The CBI/KPMG Scottish Productivity Index 2022–2023

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Contents

Foreword CBI

We publish the latest CBI-KPMG Scottish Productivity Index as the political leadership in Scotland changes. With a new First Minister comes the opportunity to put economic growth at the heart of government.

This year we are taking a slightly different approach to our analysis of the Index. Throughout 2023, a series of industry-led groups will gather to take a more in-depth look at the key themes to improve Scotland's productivity. They are skills and training; health and wellbeing; business practices, as well as infrastructure and connectivity. We will look at what is working already; where good practice needs to be spread more widely; and where the barriers to progress lie and how to address them.

The new First Minister must take the opportunity to re-focus the Scottish Government's attentions on economic growth. For too long we have talked about Scotland's potential; but without decisive action, each year that potential is chipped away, as the race to Net Zero by 2045 draws ever closer. Every sector and every part of Scotland has a role to play in achieving Net Zero. But to get there, we need to step up a gear.

Collectively, we need to stop talking about the big ambitions, and take bold action now to deliver – before it's too late. This was echoed by the Climate Change Committee to the Scottish Parliament in December 2022, where they stated "a clear delivery plan on how [the key milestones]… will be achieved is still missing".[1]

Already, the USA and Europe are outspending us when it comes to green growth – whether that's on retro-fitting buildings, EV-charge points, or carbon capture and storage. The CBI's own **Seize the Moment** campaign captures what needs to happen to create a more dynamic, competitive, future-focused economy. We know growth matters, because it is the bedrock of what delivers life opportunities – and supports the government to deliver on their priorities.

As KPMG and Fraser of Allander highlight below, there are some real areas where Scotland has success, for example our highly educated population. Talking to businesses week in, week out, I hear about the appetite businesses have to invest in Scotland, and their workforce.

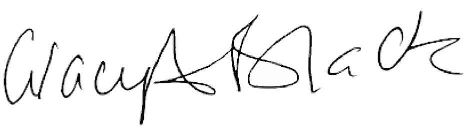
But, we need to do more to ensure our highly-educated workforce delivers sustainable economic growth, for example by focusing on leadership skills, digital skills, and adopting new technologies. We must support long-term investment into re-training and up-skilling opportunities for Scotland's workforce, to support lives and livelihoods through higher wages, creating long-term job security and ultimately improving productivity.

In 2023, three years on from the start of the Covid pandemic, the way we work, and the way employers and employees approach the workplace has changed. We know that good health is a precondition for economic growth. Without healthy and happy employees, industries' access to a stable and thriving labour market is limited.

There's no 'one size fits all' solution to this, and improving health outcomes requires individuals, businesses and government to work together. The CBI is already taking steps to support firms looking at their own health provisions through our **Work Health Index**. This can help support business insight into firms' own provisions, and provide helpful tools to improve it further.

Firms across Scotland know that by securing long-term, sustainable growth it will help support life opportunities, fund vital public services, and deliver on the Scottish Government's priorities. The new First Minister will have a full three years before the next Scottish Parliament election; it's essential that a clear economic growth plan is delivered.

Together with the Scottish Government, business is keen to tackle the issues identified in the CBI-KPMG Scottish Productivity Index, helping to make Scotland a greener, fairer, economically inclusive society.



Tracy Black
Scotland Director, CBI

Foreword KPMG

We all want a productive Scotland. One which is consistently improving and giving people and businesses the best chance to succeed.

Productivity is fundamental to how much we earn; how fast wages grow, the quality of our essential public services, and crucially, the opportunity people have in life.

Weak productivity growth undermines Scotland's potential. It constrains our competitiveness, stifles innovation, and impacts growth in every sense.

Tracking Scotland's productivity, and understanding how it is performing, is a vitally important task. This Index once again provides valuable insight into our nation's economic health from several perspectives and gives us indications where we must improve.

I'm delighted to have been involved once again this year in collaboration with CBI Scotland and our research partners, the Fraser of Allander Institute who produce the invaluable data-dashboard.

How is Scotland performing?

Put bluntly, we've got work to do.

As you'll read, Scotland's overall productivity growth has slowed recently.

While labour productivity in terms of output per hour worked increased by 1.2 per cent in the UK, Scotland's productivity was unchanged in 2021.

Nevertheless, by the end of last year employment in Scotland exceeded levels before the pandemic, unlike the wider UK economy which continues to be affected by increased levels of inactivity and lower employment.

It's clear Scotland boasts a wealth of human capital, but we're not making the most of it. We have the highest rate of educational attainment across the whole of the UK and have made great strides in on-the-job training over the past few years.

However, despite improvements, the intensity of our early-stage innovation continues to lag behind the rest of the UK. We need to unlock more of the scientific potential being created by our leading universities and ensure there is a greater focus on applying business goals to big ideas.

Greater investment in the scale up and tech industry outside of Edinburgh will help to improve innovation and rebalance where ideas come from. Improving the already strong links between businesses and higher education, as well as increasing access to capital, will help nurture more homegrown innovations, wherever they are in Scotland.

What can we do to improve productivity?

Given Scotland's limited growth recently, we need the UK Government and Scottish Government to be braver by focusing on areas we can see the greatest returns.

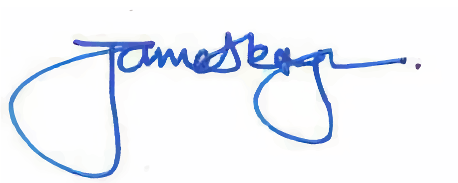
We have burgeoning sectors which need continued attention and investment. For instance, energy, specifically renewables wind and tidal.

Scotland's next leader will be urged from most quarters to continue with green investment as an urgent priority given the obvious strides we can make there.

Elsewhere our finance sector, legal and business services; advanced manufacturing; life sciences and broader technology including clean tech and deep tech are all good places to start. These are Scotland's existing success stories which need to flourish to maximise their wider impact.

Improving productivity does not happen overnight, which is why this annual Index provides evidence tracked over time, to ensure decision makers have the information they need to make informed decisions for the long-term.

Together we can improve Scotland's productivity. The work we put in today will have a lasting impact on our future, so let us ensure future generations thank us for our efforts.



James Kergon

Senior Partner, KPMG Scotland

Foreword Fraser of Allander

This year's productivity index highlights that despite some promising short-term movements in the indicators, many of the longer-term challenges remain in pursuing a more productive economy.

We are in an extremely challenging economic period, following three years of turmoil for Scottish businesses. There is no doubt that the resilience of Scottish businesses has been tested to the limit during the period of the pandemic, pushed further by the high inflationary environment over the past year.

Most analysts expect that there will be contractions in the economy over 2023, as increases in interest rates do their job and take some of the demand out of the economy. This will be coupled with the rollback in support for energy bills for households and businesses from April, which will put a significant dent in disposable income and unfortunately may well put some businesses over the edge.

Despite all this gloom, in our discussions with businesses, they seem a bit more optimistic than they were a few months ago for the prospects for 2023 – at least in terms of their expectations for sales and turnover.

From the point of view of increasing the productive capacity of the economy in the medium to long term, though, it is more worrying that investment intentions are very poor. This reflects the wider economic and geopolitical environment, as uncertainty dominates every discussion about what 2023 holds in store.

There are some positive signs in recent years that we see through the index analysis. For example, business Research and Development spending continues its upwards trend we have seen for the past decade. However, as this is happening it is still the case that Scotland significantly lags the UK as a whole: and also, that the majority of spending is concentrated in a few areas of the country, particularly Edinburgh and the surrounds.

Scotland has always performed well on the measures of the skill level of the population: not just across the UK as we highlight in the analysis in the report, but internationally. At the same time, we have a clear sense from businesses that the labour force in Scotland does not always have the skills required to fill roles, from digital skills to softer skills around project management and delivery.

One of the biggest challenges for government is the increase in inactivity due to ill health or disability. For both the UK and Scotland, this has unwound the improvements in this figure we saw over the last 20 years, with a big jump up in the rate during the period of the pandemic. The rate in Scotland remains significantly higher than the UK average, and Scotland has a higher rate than every region of England.

The rate of 32% for Scotland compares to around 20% for London and the South-East.

The causes of this are complex and interlinked with challenges in the delivery of other areas of policy in this constrained fiscal environment. Both the Scottish Fiscal Commission and the Office for Budget Responsibility recently highlighted recent increases in the uptake of benefits linked to ill health and disability, and the expectation that there is likely just to be a higher level of uptake in the future.

The factors driving this include eligible people turning to these sources of support due to the cost of living crisis, people waiting longer for NHS treatment which could lead to conditions worsening to such an extent that they become eligible for disability benefits, and continuing impacts of COVID on the population, such as long COVID and mental health impacts.

Many of these impacts can and have meant that people previously able to participate in the labour market are no longer able to do so.

One of the key pillars of the Scottish Government's National Strategy for Economic Transformation is focussed on productive businesses and regions. The policies that are being pursued under this pillar include a focus on digital infrastructure, skill levels for senior managers, and a focus on regional development.

What is clear though through the indicators that we have analysed in this report is the role that health and the wider skills system may have in holding back the productive capacity of the economy.

Mairi Spowage
Director, Fraser of Allander Institute

Productivity Dashboard

	Latest performance	Benchmark: how does Scotland compare?	Short term trend: are we improving?	Long term trend: are we improving?	Analysis
Business practices					
1. **Business Investment** as a % of GDP	8.0% (2021)	🔴	🟡	🔴	• Business investment as a share of Scottish GDP contracted marginally by 0.1-percentage points (-p.p.) in 2021. • This indicator continues to remain below the long-term trend (1998-2021) of 8.3. • Although Scotland continues to lag behind the UK as a whole (9.0%) in the latest data, however it is important to note that the UK is 1.1-p.p. below its long-term trend, and has experienced a greater contraction over the past two decades than the Scottish equivalent.
2. **Exports** as a % of GDP	20.4% (2021)	🔴	🟡	🔴	• Exports as a share of Scottish GDP, a key measure of trade openness, increased from 20.2% in 2020 to 20.4% in 2021, a marginal 0.2-p.p. rise. The equivalent UK figure has fallen 0.4-p.p. on the year. The UK has experienced a 2-year consecutive fall in openness. • The trendline for this indicator continues to slope slightly downwards in Scotland however, if short-term improvements in this indicator continue, this long-term trend could change. But, looking forward, Brexit presents Scotland with challenges in growing its exports in the future.
3. **Business R&D spend** as a % of GDP	0.92% (2020)	🔴	🟢	🟢	• Business expenditure on R&D (BERD) as a share of GDP in Scotland increased from 0.86% in 2019 to 0.92% of GDP in 2020. • Latest data show Scotland experienced improvements in BERD expenditure as a share of GDP in almost all local authority areas. • At local authority level, West Lothian and the City of Edinburgh contributed the most in terms of BERD spend as a percentage of GDP – 3.5% and 1.8%, respectively. • Scotland still lags behind the national benchmark, where UK-wide BERD accounted for 1.3% of UK GDP in 2020. • However, Scotland is well above its long-term (2001-2020) average of 0.59%.
4. % of **innovation-active** businesses	39.0% (2018-2020)	🔴	🟢	🔴	• This measure is back on an upward trend after a dip in 2018 for both Scotland and the UK. • The share of innovation-active businesses in Scotland increased by over 7-p.p. between 2016-18 and 2018-20. • Despite this increase, Scotland continues to lag behind all UK regions, with the exception of Northern Ireland. • 45% of UK businesses were innovation active in 2018-2020, an increase of 7-percentage points since 2016-18. • Over the past 10 years, the average innovation active rate was 42%, meaning Scotland is around 3-p.p. below this longer-term trend.
5. Total **early-stage entrepreneurship** activity[2]	9.5% (2021)	🟡	🟡	🟢	• 2021 saw an improvement in this measure for Scotland, up from 7.3% in 2020. However, this increase was not statistically significant, according to the Global Entrepreneurship Monitor (GEM) Scotland report. • Scotland, despite improving, at 9.5% still lags behind the UK average of 11.5%. Scotland also lags behind England (11.8%), and Wales (10.3%) however, is slightly above Northern Ireland (9.1%). But, as noted in the GEM report, these differences are not overly significant.

	Latest performance	Benchmark: how does Scotland compare?	Short term trend: are we improving?	Long term trend: are we improving?	Analysis
Skills and training					
6. % of working age population with **Higher Education Certificate** or above	50.0% (2021)	🟢	🟢	🟢	• This indicator has not only risen on the year but also continues on its upwards trajectory since 2004 - when the data started being published. • Scotland now has 50% of its working-age population with NVQ 4+ education, according to the latest data (January – December 2021). • Scotland continues to perform well above the other UK nations. The UK overall (43.5%), England (43.2%), Northern Ireland (41.6%), and particularly Wales (38.6%) lag significantly behind Scotland for this measure.
7. % of workforce in **job-related training** in past 3 months	26.4% (Oct 2021 – Sep 2022)	🟢	🟢	🔴	• The latest data (October 2021 – September 2022) highlights that Scotland improved by 2.5-p.p., placing it well above its pre-pandemic (2019) performance of 23.9%. • Scotland now has the second highest workforce training rate in the UK, after Wales (27.8%). England comes in at 3rd with 25.1%, and then comes Northern Ireland, significantly below the UK average of 25.1% at 16.8%. • Scotland, like all UK nations, remains below its long-term trend (2004-2022). • The peak for this indicator was in 2004 when almost 32% of the workforce was in job-related training. There has been a slight downward trend in the levels since 2004 that has accelerated since 2013. However, this indicator has risen by 3.7-p.p. since 2020 and with continued improvement in the coming years this long-term trend could change.
8. % of employers with **skill shortage vacancies**[3]	3.0% 2020	⚪	🟢	⚪	• In 2020, this indicator improved (down from 6% in 2017). However, this data does not reflect the current impact of skills and labour shortages across the economy. • Regional analysis highlights that Ayrshire and Lanarkshire have the lowest share of skill shortage vacancies (1%) across Scotland, whilst West Lothian (6%) has the largest share of skill shortage vacancies in 2020.
9. % of employers with **underutilised staff**[4]	33.0% 2020	⚪	🟢	⚪	• The latest data (2020) highlights that this measure has improved for Scotland – down from 35% in 2017. Again, this data does not reflect the current impact of skills and labour shortages across the economy. • Again, Ayrshire has the lowest share of underutilised staff (30%) whilst West Lothian has the highest (43%).
Health and wellbeing					
10. % of hours lost due to **sickness absence**	2.1% (2021)	🟡	🟡	🟢	• The percentage of hours lost due to sickness absence increased across the UK as a whole during 2020-2021; up from 1.8% to 2.2%. • During this period, Scotland's sickness absence rate increased marginally by 0.1-p.p. to 2.1%. Scotland now has the joint (with England) second lowest sickness rate in the UK after Northern Ireland (2.0%). • Wales saw the largest increase among UK nations – up 0.6-p.p. on the year. • Regionally, East Midlands (0.8-p.p.) and North East (0.7-p.p.) saw the most significant rises on the year.
11. % of economic inactivity due to **long-term ill health**	31.9% (Oct 2021 – Sep 2022)	🔴	🔴	🔴	• The latest data (October 2021 – September 2022) shows that Scotland's percentage of economic inactivity due to long-term sickness increased from 29.6% in 2021 to 31.9% in 2021 – up 2.3-p.p. in under a year. • Scotland's rate is above the UK average of 25.8%. England's rate (24.2%) brings down the UK average while Wales' (34.0%) and Northern Ireland's (34.2%) rates bring this average up. • The difference in rates between Scotland, Wales, and Northern Ireland are not significant enough to infer much variation between these nations. However, each of these three countries are significantly higher than England and the UK.

	Latest performance	Benchmark: how does Scotland compare?	Short term trend: are we improving?	Long term trend: are we improving?	Analysis
Infrastructure and connectivity					
12. Average **internet speeds** in Scotland	Mean download & upload speed (92.8 and 19.9 Mbps) Q4 2022	🔴	🟢	🟢	• According to the latest data (Q4 2022), Scotland experienced a marked improvement in average internet speeds when compared to the same quarter of 2021. • Since Q4 2021, Scotland's download speed is up 25.2Mbps to 92.8Mbps and its upload speed is up 5.8Mbps to 19.9Mbps. On the quarter, download and upload speeds are up 8.2Mbps and 2Mbps, respectively. • The UK remains ahead of Scotland. In the latest quarter, the average download and upload speeds were 100.3Mbps and 24Mbps, respectively.
13. % of premises with access to **full fibre broadband**	41.0% (2022)	🔴	🟢	🟢	• Data for 2022 shows 41% of homes in Scotland are now served by a full fibre connection – just over 1 million. This is a significant increase of 14-percentage points from 2021 – one of the largest in the UK. • Scotland remains 1-percentage point below the UK average (42%), while Northern Ireland forges ahead with a rate of 85%.
14. **4G Mobile** coverage	57.0%-75.0% (Sep 2022)	🔴	🟢	🟢	• The latest data for Sep-2022 indicates a lower bound 16-percentage point increase, and an upper-bound 18% increase in 4G mobile coverage for Scotland. • Scotland (57%-75%) and Wales (73%-85%) continue to drag the UK average (80%-87%) down with Northern Ireland (88%-92%) and England (92%-94%) significantly ahead. • 4G coverage remains poor in many places across Scotland; urban areas of are relatively well served by 4G networks, but those in rural areas, particularly in the Western Highlands and Islands, experience much lower levels of coverage.
15. **Travel to work** time	24 mins (2021)	🟢	🟢	🟡	• The latest Labour Force Survey 2022 showing the modal comparison (TSGB01) by the Department of transport indicates that the average time to work is 24 minutes in Scotland. • This is faster than England which was reported at 28 minutes but slower than Wales at 23 minutes. The latest data (2021) shows that Scotland has a shorter travel-to-work time than the GB average of 27 minutes, which is significantly skewed by London (43 minutes).

A note on the arrows and the RAG ratings

There are three rating indicators shown for each of the measures on the dashboard – one which is designed to capture change in the last data point, one which is change over time, and one which is designed to capture the comparison with either other parts of the UK or international comparators.

The ratings are likely to be a focus of discussion of the Business Advisory Group.

References

1. Climate Change Committee, 2022 Progress Report, **https://www.theccc.org.uk/wp-content/uploads/2022/12/Progress-in-reducing-emissions-in-Scotland-2022-Report-to-Parliament.pdf**
2. Total early-stage entrepreneurship (TEA) = sum of nascent entrepreneurial rate and new business ownership-manager rate, without double counting, NatWest Global Entrepreneurship Model. .
3. This survey was first published in August 2018 so no long-term trends can be deduced; there has been no new data since the 2021 Productivity Dashboard so estimates and analysis remains the same.
4. This survey was first published in August 2018 so no long-term trends can be deduced; there has been no new data since the 2021 Productivity Dashboard so estimates and analysis remains the same.

About the CBI

Founded by Royal Charter in 1965, the CBI is a non-profit business organisation that speaks on behalf of 190,000 UK businesses of all sizes and from across all sectors, employing nearly 7 million people between them. That's about one third of the private workforce. This number is made up of both direct members and our trade association members. We do this because we are a confederation and both classes of membership are equally important to us.

The CBI's mission is to promote the conditions in which businesses of all sizes and sectors in the UK can compete and prosper for the benefit of all. With offices around the UK (including in Scotland, Wales and Northern Ireland) and representation in Brussels, Washington, Beijing and Delhi, the CBI communicates the British business voice around the world.

Our mandate comes from our members who have a direct say in what we do and how we do it

The CBI receives its formal mandate from 9 Regional Councils, 3 National Councils from Scotland, Wales and Northern Ireland plus 16 sector based Standing Committees. These bodies are made up of members in that region, nation or sector who serve a term of office. The chair of each Standing Committee and Regional and National Council sit on the CBI's Chairs' Committee which is ultimately responsible for setting and steering CBI policy positions.

Each quarter this formal engagement process across the CBI Council reaches over 1,000 senior business leaders across 700 of our members who have a direct say in what the CBI do and how they do it, from refreshing their workplan to discussing the key business issues of the day and re-calibrating its influence. Over 80% of the businesses represented on the CBI Council are outside of the FTSE350 as the CBI represents a wide range of sizes and sectors from the UK business community. This formal governance process is supported by a wide range of working groups, roundtables, member meeting and events that makes the CBI unparalleled at listening to and representing British business.

CBI Council in numbers

1000+

Committee and Council representatives

28+

Regional and National Council and sector based Standing Committees

50%

Representatives of the CBI Council at C-Suite level

80%

Of the CBI Council from non-FTSE 350 businesses

To share your views on this topic or ask us a question, contact:

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