

Priorities for 2023

The UK Productivity Commission

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The UK Productivity Commission (The Commission) was established by the National Institute of Economic and Social Research (NIESR) as part of The Productivity Institute (TPI), which is funded by the Economic and Social Research Council (ESRC). The Commission's main purpose is to examine the UK's poor productivity performance and provide policy solutions to address the shortfall.

The objectives of The Commission are:

- to help understand and communicate the policy implications of new academic research related to UK productivity;
- to collect evidence from key stakeholders and provide summaries of research and evidence with an emphasis on regions and the devolved nations;
- to examine the implication of planned policies, respond to policy initiatives in Whitehall, elsewhere and overseas, provide policy advice and develop policy proposals.

Since it was launched on 16 September 2021, The Commission has held three oral evidence sessions and issued two calls for written evidence. This report is a summary of the evidence received so far. In its second year, The Commission will hold quarterly evidence sessions that will focus on specific policy issues. A report will be published after each evidence session making suggestions to the Government for how the UK can improve its productivity performance.



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TPI is a UK-wide academic research organisation exploring what productivity means for business, for workers and for communities – how it is measured and how it truly contributes to increased living standards and well-being.



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Foreword¹

In September 2017, I gave a Public Lecture, as part of series on a Blueprint for Brexit Britain, at Gresham College in the City of London, which highlighted the disturbing lack of productivity growth in the UK economy and showed how it had lagged behind our major trading partners.² With little or no growth in labour or total factor productivity, it seemed to me that there could be no solution to our economic problems and a return to what we have come to consider as normal times. In that lecture I outlined a wide range of possible explanations ranging from the role of finance to the deployment of physical and human capital.

Productivity can be loosely described as a measure of how smart we work instead of how hard we work.³ For instance, the people in a country can work very hard by increasing the aggregate number of hours worked in a year while generating little extra value per hour. This is the type of low-productivity economy we want to avoid if we care about the population's overall living standards. The evidence in this regard is clear. The UK's real wages, as a broad measure of living standards, improved alongside the country's productivity before 2008 and stagnated as productivity grew at a much slower pace in the post-2008 period.

The United Kingdom's economy has been plagued by anaemic productivity growth since the 2008-09 global financial crisis. Between 1974 and 2008, the UK's productivity grew at an average rate of 2.3 per cent a year, a much higher rate than the annual growth rate between 2008 and 2020 at around 0.5 per cent. The recent period represents a substantial slowdown, and sits awkwardly with the historical record, for which we have decent measures of economic aggregates (from the mid-18th century onwards).

Many of these themes were picked up in The Growth Plan unveiled by the then Chancellor on 23 September 2022.⁴ But subsequent events illustrated so clearly that when it comes to fostering long term growth: *festina lente*. An earlier statement was made by the Prime Minister, in his Mais lecture, when he was Chancellor this February. While the focus on "Capital. People. Ideas." was a step in the right direction, the boundary between the public sector and the culture of enterprise is more porous than a simple partition might imply. There are positive spillovers when a well-run public sector provides each of capital, people and ideas to a private sector that ultimately will be the source of prosperity. Getting the balance right is the critical question facing public policy.

Jagjit S Chadha
Chair, UK Productivity Commission

1 Any views expressed in this Foreword are made in a personal capacity and may not represent those of my fellow Commissioners, the National Institute of Economic and Social Research or the Productivity Institute.
2 The lecture and accompanying materials can be accessed from Gresham College: <https://www.gresham.ac.uk/watch-now/productivity-puzzle>
3 See the Monday interviews between Stephen Millard and Issam Samiri: <https://www.niesr.ac.uk/blog/geography-skills-and-productivity> and <https://www.niesr.ac.uk/blog/why-uk-productivity-low-and-how-can-it-improve> from May and September 2022.
4 The House of Lords library outlined these initiatives in a paper published on 7th October 2022: <https://lordslibrary.parliament.uk/the-governments-growth-plan-and-the-economy/>

1. Introduction

Since it was launched on 16 September 2021, the UK Productivity Commission (The Commission) has held three oral evidence sessions and issued two calls for written evidence. On 23 June 2022, The Commission published its first report, which summarised the written and oral evidence that was received and should be treated as a point of departure.

The report outlined the concepts of productivity and the UK productivity puzzle before discussing issues around 'sizing the problem' and 'measurement' at international, national and regional levels. We discussed productivity across and within sectors before moving on to potential explanations of weak productivity growth in the UK. We concluded with a selection of potential policy priorities that flowed from the evidence that the Commission received.¹

Over the next three years, The Commission will hold evidence sessions that focus on specific policy issues. A report containing suggestions to the Government for how the UK can improve its productivity performance will be published after the evidence sessions. The Commission will also examine different ways to hear from productivity experts, such as presentations from authors of policy papers and the various productivity boards around the world. We were therefore pleased to participate in the OECD National Productivity Boards meeting on 30 June 2022. Annex 1 of this Report lists our Commissioners and Annex 2, which was prepared by Dr Dirk Pilat, compares the key themes of the productivity boards.

This report sets out what The Commission learned in its first year and what the policy priorities are over this coming session. We are pleased to welcome Stephen Aldridge, Chief Economist and Director of Analysis and Data Directorate at the Department for Levelling Up, Housing and Communities, as our Government Observer for this year's work and thank Mike Keoghan (BEIS and then ONS) for his work and support last year. And we are grateful to Dr Catherine Mann and Dr Paul Fisher for agreeing to contribute to the writing of our reports in the upcoming session and to Dr Dirk Pilat who will join us as a special rapporteur.

¹ The report is available from <https://www.niesr.ac.uk/wp-content/uploads/2022/06/Productivity-in-the-UK-Evidence-Review.pdf>

2. Summary of 2021-22: Sizing the Problem

In this section we summarise the findings of the first year of The Commission and provide rationale for what we will look at in future years.

Is productivity measured accurately?

International and national

- Many have questioned the robustness of productivity statistics, and in consideration of that we welcome the ONS approach in updating data sources and methods to reflect the changing economy.
- It was identified that the ONS has some work to do in adjusting for quality improvement in many public services and service industries. The current practice is likely to lead to an underestimate of real (volume) output growth and thus productivity growth in these sectors.
- Even when we account for the revisions to the data, the narrative is clear: the slowdown in productivity growth in the UK remains substantial, whatever the data vintage used.
- We did highlight some differences across countries in how they measure productivity, which would affect international comparisons. Throughout its duration, the UKPC will examine changes in how productivity is measured and analyse the impact of any such changes.
- Although perhaps not a surprise, it is possible that UK policy makers have become so focused on UK specific problems that lessons from international comparisons may not have been sufficiently drawn upon.

Regional

- The UK's productivity performance has been very uneven across the country. The gap between London and the South East and the rest of the UK regions and cities has widened in the last two decades.
- Investment in human capital is also highly concentrated in London and the broader South East.
- The Commission will examine the reasons behind the variation in productivity performance across the UK and make policy recommendations to improve productivity in the lagging regions and cities.

Sectoral

- Differences in productivity within sectors and even within individual firms appear to be as substantial as differences between sectors. There are challenges in terms of defining sectors narrowly enough that the ONS ought to prioritise.
- Where possible, the ONS should attempt to measure how intangible assets affect productivity differences. This is because mismeasuring intangible investments in the service industries is likely to lead to an underestimate in output volumes in industries where intangible investments are of significance and underestimating capital services when these intangibles are fully used in the production process. This may lead to an underestimate of productivity growth in the services industries early on and an overestimate of productivity growth in later stages.
- That said, it is important to recall that data is being constantly revised, for example, the recent revision by the ONS of the UK estimates of R&D expenditure significantly reduced the gap when compared to other countries.¹
- A greater disaggregation of industry data is needed to gain a clearer view of the performance of the UK financial sector, a critical sector in the UK, and how policies could aim at improving productivity growth and its measurement in that sector.

¹ See an analysis here: <https://blog.ons.gov.uk/2022/09/29/the-power-of-innovation-first-new-rd-stats-are-here/>

How big is the UK's productivity problem?

International and national

- It is important to understand when productivity growth in the UK began to slow down so that we know where to look for what may have caused it. There was some disagreement about whether the slowdown in UK productivity growth started before or after the 2008-09 financial crisis. But given the low frequency at which productivity shifts, it is becoming apparent that the seeds of the slowdown were sown by the policy choices prior to the financial crisis. The economic model may even be questioned.
- Most of the evidence indicated that it started circa 2007-08, around the outset of the financial crisis. The ONS said that there was a very sharp slowdown in output per hour worked in the UK after the financial crisis.
- The evidence also indicated that productivity growth at the frontier, namely in the US, started to slow down around 2005, and it typically takes two to three years for the US trend to be followed by other developed economies, which is consistent with dating the start of the UK slowdown to 2007-08.
- Much of the evidence suggested that productivity growth in the UK is weaker compared to similar economies. It was argued that UK TFP growth has slowed substantially in the period after 2010, again underperforming when compared to similar economies. With the progress of time and further measures of our domestic economic performance, it is looking increasingly clear that the UK economy performed significantly more weakly than most other advanced economies.
- In subsequent years, The Commission will examine the extent to which the UK's productivity performance is keeping pace with the frontier, and emergent data on the productivity gap between the UK's frontier and non-frontier businesses.

Regional

- The productivity divide between London and the South East and the rest of the UK in terms of cost to the UK economy is stark. Submissions from various non-London and non-South East regions throughout the UK to The Commission commonly referred to the 'productivity gap', its negative consequences for local economies and, in turn, for local citizens. We will want to assess whether there is any evidence of an amplification in divergences as they have become embedded.

Sectoral

- Much of the evidence suggested that the sectoral composition of the UK economy is probably not the main reason behind the productivity slowdown in the UK, as a low level of labour productivity has been pervasive across all sectors. Rather, within-sector and within-firm causes should be examined as the gap between the most and least productive firms is about 16-fold in the UK and tenfold in other countries examined by the OECD.

Does regional variation across the UK explain poor performance in international comparisons?

- There were numerous reasons submitted to The Commission for why the UK nationally has suffered from weak productivity growth. The view often put forward is that aggregate productivity growth has been held back by 'productivity laggards' in the long tail.
- The counter view, which was quite apparent in some of the evidence, is that productivity growth in less-productive tail end firms has not changed much since the financial crisis. Instead, it is the frontier firms, which often export and are internationally significant, that have struggled to bounce back and drive productivity growth. The evidence is inconclusive on whether tail-end or frontier firms have been the bigger drag on productivity growth.

- That said, while frontier firms change over time, the dynamics have slowed down over time, with a more rigid group of firms remaining at the top. A key question for the UK is therefore not only why the frontier firms are not doing better, but also why no more new firms join the group of frontier firms and others drop out. Annex 2 outlines some issues related to firm-level dynamics.
- The financial crisis, the process of Brexit and an inability to stabilise export prices were explanations offered as to why demand for UK exports across the globe has suffered in recent years.
- Foreign direct investment was often highlighted as a reliable way to improve productivity in lagging regions.
- With almost half of British exporters (by value) based in London, and with some 10 per cent of the UK's exports financial services, policies are required that will be targeted at firms in the upper tail of the productivity distribution across the country. Policies are also required to raise productivity in cities outside London and the South East, such as Birmingham, Liverpool and Manchester, which underperform relative to their size.
- Cities outside London and the South-East have been identified as a key cause of the UK's poor productivity growth. Reasons for this include a lack of skills, education and in-work training, poor management and infrastructure, a weak business environment, over-centralisation, and physical and mental health challenges.
- Some have argued for more differentiated regional policies to 'level up' productivity in cities outside London and the South East. Central government has been called upon to work hand in glove with local authorities, and the latter will be better equipped to identify local challenges.
- Further devolution of powers relating to the main state levers of productivity should be considered by the Government, and policies that are implemented must also be given sufficient time to have an impact.
- The UK system of governance is highly centralised, with state power to remain largely concentrated in London and the South East and weak institutional capacity to improve productivity in other regions and cities. To improve the UK's poor productivity performance, the structural problems of over-centralisation, weak and ineffective institutions, policy churn, institutional and policy silos, short-termism and poor policy coordination must be rectified. In this light, The Commission will monitor the progress of the Levelling Up White Paper, examine it in future evidence sessions and make policy recommendations for an effective institutional framework to improve productivity in the coming years.
- A greater focus on infrastructure both between and within these cities will have the greatest chance of producing critical agglomeration effects, such as attracting and retaining human capital to help drive productivity growth. Attracting and fostering the right mix of skills is crucial to the 'levelling up' of productivity across the UK, as research has suggested a relationship between local productivity and the skill level of the local workforce.
- The size, ownership and structure of a firm can affect its productivity, seemingly more so than the sector in which it operates. There were no calls to provide incentives in certain sectors as part of an industrial strategy. It is, however, noteworthy that just two sectors, manufacturing and finance, were highlighted in evidence as accounting for most of the fall in UK aggregate productivity growth.
- It is likely that a range of policy interventions across the country will be needed to improve productivity at different points of productivity distributions.

3. Focus on Investment

When studying national productivity performance, economists start by examining the production function, which comprises capital, labour and total factor productivity. Often though the focus switches directly to a country's capital accumulation. Higher levels of aggregate capital usually mean more output for the same number of hours worked and therefore, higher productivity. Unfortunately, the share of GDP dedicated to capital formation has been low in the UK compared to the US, France, and Germany in most years since the 1960s, and the gap has widened further since the early 1990s.

The UK economy has also suffered from chronic underinvestment in the public and business sectors. Public investment collapsed from a long-term average of 4.5 per cent of GDP between 1949 and 1979 to around 1.5 per cent after 1979. Similarly, the share of the UK's GDP dedicated to business investment has been trending downwards since the early 1960s.

There are structural reasons for these trends. For instance, capital goods' prices decreased substantially relative to consumption goods over the last half-century. This means that a smaller share of GDP can buy the same quantities of capital goods now than 20 years ago – think of how much less a computer with a certain computing power costs now compared to 30 years ago. While investment goods are now much cheaper, the UK's capital to output ratio did not increase since the 1960s, meaning that the UK used lower capital prices to spend less of its GDP on investment instead of improving the economy's capital intensity as measured by the capital to GDP ratio. Of course, the UK economy's industrial composition has changed, decreasing the share of the capital-intensive heavy industries.

Trends such as lower capital relative prices and rebalancing in favour of less capital-intensive industries are not unique to the UK. And so are unlikely to justify the lower investment shares in the UK relative to similar economies on their own. Furthermore, the UK's underinvestment puzzle is deepened by the downward trend of real interest rates. Even the recent tightening of monetary policy by the Bank of England has not reversed this trend.

Economists tend to think that low real interest rates spur investments by decreasing the financing costs businesses face when funding new capital. To a large extent, the issue of low investment shares in the UK is still an open question, and economists are still grappling with it. The uncertainty regarding future terms of trade for UK businesses after the country left the EU single market certainly contributed to curbing the short-lived rebound in business investment that preceded 2016. However, it is hard to blame Brexit for what is essentially a structural feature of the UK economy. And the structural determinants of investment that relate to key productivity-enhancing components of investment (e.g. intangibles, public investment, ICT capital, R&D, venture capital) all need to be examined.

Our questions for 2023

- What are the frictions or rigidities that have delayed or prevented capital deepening, particularly since the global financial crisis?
- Specifically, how difficult has it been to finance investment projects through bank finance, equity or debt?
- To what extent has business demand for capital, driven by uncertainty or poor prospects for economic growth, played a significant role?
- A focus on specific regions and sectors in any evidence submitted and during the evidence sessions will be critical.

Priorities for 2023

- How important is public investment in fostering growth? Does it drag growth down with the prospect of higher taxes or provide the basis for the better functioning of the market economy?
- Might public investment also interact and support strategic priorities and address spatial imbalances (in the short, medium, long term)?
- What exactly has been the contribution of intangible capital as a replacement or complement for physical capital?
- What policy responses do we need to increase returns on investment, potentially across the six capitals identified in the Levelling Up White Paper (physical; intangible; human; financial; social; and institutional)?

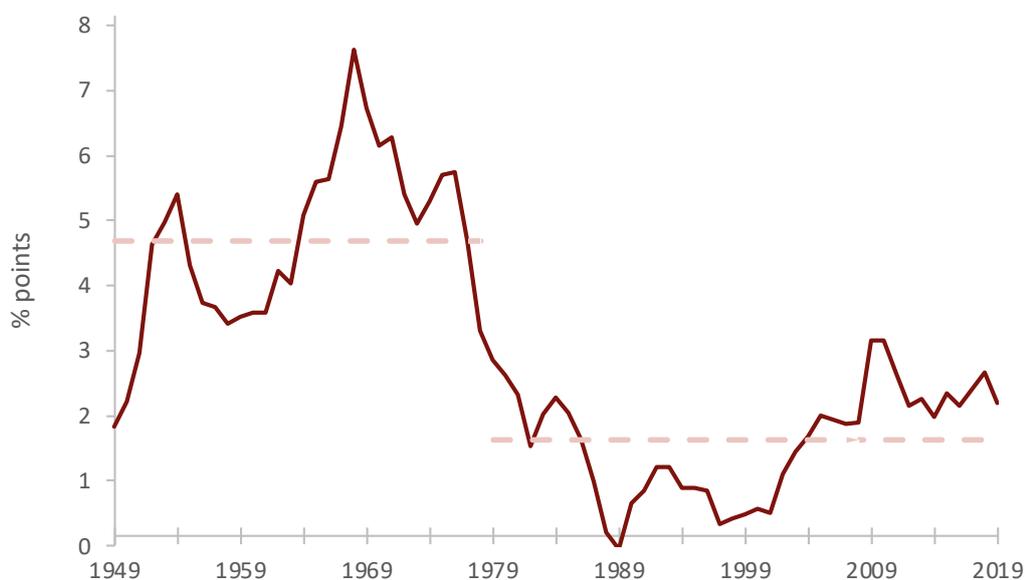
4. The Investment Story in Four Figures

Figure 1 Business investment to GDP ratio. Both GDP and business investments are in current prices.



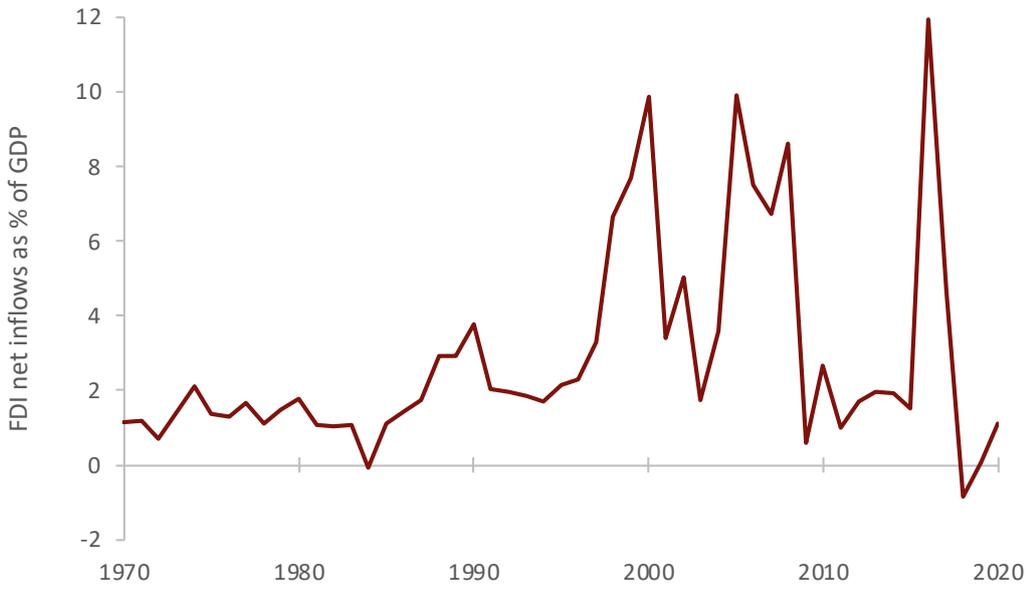
Source: ONS and NIESR calculations

Figure 2 Public sector net investment as a percentage of GDP with the 1949-1979 and 1980 - 2021 averages.



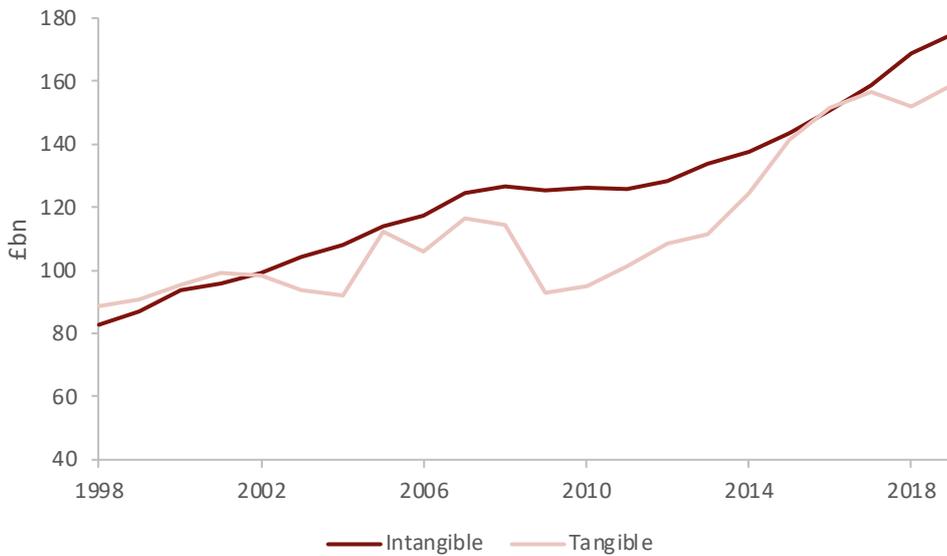
Source: OBR, ONS and authors' calculations

Figure 3 Foreign Direct Investment net inflows (% of GDP), United Kingdom, 1970-2020.



Source: World Bank

Figure 4 Total intangible and tangible investment, £bns, non-farm market sector, 2000-2020



Source: Goodridge, Peter, and Jonathan Haskel (2022), "Accounting for the slowdown in UK innovation and productivity", TPI Working Paper No 022, The Productivity Institute"

5. Policy Questions of Supplementary Interest to Commissioners

This section sets out some of questions that The Commission will examine in its future years. This list is not exhaustive. The Commission has agreed on these areas based on both the lessons learned in its first year of evidence gathering and on the reasons for policy intervention, which include market imperfection, complementarities between policy interventions, the need to move from short-term to long-term planning, and institutional fragmentation between policy domains and geographic levels.

Financing of investment

Financing start-ups and scale-ups, finance as a barrier to investment, corporate governance.

How hard/easy is it to finance start-ups/scale-ups? Is the public market shrinking and does it matter? Is finance a real barrier to investment? Does corporate governance discourage risk taking? Is there too much debt vs equity finance, etc.?

Skills

Vocation skills, labour market policy, hybrid working, transferring knowledge to future leaders.

How changes in the way we work (e.g., move to hybrid working/meetings) resulting from Covid are enabling firms to find productivity improvements in order to help shape our thinking on labour market policy.

How can we effectively transfer the necessary knowledge/skills on how to achieve highly productive business to all engineers and business students (others)?

Competition

Has there been a fall in competition, a lack of superstar firms?

Is low productivity in the United Kingdom a result of a fall in competition? Or rather a result of the lack of 'superstar' firms in the economy?

Firm dynamics

Digitalisation, green transformation, technology take-up.

What is the most effective way to encourage uptake of proven technologies and management practices in UK firms? What barriers are firms facing in the digitalisation process?

What are the emerging impacts of digitalisation on firm performance?

What policies are proving to be successful in strengthening digitalisation, especially of SMEs?

What are the impacts of the green transformation on productivity? What are the opportunities, what are the challenges?

What policies can leverage the green transformation for productivity? What is the relationship between innovation and productivity?

What policies can realise the benefits of innovation for productivity?

Annex 1 – Commissioners and Secretariat

Commissioners¹

Biographies of each of the Commissioners below are on the UK Productivity Commission website:²

- Bart van Ark, University of Manchester
- Alan Barrett, Economic and Social Research Institute
- Gillian Bristow, University of Cardiff
- Jagjit Chadha, NIESR (Chair)
- Diane Coyle, Bennett Institute of Public Policy, University of Cambridge
- Eileen Harkin-Jones, Ulster University
- Rachel Lomax, Formerly HM Treasury and Bank of England
- Stephen Millard, NIESR
- Anton Muscatelli, University of Glasgow
- Adrian Pabst, NIESR
- Dirk Pilat, The Productivity Institute
- Chris Pissarides, London School of Economics
- Tony Venables, University of Manchester
- Jackline Wahba, University of Southampton
- Stian Westlake, Royal Statistical Society
- Andy Westwood, University of Manchester
- Cecilia Wong, University of Manchester

Secretariat

- Issam Samiri, ESRC Postdoctoral Research Associate (Macroeconomics and Productivity), NIESR
- Konstantinos Myrodiadis, ESRC Postdoctoral Research Associate (Governance and Institutions), NIESR
- Max Harvey, UK Productivity Commission Co-ordinator, NIESR.

Observer

- Stephen Aldridge, Department for Levelling Up, Housing and Communities

Specialist Advisors

- Catherine Mann, Bank of England
- Paul Fisher, University of Cambridge
- Dirk Pilat, The Productivity Institute.

¹ The Commission would like to thank those who were previously Commissioners for their contribution.

² <https://www.niesr.ac.uk/productivity-commission-commissioners>

Annex 2 – Key Themes of International Productivity boards

| | Tangible and Intangible Capital | Human Capital | R&D and Innovation | Digitalisation | Entrepreneurship & business dynamics |
|-----------------------|--|--|--|---|--|
| Australia | Macro drivers of business investment Structural factors | Foundational and Specific Skills Life-long learning | Innovation Diffusion, Public Sector, Data Access & Availability | Variety in Uptake Advanced Technologies Data economy | |
| Belgium | | Skills and COVID-19 Retaining Talent Lifelong Learning | R&D Concentration Innovation Eco-System | Digitalisation | Firm Dynamics & COVID, Zombie Firms, Scaling, Productivity Divergence |
| Denmark | | Foreign Labour | | | COVID Crisis and Firm Dynamics |
| Finland | Capital intensity ICT and non-ICT capital | Structure Labour Force Management Skills | R&D Spending, Reallocation and Productivity of R&D | | Creative Destruction Resource Allocation Productivity Divergence |
| France | | Quality of Education, Skills, Management and Diversity, Inequalities, Gender, Mismatch | Investment in R&D, Structural Factors, Efficiency of R&D, Public-Private Links | Telework and Productivity, Co-investment in Digital Technology, ICT Diffusion | Business Dynamics & COVID, Reallocation, Productivity Divergence |
| Germany | Investment in ICT and Digital Infrastructure, Intangibles | Lifelong learning Equality of Opportunity Management Skills | Innovation System Concentration, Costs of Innovation | Digitalisation and COVID Data economy, Platforms and Cloud, Diffusion | Business Dynamics & COVID-19, Allocation Mechanisms |
| Ireland | | Digital Skills Management Skills Skills Gaps & Mismatch | R&D Spending, Innovation System | Connectivity and Advanced Technology Use Telework and COVID | Indigenous SMEs, links to MNEs and Research Institutions |
| Netherlands | Intangibles Digital technologies | | | Digital technologies | Business dynamics Productivity divergence |
| New Zealand | Capital Intensity, Macro Drivers of Investment | Talent, Management and Leadership, Immigration, Skills Mismatch | Innovation System, Lagging R&D Spending and Performance | | Frontier Firms, Productivity divergence, Technology Diffusion |
| Portugal | Investment Dynamics, Determinants of Investment | Disparity in Qualifications Managerial and Entrepreneurial Skills | Lack of Collaboration R&D tax Credits Innovation System, R&D Concentration | Digitalisation and COVID, Technology Diffusion | Productivity divergence Zombie Firms, Resource allocation |
| United Kingdom | Investment | Education, Skills, Management & Training | Business environment, Innovation | Homeworking | Reallocation of resources |

Source: Section 4 and reports of national productivity commissions. See references for further detail.

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