsey

[3] Data on the United States agricultural industry was not reported. To enable a like-for-like comparison, agricultural outputs and inputs were excluded for all countries.

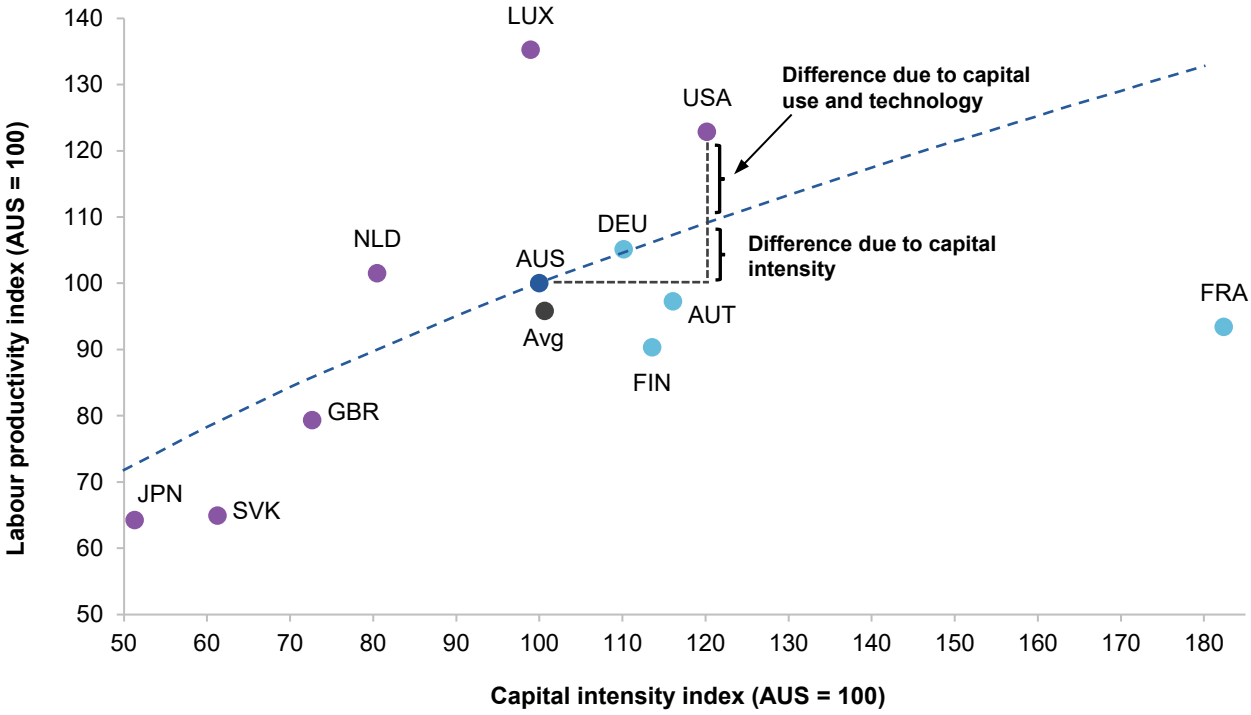
[4] Luxembourg presents a special case. It is a very small and extremely wealthy country whose economy is dominated by a globally important financial sector, which means it produces lots of output with very little capital – an economic situation that is not very applicable to other nations.

Global Institute 1996).[5] For example, figure 3 shows that Japan has a higher level of measured capital productivity than Australia, but it does not tell us whether Japanese workers are using this capital to produce more output per hour of work than workers in Australia. To determine whether Australia or Japan is better at using their capital to make workers more productive, we need to see how the level of labour productivity relates to the amount of capital per worker in each country.

Following the approach in Börsch-Supan (1998), figure 4 presents a production function for Australia as a blue dotted line. This provides an estimate of Australia's labour productivity at any given level of capital intensity, keeping constant the current level of technology and how effectively capital is allocated and managed. The blue and purple points in figure 4 represent the levels of non-agricultural labour productivity and capital intensity across the selected OECD countries in 2023. This enables us to see how well Australia is using its capital to improve labour productivity in relation to other countries.

Figure 4 – Australia uses capital more effectively than average, but there is still room for improvement

Non-agricultural market sector labour productivity and capital intensity in selected OECD countries indexed to Australian levels, 2023



OECD country identifiers: AUS – Australia; AUT – Austria; DEU – Germany; FIN – Finland; FRA – France; GBR – United Kingdom; JPN – Japan; LUX – Luxembourg; NLD – Netherlands; SVK – Slovakia; USA – United States of America. Avg – the median levels of labour productivity and capital intensity across the selected countries. Japan total labour hours data was derived from labour compensation per hours worked. Countries with higher measured capital productivity than Australia are purple, those with lower capital productivity are blue. The dotted line represents a Cobb-Douglas production function (exhibiting diminishing returns to capital accumulation) that was estimated using Australia's 2023 capital income share of 0.48.

Source: PC estimates based on ABS (2026), OECD (2025a, 2025b), ONS (2025).

[5] Capital intensity, also known as the capital-to-labour ratio, is a measure of the amount of capital per worker. It is defined as the ratio of the value of capital services to the quantity of labour hours.

The points above the line are countries that are using their capital more effectively than Australia. Consider for example the United States – their labour productivity is about 23% above Australia's. Some of this gap is because they have more capital per worker, but some of it is because they invest in better ideas and technology than us and manage their capital better than we do.

Compared to the selected average, Australia has slightly lower capital intensity but higher labour productivity, suggesting we are better than average at effectively allocating and managing our capital or investing in technology. Even some countries that have higher measured capital productivity than us, like Japan and the United Kingdom, seem to be less effective at using their capital intensity to improve labour productivity. However, we are not quite at the productivity frontier. Labour productivity levels in the Netherlands and the USA are about 12% higher than what Australia's would be if we had their respective levels of capital intensity.

Lessons for policy

More investment is important, but *what we invest in* and *how we use it* also matters. Australia is performing better than average in this area, but there is always room for improvement.

Recent research on innovation shows that very few Australian firms create new-to-world technologies, and the rate at which Australian firms are adopting cutting-edge technologies at the productivity frontier has slowed (Andrews et al. 2022, Nguyen and Hambur 2023, PC 2023). Additionally, Australian market sector research and development investment as a proportion of GFCF declined by more than 40% between 1995 and 2025 (ABS 2025). New types of capital are less likely to exhibit diminishing returns, so improving technological innovation can offset the decrease in capital productivity coming from accumulation and improve labour productivity at a given level of capital intensity (Romer 1990). The PC (2023, 2025a) has previously recommended that governments improve Australia's tax and regulatory systems to support innovation and provide free or low-cost access to research to increase the diffusion of ideas across all firms.

It is also vital that we use existing capital as effectively as possible. Evidence suggests that capital reallocation from less to more productive firms in Australia has become slower and less efficient over time (Hambur and Andrews 2023). Although most of the capital stock in Australia is privately owned (ABS 2025), governments can improve the ways that firms allocate and manage capital resources, including by strengthening competition and increasing access to finance (Hambur and Andrews 2023). Further research into firm practices and economic conditions in countries like the Netherlands and the United States could show how Australia can better use its capital to increase productivity and improve living standards.

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