THE PRODUCTIVITY INSTITUTE

SCOTLAND
PRODUCTIVITY FORUM

Economic and Social Research Council

The Scotland Productivity Challenge: Insight Executive Summary

Productivity Picture

Productivity matters greatly for the wellbeing of every person in Scotland. It is key to supporting high quality and rewarding jobs, and funding public services. Unlocking Scotland's productivity potential will help build a stronger more resilient economy that delivers inclusive and sustainable growth.

But the story of Scotland's productivity performance is one of puzzles and apparent contradictions, with strength in some areas but below average performance elsewhere. For example, Scotland has one of the most educated workforces in the OECD through its renowned group of world-leading universities. At the same time, Scotland has a high percentage of adults without any qualification compared to the UK as a whole. Indeed, Glasgow is in the bottom 10 UK cities for the highest percentage of its working age population with no qualifications.

Scotland has had great success in high productivity sectors such as energy, finance and other knowledge intensive service industries. However, highly productive firms account for a small number of employment and employers report various skills gaps that hold back their growth potential. But the majority of Scotland's business base is clustered at low levels of productivity. Like other parts of the UK, whilst employment growth has been strong in recent years, the majority of this growth since 2009 has been in the relatively low value-added service sector.

The contribution to R&D by Scottish universities is among the best in the OECD, but this has yet to translate into a step-change in innovation in the Scottish economy. Overall R&D expenditure has been chronically low in comparison with the OECD and below the UK average.

Indeed, Scotland lags the UK in key metrics of innovation from new products and processes to workplace innovations. Over all levels of private investment in the Scottish economy are typically lower than in the best performing countries.

These observations impact on a range of outcomes. A significant challenge is the persistently low rate of business start-ups and the lack of a critical mass of large scale-ups. Employers report various skills gaps that hold back their growth potential. A small number of about 100 companies accounts for 60% of Scottish international exports. Unlocking Scotland's productivity potential will therefore help build a broad, stronger and more resilient economy that delivers inclusive and sustainable growth.

All these figures are from ONS data

7.5%	7.6%	65%	13.1%	98%
Share of UK GDP (2019)	UK total hours worked (2019)	Intermediate and high skilled 16-65 population (2018)	Change in productivity between 2008 and 2019	of UK labour productivity level (2019)

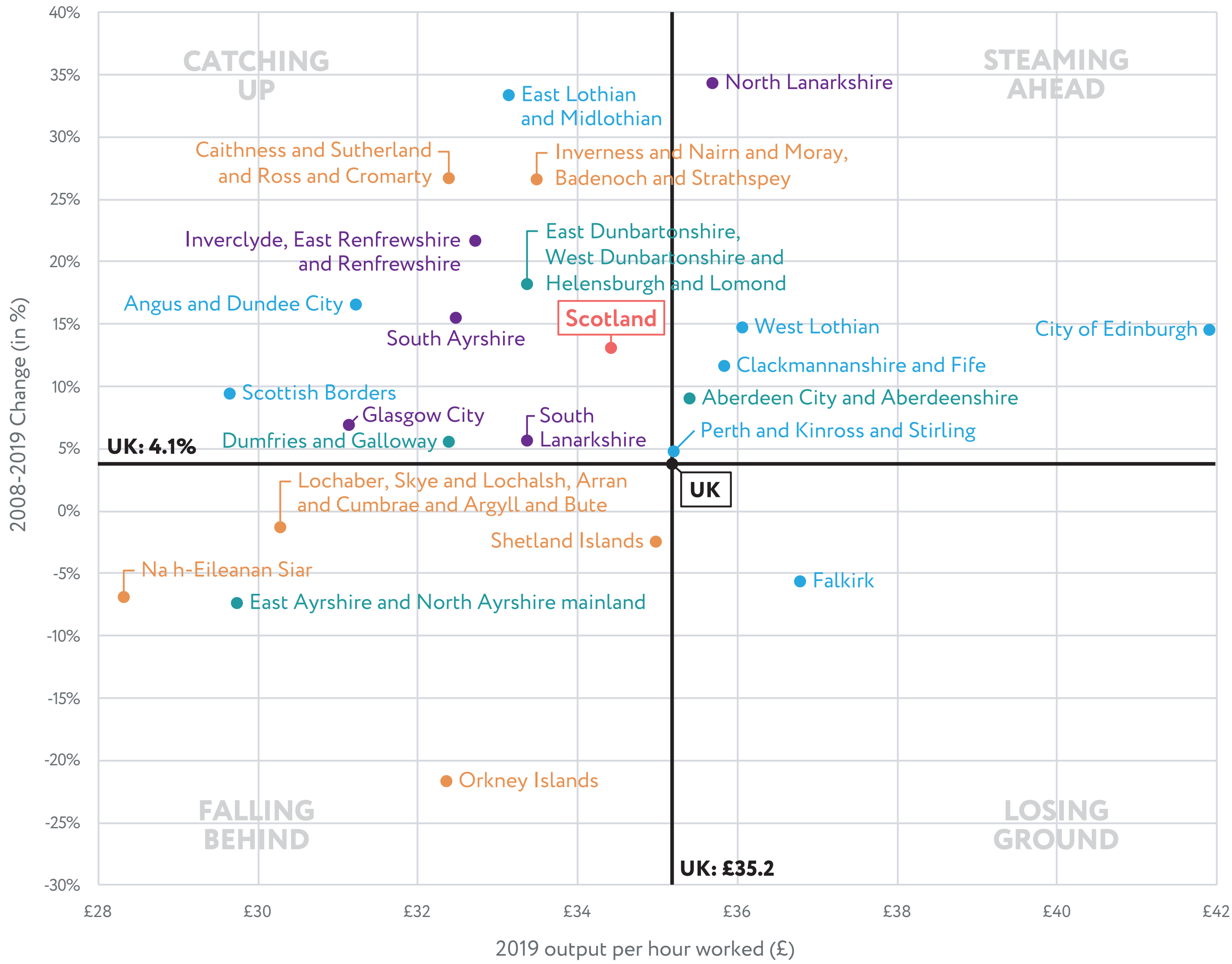
Majority of the Scotland counties have been outperforming UK average productivity

Scotland's productivity growth has outperformed all regions of the UK, recording an increase in output per hour of 13.1% between 2008 and 2019 - equivalent to an average productivity growth rate of 1.1% per year compared to 0.4% for the UK. However, the level of output per hour has remained slightly below the UK average and stalled since 2015 primarily because of a declining contribution from the oil sector.

There is a wide variation in productivity across Scotland, which is best understood by distinguishing between four different types of places: i) the North-East, including Aberdeen, with the dominance of its high value oil-and-gas sector, ii) Eastern Scotland (Edinburgh and surrounding areas) with its strong finance, public sector and professional services sector; iii) Western Central Scotland (Glasgow and the Central Belt) with a mix of sectors and areas recovering from post-industrial decline, iv) and the rural and island areas of the Highlands & Islands and Southern Scotland). Among the 23 regions in Scotland, there is a large gap in hourly productivity between the best performing region (Edinburgh at £41.9) and the worst one (Na h-Eileanan Siar at £28.3) in 2019. Edinburgh built out its advantage over 15 years compared to all other regions, including cities as Aberdeen (at £35.4) and Glasgow (at £31.1). In addition to Edinburgh, only seven other regions in Scotland showed productivity above the UK average, four of which were in Eastern Scotland and none in the rural areas and islands. Scotland has shown one of the largest variations in productivity growth over the past 15 years. Seventeen of the 23 regions showed faster productivity growth than the UK average, even though large urban entities like Glasgow and Aberdeen performed only slightly better. Of the six regions showing a productivity decline between 2008-2019, four were in the Highlands and Islands, one in Southern Scotland (East Ayrshire and North Ayrshire mainland) and one in Eastern Scotland.

KEY
Eastern Scotland
South Western Scotland
North Eastern Scotland
Highlands and Islands

Labour Productivity Level (2019) and Growth Rate (2008-2019) for Scotland



Source: [Office of National Statistics, Subregional productivity: labour productivity indices by UK ITL2 and ITL3 subregions, 23 July 2021.]

Primary Drivers and Bottlenecks

Uneven development across regions and sectors is a key bottleneck for Scotland's overall productivity performance. The large regional differences may be explained by the high dynamism of city regions, especially around Edinburgh and Aberdeen in comparison to the South and West-Central regions. The former perform better on metrics such as R&D within businesses, business start-up rates, qualified workforce employed, and exporting activity compared to most other cities and regions. The decline in oil and gas sector has slowed the Aberdeen region, and emerging trends in green energy paint a more nuanced picture on productivity with challenges and opportunities.

Business investment in physical and intangible capital (machinery and equipment, buildings, ICT, R&D) has been chronically low in Scotland. One estimate by the Fraser of Allender Institutes suggests that that for Scotland to match the UK average, every Scottish business with more than 50 employees will need to invest an additional £55,000 per year.

There have also been signs of significant trade-offs between job growth and productivity growth in various sectors, especially for Manufacturing and Real estate, the former being a highly productive sector losing jobs, whilst the latter, experiencing robust jobs growth in the backdrop of negative productivity growth. Only four high productivity sectors have also experienced robust jobs growth: Information and communication, Professional, scientific and technical services, Administrative, and support service activities, Health and Social work.

One driver of innovation is the adoption of digital technologies. There is a relatively low degree of digital penetration in the Scottish business sector. Businesses widely report gaps in employee digital skills—crucial for the ecosystem to engage fully and reap the benefits from digital transformations. Strong leadership and management practices are strongly correlated with firm productivity and are a key enabler of technology adoption and IT engagement. More broadly, there is a growing recognition that quality of management and employee engagement are crucial for Fair Work and Workplace Innovation – key priorities of the Scottish Government.

Strengths

- High productivity sectors including financial services and energy
- World-renowned universities with strong Higher Education R&D
- One of the most educated workforces in the OECD

Weaknesses

- Business ecosystem lacks a critical mass of scale-ups
- Persistently low rate of business start-ups
- Scotland lags the UK in key metrics of innovation
- Relatively highly educated workforces, but nearly 10% of adults have no qualification

Opportunities

- Leverage Higher Education R&D to strengthen Business R&D
- Transform oil & gas energy sector into green energy
- Supporting the fastest growing technology sector and high value manufacturing to create high pay jobs
- Strong commitment from Scottish Government to accelerate the pace of digitization and strengthen agglomeration effects in cities.

Threats

- Weak investment in physical and intangible capital (R&D, digital innovation)
- Significant gaps in digital and leadership/management skills

Looking to the future

As part of its ambitions around inclusive growth and a focus upon a wellbeing economy, the 2015 Scottish Government Economic Strategy sets out an ambition to reach the top quartile of OECD countries on productivity.

Some key policy areas of focus for Scotland are:

- Given the high level of Higher Education R&D, Scotland should generate more Business R&D spending to translate the world class research into commercial opportunities.
- Over half of employers in Scotland report a need for greater opportunities for (digital) tech skills training.
- SMEs need to better understand the benefits of workplace innovations, for example by accessing the support programmes offered by Scottish Enterprise. Simple solutions, such as behavioural nudges and a strong peer group for SME businesses can be leveraged to begin a journey of innovation.

Under devolution, responsibility for improving productivity in Scotland is shared across different tiers of government. Key macroeconomic, industrial, innovation and fiscal levers are controlled by the UK central government, impacting on business tax policies, policies to support internationalisation, access to finance and regulatory levers. Policy initiatives, such as the Industrial Strategy and the Levelling-Up agenda, will see resources specifically targeted at key sectors and regions within Scotland. The Scottish Government controls more of the microeconomic levers to support productivity. This includes the education and skills system, support for business start-ups and broader economic development, infrastructure, and small business growth.

Ultimately the success of economic policy efforts to promote productivity in Scotland depends on the optimal mix of both UK and Scottish Government policy initiatives and collaboration between government entities. One area of success is the implementation of City Region and Regional Growth Deals, which are funded jointly by the UK and Scottish Governments as well as local partners and now cover 100% of Scotland.

Instead of creating too many new different strategies and action plans, it is important to focus on delivery and implementation. For example, the Enterprise and Skills Strategic Board may provide strategic oversight of Scotland's enterprise and skills agencies. The new Scottish Government Council for Economic Transformation has also been tasked with providing greater clarity and focus to the economic policy landscape.

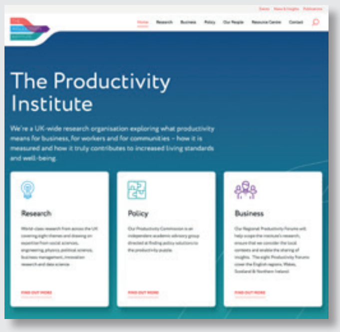
The Productivity Institute

The Productivity Institute is a UK-wide five-year research organisation, which began in September 2020 and is funded by a £26 million grant from the Economic Social Research Council in the UK – the largest single grant in its history and supported by £6 million from partner institutions.

It explores 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. Productivity is key to a more prosperous and equitable society.

We aim to pinpoint the causes of the stagnation in UK productivity and focus energies to laying the foundations for a new era of sustained and inclusive productivity growth, which will improve our material standard of living.

Our world-class research draws on expertise from social sciences, engineering, physics, political science, business management, innovation research and data science. Our research activities and outputs are developed in collaboration, and in some instances through co-production, with business and policy users.



For more information and insights, please visit our website at **www.productivity.ac.uk** where you can also sign up to receive our regular newsletter.

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This executive summary is based on the Productivity Insights Paper Scotland's Productivity Challenge: Exploring the issues published by The Productivity Institute.