# Productivity, Pay Rates and Power (Part 1)

Keith Harvey and Margaret McKenzie[i]

***Abstract***

*The Albanese Labor government announced that improving Australia's recent poor productivity experience was to be a key policy objective of its second term on the Treasury benches. This prompts two key questions. The first of these is: "What is productivity and why is it important?" Many economists as well as politicians have drawn attention to the key role of improvements in productivity to increased living standards by allowing for sustainable improvements in real wages.*

*However, the answer to these questions prompts a second line of inquiry which is equally important: "Is there a guaranteed link between improving productivity and real wages? How does this relationship work in the Australian industrial relations context? Does it, in fact, work at all?*

*In this two-part article, the authors seek to answer all these questions in the Australian context. The first article looks at what is – and what is not – the real meaning of productivity. In the second article, the authors will challenge the notion of an automatic link and ask whether workers have shared equitably in improving productivity in recent times.*

 

**Keywords**

*Productivity, labour productivity, income shares, wages, industrial awards and agreements, Annual Wage Review, collective agreements, enterprise bargaining agreements, Fair Work Australia, bargaining 'margins', multi-employer and industry wide bargaining, union density, workplace power.*

## Part 1: What is productivity?

Following its re-election in May this year, the Albanese Labor Government announced an intention in its second term to focus on improving Australia's poor productivity performance. The Treasurer, Jim Chalmers, subsequently announced that a "Productivity Roundtable" would be convened in August to consider the views of selected invited participants as to how this policy objective might be achieved. The Roundtable met in the cabinet room in Parliament House for three days in late August.

Productivity has been referred to in the context of the payment to labour, wages and wage growth. This calls for an examination of the precise meaning of productivity as an economic term, and in what way it may relate to the payments for contributions to production – labour in particular. In the current policy discussion, the term 'productivity' by itself has been apparently used in particular to mean the productivity of labour, that is, the output of goods and services arising from the input of labour.[ii] However, productivity broadly refers to the output of goods and services arising from the combination of inputs including capital, land and unidentified sources, and the technology by which they are combined. We note that technology is the full set of scientific and social relations that determines how inputs combine.

 

Growth in productivity, accordingly, can refer to the increase over time in the output of goods and services resulting from applying the same input or unidentified source or in combination with technological advance.

The productivity of the labour or any other input is mainly dependent on the other inputs involved and the technology used to combine them, and also how efficiently that is done in practice. Technological advance can improve the quality of labour (through skills, education or health etc.) and capital, and the pattern of output produced. Technological advance can also raise the productivity of measured or unmeasured inputs overall, as well as the proportion of labour combined with other inputs in particular the amount of capital.

A key feature of labour productivity increase over time is that more capital is used with it, known as capital deepening. Accordingly, making workers work harder or 'more efficiently' is, by itself, a very limited source of productivity increase in the scheme of things.

The Productivity Commission (PC) treats productivity normatively by including the notion of efficiency:

> Productivity measures how good we are at producing output. Put simply, productivity measures how efficiently inputs (say, labour, capital or raw materials) are used to produce outputs (goods or services). It is calculated as the ratio of the value of output produced to the quantity of inputs used. [iii]

The Productivity Commission's use of the word "efficiently" implies that labour or other inputs may be being used inefficiently at the moment and that that needs addressing in Australia. This remains challenging to establish. Efficiency can only be measured relative to something else, e.g., other countries or other times, taking into account the other factors involved. However, the focus usually tends to be on labour productivity alone and the methods for improvement suggested are typical 'neo-liberal' policies

 

whereby the government's role is minimised. Nevertheless, the distribution of benefits of increased productivity cannot be taken for granted.

Measurement of labour productivity is difficult, as noted by the Australian Bureau of Statistics, which is charged with keeping track of it.[iv] In practice there is a large unexplained or random contribution to productivity and productivity growth, and assumptions must be made in modelling how inputs combine to produce output over time. This includes the contribution of natural capital, unpaid care, expectations, etc., as well as cyclical factors affecting the measure.

In some industry sectors, especially mining and agriculture, productivity is subject to a range of external factors such as weather, climate change and world demand and these sectors are often excluded from the reported figure due to the resulting volatility.

The ABS also distinguishes between the market and non-market sectors of the economy, reporting productivity measures mainly for the 'market sector' where outputs are more readily measurable because they are mainly of goods. By contrast, the 'non-market sector' mainly provides services such as health and social care, and education, where the outputs are hard to measure and productivity is difficult to quantify. Traditionally, outputs in the non-market sector have been measured by the cost of the inputs such as labour force, rather than a measure of output in terms of human welfare etc. And it is the non-market service sectors that have been increasing in importance in recent years, in terms of employment shares.[v]

The Productivity Commission (PC) has noted the standard textbook factors that influence the productiveness of the economy:

> Productivity growth can come about through several channels:
>
> • Investment that increases the amount of capital per worker (capital deepening)
>
> • Improvements in education and worker skills (human capital)

 

- More efficient uses of capital and labour (resource allocation)
- New technologies. [vi]

This appears to focus on labour productivity in particular, rather than, say, capital productivity. The Productivity Commission does not refer to the level of wages as a factor in productivity, as is often popularly assumed. Reducing wages, contrary to what some employer organisations appear to think, does not increase productivity. Likewise, raising wages does not lower productivity and may serve to increase it. Higher waged countries are also higher income countries. Economists especially since Alfred Marshall (1842-1924) have recognised that rising labour productivity is an essential driver of improvements in real wages, national economic wealth, and overall standards of living. [vii]

In a market system, the payment to inputs for their contribution to production is meant to guide productivity growth. However, in practice this is difficult to demonstrate and there are a wide range of reasons why payments to the factor inputs labour and capital, wages and profits respectively, do not reflect the respective factor contributions to output.

Moreover, neither the theoretical arguments in economics nor empirical evidence establish causality between payments to the factor inputs and their contribution to the output of goods and services. These issues remain contested within economics.

It is not clear whether increasing the levels of payment to factors appears to drive their productivity or whether it is vice versa. That is, we observe that wages and profits increase at the same time as productivity growth increases and it is hard to establish the direction of causality. For instance high waged countries do not become poorer when their wages increase.

Moreover, economic theory does not settle the distribution of total income in the economy between wages and profits, between workers and firms respectively. The shares of wages and profits in income are expected to be related to the allocation of capital and labour inputs and how they change over

 

time. But the shares of wages and profits in total income are also heavily influenced by the concentration of capital, interests and power relations, regulatory framework, degree of unionisation or competition between workers and business owners. The corollary is that the share of wages and profits out of total factor income does not determine the rate or character of technological advance and productivity improvement.

There is evidence that increases in wages may lead indirectly to improved productivity as employers decide to invest in new or additional technology to reduce the amount of labour required to produce a given output. Also, increasing wages and improving [viii]working conditions is likely to increase morale and increase productivity in the workplace. And increasing wages raises household incomes and aggregate demand in the economy, which in turn drives investment and productivity growth, further raising living standards and expanding the economy.[ix] This is why richer economies have higher wages. This runs counter to the frequent perceptions of individual employers. It also implies the virtue of rules based wage determination.

The Productivity Commission has noted elsewhere that one of the factors in falling productivity is declining levels of business investment as a share of GDP in Australia and elsewhere.[x] This decline is because, generally, new capital investment embodies the most recent technologies which add disproportionately more to productivity than does the existing mass of capital. A big push from government in particular is identified in the literature as promoting productivity further and the government role in research and development ('R&D') and innovation has been declining in Australia.

The Productivity Commission has also noted that the Government “does not hold all the cards” when it comes to productivity, since the decisions to invest in capital deepening, workforce skill development and better management practices are in the hands of business managers, not governments.

 

However, this begs the question of the vital role of government in R&D and innovation, and in industrial regulatory frameworks and economic policy which facilitate technological advance.

The demands of sectional interest groups which demand action from government to improve productivity must be evaluated in this light. For instance, demands for assistance for corporate retention of rents in resource extraction or window dressing in the name of industry innovation generally, or suppression of wages and working conditions, are not productivity-promoting. Publicly-funded R&D and innovation through investment in institutions such as universities and higher education and research bodies such as the CSIRO, have been found to be fundamental to increasing productivity. [xi]

**The Roundtable**

The Treasurer's Roundtable duly met over three days in August. There was not an agreed statement of outcomes from the meeting; rather, the Federal Treasurer held a media conference at its conclusion and outlined what he said were ten broadly agreed areas for work to improve national productivity performance. They were, in his words:

> … the 10 reform directions were, first of all, progress towards a single national market, which is how we improve the federation. Modernise the federation. The second one is about simplifying trade and reforming tariffs. The third one was better regulation and how we cut the clutter when it comes to reg. The fourth one was speeding up approvals in national priority areas. The fifth one was building more homes, more quickly. The sixth one was how we make artificial intelligence a national priority for Australia. Seven was attracting capital and deploying investment. Eight was building a skilled and adaptable workforce. Nine was a better tax system. And 10 was modernising government services. [xii]

Readers can consider whether the 'outcomes' of the Roundtable address the fundamental drivers of improved productivity. A number of them, such as those dealing with skills and training, may be on

 

point. Others, while not necessarily bad ideas, do not directly lead to capital deepening or the encouragement of innovative technologies (although the use of AI might). The relative importance of each of these needs to be established relative to direct drivers through R&D and innovation, and industry policy. An examination of the merits of each of the proposed 'reform directions' is beyond the scope of this article. The Productivity Commission, oddly, does not mention rising real wages or improved working conditions in its brief assessment of the value of improving productivity. While it suggests that improving productivity is essential to improving living standards, its textbook reductive list of the 'most notable effects' is:

- **More leisure:** As labour productivity improves, workers can achieve the same standard of living by working fewer hours.**Consuming more market goods and services:** Workers could choose to consume more goods and services.
- **Greater number of public goods and services:** The additional tax income available can be used to fund more hospitals, schools and emergency services.
- **Lower labour cost of goods and services:** The number of hours a worker needs to work to buy any particular product should fall for most goods over time as productivity increases.[xiii]Yet every economist and economic commentator states that improved productivity is the basis of increased living standards, including increases in real wages. Again, however, it is a question as to how gains in productivity are distributed.

The gains from increased productivity do not flow in an automatic process, nor is it necessarily true that workers will be the beneficiaries of the increasing labour productivity. It is apparent that increases in productivity might flow into increased real wages, or increased leisure time (such as shorter working hours or increased annual leave, support for childcare and unpaid care), or reduced prices for consumers, but might also be retained by employers in the form of increased profits and dividends to shareholders. Achieving these is contingent on having the appropriate regulatory framework and policy

 

settings in place, including allowing unions to adequately represent workers in negotiations about the distribution of productivity improvements, issues considered in Part Two of this article.

**Declaration of Interests**

Nil

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[i] Keith Harvey and Margaret McKenzie are Executive Members of the AIER, Inc. Dr Margaret McKenzie is Senior Fellow at Per Capita. The views expressed are their own.

[ii] The Australian Bureau of Statics that labour productivity can be defined as "The ratio of output to hours worked", where input is measured as labour hours but output can be measured in different ways depending on the purpose, such as physical outputs or value (e.g., GDP): Australian Bureau of Statistics (2022) Labour Statistics: Concepts, Sources and Methods, 2021 — Labour productivity, released 15 February. Available at: https://www.abs.gov.au/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/2021/concepts-and-sources/labour-productivity (accessed 26 November 2025).

[iii] Productivity Commission (n.d.) What is productivity? Available at: https://www.pc.gov.au/what-is-productivity (Accessed: 26 November 2025).

[iv] Australian Bureau of Statistics (2025) A primer on labour productivity. Released 3 September 2025. Available at: https://www.abs.gov.au/articles/primer-labour-productivity (accessed 26 November 2025).

[v] Australian Bureau of Statistics (2023) Interpreting ABS productivity statistics. Available at: https://www.abs.gov.au/articles/interpreting-abs-productivity-statistics (accessed 26 November 2025).

[vi] Productivity Commission (2025) Growth mindset: how to boost Australia's productivity — 5 productivity inquiries. Canberra: Productivity Commission, p. 10. Available at: https://nla.gov.au/nla.obj-3761935687 (Accessed: 26 November 2025).

[vii] Marshall's work was important since it rejected the fixed wage fund notion of earlier political economists – Ricardo, Malthus and Marx – who, for a variety of reasons, saw no real prospect for the improvement in real wages and living standards. Marshall saw that living standards could rise with increasing labour productivity.

[viii] In a large literature, see for instance Bellet, Clement and De Neve, Jan-Emmanuel and Ward, George, Does Employee Happiness have an Impact on Productivity? (October 14, 2019). Saïd Business School WP 2019-13, Available at SSRN:https://ssrn.com/abstract=3470734 or http://dx.doi.org/10.2139/ssrn.3470734

[ix] See for instance Don J. Webber & Gissell Huaccha (2024) Rethinking productivity: the crucial role of demand, Journal of Post Keynesian Economics, 47:1, 55-83, DOI: 10.1080/01603477.2023.2221667

[x] Productivity Commission (2025) Growth mindset: how to boost Australia's productivity — 5 productivity inquiries. Canberra: Productivity Commission, p. 10. Available at: https://nla.gov.au/nla.obj-3761935687 (Accessed: 26 November 2025).Growth mindset: how to boost Australia's productivity

[xi] In a large literature, see for instance To what extent does public R&D leverage private capital investment? A report for the Department for Science, Innovation & Technology (DSIT), UK May 2025

[xii] Jim Chalmers MP (2025) Press conference, Canberra. 21 August 2025. Available at: https://ministers.treasury.gov.au/ministers/jim-chalmers-2022/transcripts/press-conference-canberra-26 (Accessed: 26 November 2025).

[xiii] Productivity Commission (n.d.) What is productivity? Available at: https://www.pc.gov.au/what-is-productivity (Accessed: 26 November 2025).