National Institute of Economic and Social Research

Productivity

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NIESR General Election Briefing

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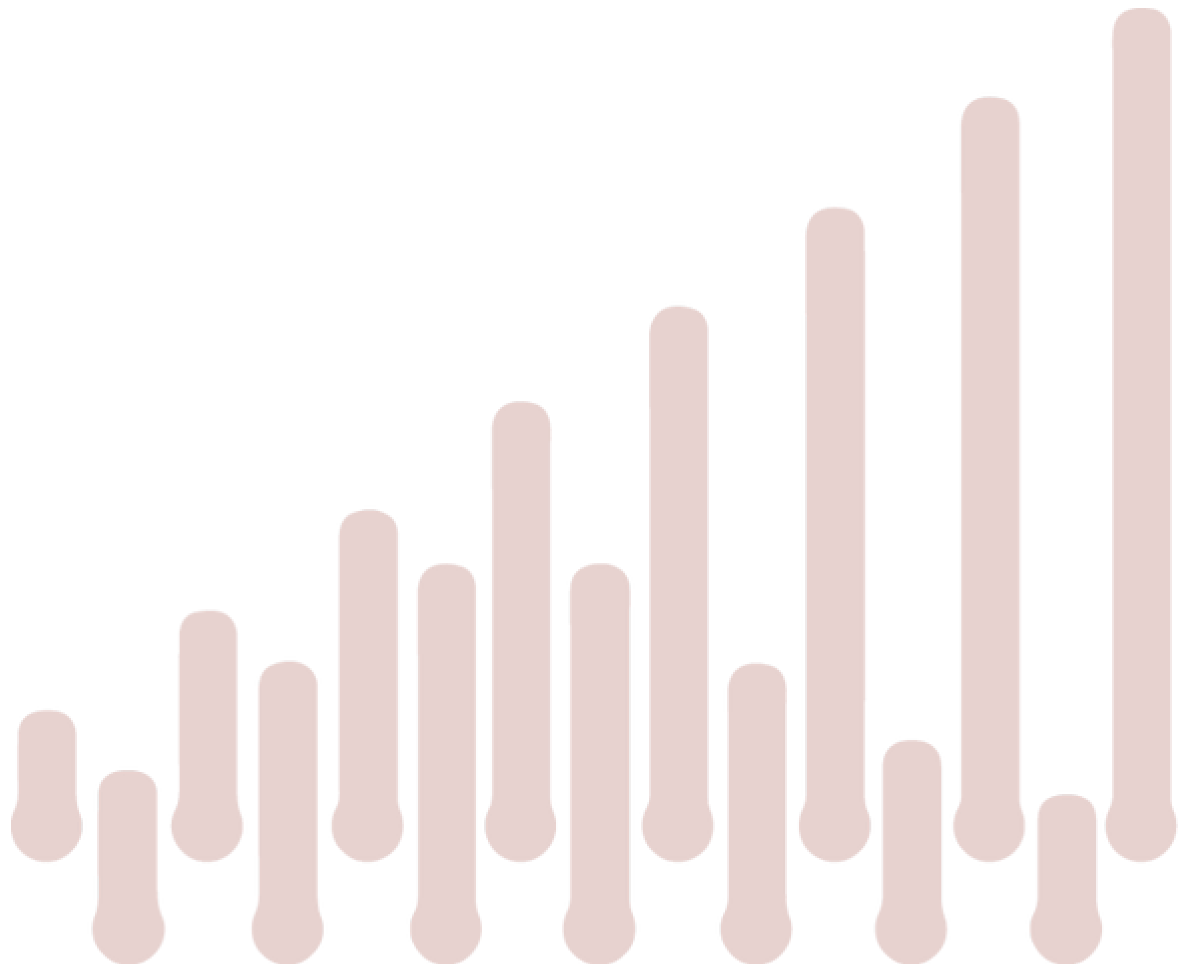

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OVERVIEW

This briefing focuses on

- The United Kingdom's poor productivity performance at national, regional and sectoral levels since the last election in December 2019.

- Policy recommendations to boost productivity, notably supply-side reforms as well as higher levels of both public and business investment.

KEY POINTS

- Productivity, defined as output per hour worked, is one of the main drivers of economic performance; over time higher productivity boosts incomes and living standards as producing more goods and services per unit time leads to higher wages.

- Most advanced economies have faced a secular decline in productivity growth over the past two decades, but the United Kingdom has performed particularly poorly compared to its peers.

- Since 2019, UK productivity growth has continued to be weak, with an annual average growth in output per hour worked of just 0.5 per cent.

- Regional and sectoral productivity disparities have widened, notably a fall in productivity in parts of the Midlands and in sectors such as electricity and gas.

- If UK productivity had grown at 2 per cent per year since 2008 (as it did in the preceding three decades), it would have meant an extra £5,000 in output per worker per year on average.

- Boosting UK productivity growth will require at-scale investment in skills, transport infrastructure, housing, research and development (R&D) and an industrial strategy to channel investment into key strategic sectors such as renewable energy.

- We propose raising public investment to at least 4 per cent of GDP per year to benefit from the direct economic effects and to unlock greater business investment, based on a new fiscal framework (see the NIESR GE Briefing on the Macroeconomic Context).

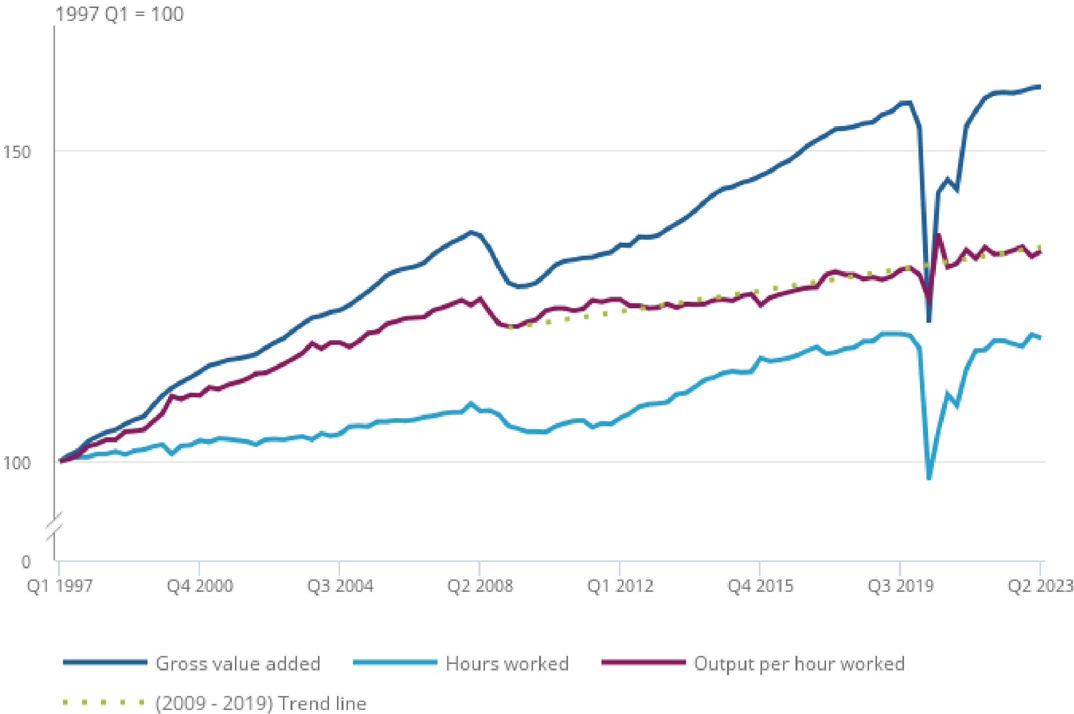
Productivity since 2019

The United Kingdom's Aggregate Productivity Performance

- The United Kingdom's productivity performance since 2019 has been weak. ONS data suggests that output per hour worked in the second quarter of 2023 was only 2.8 per cent above its pre-pandemic level (2019 average level), which amounts to about 0.5 per cent growth on average per year.

- According to the latest ONS release, UK productivity in 2023 was flat relative to 2022, with no growth in output per hour worked (figure 1).

Figure 1: Output (GVA) per hour worked, UK index (1997 Q1=100)



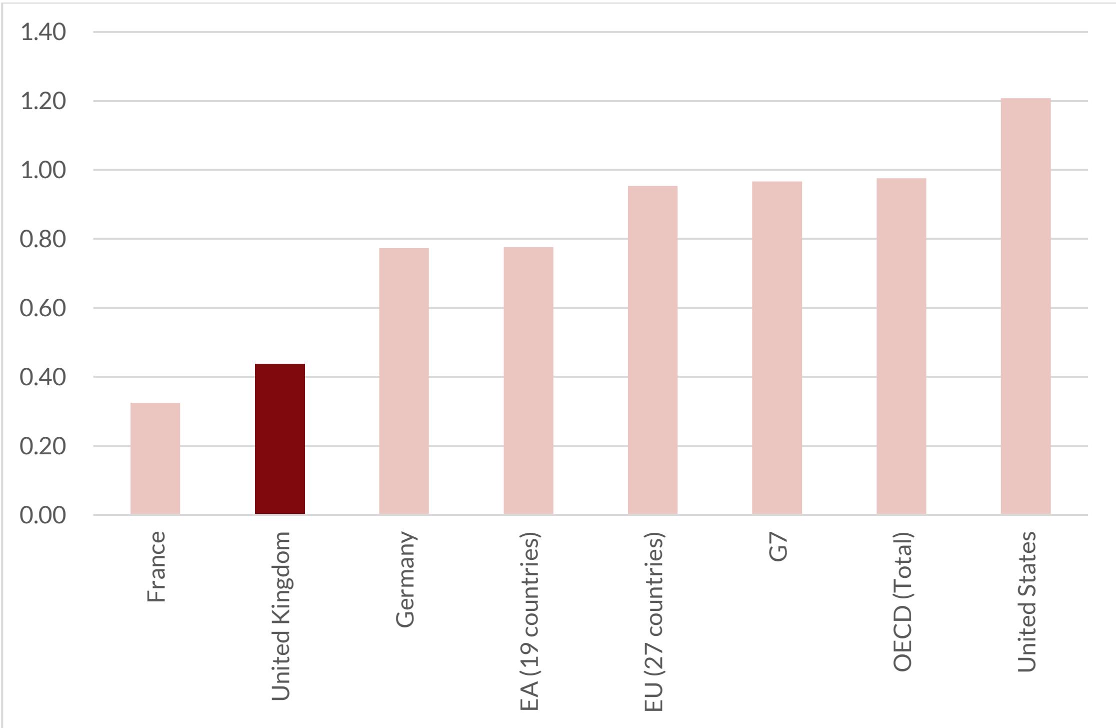
Source: ONS (2023)

- NIESR projects UK productivity to grow by 0.9 per cent in 2024 and 1.3 per cent in 2025. Meanwhile GDP growth is projected to pick up in 2024, but the trend growth rate remains a paltry 1 per cent per year.

UK Productivity by International Comparison

- The growth of UK productivity has been lower since the 2008-09 global financial crisis than that of other advanced economies, including the USA and Germany, though higher than that of France (figure 2).

Figure 2: Average growth in GDP per hour worked since 2008 – international comparison

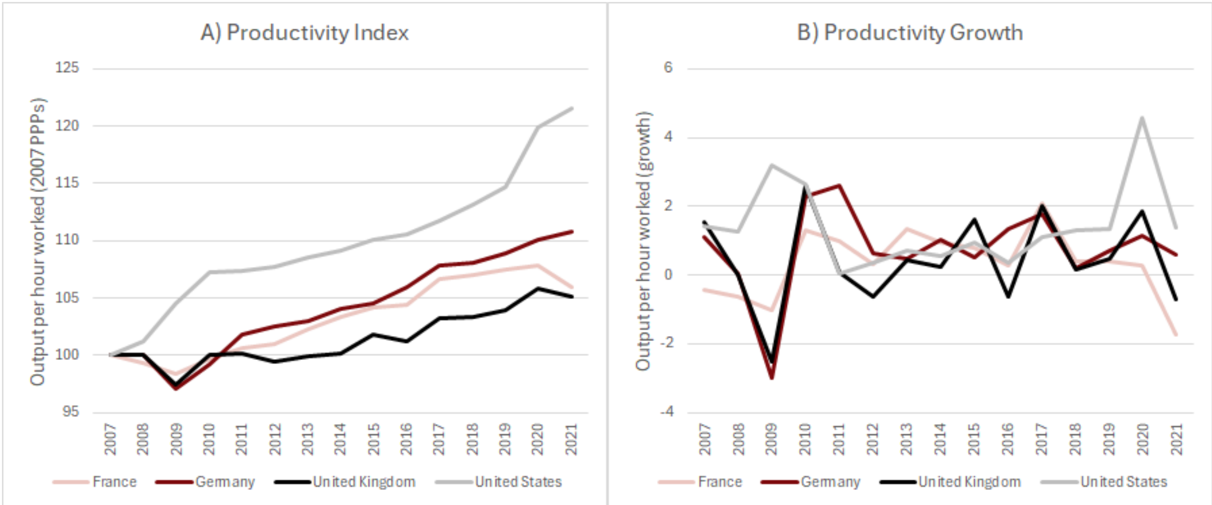


Source: OECD (2024)

- Figure 3 depicts the UK's productivity index relative to other advanced economies since 2007, highlighting that UK output per hour worked has grown by less than that of the United States, Germany and France (Panel A).

- Panel B shows that the year-on-year growth in productivity in the UK has been lacklustre since the global financial crisis, often being the lowest among its peers.

Figure 3: Annual output per hour worked – country comparison



Source: OECD (2024)

Regional Productivity

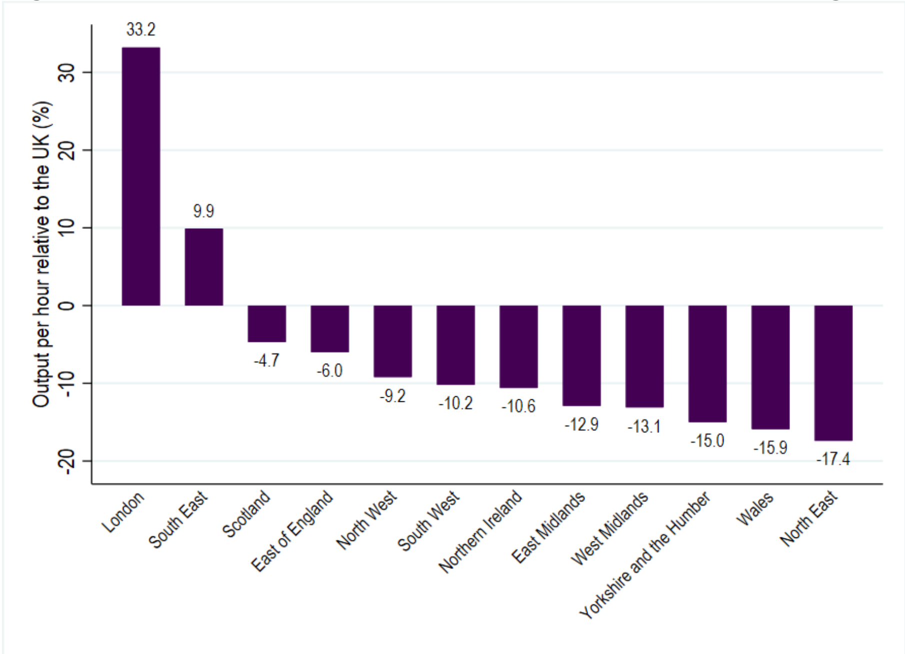
- Productivity also varies significantly across regions in the United Kingdom (Bhattacharjee et al., 2024). While aggregate productivity in the United Kingdom lags other advanced economies, London and parts of the wider South East are among the most productive parts in Europe.

- In 2021, London had the highest labour productivity among all regions, surpassing the UK average by 33.2 per cent. Similarly, the South East exhibited a 9.9 per cent higher output per hour than the UK average, although it remained noticeably lower than London's productivity (figure 4).

- The United Kingdom's low productivity is in large part the result of a poor performance of the rest of the country relative to London and metropolitan parts of the South East. The inequalities across the United Kingdom in terms of productivity represent a significant drag on the economy. If the United Kingdom's second-tier cities (including Manchester, Birmingham, Leeds, Nottingham, Cardiff, Belfast, Glasgow and Edinburgh) had grown at the same rate as London between 1992 and 2015, this would have contributed at least an additional £120 billion to the UK economy (cited in Productivity Commission, 2022).

- While all the devolved nations and English regions other than London and the South East witnessed lower than average productivity, the North East and Wales had the poorest productivity performance, with productivity levels 17.4 per cent and 15.9 per cent lower than the UK average, respectively (figure 4).

Figure 4: Output per hour worked relative to the UK average, 2021 – ITL1 Regions



Source: ONS (2023)

- The gaps in regional productivity in the United Kingdom are both persistent and large. Key second-tier cities such as Manchester, Glasgow and Birmingham lag not just London but also comparable cities in continental Europe such as Barcelona, Munich or Marseille.

The Main Drivers of the UK's Productivity Performance

- There are several reasons for the marked slow-down in the UK's productivity growth rate since the 2008-09 financial crisis and flatlining productivity growth since then, including:
    - Inadequate policymaking: short-termism, over-centralisation, silos and churn (Pabst and Westwood, 2021).

    - Insufficient investment, both public and business (Chadha and Samiri, 2022; Chadha and Venables, 2023).

    - Skills mismatches (de Coulon et al., 2022).

Inadequate Policymaking

- UK policymaking in relation to economic growth and productivity has been characterised by short-termism, resulting in a chopping and changing of policy and weak institutions, both exacerbated by (prime) ministerial churn. Specifically:

    - Various growth plans by successive Chancellors of the Exchequer since 2019.

    - Industrial strategy chopped and changed since 2008 and abolished in 2021.

    - Tax policy with respect to investment was modified in almost every fiscal event since 2019.

- Overcentralisation is another obstacle to productivity-enhancing policy:
    - Pro-productivity policies are highly centralised, including planning, transport, education, R&D and regional development.

    - Lack of joint-up approach across departments, both in function and geographic location, hinders the potential for productivity growth (Westwood et al., 2022).

    - Lack of coordination between central government, on the one hand, and devolved administrations, city-regions and mayoralties, on the other, in relation to growth plans and regional/national industrial policy further

exacerbates the United Kingdom's productivity ails (Pabst and Westwood, 2023).

    - Overly centralised yet ineffective institutions in Whitehall and Westminster, including government departments such as HM Treasury and BEIS (itself subject to constant departmental tinkering not least names and functions) have had limited success in spurring productivity growth.

- Siloed policymaking has undermined a more joined-up approach to tackling the United Kingdom's poor productivity performance:
    - The focus on meeting arbitrary fiscal rules is incompatible with the raising of public investment to the levels of about 4-5 per cent of GDP per annum that are necessary for attracting private investments, greater economic growth and a higher productivity growth rate (see section 6 below and the NIESR GE briefing on the Macroeconomic Context).

    - Industrial policy has not been adequately integrated with growth plans and was discarded at the national level in 2021 with the abolition of the Industrial Strategy Council (Pabst and Westwood, 2021; Haldane, 2021).

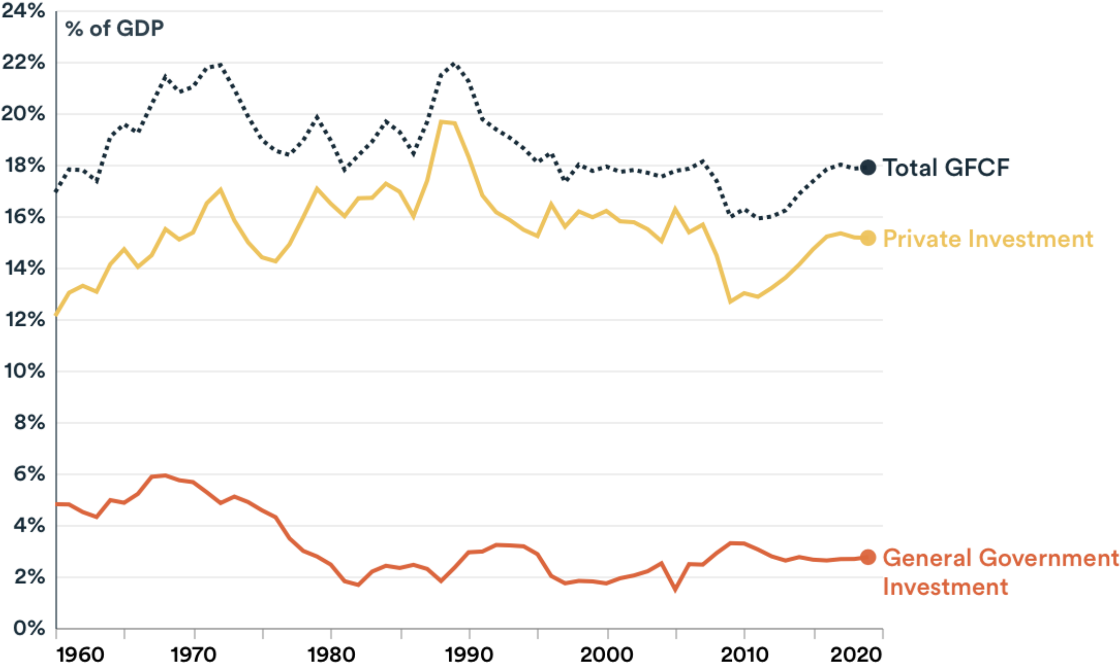
    - Levelling Up and its mission to narrow the gap between areas of high and low productivity has not been embedded across central government or been sufficiently integrated with lower tiers of government.

- All this has led to policy and ministerial churn, which has exacerbated the above issues and had an adverse impact on the investment and wage outlook of the United Kingdom (Bhattacharjee et al., 2024).

Insufficient Investment

- In recent decades the UK has seen a decline in general government investment (figure 5).

Figure 5: Total investment (% of GDP), split by public & private investment, 1960-2022



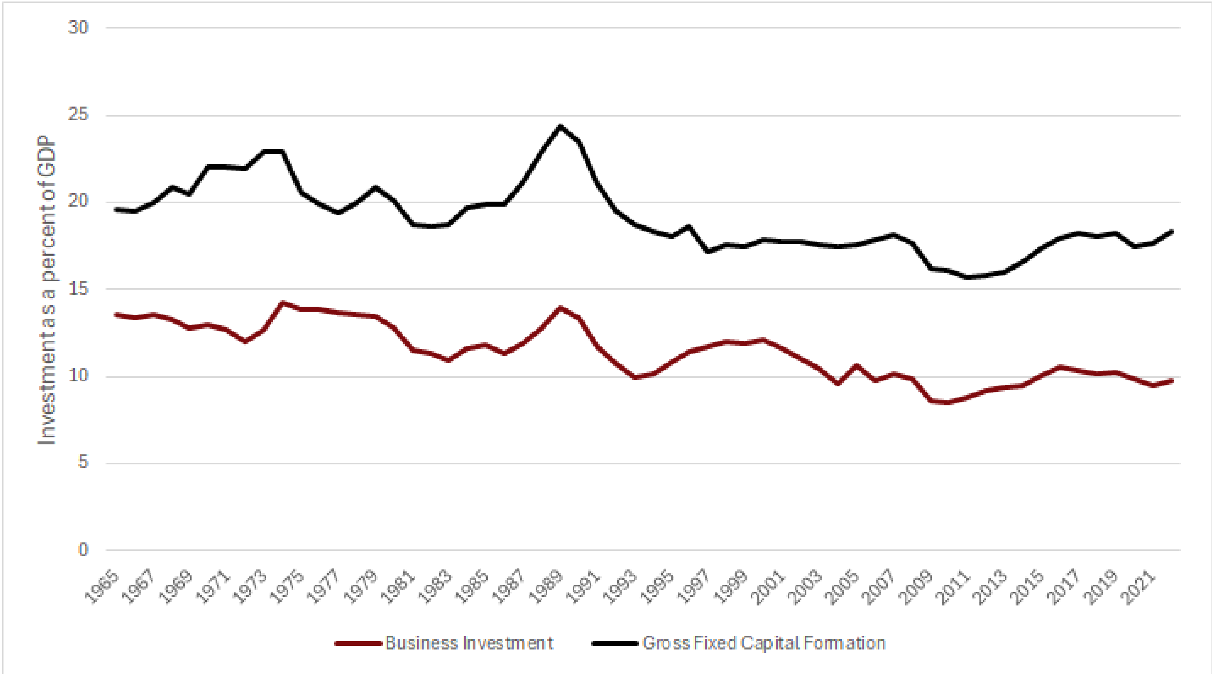
Note: GFCF (Gross Fixed Capital Formation), mainly investments in infrastructure, plant and machinery

Source: Chadha and Samiri (2022)

- Since the mid-1990s, this decline in general government investment has been coupled with declining business investment (figure 6).

- Business investment since the 2008 financial crisis has averaged only 9 percent of UK GDP. This compares with an average of 13-14 per cent for business investment in the 1960s and 1970s and 12 per cent in the 1980s.

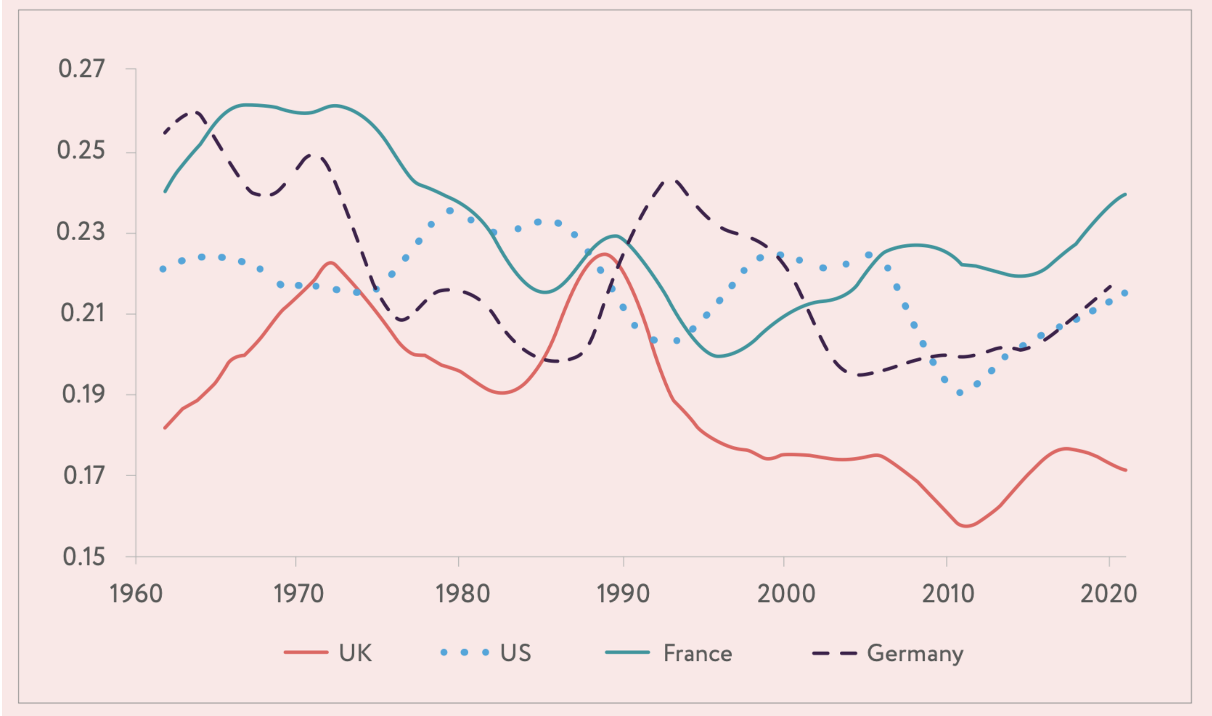
Figure 6: Business investment (% of GDP), 1965-2022



Source: ONS (2023)

- The United Kingdom's investment share of GDP has been significantly lower than that of France, Germany and the US for most years since 1965 and continuously since the early 1990s (figure 7).

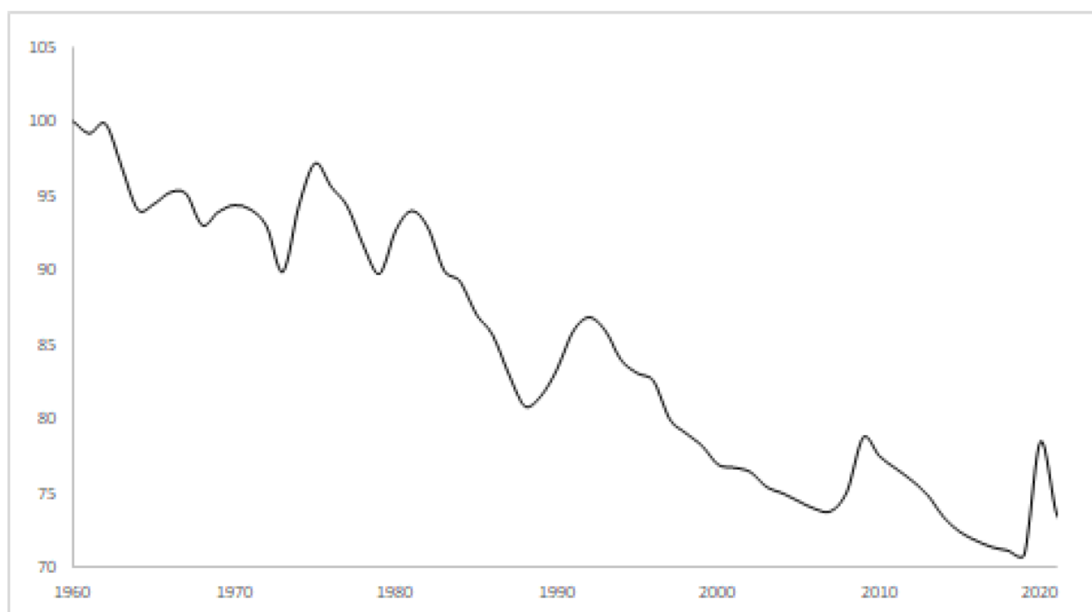
Figure 7: International comparison of investment (proportion of GDP), 1960-2021



Source: Chadha and Samiri (2022), p. 25

- This secular pattern has been associated with 'short-termism', where the country has tended to choose consumption over long-term investment, as well as impose high rates of discounting the future. Consequently, the UK's capital stock to GDP ratio has fallen consistently over the course of recent history (figure 8).

Figure 8: UK net capital stock



Note: Net capital stock per unit of gross domestic product at constant prices index (1960=100). Source: Eurostat and authors' calculations.

Source: Chadha and Samiri (2022), p. 28.

- This preference for consumption over investment has become a central concern, as it has also led to a secular decline in the UK net international investment position, the fall in the government's net financial worth and an increase in indebtedness (Chadha and Venables, 2023).

- Weak investment is evident in most sectors, but it has been pervasive in some industries, notably manufacturing, finance and insurance, and business services (Alayande and Coyle, 2023).

- Underinvestment has also hampered the provision of training and skills. Although the share of higher educated people in the total workforce is rising, both public sector employers and – especially – private businesses are trapped in a vicious circle of low skills, low wages and low productivity.

- Low public and private investment risk turning this vicious circle into a downward spiral whereby neither mixed HE/FE colleges nor firms provide adequate training for high-level skills. With the lack of investment required to provide high level training, the demand for such high-level training has stuttered due to many private businesses being trapped in a poor equilibrium of low skills, low wages and

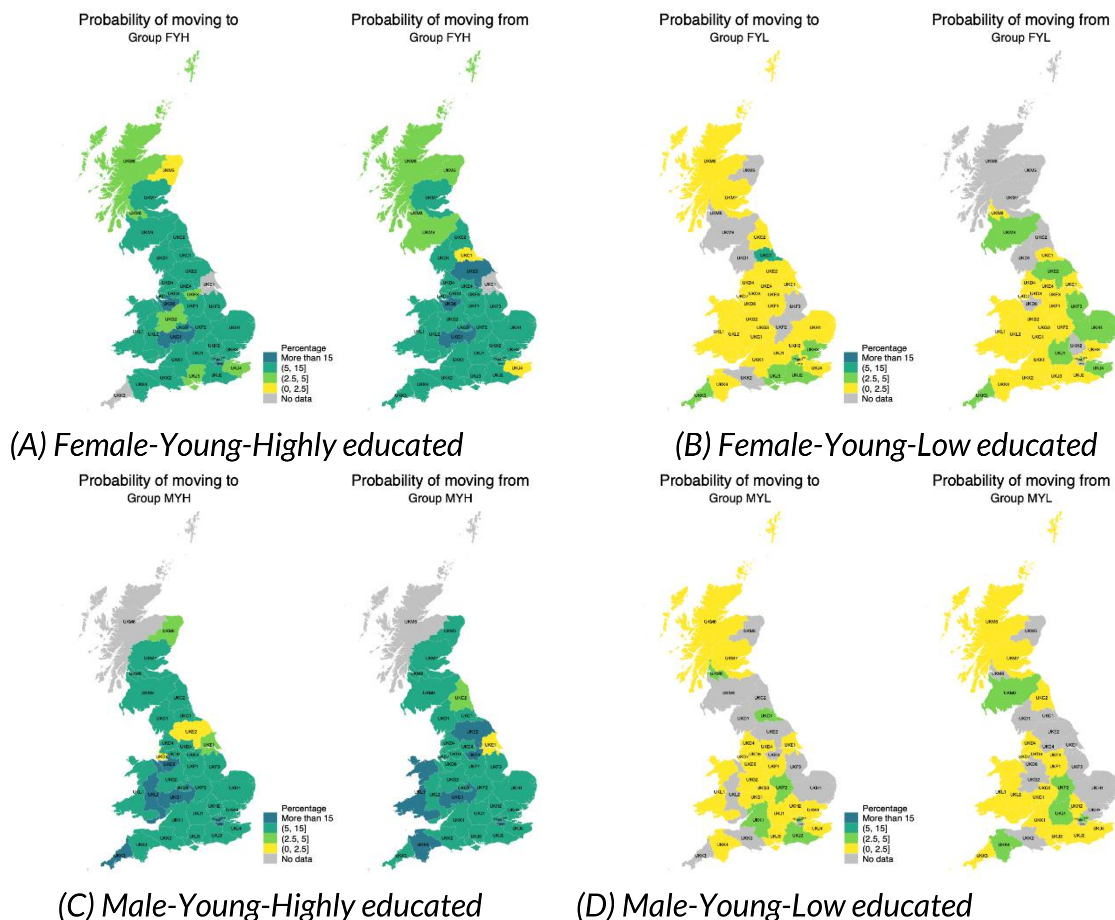
low productivity. There is now a high risk that the UK will be permanently trapped in this low-productivity equilibrium.

Skills and Education

- Education and skills are critical factors influencing productivity disparities among regions in the United Kingdom. The uneven distribution of skills across different areas can exacerbate regional inequalities, with some areas, such as London, benefiting from a strong concentration of highly-skilled individuals, while other areas experience losses of talented individuals who migrate to more prosperous regions.

- Figure 9 shows that on average, highly-educated young people are more mobile than their less-educated counterparts across all regions. The pattern is very similar for males and females in the East Midlands and East of England, both with high average probabilities of moving to, and from, that region.

Figure 9: Average regional probability of moving, ITL2 level



(A) Female-Young-Highly educated *(B) Female-Young-Low educated*

(C) Male-Young-Highly educated *(D) Male-Young-Low educated*

Source: de Coulon et al. (2022)

- The data for North Yorkshire suggests a trend of net outmigration of highly educated individuals, with the average probability of moving from the region being higher than the average probability of moving into it for both males and females. This leads to a loss of human capital and thus lower productivity.

- In the case of London, the average probability of migration both to, and from, the region for highly educated young individuals is high, with a higher likelihood observed for both males and females relocating to, and from, Inner London, Outer London and the South East.

- Nonetheless, increasing the number of graduates in specific regions may not always translate into enhanced regional productivity, especially if there is a lack of corresponding graduate-level employment opportunities. This mismatch could potentially result in further emigration of graduates from these regions.

- The graduate wage premium has been decreasing in all regions of the United Kingdom, except for London (Stansbury et al., 2023). This highlights the complexity of the relationship between skills, educational institutions, mobility and economic outcomes, including productivity.

- Total learning losses in education due to the Covid-related lockdowns and other disruptions could equate to lifetime earnings losses of between £8,000 and £22,000 per pupil. This missed learning is leading to an under-skilled workforce risking further reduction in the country's productivity (Bowyer-Crane, 2022).

Longer Trends and Counterfactuals

- In the three decades after World War Two, the average annual productivity growth rate was around 3.6 per cent.

- The following three decades saw this fall to around 2.3 per cent (table 1).

- From the start of the financial crisis in 2007 to 2019, this declined even further to 0.2 per cent (table 1)

Table 1: Growth rates of living standards and productivity, 1977–2019

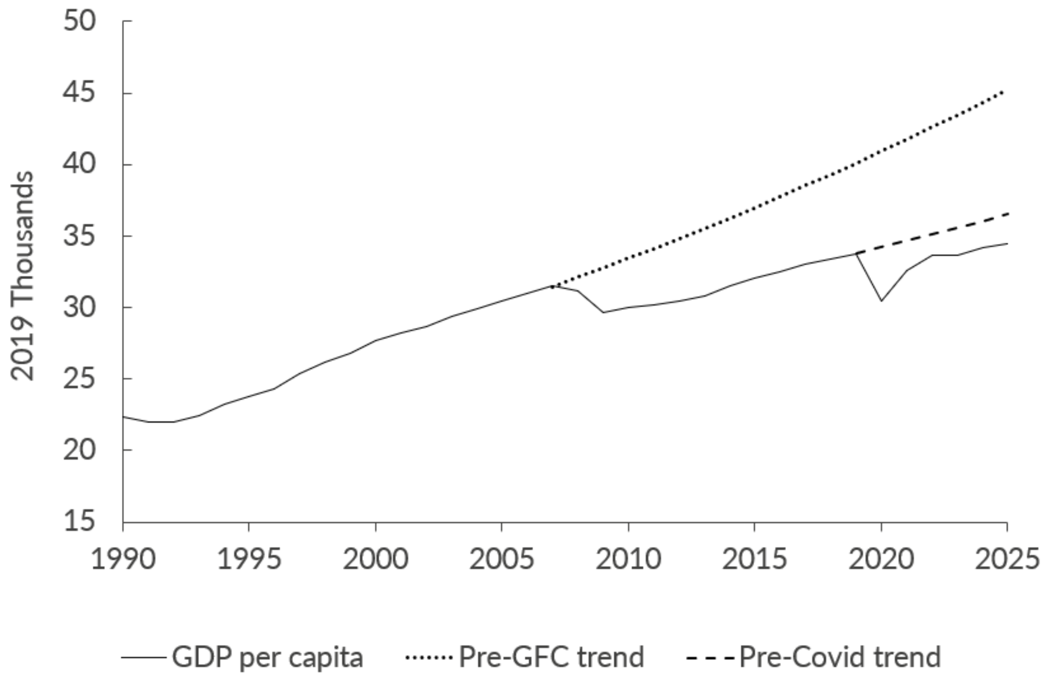
	1977-1990	1990-2007	**2007-2019**
Standard of living	3.07	1.96	0.47
Productivity	2.35	2.34	0.21

Note: Standard of living is defined as median equivalised household disposable income

Source: cited in Productivity Commission (2022)

- Another way of illustrating the impact of the long-term decline in the productivity growth rate is by examining the GDP per capita trend growth rate both before and after the global financial crash and the Covid-19 pandemic (figure 10).

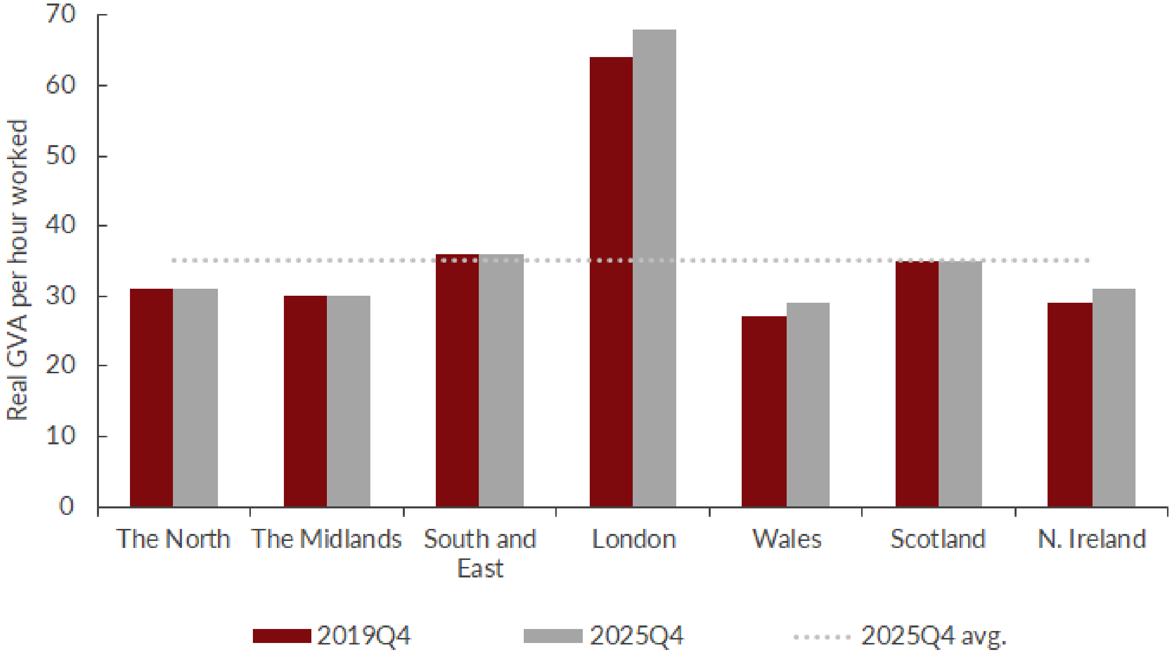
Figure 10: GDP per head in the UK, 1990-2024



Source: Chadha and Samiri (2022), p. 3.

- Besides the low aggregate productivity performance, it is also the case that the persistent gaps in regional productivity (figure 11) are a drag on UK-wide output growth. We project that regional productivity differentials will widen, e.g. between London and the metropolitan parts of the South East and the West Midlands.

Figure 11: Productivity in the three devolved nations and the English regions, 2019Q4 – 2025Q4



Source: National Institute Regional economic Modelling System (NiReMS)

Policy Recommendations to Boost Productivity

- Boosting national productivity and reducing the productivity disparities between high-performing and low-performing regions is one of the biggest challenges in the United Kingdom.

- Central to tackling these challenges are supply-side reforms aimed at enhancing the productive capacity of the economy and increasing the levels of both public and private investment.

Reforming Institutions and Policymaking

- The government needs to commit to an integrated productivity strategy for the long term to provide direction and stability. Such a strategy should be embedded across government and underpinned by a new statutory body in charge of productivity and industrial strategy that would advise the PM and the Chancellor and be accountable to Parliament.

- This new body would not be tasked with 'picking winners' but instead with coordinating pro-productivity policies across central government and with lower tiers of government, thus helping to tackle the persistent problems of short-termism, overcentralisation, silos and policy churn.

- The government also needs to co-ordinate with businesses, trade unions and public-sector organisations in designing and implementing productivity-enhancing practices, notably on training, skills and investment in specific infrastructure (e.g. housing, transport).

- NIESR has consistently called for the creation of a National Development Bank that brings together existing institutions (UKIB, BBB and the NIC) and is given an annual amount totalling some £50 billion to provide public investment at scale (Bhattacharjee et al., 2023; Chadha, 2022 and 2023).

Boosting Public and Business Investment

- NIESR welcomes the government's efforts to raise public investment to about 4 per cent of GDP per year and to try to boost private investment through its policy of full expensing.

- NIESR expects business investment to rise from about an annual average of 9.7 per cent since the global financial crisis to about 10.8 per cent of GDP by the end of 2028, maintaining the business capital to output ratio at around 4.3, not enough to lead to a noticeable improvement in UK productivity growth.

- What is missing is a credible long-term plan to address the shortfall in public investment and unlock greater business investment rather than tax cuts that will have to be reversed if the next government – whichever party may form it – is to avoid deep spending cuts post-election.

- NIESR argues that a higher annual productivity growth rate requires public investment levels of at least 4 per cent of GDP per year.

- Linked to this is NIESR's argument for a new fiscal framework (Chadha et al., 2021) that treats fiscal rules as instruments in pursuit of economic objectives such as growth and productivity; this, in turn, implies a set of fiscal rules that favour public investment (see the NIESR GE briefing on the Macroeconomic Context)

Addressing Skills Mismatches

- Education and skills have a direct impact on inequality, fostering equal opportunities across generations and improving social mobility, aligning with the government's recent emphasis on the levelling up agenda. The Levelling Up White Paper (DLUHC, 2022) outlines the government's commitment to policies aimed at addressing regional economic disparities through various initiatives, including educational investment and the implementation of high-quality online curricula.

- Moreover, providing technical training and targeted upskilling programmes for adults, particularly those in sectors vulnerable to automation, is essential. One approach could involve the establishment and funding of regional education institutions dedicated to retraining adults lacking formal qualifications (A-levels or degrees), with a focus on skills relevant to high-demand fields, which could effectively address local skills shortages. These programs could offer a combination of academic coursework and apprenticeship opportunities to provide participants with both theoretical knowledge and practical experience.

- Furthermore, expanding the current apprenticeship levy into a more flexible scheme would allow firms to invest in traditional apprenticeships or alternative training programs certified by a national accreditation body. This flexibility aims to encourage business investments in various forms of workforce skills development. Strengthening apprenticeship schemes, enhancing vocational pathways, and promoting employee development are also vital steps to create diverse opportunities and bridge the skills gap.

- Building a skilled and adaptable workforce and fostering a culture of lifelong learning are essential for enhancing innovation, improving productivity, and promoting a more competitive and equitable economy. However, achieving these goals requires a sustained, long-term commitment beyond electoral cycles. Investing in a skilled workforce is not only an economic imperative but also an investment in the future, empowering individuals and driving inclusive and sustainable growth.

- A key driver in improving productivity is investment in R&D and innovation. This is evidenced in Scotland, for example, where there is high employment but compared to the rest of the United Kingdom and its EU counterparts it has low levels of investment in business R&D and innovation.

- A greater focus on infrastructure both between and within cities will support the positive effects of agglomeration, such as attracting and retaining human capital to help drive productivity growth.

- Developing the right mix of skills is crucial to the ‘levelling up’ of productivity across the UK, as research has suggested a strong correlation between local productivity and the skill level of the local workforce.

Conclusion

- This briefing has outlined the main features of the United Kingdom's poor productivity performance since 2019.

- This briefing has also highlighted some key areas and potential policies that can boost low productivity and contribute to achieving inclusive and sustainable growth.

- The country needs a comprehensive strategy to raise productivity, and consequently wage growth, which in turn requires an ambitious policy programme to boost both public and business investment, allied with institutional reform.

- Among the necessary reforms are:
    - Improving central government coordination of industrial policy (Pabst and Westwood, 2023).

    - Better finance for SMEs and the creation of a National Development Bank (Chadha, 2023; Bhattacharjee et al., 2023) with a focus on channelling capital to regions and sectors.

    - A more balanced growth strategy based on a new fiscal framework (Chadha et al., 2021).

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