

The UK's productivity challenge: people, firms, and places

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Date:

November 2023

The Productivity Institute

Productivity Insights Paper No.018

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Key words

Productivity, UK regions, UK places

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© B. van Ark, M. O'Mahony (2023)

Suggested citation

B. van Ark, M. O'Mahony (2023) *The UK's productivity challenge: people, firms, and places*. Productivity Insights Paper No. 018, The Productivity Institute.

The Productivity Institute is an organisation that works across academia, business and policy to better understand, measure and enable productivity across the UK. It is funded by the Economic and Social Research Council (grant number ES/V002740/1).

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The UK's productivity challenge: people, firms, and places

CHAPTER ONE

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The UK faces a tough productivity challenge. With its productivity growth slowing for the past 15 years, additional working hours have been contributing more to GDP growth than better productivity. Many UK firms have been following an unsustainable low wage, low investment, low productivity path. Tackling the challenge will require coordinated action under three pillars: people, firms, and places.

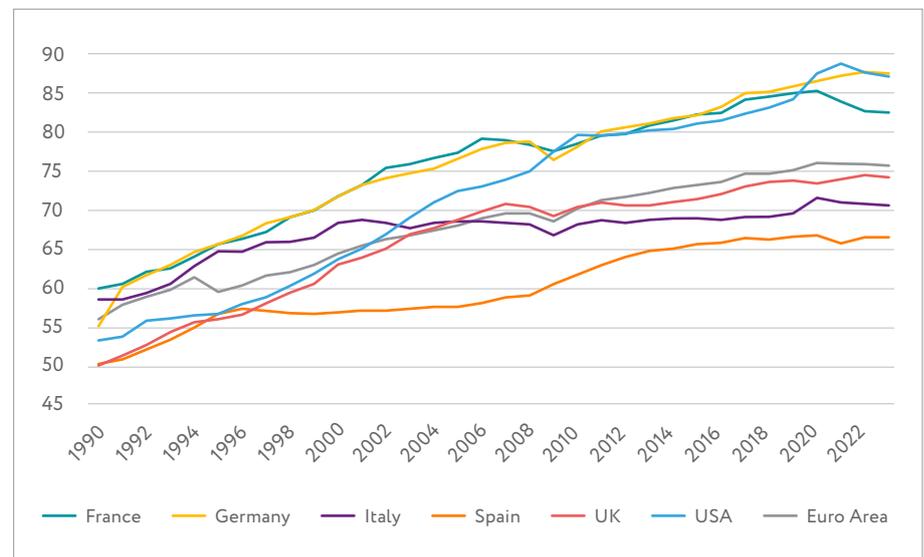
From 2010 to 2022 the annual average growth in UK GDP per hour was just 0.5 per cent. Taking just the last few years, which have been dominated by the pandemic, high energy prices and inflation, as well as domestic and global political turmoil, the trend in productivity growth has not improved. While a slowdown in productivity growth has been prevalent across most advanced economies, the UK has performed particularly poorly compared to our nearest economic comparators (see Figure 1).

The recent slowdown in productivity growth threatens the much-needed revival of economic growth and improvement in living standards and well-being. In the UK this is exacerbated by the persistently low relative level of productivity as the country finds itself in the bottom half of the rankings in the OECD.

This low productivity trap is therefore seriously affecting the resilience of the UK economy, making it more vulnerable to economic shocks. Some regions and places are severely underperforming relative to their own history and compared to comparable places in other countries. Many firms in the bottom of the productivity distribution are not resilient and adaptive, and are barely surviving the economic pressures they are facing. And many people who are often low skilled and (if working at all) employed in relatively unproductive jobs are struggling to get by on a day-to-day basis.

"The low productivity trap is seriously affecting the resilience of the UK economy, making it more vulnerable to economic shocks."

Figure 1: GDP per hour (in US\$, PPP converted), 1990-2023



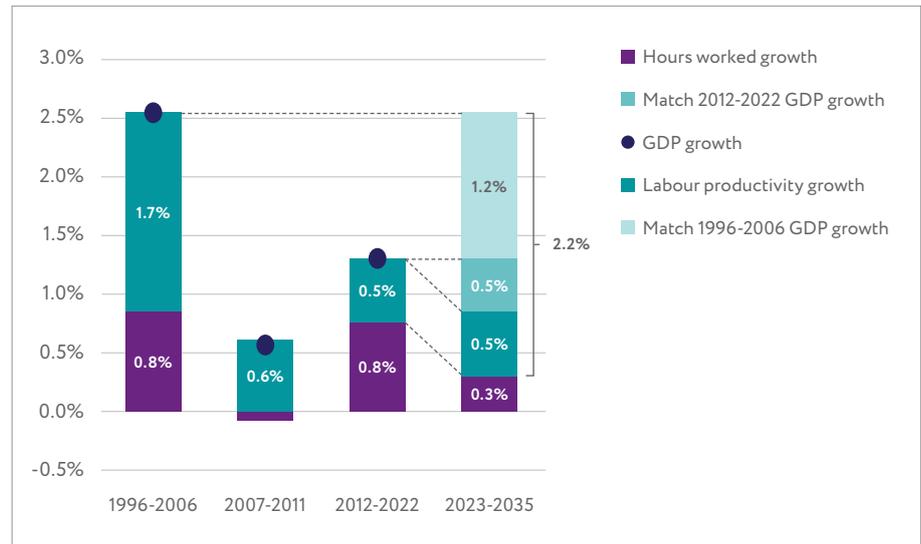
Source: The Conference Board, Total Economy Database, April 2023

Challenge

The challenge for the next decade is daunting because of slower population and labour force growth. Except in the unlikely scenario of a sharp increase in immigration, productivity growth will need to accelerate. Indeed, if the current trend in productivity growth were to continue for the next two decades, it will not be possible to sustain current living standards, let alone deliver sustainability and improved well-being.

For instance, even doubling the current productivity growth rate (from 0.5% to 1% a year) over the next 12 years will only be sufficient to achieve the same rate of GDP growth as in the past decade (Figure 2). To strengthen improvements in people's living standards in future, productivity growth would therefore have to more than double.

Figure 2: GDP Growth Decomposed into Total Hours and Labour Productivity, United Kingdom, annual %, 1996-2035



Note: Labour input growth (total hours worked) is projected to slow to 0.3% per year between 2023 and 2035. Staying at the average productivity growth from 2012-22 would leave GDP growth from 2023-2035 at just over 0.8% per year. To achieve the same GDP growth rate from 2023-2035 as from 2012-22, would require a doubling of productivity growth from 0.5% to 1.0% per year. To achieve the same GDP growth rate from 2023-2035 as from 1996-2006, would require productivity growth to be raised to 2.2% per year.

Source: Until 2022: Office for National Statistics, July 2023; 2023-2035 projection of total hours worked from The Conference Board, Global Economic Outlook, 2023.

"If the current trend in productivity growth were to continue for the next two decades it will not be possible to sustain current living standards, let alone deliver sustainability and improved well-being."

The three key challenges

Why the UK has experienced slower productivity growth than elsewhere remains the subject of intense debate. But it is agreed that three fundamental issues need to be tackled urgently to close the gap relative to the pre-financial crisis growth performance and compared to the countries which have performed better since.



ONE:
Chronic and broad-based underinvestment in the UK economy

The UK has experienced a slowdown in investment growth in recent decades that is broad-based, as Chapter Two sets out. It includes physical, human, and intangible capital – both public and private.¹

The underinvestment is also chronic, not just a problem of the past ten years but ingrained in the UK's economic system for decades.² However, there is evidence that the austerity measures from 2010 in the wake of the global financial crisis have particularly contributed to weakened public investment,³ while emerging evidence also indicates an impact of Brexit on private investment.⁴

The weak investment is broad-based across industries too, but especially notable in manufacturing, finance and insurance, and business services. Capital investment is also unequally distributed across the UK regions, just like economic activity and employment, with significant variation both between high- and low-productivity level regions of the UK and also with large variation within regions.⁵

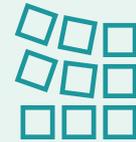


TWO:
Inadequate diffusion of productivity-enhancing practices between firms and places

While the UK is very active at the frontier of science and knowledge creation – indeed one of the most innovative nations, ranking fourth in the latest Global Innovation Index⁶ – its presence in its main areas of specialisation (notably artificial intelligence, quantum technology and synthetic biology) is rather narrow and involves relatively few companies.⁷

Productivity does not primarily arise from creating new inventions at the frontier, but rather from improving processes and bringing new and better products and services to market. Broad-based application and commercialisation of new technologies requires their widespread diffusion across the economy.

In part, widespread diffusion and adoption of technologies has been hampered by stagnant foreign trade, changing patterns in FDI (Foreign Direct Investment) and the UK's lack of deeper integration in (global) supply chains.⁸ Compared to many other comparator countries, the UK does not have thriving innovation eco-systems in specific places or regions, nor does it have effective investment zones and networks of R&D and innovation institutions.⁹



THREE:
Institutional fragmentation and lack of joined-up policies

The UK is characterised by a dichotomy in policies and institutions that affect productivity. On the one hand, many productivity policies are highly centralised, including education, innovation, transport, planning, and regional development.

On the other hand, the institutional landscape of productivity-supporting institutions is highly fragmented in terms of function and location, ranging from local and combined authorities to devolved nation governments, and including city deals, town funds, local enterprise partnerships, and local skills improvement plans.¹⁰

A major shortcoming of the UK's political governance remains the lack of a regional government structure across England, in addition to the devolved structures in Northern Ireland, Scotland and Wales.

In other countries 'mid-level' governments typically have substantial devolved responsibilities for policies with a big impact on productivity - in particular infrastructure and planning which are characterised by large externalities (positive and negative) between places.

This means that in the UK it is difficult for any national government policy to be translated into effective local policy – the levers at the centre have nothing to attach to. At the same time local governments are under-resourced and lack the authority to develop and implement a place-specific and integrated investment strategy.

Much of The Productivity Institute's research programme so far has been focused on understanding the diversity in productivity performance across sectors, firms and regions.

Sectors

A stark trend is that even some of the UK's most productive sectors have been faring worse than in the past. The slowdown in productivity growth since the global financial crisis has been primarily driven by three major sectors, namely financial and insurance services, manufacturing, and the information and communication sector.¹¹ Within manufacturing, transport equipment, ICT goods, and pharmaceuticals have contributed most to the slowdown.

Firms

Firm-level data from the Office for National Statistics show that the productivity growth contribution from UK firms for the non-financial business economy in the top decile of the distribution of firms' (level of) productivity is very strong. It also has not shown any sign of dropping off and is now contributing the bulk of current productivity growth (Figure 3).

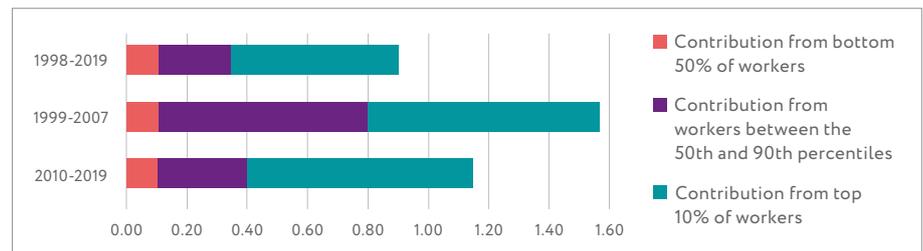
The UK business landscape is characterised by a relatively long tail of less productive firms,¹² even though the degree to which the UK deviates from other countries in this respect has been challenged.¹³ In any case the 50 per cent of firms in the lower half of the productivity distribution (those with productivity levels below the median, most of them small firms) only contribute one-tenth of a per cent to aggregate productivity, and their contribution has hardly changed. Nevertheless, the underperformance of many small firms is a concern from a social and well-being point of view, especially in regions that do not have many of the most productive firms.

Finally, perhaps the most surprising finding to be obtained from this analysis is that firms with above-median productivity levels (in the 6th to 9th decile of the distribution) have accounted for the lion's share of the productivity slowdown in the non-financial business economy since the financial crisis.

This means that firms already known to have significant potential for being productive have not been able to continue to do so for the past decade and a half. It also suggests that the diffusion of technology and innovation from the most productive companies to the most (rather than the least) productive laggards is not working well.

"Firms already known to have significant potential for being productive have not been able to continue to do so for the past decade and a half."

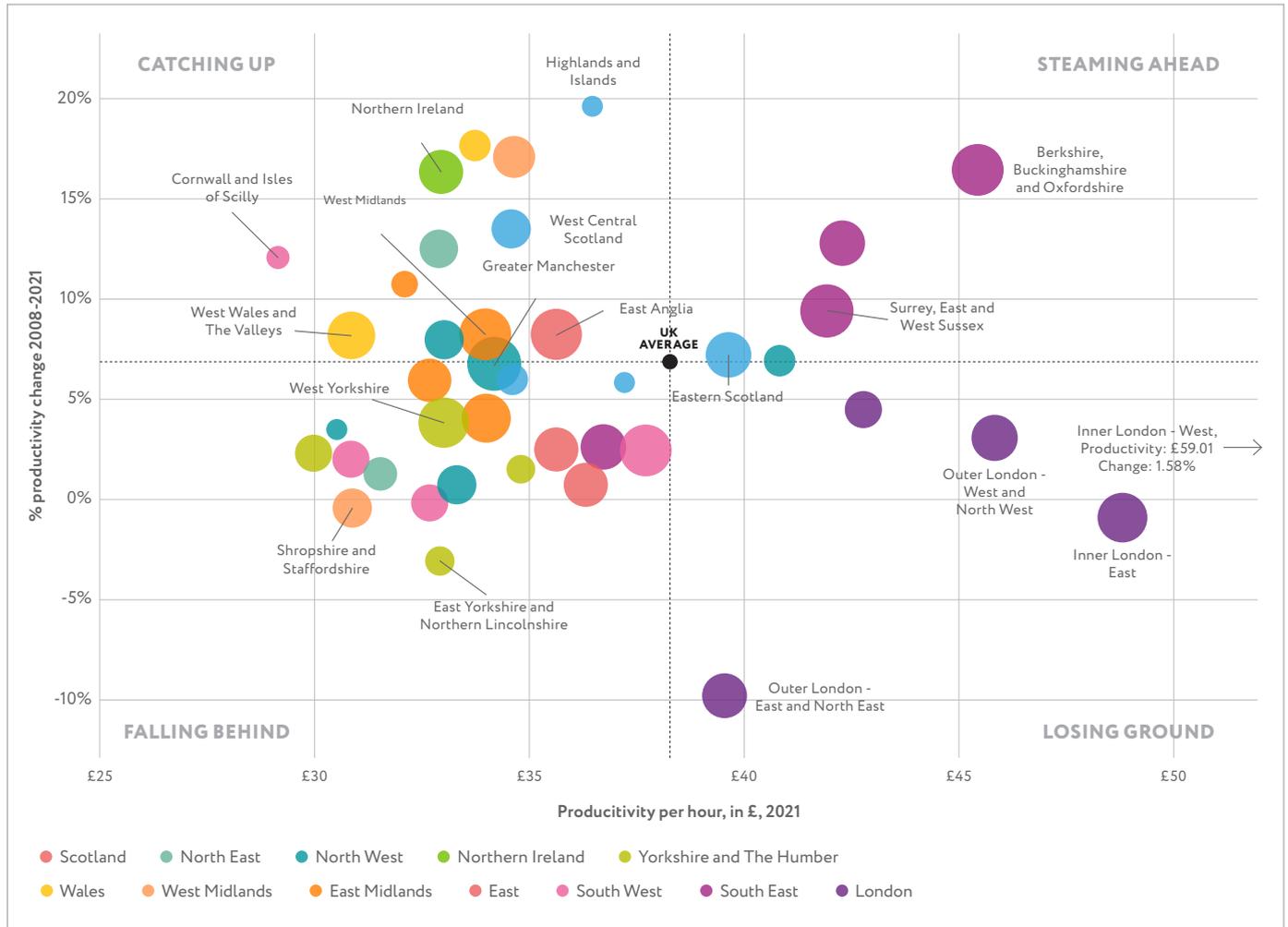
Figure 3: Contribution of firms with different worker productivity levels to change in average productivity growth, non-financial business economy, 1998-2019, %



Note: the two sub-periods (1999-2007 and 2010-2019) excludes the financial crisis years (2008-2009) during which productivity fell at 1.8 per cent

Source: ONS, Firm-level labour productivity measures from the Annual Business Survey, UK: 1998 to 2019, 2022

Figure 4: UK ITL 2 regions - 2021 Nominal smoothed GVA per hour, vs.. 2008-2021 productivity change



Notes: Marker size indicates total 2021 population. Inner London West removed as an outlier.

Source: TPI visualisation, based on ONS Subregional Productivity June 2023 release

Regions

There are persistent and relatively large gaps in regional productivity in the UK which have hardly reduced over the past ten to 15 years. Even though some of the UK’s largest regional economies - including the West Midlands, Greater Manchester, and East Anglia - have slightly caught up towards London’s productivity levels, their gap with the South East has widened (Figure 4).

Major second-tier cities such as Birmingham, Manchester and Glasgow still show large productivity gaps not only relative to London but also have productivity levels well below those of peer cities in Europe. In some cases the UK cities have productivity a fifth or nearly a third lower than comparable cities elsewhere. The examples of turnaround cities which have faced similar challenges from post-war deindustrialisation suggests the journey has been made more difficult in the UK because of a lack of devolved government, coordinated policy making and sustained funding.¹⁴

Three productivity pillars



How can the UK accelerate investment across a wide range of areas across the whole of the country, including skills, intangibles, and in the net zero transition? How can the diffusion of productivity-enhancing practices between firms, places and people be strengthened? And how can the UK overcome its fragmented policy and institutional landscape at all levels?

There is no simple solution to the UK's productivity problem. Indeed, the 'productivity puzzle' can be imagined as a complicated 1,000-piece jigsaw. Nevertheless, there are important insights from research and past experience. Later chapters of this publication cover the elements of the solution in more detail. Here we set them out under three headings: people, firms, and places.



Many UK firms are trapped in a low skill, low wage, low productivity mode. This reduces the opportunities for high quality jobs that deliver productivity benefits to employers as well as material and intangible benefits to employees.¹⁵

This 'low equilibrium' trap has created a vicious cycle where, once the demand for high-level skills evaporates, so does the incentive to supply such skills through education and training. This helps explain the declining trend for firms to provide training as they lack an incentive to take steps such as developing advanced skills modules via Further Education (FE) colleges and other providers.¹⁶

The trap also means the supply of skills tends to concentrate in areas where the best job opportunities are available. Added to this, weak labour demand for graduate level skills in underperforming regions reinforces problems on the supply side of the labour market in those regions, causing a decline in the wage premium for highly skilled work, except in London.¹⁷

Skill mismatches

As Chapter Six describes, such spatial skill mismatches reinforce persistent regional inequalities. While the demand for graduates with 'tech-related' skills (in particular digital skills) is highly concentrated in some of the most

productive regions in the UK, notably the 'golden triangle' (London and the Oxford-Cambridge arc), the job demand for non-graduate tech skills is much more equally spread around the country.

The policy implications are numerous. For example, more tech graduates may migrate to the golden triangle where wages are higher, while firms in other regions facing a shortage in tech skills may therefore rely on non-graduates, highlighting the need for good FE provision.

Regional ecosystems

Vocational training and technical qualifications that better meet the needs of companies can play a key role in local and regional ecosystems that can boost productivity, not only providing skills, but also as a conduit for innovation strategy.¹⁸

This skill sorting between places contributes to the UK's extreme regional differences in the mix of skills, productivity and living standards. A different policy architecture of education and training would contribute to higher productivity in many regions, springing the low productivity trap.

There is also evidence of lower employer demand for skills in the UK as compared with the US, linking the people dimension of productivity to the weak productivity performance of many firms.¹⁹

Health and well-being

Skills are not the only important people dimension for productivity. There is plenty of evidence of a strong relationship between health and well-being and the productivity of employees.²⁰

However, the link appears increasingly broken, especially at the lower end of the skills and income range because of lack of job and livelihood security due to the rise of precarious employment.

Concerns about workforce well-being are also growing as new technologies may make current skills increasingly redundant and require retraining and development of new competencies.

Mental health issues in the workplace are widespread, and have likely increased since the pandemic, to the detriment of human capital and productivity.²¹

Home working

Three years on from the pandemic it is now clear that working from home, at least for part of the work week, is clearly beneficial for the well-being of many employees whose jobs make it possible to work away from the office.

However, the productivity effects of hybrid work models depend on the response of firms. For instance, organisations need to strategise about how to manage hybrid work from the perspective of the firms and the workers to avoid detrimental effects on productivity.²²

The rise in hybrid working may also be related to the debate about the introduction of the four-day week, which is being trialled by some organisations.²³ In order to maintain productivity with a fifth less working time, or even secure productivity gains (enabling a rising hourly wage to maintain income levels), it is critical for firms to look at the combination of skills, (digital) technology and the organisational model that would enable a hybrid approach.

Ageing

Meanwhile more attention also needs to be given to the impact that the UK's ageing workforce will have on productivity. The debate needed about the extent to which companies are adequately training and incentivising employees to stay in work has barely begun.



One way to think about firms' productivity performance in the economy is in terms of a pyramid. Not only are the characteristics of firms in the top, middle and bottom segments of the productivity distribution important in themselves, so is the interaction between firms in different segments, and their mobility across them.

As we noted, firms in the top decile of the distribution account for the lion's share of productivity growth –almost two thirds (Figure 3). Yet surprisingly, many of these top performing firms are operating in sectors that have experienced a slowdown in productivity growth, including manufacturing, digital, and finance and insurance. There are fewer large and innovative firms in the UK achieving world excellence, as reflected in the declining market capitalisation of such firms.²⁴ As Chapter Two documents, the investment performance of UK businesses (as well as public investment) has been too low for too long.

Underperformance

Another major concern, which comes into focus in Chapter Three, is the underperformance of firms that are above the mean in terms of productivity levels but not at the top, i.e. in the 6th to 9th deciles, accounting for the entire slowdown in aggregate productivity in the non-financial business economy since 2010.

For the large number of firms operating below the median productivity levels (1st to 5th deciles), those that have opportunities for growth have often lacked the support and incentives they need. Too few of these companies can scale up to become growth businesses. Some are not investing because of continued economic uncertainty and a lack of long-term vision hampered by short-termism and policy churn. Others are suffering from a lack of diffusion of productivity-enhancing practices.

Technological change

The rapid technological change in several areas, especially digital, makes the slowdown in productivity growth all the more worrying and puzzling. The UK has some advantages in terms of leading technologies, but as Chapter Four points out, there is a need for science, innovation and growth policies to be better integrated to attract global knowledge-intensive companies and strengthen the diffusion of innovations among businesses.

Ill-designed institutions and policies discourage the diffusion of technologies and innovation, and weaken firms' absorptive capacity. Institutions focused on the adoption of new technologies often do best in environments where the public and private sectors co-ordinate to complement their innovation activities.

Power of new technologies?

As Chapter Five discusses, one reason for the disconnect between technology and productivity might be that new technologies are simply not as powerful in terms of driving productivity as those of a generation ago. Twenty-five years ago, as internet adoption took off, there was scope for significant productivity gains as companies first adopted digital tools. Today there is a different landscape of virtually universal internet and mobile use.

On the other hand, that earlier digital wave also took a decade or more to be reflected in productivity growth. The new digital technologies in data

analytics, robotics and AI are still in their early days of deployment. The need for complementary investments in worker skills, management competencies and other organisational improvements is likely to contribute further to a time lag in adoption. The market dominance of major technology companies may also hinder speedy adoption elsewhere.

Competition

In some sectors markets are insufficiently competitive, blocking new entry and growth. Competition policy is therefore a key tool for enabling business dynamism and bringing innovations to market, but the evidence of indicators such as market concentration is that the UK economy remains less competitive than before 2008, while mark-ups of price over costs have continued to rise.²⁵

Globally, competition authorities have begun to take a more active stance toward enforcement, which must continue as new technologies evolve rapidly and net zero transition leads to restructuring in key sectors of the economy (see Chapters Five and Eight).

Management skills

Technology and innovation also requires improvement in management skills, which need to be more sophisticated when it comes to technology-intensive businesses, and also to strengthen access to finance especially for scale-up companies. This requires broadening the range of funding vehicles available (including venture capital, angel funding and private equity).

Twin transition

Meanwhile business challenges around the transition to net zero, discussed in Chapter Seven, are especially large. The short-term impact on productivity could be detrimental. New technologies involve risk and will need some time to come to pay a return. At the same time some trends, such as the rise of circular

business models reducing materials and energy usage and waste, can have a clear positive short-term impact on productivity.

A twin transition, focusing on how firms can use digital technologies and capabilities to innovate for environmental sustainability, could be a powerful force to co-ordinate tipping points in market growth, accelerate implementation and realise productivity gains faster. But this business opportunity will require co-ordinated and consistent government policies, whereas the UK is losing its early lead in setting appropriate net zero policies and sticking to them.

Brexit

Finally, although not a focus here, the impact of Brexit needs to be better mitigated from the perspective of productivity. Trade patterns with Europe have become distorted since Britain left the EU.²⁶ The nature of inward foreign direct investment post-Brexit has become more motivated by the desire to acquire knowledge rather than to lever technology or knowledge into UK markets.²⁷

This matters because a combination of innovation with exports plays a critical role in driving a firm's productivity performance, while engagement through FDI can be an important source of knowledge diffusion into the UK.

"A twin transition, focusing on how firms can use digital technologies and capabilities to innovate for environmental sustainability, could be a powerful force to realise productivity gains faster."



While people and firms offer two lenses on the UK's challenges, place runs through the productivity problem too.

People and firms are located in specific places, the economy is not an abstraction. There is overwhelming evidence that firms which underperform on productivity are concentrated in less-well performing regions,²⁸ which clearly links to the wider point about persistent productivity underperformance in areas outside London and the South East.

Second-tier cities

One UK specific feature is the significant underperformance of major second-tier cities. They have low productivity levels relative to London and also compared to comparator cities across Europe.²⁹ This means the UK is flying on just one engine, London and the South East, whereas most other countries have multiple engines.

Second-tier UK cities account for around two-fifths of the UK population. Raising productivity levels and growth around the country will raise the national performance, and will reduce the burden on London to support the rest of the country. Productivity is not a zero-sum game.

The deindustrialisation of cities such as Birmingham, Manchester, Liverpool, Belfast and Glasgow has undoubtedly played a part in their current

situation. In general, the UK is in need of a long-term regional development policy. Multiple studies have stressed the importance of long-term stability in terms of regional economic policy. Chapter Nine sets out the scale of the regional disparities, discusses what has contributed to this unwelcome UK distinctiveness, and highlights the policy shortcomings that contribute to it.

Underinvestment in regions

The UK has not only systemically underinvested in its regions, but also frequently changed the regional economic growth structures. The 2012 abolition of Regional Development Agencies that were set up in 1999 and introduction of Local Enterprise Partnerships, to be abolished in 2024, is a particular case in point.³⁰

The different aspects of regional policy need to be joined up too. Co-ordination across policy areas can be easier at levels of government below the centre, although there is also too much fragmentation of responsibility sub-nationally.³¹

In terms of structure, the mayoral combined authority model is clearly gaining traction, especially in Greater Manchester where the ten local authorities have a long track record of working effectively together. But long-term questions remain, not least the continued absence of meaningful tax and spending powers for devolved assemblies.³²

Public sector

Improved productivity in the public sector can contribute significantly to better performance of places beyond London and the South East. As discussed in Chapter Eight, a productive private sector needs a productive public sector to deliver healthy and skilled workers, provide infrastructure, co-ordinate across the economy and make fundamental investments.

Policy implications

The decisions made by people and firms matter for productivity outcomes, but the government's role is central. The UK's productivity problem is a problem of governance and policy too. The UK needs to develop an integrated range of pro-productivity policies, commit to them for the long term, and co-ordinate with businesses and public sector organisations, and with workers, in implementing and executing productivity-enhancing practices.

This report ends (Chapter Ten) with a proposal to establish a new institution to better coordinate policies on growth and productivity, both horizontally across policy domains and vertically from central and devolved government to local and combined authorities.

Managing trade-offs

While productivity is primarily a positive notion, it sometimes has negative connotations. Cost-cutting and efficiency drives, which focus on using

fewer resources to do as much as or more than before, may create concerns about jobs and workforce well-being. They may involve the depletion of other resources, including nature and the environment. And they can reduce the quality of the outputs.

Such negative effects from productivity efforts, which often arise in the short-term, need to be well-managed by policy makers and business leaders, and be outweighed by long-term gains.

Inclusive growth

Amid the many questions and challenges thrown up by the UK's productivity problem, we should not lose sight of the fact that productivity matters not only to boost economic growth, but also to sustain and improve people's living standards over time and ensure that the benefits of a vibrant economy are shared.

This is why it is important for as many people and firms as possible to have

access to the resources and opportunities they need to engage in the effort to improve productivity. This effort cannot be something that is done to them by others, who then get the lion's share of the benefits. Improving productivity is for all the UK's people and firms, wherever they are located. If growth is not inclusive, with the ultimate goals of well-being and sustainability, the UK's ambition of raising productivity will fail.

If we use resources more efficiently and effectively to create better outcomes, organisations will be more successful in what they do, people will experience higher living standards and well-being, and places will become more attractive to live, work and do business in, and create inclusive growth.

Inclusive economic growth means there is broad based access for people, firms and places to all productive resources, to enable these to be transformed efficiently and effectively into outcomes, with benefits distributed widely across society.

"If growth is not inclusive, with the ultimate goals of well-being and sustainability, the UK's ambition of raising productivity will fail."

Key takeaways

The UK needs to develop an integrated range of pro-productivity policies and commit to them for the long-term.

Pro-productivity policies need to address the performance of people, firms and places.

The key challenges to address are for the country to invest again, improve knowledge diffusion and join up institutions for growth.

Pro-productivity policies need to be co-ordinated vertically between national, devolved nations, regional and local governments.



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