



AI regulation and productivity

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KPMG Australia



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Executive summary

Purpose of this paper

This paper examines the evolving policy and regulatory framework surrounding AI in Australia. It builds on KPMG Australia's June 2025 submission to the Productivity Inquiry on Harnessing data and digital technology,¹ and October 2024 submission to Department of Industry, Science and Resources on the introduction of mandatory guardrails for AI in high-risk settings.²

The analysis focuses on the risks of under- or over-regulation and explores the broader productivity implications of getting AI regulation right, our so-called 'Goldilocks position' for regulating AI in Australia.

Productivity remains a cornerstone of long-term economic growth and national prosperity. However, Australia, like many advanced economies, has been experiencing a period of subdued productivity growth, heightening concerns across government, industry and the broader community regarding how and when this productivity malaise will turn around. In this context, getting regulation right, particularly in fast-moving areas such as artificial intelligence (AI), is increasingly critical to economies like Australia.

Drawing on our October 2024 submission on Mandatory guardrails for AI in high-risk settings, which addressed 16 consultation questions and offered 14 targeted recommendations, this paper revisits the foundations of 'best practice' regulation in a rapidly advancing technological environment.

KPMG has actively engaged in the safe and responsible development of AI in Australia and globally. KPMG has provided a number of submissions to various forums on this topic, including *Safe and Responsible AI in Australia* in August 2023; *Automated Decision Making and AI regulation* in July 2022; *An AI Action Plan for all Australians* in December 2020; the *Australian Data Strategy* in July 2022; and *Human Rights and Technology in 2020 and Beyond* in March 2020. KPMG published a report with the Australian Information Industry Association (AIIA) in March 2023, *Navigating AI: analysis and guidance on use and adoption*, which examines the global and domestic regulatory landscape in the AI space. KPMG has published a number of other relevant reports on AI, including: *A Prosperous Future: Emerging Tech* in collaboration with AmCham Australia in 2022; *Top risks to Australian Business 2024–25* in 2024; and *AI Amplified: What Gen Zs think of AI by Year 13* in collaboration with KPMG and Microsoft in 2024.

We have also worked extensively with the University of Melbourne and University of Queensland on the topic of Trust in Artificial Intelligence. Most recently, *Trust in Artificial Intelligence: Global Insights 2025* surveyed over 48,000 people in 47 countries to provide a deep level of insight into the perceptions of AI across the globe. The findings reveal that 77% of Australians believe AI regulation is necessary.

Previous work in this series includes *Trust in Artificial Intelligence: Global Insights 2023*; *Achieving Trustworthy AI: A Model for Trustworthy Artificial Intelligence*; *Trust in Artificial Intelligence: A five-country study*; and *Trust in Artificial Intelligence: Australian Insights 2020*. KPMG Australia is also a proud Anchor Partner of the Human Technology Institute, a cornerstone in our pursuit of Trusted AI.

This paper supports KPMG's previous position that AI-specific regulation, particularly in high-risk contexts, is warranted and timely. Our findings, based on economic modelling, suggest that countries with tighter existing regulations stand to gain more from relaxing restrictions, while those with more liberal frameworks see smaller productivity improvements from further deregulation. This underscores the importance of avoiding both extremes. Excessive regulation can stifle innovation and slow productivity growth, while insufficient oversight may fail to address emerging risks, market failures and create the necessary environment of trust the public is looking for.

The optimal approach lies in a balanced, proportionate framework, the 'Goldilocks point', where risks are managed without undermining innovation. Effective regulation of AI is not merely a technical exercise; it is central to fostering innovation, safeguarding public trust, and unlocking productivity gains.

For Australia, the absence of a comprehensive legislative framework presents a unique opportunity to design a fit-for-purpose system informed by international best practice and tailored to local needs. Aligning with global norms such as the EU AI Act and Canada's AIDA may reduce trade frictions and compliance burdens, while allowing flexibility in enforcement. Importantly, regulation must account for distributional effects.

In this regard, KPMG believes the full adoption of the current Voluntary AI Safety Standards as a potential legislative framework for AI regulation in Australia would not be appropriate; given its uniform approach to managing AI risk regardless of the type of AI tool being used or the size or complexity of the business utilising AI. Simply, smaller firms are more vulnerable to the fixed costs of compliance and may face barriers to AI adoption if rules are overly complex or if the regulatory burden falls on the AI user (as opposed to the AI provider). Proportionate and scalable regulation, especially for high-risk applications, can ensure broader participation in the productivity gains AI offers.

Ultimately, productivity-enhancing regulation is not a question of more or less, but better. KPMG supports the development of principles that define high-risk AI with associated regulation providing clear and consistent expectations on those delivering and deploying AI.

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¹ [Harnessing data and digital technology: KPMG Submission – KPMG Australia](#)

² [Mandatory guardrails for AI | KPMG submission – KPMG Australia](#)

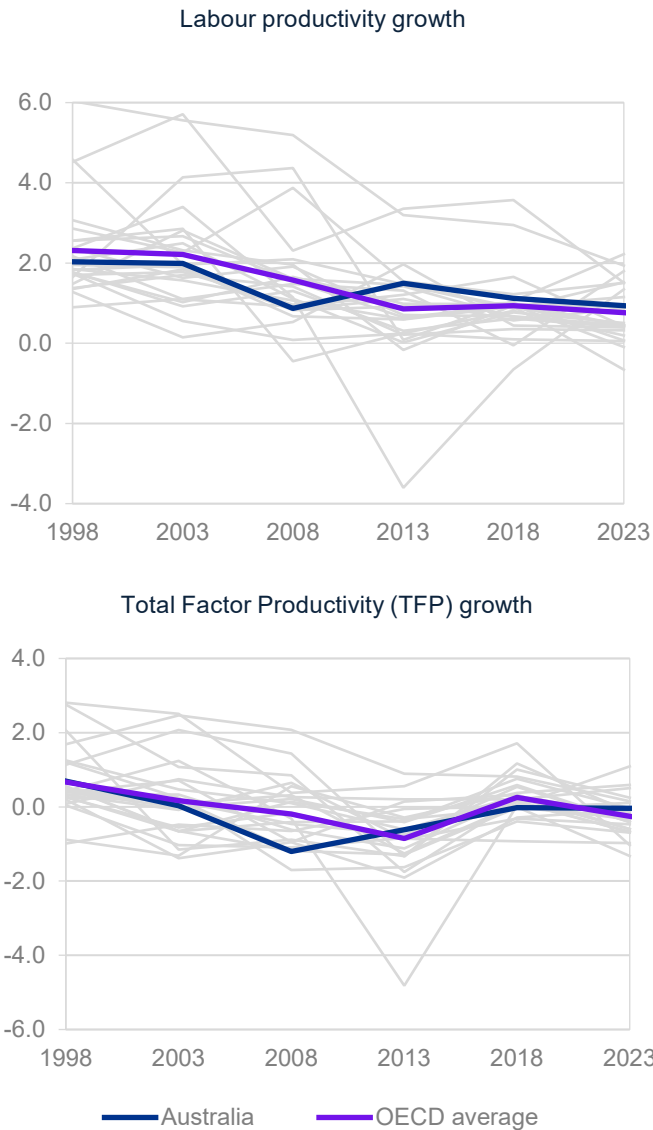
1. Introduction

Productivity as a foundation for economic growth

Productivity is a core determinant of long-term economic growth and national wellbeing.

Over the past two decades, labour productivity growth across OECD economies has slowed significantly, from around 2% per annum to less than 1%, driven by weaker multifactor productivity growth and subdued capital accumulation (Fernald et al., 2025; Goldin et al., 2024).

Figure 1: Labour productivity growth (measured as GDP per hour worked) and Total Factor Productivity (TFP) growth in selected OECD countries (%)



Source: The Conference Board, KPMG

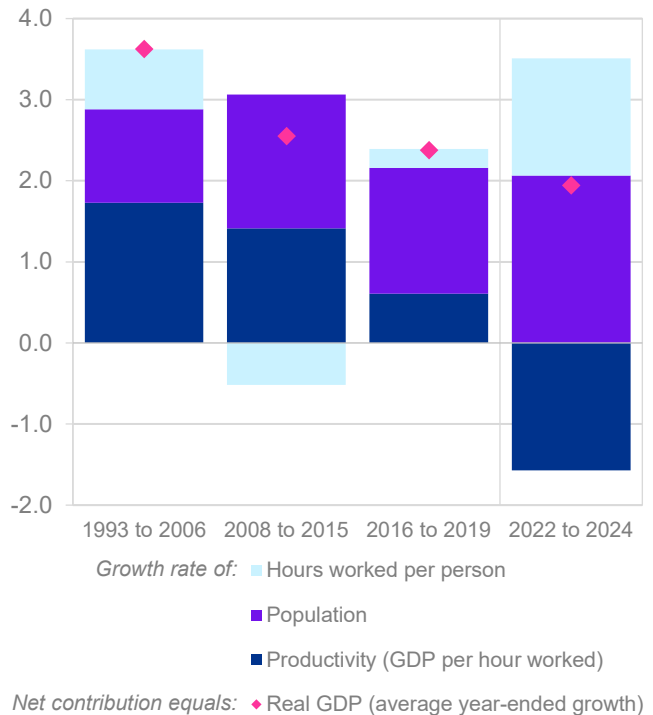
Australia's productivity challenge

In Australia, improvements in labour productivity have been responsible for the bulk of economic growth since Federation. Accordingly, periods of stagnation or decline in productivity tend to prompt significant concern among policymakers, economists, and business leaders, being often referred to as a 'productivity crisis' in the broader media landscape.

Australia is currently navigating such a period. Labour productivity (real GDP per hour worked), as reported by the Australian Bureau of Statistics, has declined since its peak in late 2022, returning to levels last seen in 2019. As a result, poor labour productivity outcomes have been acting as a drag on economic growth and living standards, at least since 2016 (see Figures 2 and 3).

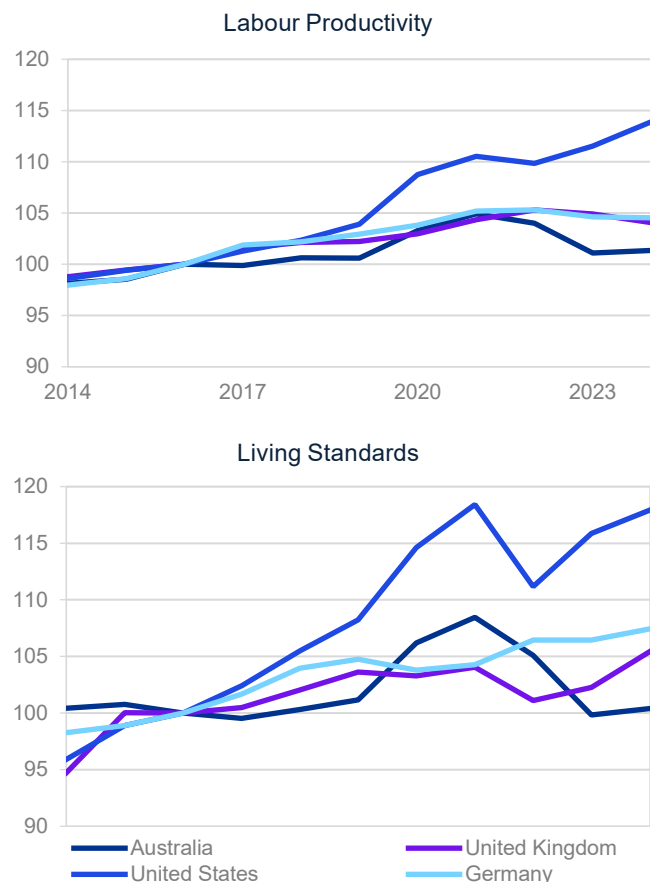
This sharp decline has prompted the Commonwealth Government to consider a range of policy changes and hold an Economic Summit, the purpose of which is to focus business leaders, policymakers and community advocates on potential reform initiatives in three priority areas of productivity, budget 'sustainability', and economic resilience.

Figure 2: Contributions to real GDP growth (percentage points)



Source: ABS, KPMG

Figure 3: Relative performance of Australia's productivity and living standards (index, 2016 = 100)



Source: ABS, ONS, BEA, StBA, Bbk, KPMG

Note: Productivity is measured as GDP per hour worked. Living standards is measured as real household disposable income per capita.

Purpose of this paper

The productivity slowdown raises questions about how to sustain innovation and growth amid global technological shifts, particularly as artificial intelligence (AI) emerges as a potentially transformative general-purpose technology.

This paper examines the evolving policy and regulatory framework surrounding AI in Australia. It builds on KPMG Australia's submission to the October 2024 proposals paper, which responded to 16 consultation questions and outlined 14 targeted recommendations. The analysis focuses on the risks of under- or over-regulation and explores the broader productivity implications of getting AI regulation right, our so-called 'Goldilocks position' for regulating AI in Australia.

KPMG is contributing to the economic reform dialogue by producing a series of thought leadership papers, of which this report is part of, that aim to add to the national debate around how government, industry and workers can collectively work together to turn this domestic productivity deficit around. We also participated in Treasury's consultation process that sought views on priority reforms to consider as part of the roundtable process.

In producing this thought leadership series, we have framed our overall position surrounding economic reforms in Box A.

Box A: KPMG's position on Australia's economic reform agenda

- KPMG strongly supports the Federal Government looking to adopt reforms that seek to lift the living standards of Australia's population and improve the economic prosperity of our nation.
- Policy options to achieve this goal will not be straightforward or easy to implement – requiring an integrated mix of reform mechanisms to be implemented.
- Improving productivity will need to be key in any economic reform agenda, as it means generating more output from the same level of input.
- There is no silver bullet for lifting living standards. A package of reforms that work together will be required to spread the load and maximise the chance of achieving meaningful gains. A package of reforms is likely to include:
 - Tax reforms, including reducing our reliance on income taxes and lifting our reliance on consumption-based taxes, adjusting corporate tax settings to encourage capital investment (and therefore achieve capital deepening), and working with state governments to reduce inefficient taxes.
 - Designing a balanced regulatory environment that is fit-for-purpose and doesn't create an unnecessary burden on individuals and businesses.
 - Developing a labour force that has the right mix of skills and flexibility to better align to industry need now and into the future, with the capability for employers and employees to flex up and down to economic conditions.
 - Ensuring government actions help achieve economic and societal goals – in essence, targeting the 'Goldilocks' level of government that allows for the provision of public goods and correction of market failures, and the achievement of long-run economic stability. There is a need to balance social obligations and unproductive burdens being placed on businesses and taxpayers.
- KPMG appreciates the practical challenges in achieving meaningful reforms, particularly those that balance our Australian values like equity and fairness. However, KPMG also recognises that, by their very nature, hard reforms can sometimes benefit some while disadvantaging others. While reform options can include mechanisms to compensate individuals and businesses, it is important to understand that sometimes the reform is necessary to rebalance previous unnecessary and unhelpful redistributions.
- Understanding this is easy, implementing it is difficult; which is why major reforms occur infrequently and often in times of crisis. Nonetheless, KPMG encourages the Federal Government to look at the full picture of where reform will help lift our standard of living today and into the future, and adopt a full range of reforms that will set our nation up for prosperity over the next few decades.

2. Current AI policy context in Australia

While Australia has not yet enacted formal AI-specific regulation, recent developments mark a shift towards a more structured governance framework. The release of the Voluntary AI Safety Standard in September 2024 introduced 10 practical guardrails for the safe and responsible use of AI (National Artificial Intelligence Centre, 2024). This was followed by the release of a proposals paper which acknowledged that the current regulatory system is no longer fit for purpose, particularly for high-risk applications. The consultation process focused on three key areas: defining high-risk AI, developing mandatory guardrails, and exploring alternative regulatory models.

In KPMG Australia's response to the Productivity Commission's harnessing data and digital technology inquiry, we highlighted the importance of striking a regulatory balance that safeguards societal interests without stifling innovation. The submission emphasises the need for frameworks addressing fairness, transparency, and accountability, while avoiding overly stringent regulations that could hinder productivity. KPMG notes the value of AI literacy and training, as well as the necessity of fostering public trust in AI.

Similarly, KPMG Australia's submission to the Department of Industry, Science and Technology on the introduction of mandatory guardrails for AI in high-risk settings outlines that the successful adoption of responsible AI needs to be assisted by addressing the public's current lack of trust in AI by ensuring the right mix of policy settings, regulations and laws to ensure AI use is safe.

Australia's regulatory direction is informed by developments abroad. The European Union's Artificial Intelligence Act, signed into law in June 2024, adopts a risk-based approach that includes transparency, accountability, and system testing obligations, enforced by the newly created EU AI Office. Similarly, Canada's draft Artificial Intelligence and Data Act (AIDA) introduces obligations for high-impact systems and proposes a dedicated regulatory authority. The Australian proposals paper acknowledges the importance of international alignment, both to ensure consistency and to minimise barriers to cross-border trade and compliance.

At the same time, policymakers face a dual challenge: regulating AI in a way that promotes innovation while protecting democratic values and human rights. Ensuring that AI decision-making remains transparent and explainable is essential, particularly in high-risk domains such as insurance and visa processing. Both the Actuaries Institute and the Australian Human Rights Commission have raised concerns about the potential for unintentional discrimination if AI systems rely on biased or opaque algorithms. KPMG's recommendations (notably 1(c), 5, 8, and 9)³ stress the need for clarity and safeguards around such applications.

Differences in regulatory settings may also affect international competitiveness. KPMG Recommendations 1(b), 13, and 14⁴ highlight the importance of consistency with international rules and the testing of imported technologies against Australian standards. In this regard, AI could echo earlier experiences with labour and environmental regulation, where jurisdictions with laxer standards gain short-term industrial advantage, often at the expense of long-term trust or sustainability.

Establishing legal clarity is therefore essential. KPMG Recommendation 5 calls for certain AI applications that pose systemic risks, such as those undermining democracy or human rights, to be banned outright. Related recommendations (1(c), 8, and 9)⁵ focus on procedural fairness, including risks of unanticipated algorithmic bias. For example, exemptions in the insurance sector may allow some discriminatory practices if they meet narrow criteria, but a lack of transparency in AI-assisted decision-making could lead to unlawful outcomes. The Actuaries Institute and Australian Human Rights Commission provide detailed guidance on this, noting the importance of the 'right to an explanation', particularly where AI tools are used in high-stakes decisions, such as immigration or access to services.

In addition to these ethical concerns, the economic viability of AI adoption also hinges on regulatory design. KPMG Recommendation 12⁶ notes that small and medium-sized enterprises (SMEs) face higher per-unit compliance costs due to fixed regulatory burdens. This can inhibit investment, reduce profit margins, and divert managerial focus away from core activities, ultimately harming productivity and employment. These concerns are consistent with a wider body of research on automation and robotics adoption, which shows that large firms are better positioned to undertake one-off capital investments. Without targeted support, there is a risk that regulation will reinforce the digital divide, leaving smaller firms behind.

The potential for regulatory burden to stifle innovation is further reinforced by studies of liability and product innovation. Although the effects of liability rules on innovation outcomes can vary by context (Galasso & Luo, 2018), there is consistent evidence that ambiguous or excessive liability exposure may deter firms from investing in high-risk, high-reward technologies such as AI. KPMG Recommendations 12, 13, and 14⁷ reinforce the need to minimise unnecessary regulatory complexity and provide clear, proportionate expectations.

In sum, Australia's regulatory response to AI must walk a careful line: flexible enough to foster innovation and competition, yet firm enough to maintain public trust and protect fundamental rights. The design and implementation of AI-specific rules will play a critical role in determining whether Australia realises the potential productivity benefits of this technology, or risks falling behind in the next wave of digital transformation.

³ Mandatory guardrails for AI | KPMG submission – KPMG Australia, p. 6

⁴ Mandatory guardrails for AI | KPMG submission – KPMG Australia, p. 6 & 7

⁵ Mandatory guardrails for AI | KPMG submission – KPMG Australia, p. 6

⁶ Mandatory guardrails for AI | KPMG submission – KPMG Australia, p. 7

⁷ Mandatory guardrails for AI | KPMG submission – KPMG Australia, p. 6

3. A quantitative evaluation: Does regulation influence productivity?

3.1. Literature review

A substantial body of international research has linked product market regulation (PMR) to differences in productivity growth across OECD countries. Foundational work by the OECD (Conway et al., 2006) demonstrated that more flexible regulatory environments, particularly those fostering competition and reducing barriers to entry, can facilitate the diffusion of existing technologies and incentivise innovation. These effects are especially pronounced in industries characterised by significant distance from the technological frontier, where the scope for catch-up is greatest. More restrictive regulatory settings, by contrast, have been associated with slower total factor productivity (TFP) growth, particularly in services and ICT-related manufacturing sectors where dynamism and scale are critical. By contrast, a senate inquiry in New South Wales found that excessively lax regulatory regimes, such as those seen in NSW's building sector, have contributed to an erosion in public trust, while overly rigid compliance frameworks disproportionately burden smaller firms, constraining investment and productivity (Senate Employment, Workplace Relations and Education References Committee, 2002; OECD, 2023).

The effects of product market competition on dynamic efficiency may also arise indirectly via the incentives to innovate, but this channel is not straightforward. The basic Schumpeterian model suggests that increased competition may reduce innovation by eroding monopoly profits that typically reward innovators.⁸ However, extensions of this model yield a more complex picture (Aghion and Howitt, 1998; Boone, 2000) suggest that intensified competition may encourage innovation, by pressuring firms to adopt new technologies faster to avoid bankruptcy, or by motivating 'neck and neck' competitors to invest more in R&D to gain an edge.

These trade-offs are becoming more acute in the age of AI. As articulated by Aghion et al. (2023), regulation in AI carries heightened complexity due to its dependence on large-scale data access and the ethical risks posed by algorithmic discrimination and opacity.

Restrictions on data sharing, often justified on privacy grounds, can impair the functionality of AI systems and disproportionately affect firms in jurisdictions with stringent regulatory standards, potentially tilting global competitiveness in favour of more permissive economies. Alternatively, it can be argued that unfettered data access could promote a 'race to the bottom' or erosion of consumer trust.

The macroeconomic consequences of AI remain contested. Acemoglu et al. (2024) provide a task-based framework showing that the impact of AI on GDP and productivity can be approximated by the share of tasks affected and their average cost savings. Using existing exposure data, they estimate modest TFP gains, no more than 0.71% over a decade. These projections are further tempered by concerns that early productivity benefits are skewed towards easily automated tasks, with limited scope for expansion into high-complexity domains. Theoretical models also caution that even when AI improves the productivity of low-skill workers, it may exacerbate wage inequality if no offsetting task creation occurs.

The evidence points to a policy challenge: while appropriate regulation can unlock latent productivity, overly rigid or poorly designed rules may hinder both adoption and equity. In the AI context, regulatory settings must strike a balance between enabling innovation and maintaining public legitimacy, especially given AI's dual potential to raise output and deepen social divides. There is growing consensus that this balance is not binary but contextual, depending on institutional quality, market structure, and technological maturity.

⁸ The Schumpeterian model emphasises the role of innovation and technological change as drivers of economic growth. In this framework, firms invest in research and development (R&D) to gain temporary monopoly power through innovation. These monopoly profits serve as incentives for innovation, but increased competition can reduce these profits, potentially discouraging firms from investing in new technologies.

3.2. Data sources and parameter choices

Productivity indicators

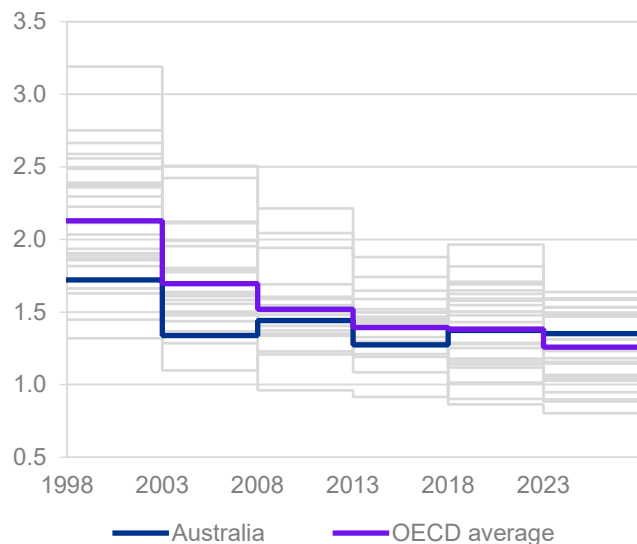
In this study, we use Labour Productivity Growth as the baseline productivity indicator. Labour productivity, denoted here as LP, measures the amount of economic output (real GDP) produced per hour of labour input.

This measure captures how efficiently labour is used in the production process, abstracting from the contribution of capital and focusing solely on the output generated per unit of labour time. Increases in LP may reflect improvements in human capital (via training and an ongoing build-up of knowledge and experience), better organisation, enhanced work processes, or capital deepening (i.e. more capital per worker).

Regulatory indicators

The Product Market Regulation (PMR) indicators, developed by the OECD, provide a systematic, cross-country measure of the restrictiveness of regulation in product markets. PMR refers to the set of policies, rules, and administrative procedures that govern how firms operate in product markets. These regulations shape the competitive environment by influencing market entry, pricing behaviour, investment incentives, and the allocation of resources across sectors. PMR is a core determinant of economic efficiency and innovation, particularly in sectors where competition is not naturally assured.

Figure 4: Product Market Regulation (PMR) in OECD countries



Source: OECD, KPMG

These indicators are constructed from detailed policy questionnaires completed by national governments and are quantified on a scale from 0 to 6, where:

- 0 indicates least restrictive (open, competitive markets), and
- 6 indicates most restrictive (high barriers to competition or heavy state involvement).

The composite PMR score aggregates data across several domains, including:

- barriers to entry (e.g. licensing, administrative burden)
- state control (e.g. public ownership, price regulation)
- barriers to trade and investment.

The framework allows comparisons across countries and over time, and can be disaggregated by sector (e.g. manufacturing, services) and dimension (e.g. entry, conduct, ownership).

This paper uses PMR data from 25 developed economies for the years 1998, 2003, 2008, 2013, 2018, and 2023, as published by the OECD. It is important to acknowledge that:

- The PMR methodology underwent a major revision in 2018, which involved a shift from rules-based assessment to a more outcomes-based approach.
- As a result, PMR indicators from 1998–2013 are not directly comparable with those from 2018 and 2023.

Despite these limitations, we incorporate the full timespan to ensure sufficient variation across countries and over time. To maintain analytical consistency, we treat changes in PMR as indicative of broad shifts in regulatory direction rather than precise measurement of policy intensity. By focusing on changes in regulation rather than levels alone, and by using fixed-effects estimations, we partially mitigate the comparability issues introduced by the methodology revision.

3.3. Regression output

Baseline model

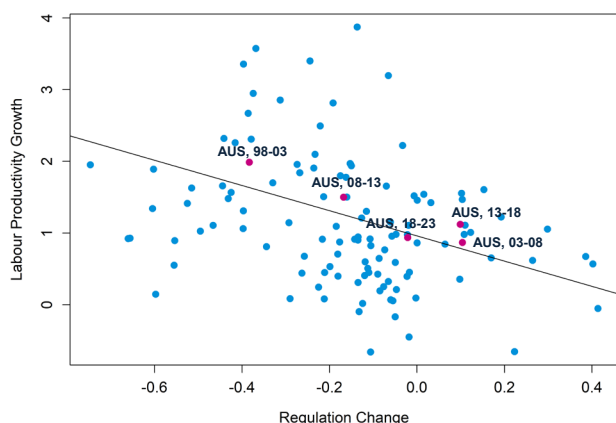
We begin our analysis with OLS regressions using labour productivity as the dependent variable to provide an initial, labour-specific view of how changes in regulation relate to productivity outcomes. We estimate a simple pooled OLS model to examine the relationship between changes in product market regulation (PMR) and labour productivity growth. The results are summarised in Table 1.

Table 1: Simple OLS model

Variable	OLS Baseline	Subsample: Low PMR	Subsample: High PMR
Change in PMR	-1.758*** (0.438)	-1.292** (0.465)	-1.904** (0.688)
Intercept	0.960*** (0.129)	0.937*** (0.110)	1.008*** (0.234)
R-squared	0.116	0.117	0.108
Adjusted R-squared	0.109	0.102	0.094

Across the full sample of 25 OECD economies from 1998 to 2023, the results indicate a statistically significant negative association between changes in PMR and productivity growth. A one-point increase in the PMR index, indicating tighter regulation, is associated with a 1.76 percentage point decline in annual LP growth ($p < 0.001$). The coefficient remains robust despite the modest R-squared (11.6%), consistent with the complexity of productivity dynamics and the influence of other structural factors.

Figure 5: Labour Productivity Growth versus Change in Regulation Across Countries (1998–2023)



Source: The Conference Board, OECD, KPMG

Note: Regulation change is calculated as the difference in PMR score between the initial year and the final year of each five-year period interval from 1998 to 2023. Labour productivity growth is calculated as the percentage change in output per hour worked over each corresponding five-year period. The best-fit line represents the OLS regression of productivity growth on regulation change, with the coefficient matching that reported in Table 1.

Regulatory stringency: under- vs over-regulation

The PMR index is designed to capture both under- and over-regulation in terms of economic efficiency:

- Over-regulation occurs when restrictive rules limit competition, deter innovation, and create inefficiencies in resource allocation. It can manifest in excessive licensing requirements, limited market access, or rigid price controls.
- Under-regulation, while less common in advanced economies, may arise when markets lack necessary safeguards, leading to monopolistic practices, insufficient consumer protection, or market instability. Our sample does not exhibit such patterns.

To explore non-linear effects, we divide countries into low- and high-regulation groups using the median PMR value (1.58) as a threshold.

The negative impact of increased regulation on productivity persists across both groups but is notably stronger in more heavily regulated environments.

Specifically, a one-point tightening of PMR reduces productivity growth by 1.29 percentage points ($p < 0.01$) in less regulated settings, while the same increase in highly regulated contexts leads to an even larger reduction of 1.90 percentage points ($p < 0.01$).

Robustness checks

The main findings are robust to a range of sensitivity analysis.⁹ The table below summarises the robustness checks that we conduct in this study.

Table 2: Summary of robustness checks

Robustness Check	Purpose and Key Insight
Total Factor Productivity (TFP) as a Dependent Variable	TFP is another measure of productivity, which captures portions of output growth that cannot be explained by increases in inputs of capital and labour. It reflects efficiency improvements, technological progress, and other systemic factors such as institutional quality, innovation, and regulatory effectiveness.
Control for Services Share	Accounts for structural change in the economy. A higher services share is often linked with slower productivity growth. Including this control helps isolate the effect of regulation from broader compositional shifts.
Control for Technology Gaps, Labour Quality Growth and Real GDP Growth	Controlling for technology gaps, labour quality, and macroeconomic conditions ensures that the analysis isolates the independent effect of regulation on productivity growth while accounting for key structural and cyclical factors that influence productivity. Technology gaps capture the potential for convergence, labour quality reflects the workforce's capacity to adopt new technologies, and macroeconomic conditions control for broader economic trends affecting productivity.
Instrumental Variable (2SLS)	Addresses potential endogeneity between regulation and productivity. Using lagged PMR as an instrument strengthens the causal interpretation, with a larger negative effect on productivity observed.
Exclude 2018 and 2023 Observations	Tests for sensitivity to changes in the OECD's PMR methodology. Results remain consistent when years with non-comparable indicators are removed.
Outlier Removal (Top 5%)	Ensures that results are not driven by extreme observations. Excluding the most extreme productivity growth values confirms the stability of the main findings.

⁹ A more detailed technical appendix, including supporting data and modelling assumptions, is available for readers interested in the underlying analysis.

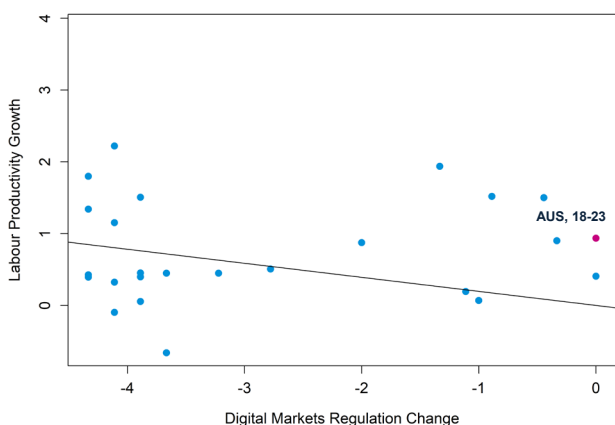
3.4. Extending the analysis: challenges and preliminary evidence of AI regulation on productivity

It is an empirical challenge to establish a direct relationship between AI regulations and productivity as AI is still in its infancy, and a sufficiently long time series for meaningful analysis is not yet available.

To the best of our effort, we incorporate the PMR sector indicators in the Digital Markets sector as a Proxy for AI Regulation (PMR DM).¹⁰ While not an exact measure of AI regulation, PMR DM serves as the closest available indicator, given the overlap between the regulatory environments for digital and AI technologies. It includes information on whether countries perform market studies to understand and assess barriers to competition in digital markets, if they have specific merger rules or guidance targeted at digital markets, if they have regulations to ensure fair trading on large platforms for business users, as well as rules on use and access to data and to foster market contestability.

In this extended analysis, there remains a negative relationship between PMR DM and productivity. The extended analysis reveals that tighter regulation in digital markets appears to have a statistically significant negative effect on labour productivity growth. Over the 2018–2023 period, a 1-unit increase in the PMR DM is associated with a 0.20 percentage point decline in labour productivity growth. In contrast, we find no conclusive evidence that tighter PRM DM has a significant effect on TFP growth.

Figure 6: Labour Productivity Growth vs Change in Regulation in Digital Markets Across Countries (2018–2023)



Source: The Conference Board, OECD, KPMG

Note: Labour productivity growth is measured as the percentage change in output per hour worked between 2018 and 2023. Regulation change is calculated as the difference in PMR Digital Markets score between 2018 and 2023. The best-fit line represents the OLS regression of productivity growth on regulation change, with a slope coefficient of -0.2 and significant at the 1% level. The adjusted R-squared is 0.02.

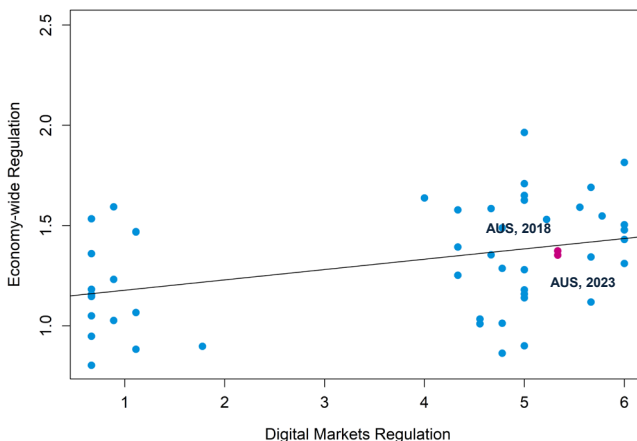
While the result should be interpreted with caution because of the short sample size, it’s reassuring to observe even a preliminary association as it provides a foundation for further research.

We also find PMR DM co-move with economy-wide PMR, a regulatory measure for which we have access to longer data series and have previously conducted extensive empirical analysis to establish a robust negative relationship between regulation and productivity in Section 3.3. We find a statistically significant relationship in both levels and differences. This suggests that countries with more restrictive digital market regulations also tend to have more restrictive economy-wide regulatory environments, and reform or tightening in digital markets are likely part of broader regulatory shifts.

This therefore strengthens the credibility of our findings. It suggests that the observed association between PMR DM and productivity is not random or spurious. This shows that PMR DM likely carries similar implications for productivity as economy-wide PMR. As such, while the short time series of PMR DM limits the precision of our analysis, the strong link between PMR DM and PMR adds credibility to the hypothesis that regulation in digital and AI could have a robust and lasting negative effect on productivity.

As AI regulation develops and more data becomes available, future research will be better positioned to establish robust, long-term relationships. In particular, the development of more targeted AI regulations will enhance the reliability of such analysis. Until then, our extended analysis suggests a preliminary yet useful finding of the effect of AI regulation on productivity outcomes.

Figure 7: Economy-wide Regulation (Product Market Regulation) vs Digital Markets Regulation Across Countries (2018–2023)



Source: The Conference Board, OECD, KPMG

Note: The best-fit line represents the OLS regression of PRM DM on economy-wide PRM. The slope coefficient is 0.3 and is significant at the 1% level. The adjusted R-squared is 0.14.

¹⁰ The PMR sector indicators summarise information by sector, and not by regulatory domain, as in the economy-wide indicator presented in Section 3.2. These indicators cover network industries, professional services, retail distribution and retail sale of medicines, and digital markets.

3.5. What does KPMG's analysis suggest

In those countries where regulations are already tight, a relaxation of restrictions implies a greater improvement in productivity growth. Meanwhile, the improvement in productivity in restriction in those less-tightly regulated countries are less. This suggests excessive regulations are not welcome. However, it also means an acceptable trade-off can be achieved, that does not severely stifle productivity gains, while at the same time, maintaining necessary safeguards – KPMG's so-called 'Goldilocks point' of AI regulation.

Introducing regulation into highly liberalised systems can address emerging risks and market failures, which are particularly relevant in the context of AI, but excessive intervention in already regulated environments may hinder innovation and slow productivity growth.

For Australia, this has direct implications for the development of AI-specific regulation. The absence of a current legislative framework provides an opportunity to build a fit-for-purpose system that reflects lessons from both international practice and historical experience with other forms of economic regulation. Aligning with global norms, such as the EU AI Act and Canada's AIDA, may reduce trade frictions and compliance burdens, while allowing space to tailor enforcement mechanisms to local needs.

Importantly, the distributional effects of regulation must also be considered. Smaller firms are more exposed to the fixed costs of compliance and may face barriers to AI adoption if regulatory requirements are overly complex or resource intensive. Designing proportionate and scalable rules, particularly for low-risk applications, can ensure broader participation in the productivity gains from AI.

Noting these findings, KPMG considers that the adoption of the existing Voluntary AI Safety Standard in full as the template for future AI regulation in Australia should be carefully considered. KPMG notes that overly stringent guardrails and regulation may significantly increase compliance costs for businesses without sufficient benefit, especially when the AI tool being employed is an off-the-shelf solution as opposed to a bespoke platform. This cost may impact productivity as more resources are dedicated to implementing and documenting unnecessary processes and protocols rather than being able to dedicate time to producing outputs for consumers and other businesses. KPMG instead supports the development of principles that define high-risk AI with associated regulation providing clear and consistent expectations on those delivering and deploying AI.

Ultimately, productivity-enhancing regulation is not a question of more or less, but better. Policymakers should focus on rules that are transparent, risk-based, adaptable to change, and a recognition that in the face of uncertainty a one-size-fits all solution is unlikely to be optimal. This requires continuous evaluation, stakeholder engagement, and investment in regulatory capacity to keep pace with technological developments.

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