

RAISING SCOTLAND'S ECONOMIC GROWTH RATE

A REPORT FOR THE HUNTER
FOUNDATION

MARCH 2021

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1. INTRODUCTION

This report was commissioned by the Hunter Foundation to provide an independent assessment of Scotland's economic prospects and challenges. The starting point is an assessment of the recent and expected future performance of the Scottish economy, both absolutely and relative to other nations. We consider the possibility of applying existing resources and policy instruments more effectively, to raise Scotland's economic growth prospects above those in our baseline forecast. And we consider whether there are more ambitious policies which, if they were to be introduced, might generate a significant uplift in Scotland's economic growth over the next decade and a half. In doing this we remain neutral on the issue of Scottish independence, considering only the likely effect of different policy options, irrespective of the constitutional arrangements under which they might be implemented.

2. SUMMARY

SCOTLAND'S ECONOMIC PERFORMANCE

In recent decades Scotland's **GDP per head** of population has consistently lagged behind the UK's level. In 2019 Scotland's GDP per head of population stood at £29,100 (2017 prices), 8% lower than the UK.¹ The gap was the same in 2000. However, compared to other UK nations and regions, Scotland's GDP per head of population is relatively high, and was 4% higher than the UK level in 2019 when London is excluded from the UK figure.

There are a number of factors affecting Scotland's GDP per head performance. Scotland's economy is more highly concentrated in low productivity sectors and less concentrated in advanced services such as information & communications, professional, scientific & technical services, and financial services than the UK average. The oil & gas sector is an exception and is significant, particularly in terms of its GVA per job, but is in decline.

Within most sectors, workers in Scotland are less productive than their UK counterparts despite the fact that Scotland's population is more likely to be educated to S/NVQ 4+ than the population of any other UK nation or region, apart from London.

In recent decades Scotland's **population** has grown more slowly than the UK average, but growth in the working age population—vital to the labour market—has matched the UK, largely due to inward migration. Employment has nevertheless tended to grow more slowly in Scotland than the UK average: from 2000 to 2019 it increased by 0.6% a year, compared with 0.9% for the UK as a whole.

The **business environment** in Scotland is characterised by a low business birth rate, relatively low levels of business investment and a low rate of scale-ups. However, its **exporting** performance is rather better: in 2017, Scotland came third out of the 12 UK nations and regions for total value of services exported, and sixth for total value of goods exports. Major items are financial services, alcoholic drinks (mainly whisky), and the services of the professional, scientific & technical sector.

Scotland also does moderately well in terms of **foreign direct investment** (FDI). Over the seven years to 2020 Scotland secured the most inward investment projects of any UK nation or region outside of London. However, many of these are quite small: during 2019 Scotland secured 101 inward investment projects, but they averaged just over 60 jobs each. And in many cases they comprise foreign take-overs of Scottish businesses, rather than new company formations. Outside of London three of the top 10 cities in the UK in terms of attracting FDI projects were Glasgow, Edinburgh, and Aberdeen.

PROSPECTS TO 2035 AND INTERNATIONAL COMPARISONS

Looking forward, we forecast that for the period 2020–35, Scottish real GDP growth will average 1.9%. It is likely that Scotland and the UK will both

¹ For sources of data, please see main chapters of this report.

enjoy fast growth in what we expect will be the pandemic recovery years of 2021 and 2022. Beyond that, however, Scottish economic growth is likely to return to its past trend. Over this period, the manufacturing, finance & insurance, and information & communication sectors are forecast to experience large productivity gains, boosting their contributions to Scotland's growth. We forecast that Scottish total employment will grow by 0.2% per year during the period 2020–2035—behind our forecast for the UK of 0.4% per year.

Fig. 1. Recent performance and forecast of key variables, 2000–2035

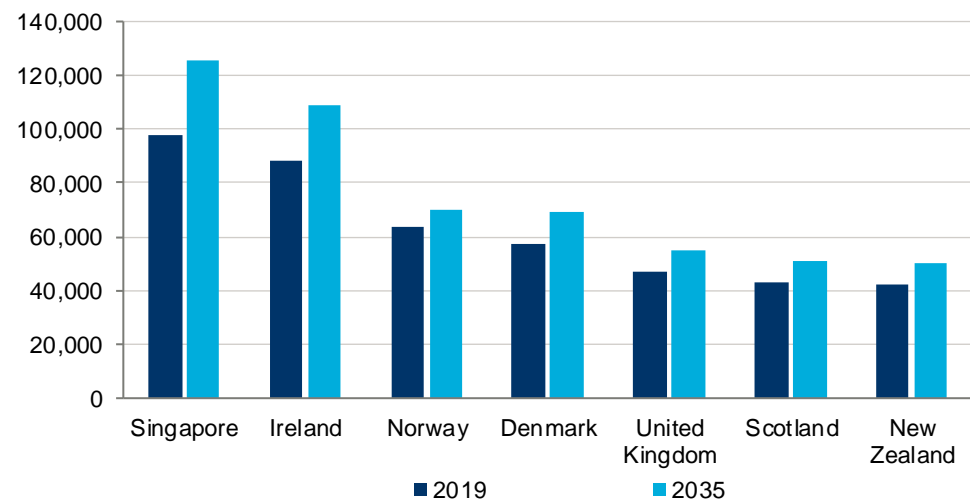
% change y/y	Real GDP		Working age population		Total employment	
	2000–2019	2020–2035	2000–2019	2020–2035	2000–2019	2020–2035
Scotland	1.3	1.9	0.3	-0.3	0.6	0.2
UK	1.7	2.1	0.3	-0.2	0.9	0.4
UK excluding London	1.4	2.0	0.5	-0.2	0.8	0.3

Source: Oxford Economics, using national statistics agencies data.

To put that in context, in 2019 Scotland's level of GDP per head was a mere 44% of Singapore's level. It was 48% of Ireland's, 67% of Norway's, and just 75% of Denmark's. It was, however, 101% of New Zealand's level. Looking forward to 2035, in only one case do we forecast that the gap is likely to be closed. We project that between 2019 and 2035, Scotland's GDP per head of population will grow by 18%, whereas Norway's will grow by only 11%. So Scotland catches up a little. Even so, the gap remains large.

Fig. 2. GDP per head of population, 2019 and 2035

US\$, exchange rate adjusted, 2017 prices



Source: Oxford Economics, national statistics agencies

IMPROVING EXISTING POLICY DESIGN & DELIVERY

Scotland's economic performance has been heavily influenced by the policies pursued by both the UK and Scottish governments. Of over-arching importance is the fiscal policy position of the UK, which aside from the response to the Covid emergency has largely acted as a drag on GDP growth over the last decade. Future fiscal measures are likely to tighten in the future, while monetary policy should continue to be accommodating.

In 2019 Scottish GDP per head of population was 44% of Singapore's, 48% of Ireland's, 67% of Norway's, 74% of Denmark's and 101% of New Zealand's.

There is an overlap between UK level policies and others at the Scottish level. Under present constitutional arrangements the Scottish government can spend as it wishes across a range of headings (education, police, housing, the economy, infrastructure, and some parts of social security) using a block grant it receives from Westminster and also revenue raised from certain domestically raised taxes. The Scottish government also has the ability to vary some tax rates. It has put these powers to use to make income tax rates more progressive than elsewhere in the UK.

Brexit was a key development for the Scottish economy and there remains uncertainty regarding future policy and arrangements with regards to trade, regulation, and funding. In all these areas, Scotland is currently treated no differently to most of the rest of the UK, whereas Northern Ireland has different arrangements in some respects. We estimate Brexit will have a significant impact on future growth. UK GDP will be three percentage points lower by 2030 than it otherwise would have been without Brexit, and with a similar figure for Scotland.

One possible area for reform is the **complexity of policy goals and instruments** that exist, even within Scotland itself, let alone when UK and Scottish arrangements are laid on top of each other. The number of strategies and action plans, and also the number of bodies created to oversee them, is overly complex and leads to confusion, duplication, and weakened accountability that makes it difficult to assess what policies actually work.

While the Scottish government has some powers to control the revenue it receives, in reality these are limited and offer little scope to considerably raise revenue, so instead it might look to reallocate more of its budget to economic development to drive growth. Scotland spends £7.1 billion, equivalent to 5% of GVA on economic affairs. This is more than most other regions of the UK, but less than most other EU nations. However, spending on health, social protection, and education account for the bulk of spending, and the present political consensus leaves little scope for spending more on economic development. Diverting support from agriculture, fishing, and forestry to other sectors would be too small a change to produce a significant uplift to other sectors.

The Scottish government says that one of the aims of the **Scottish National Investment Bank (SNIB)** is to achieve a step change in economic growth. However, its investments are targeted to support three somewhat different aims including Scotland's transition to net-zero, building communities, and harnessing innovation. Given its wide remit, the £2 billion funding for the SNIB does not appear to be particularly generous. But additional funding would only be likely to have an impact on Scotland's growth rate if there was a clear focus on achieving that as a goal—together with sufficient oversight and transparency to ensure that funds were suitably allocated (and reallocated when needed).

Attracting **inward investment** is a key policy ambition for the Scottish government. Numerous pieces of research point to the potential benefits that FDI can bring. However, research has shown that these benefits have not been fully realised in Scotland in the past. As a result, the Scottish government hopes to capture more of the benefits associated with inward investment to

significantly boost Scottish GDP and exports. However, this is a long-term goal, with the full benefits achieved in 2040, if successful. And there are factors including type of investment and geography that are likely to make it difficult for Scotland to realise the potential benefits in full.

Similarly, the extent to which **on-shoring** can make a big difference to Scotland is limited by the scale of Scotland's manufacturing base. Electronic companies in Scotland may have potential here, although in many cases they themselves are either suppliers to, or assembly operations owned by, overseas businesses. Brexit is also something that may mean more risk of production leaving Scotland than moving to it.

The Scottish government also aims to grow the economy by supporting SMEs and has committed to deliver a more streamlined system of **business support**. Research by Enterprise Research Centre (ERC) suggested a series of recommendations for improving the effectiveness of government support, including more effort from government to identify underperforming firms, particularly those that were performing well in the past. All of these recommendations are within the gift of Scottish policy makers.

However, a key issue for Scotland may be **scale-ups** rather than start-ups. There are initiatives in place in Scotland to help businesses to scale-up, most notably the Start2Scale, CAN DO Scale, Scale Up Scotland, and Unlocking Ambition Programme. These programmes are having some modest success. Nevertheless, ONS data show that Scotland has a particularly low rate of scale-ups and that the number fell between 2015 and 2018. Overall, it seems unlikely that shifting towards more support for scale-up will work, until more is known about the reasons for success and failure to date.

The UK and Scottish governments have both set targets to grow **R&D** to drive innovation. However, the most recent evidence from the 2019 UK Innovation survey suggests that the proportion of Scottish businesses that were innovation-active fell between 2016 and 2018. One area where Scotland is already performing relatively well is higher education R&D. However, this has little direct impact on the majority of companies, with just 24% of firms in Scotland in 2016–18 reporting any links with higher education. This suggests the possibility that in Scotland the issue is not primarily a shortage of public sector funds for R&D—it is private sector businesses' capacity or desire to engage in innovation that needs to be addressed.

Government spending decisions on **education and skills** are fully devolved to Scotland, with full powers to set education policy and spending. Scotland already spends more per head of population on education than other devolved nation or region in the UK. However, there is evidence that Scotland does not utilise the skills of its workforce as well as it could, with mismatches between the skills that workers have and those that their jobs require. The OECD found that the UK could improve its productivity by 5% or more if it reduced the level of skills mismatch to that of high performing international comparators.

Looking ahead, globalisation, digitalisation, and technological developments are all leading to new types of jobs and changes in the skills needed for existing jobs. Workers will need to upskill and re-train to keep pace and benefit from the changes it brings. Scottish education policy may need a greater focus on: aligning the education system to the needs of businesses; encouraging

lifelong learning; and a clearer focus on management skills and on the technologies and challenges of the future. Encouragingly, the Scottish government has plans in place already to address some of these challenges. But evidence on the likely impact of all of these initiatives will inevitably come only slowly.

Transport policy and spending are devolved to the Scottish government. The evidence that large transport infrastructure projects drive local economic growth is inconclusive. While the Scottish transport system is far from perfect and faces many challenges in coming years to meet the competing needs of greater demand whilst reducing carbon emissions, the fact that the transport network is already well developed means that it is unlikely that increasing transport spending would lead to a substantial improvement in Scottish economic growth.

MORE RADICAL POLICY CHANGES

In summary, it is not realistic to think that the current economic policies of either the UK or Scottish governments will produce a transformation of Scotland's economic performance. There are marginal improvements that would be helpful, but transformational economic improvements require some serious rethinks at either the Scottish or UK levels. We therefore look at more ambitious policies which, if they were to be introduced, might stand a chance of generating a significant uplift in Scotland's economic growth. By 'significant' we mean enough to bring GDP per head in Scotland up to about the level of the comparator countries like Norway and Singapore, within the next decade or so. Such policies would go beyond the boundaries that have currently been set by the Scottish and/or UK governments.

What might these policies be? In short:

- Increases in government borrowing and/or cuts in interest rates to stimulate stronger growth in demand and hence output;
- Significant tax cuts and deregulation, to improve competition and incentives in the economy; and
- Large increases in government support for businesses, either directly or through increased spending on infrastructure, education & skills, innovation, or the green economy.

These three are not mutually exclusive: indeed, if there is to be radical change, then there is a strong case for a combination of all three.

On the first of these, the underlying constraints are not as challenging as is often claimed, although they cannot be ignored completely. The need to keep government borrowing in check is often exaggerated: if expansionary policies are clearly likely to lead to stronger long-term growth, then the funding will almost certainly become available and the deficit will close with time. But that requires a credible 'supply-side' response. It is this that is the real barrier to growth.

Any credible long-term growth strategy needs to include ensuring that **competition** plays an important role in the economy. In fact, Scotland is already a low regulation economy. Similarly, while high taxation is a potential problem, it is not really true of Scotland today. The bigger issue is that the tax

system is not designed to encourage work, saving, or investment. Fundamental rather than piecemeal reform is needed to the tax system. In contrast, there is no need for wholesale regulatory changes: the UK and hence Scotland are amongst the most lightly regulated nations in the OECD.

A long-term growth strategy should also include well-designed **industrial policies**. The scale of these will always be small relative to the economy, so they need to be designed to help make companies more responsive to opportunities of all sorts, rather than simply providing cash. Crucially, the policies need focus and clarity, not multiple objectives. A possible way of giving that clarity would be a focus on a single sector, technology, or societal change. We suggest renewable energy, and addressing climate change more generally, as a candidate, given that renewables are a clear comparative advantage for Scotland, and with potential for transferring skills from the North sea sector—which has always involved the exporting of specialist service capabilities and skills, and to just the extraction itself.

And we suggest that as part of this consideration be given to making a strengthened, enlarged but better focused SNIB the centre of a Scottish **venture capital** sector, with a specialism in renewables, clean growth and associated technologies and markets, addressing the issue of scale-ups, and replicating the role that venture capitalists have played in the success of Silicon Valley and similar clusters in the US. This should be part of the refocusing of Scottish industrial policy towards fewer initiatives and fewer objectives, and with full transparency and oversight.

THE SCALE OF THE CHALLENGE

What might the impact of that be—and indeed how realistic is it to think that Scotland could close the gap with its peers? Some back of the envelope calculations may help.

To achieve the same GDP per head as Singapore by 2035, Scotland would need annual productivity growth over the period that would average over 6.5% a year, compared with 1.2% of the period 2000-2019.

That is not realistic. But to reach GDP per head the same as Norway or Denmark would require productivity growth a little below 3.5%. That would be very challenging, but not completely unknown for advanced economies. By way of comparison, we expect San Jose—the US metropolitan area that best approximates Silicon Valley—to see GDP per head of population growth over that period of 3.4%.

A different way of looking at it sounds rather more challenging: Scotland would need a business, comparable in size with Google's total global output, to bring its GDP per head up the level of Norway's—or of course 20 companies, each one twentieth the size of Google.

Against that, the idea that Scotland could never aspire to be the equal of nations such as Denmark or Norway sounds somewhat defeatist. But a reasonable conclusion is that if anything like that ambition is what political leaders have in mind, then their present policy offers are really not going to deliver. Bigger policies are required.

The SNIB could become the centre of a Scottish venture capital sector, focused on renewables and supporting high growth ventures that address climate change.

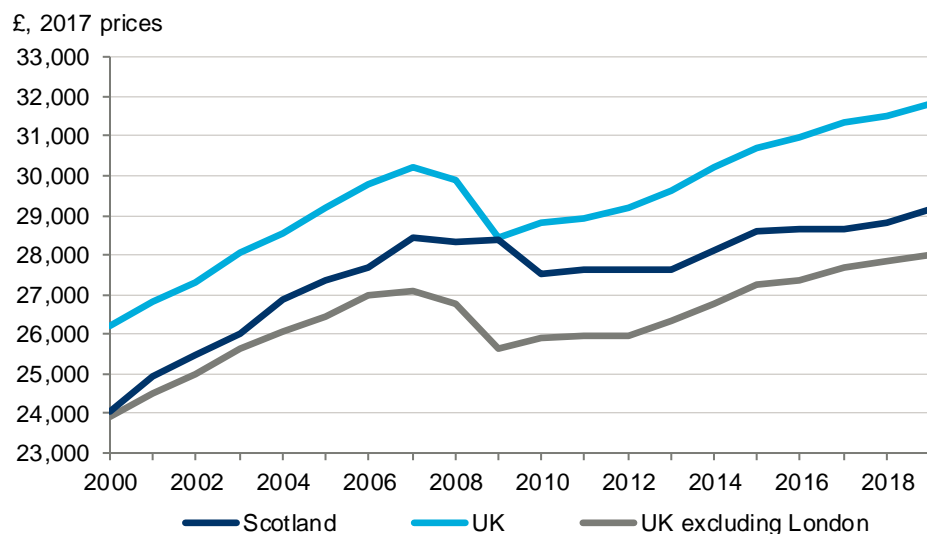
Bringing GDP per head into line with Norway or Denmark would be equivalent to creating a Scottish Google: or 10 businesses each a tenth the size of Google. Current policies cannot be expected to deliver that scale of change.

3. SCOTLAND'S PERFORMANCE & PROSPECTS

3.1 THE STARTING POINT

Except for a short-lived convergence during the recession that followed the global financial crisis, GDP per head of population in Scotland has for many years been lower than in the UK as a whole. But it has been higher than the UK, if London is excluded. Figure 3 shows that in 2019, GDP per head of population was £29,100 (in 2017 prices) in Scotland, 8% lower than the UK figure of £31,800 (2017 prices), although 4% higher than the UK figure excluding London.

Fig. 3. GDP per head of population, 2000–2019



Source: ONS, Oxford Economics

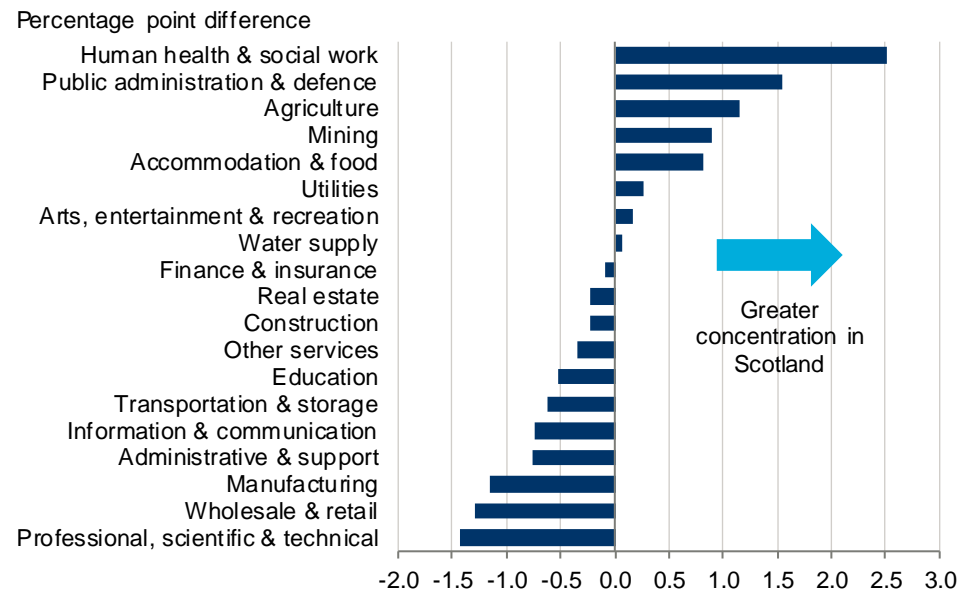
In terms of real GDP per head of population, Scotland and the UK both grew at a rate of 1.0% over the period 2000–19. However, overall real GDP growth for Scotland was 1.3%, compared with 1.7% for the UK, reflecting slower population growth in Scotland.

A major factor explaining GDP per head of population is productivity, measured as GDP per person in employment. This is lower in Scotland than the UK average, but higher than the UK excluding London. Differences here reflect a combination of the structure of the Scottish economy (whether Scotland tends to have high or low productivity sectors) and variations in productivity within sectors (whether the same sector has higher or lower productivity in Scotland than elsewhere). Scotland suffers on both counts: fewer high productivity sectors, and lower productivity within the majority its sectors, compared with the UK as a whole.

So, for example, and as Figure 4 shows, Scotland has a smaller manufacturing sector compared with the UK average, but a larger arts, entertainment, and recreation sector, reflecting the importance of tourism in Scotland. And what

manufacturing Scotland does have, tends to have less high value-added content, with a heavier reliance on traditional products such as food and drink.

Fig. 4. Difference in sectoral share of employment, Scotland compared to UK, 2019



Source: ONS, Oxford Economics

Scotland's total employment is also less concentrated in advanced services—information & communication, professional, scientific & technical services, and financial services—than the UK average. These three sectors accounted for 14.1% of total employment in Scotland in 2019, but 16.4% of total employment across the whole UK. And the first two of these sectors have been very important for economic growth—not just in the UK, but across almost all advanced economies, globally.

3.2 POPULATION, EMPLOYMENT AND QUALIFICATIONS

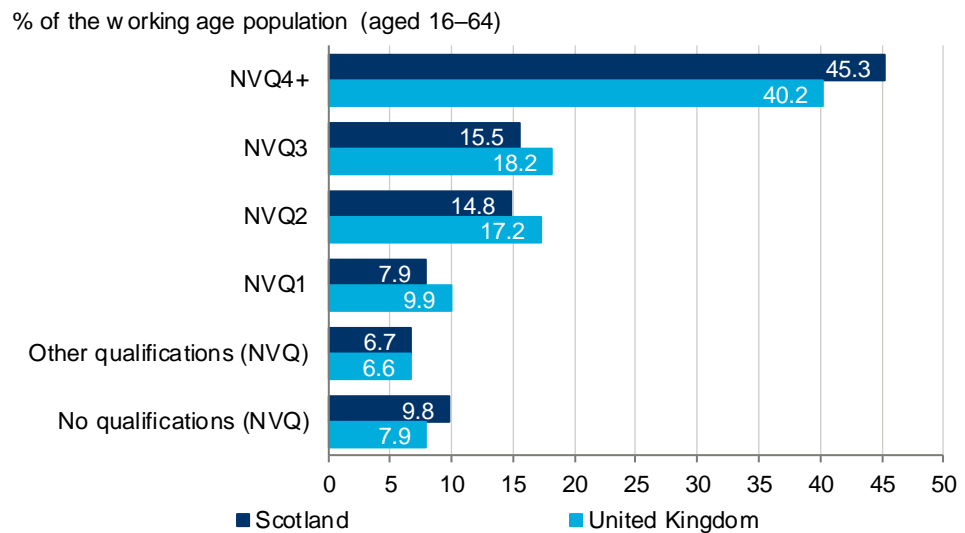
From 2000 to 2019 population growth in Scotland averaged only 0.4% a year, compared with 0.7% for the UK as a whole. Scotland's total population would have declined if not for net migration of 413,000 people into Scotland. (The UK's net inward migration during the period was 4.92 million.) And the population of people aged 16–64 grew more slowly, at 0.3% a year, although in this case the figure was the same as the UK average.

Scotland has a lower birth rate than the UK, which in the short term reduces its dependency ratio (the number of people below or above working age, as a proportion of the total) but which may imply a labour supply constraint at some point in the future, unless inward migration rises further (something made less likely by Brexit—an issue we return to, below).

Scotland's population is, however, more likely to be highly educated to S/NVQ 4+ than the population of any other UK nation or region, apart from London. But Scotland also has a higher than average proportion of people without any qualifications. Of those in work, Scottish people are less likely to be in managerial or other senior-level occupations than the UK average. These factors are suggestive of a mismatch between the education and skills system,

and the economy's needs. Scotland does have a greater proportion of professionals than the UK average, but that largely reflects larger numbers working in health and education, whose potential impact on future GDP growth is mainly indirect. Employment itself has tended to grow more slowly in Scotland than the UK average: from 2000 to 2019 it increased by 0.6% a year compared with 0.9% for the UK as a whole.

Fig. 5. Highest qualification level of the working age population, 2019



Source: ONS

3.3 BUSINESS FORMATION, EXPORTING, R&D AND INWARD INVESTMENT

Scotland is ranked towards the bottom of UK regions and devolved nations in terms of businesses per 10,000 resident adults. In 2019 (pre-pandemic) Scotland had around 900 business per 10,000 adults compared to a UK average of 1,100.² Linked to that, Scotland has a low business birth rate: in 2019 it came ninth out of the 12 UK nations and regions, with 4.0 business births per thousand people compared with 5.8 for the UK as a whole.

Probably of more importance is the scale-up rate. In the UK it has been estimated that although scale-ups amount to only about 2%–4% of SMEs, they are responsible for most of SME growth. A report published in 2014 estimated that even a 1% increase in the UK's scale-up population could drive an additional 238,000 jobs and add £38 billion to GVA within three years leading to £96 billion a year in the medium term.³ Unfortunately, Scotland has a particularly low rate of scale-ups. In 2018, there were 40.3 scale-ups per 100,000 people, compared with a UK average of 51.0.

And at 2,190, the number of scale-ups in Scotland in 2018 was down on the 2,290 reported in 2015.

² Business statistics, UK Parliament, January 2021

³ https://publications.parliament.uk/pa/cm201719/cmselect/cmbeis/807/80708.htm#_idTextAnchor056

THE NORTH SEA OIL AND GAS SECTOR

The Scottish government estimates that extraction of oil and gas contributed £8.8 billion in GVA to Scotland's economy in 2019.⁴ The ONS's Business Register and Employment Survey shows that the sector employed approximately 27,500 people in 2019. Some of these are exporting their services globally, whether in exploration techniques, engineering, or providing advice on activities such as offshore safety, processes, repair, and maintenance. And in terms of output per person employed, the North Sea sector achieves very high productivity levels. We estimate GVA per job of £320,000 for the Scottish oil and gas extraction sector in 2019. Estimates from Scottish government suggest that the sector accounts for a total of 100,000 Scottish jobs through direct, indirect, and induced impacts in 2018.⁵

Nevertheless, the sector is of diminishing significance. UK domestic oil and gas production peaked in 1999–2000 at 4.7 million barrels of oil equivalent per day, and declined to 1.6 boe per day in 2020.⁶ That does not mean, however, that the sector is of no importance at all. Although more than 44 billion barrels of oil equivalent have been extracted from the UK's Continental Shelf since the 1970s, in 2018 the industry regulator the Oil and Gas Authority estimated the remaining recoverable petroleum resources to be in the range 10 to 20 billion barrels, including both discovered and undiscovered resources. Based on current levels of production that could sustain production from the UKCS for 20 years or more.⁷

The UK government has recently committed to the North Sea Transition Deal to support the oil and gas industry transition to cleaner energy whilst supporting high-skilled jobs in the sector. The government claims that the deal could support 40,000 jobs across the supply chain with £16 billion of joint industry and government investment, supporting the development of Carbon Capture Usage and Storage (CCUS) and hydrogen production technologies.⁸

Much, however, depends on oil prices. We forecast modest increases in the dollar price of oil of 2.6% per year during the period 2021–2035. But if prices were to collapse, it might not be economically viable to extract any more than 8.7 billion barrels from the North Sea between now and 2050.⁹

More positively, Scotland's exporting performance is rather better than the UK average. In 2017 Scotland came third out of the UK nations and regions for total value of services exported, and sixth for total value of goods exports.^{10 11}

⁴ <https://www.gov.scot/policies/oil-and-gas/#:~:text=Oil%20and%20gas%20extraction%20alone,5%25%20of%20total%20Scottish%20GDP.&text=The%20oil%20and%20gas%20sector%20is%20also%20a%20major%20source,Government%20from%20production%20taxation%20alone>

⁵ According to <https://www.gov.scot/policies/oil-and-gas/#:~:text=Oil%20and%20gas%20extraction%20alone,5%25%20of%20total%20Scottish%20GDP.&text=The%20oil%20and%20gas%20sector%20is%20also%20a%20major%20source,Government%20from%20production%20taxation%20alone>

⁶ According to Oil & Gas UK's 2019 economic report

⁷ https://www.ogauthority.co.uk/media/5942/oga_reserves__resources_report_2019_jk.pdf

⁸ <https://www.gov.uk/government/news/north-sea-deal-to-protect-jobs-in-green-energy-transition>

⁹ FT article "Idle North Sea oil rigs point to fresh crisis" published 20/4/2020 summary of a University of Aberdeen study.

¹⁰ The Pink Book - UK balance of payments ONS, published 2019

¹¹ Regional Trade Statistics HMRC, published 2020

These exports are narrowly concentrated by sector—although that partly reflects the fact that Scotland's economy is relatively small. Major items are financial services, alcoholic drinks (mainly whisky), and the services of the professional, scientific & technical sector. Scotland also does moderately well in terms of foreign direct investment (FDI). Over the seven years to 2020 Scotland secured the most inward investment projects of any UK nation or region outside of London.¹² Many of these are, however, quite small: during 2019 Scotland secured 101 inward investment projects, but averaging just over 60 jobs each. Outside of London three of the top 10 cities in the UK in terms of attracting FDI projects were Glasgow, Edinburgh, and Aberdeen.¹³ Foreign takeovers of domestically owned businesses are included in the FDI numbers, and global consolidation in the finance and energy sectors is a potential factor here.

3.4 2020 AND THE CORONAVIRUS PANDEMIC

In 2020, along with the rest of the world, Scotland faced huge economic and social disruption because of the coronavirus pandemic. Scottish GDP fell by 19% between the first and second quarters of 2020, as did the GDP of the UK as a whole. It then began to recover, but the challenges posed by the virus meant that the path back to normal was very uneven—and indeed continues to be so. Considerable government support has, however, been provided to employers and individuals. The Coronavirus Jobs Retention Scheme, commonly known as the “furlough” scheme, has been particularly helpful in suppressing the impacts of the pandemic on the Scottish labour market. In Q4 2020 the unemployment rate in Scotland was 4.5%, so not hugely higher than the 3.6% of Q4 2019 (using the Labour Force Survey measure of unemployment). Over the same period the UK's unemployment rate saw a larger rise from 3.8% to 5.2%.

3.5 ECONOMIC OUTLOOK TO 2035

It is likely that Scotland and the UK will both enjoy fast growth in what we hope and expect will be the pandemic recovery years of 2021 and 2022. Indeed, the global economy is also likely to see strong economic growth in this period. We project that Scottish GDP will rise by 6.2% this year and by 5.9% in 2022.

Beyond that, however, Scottish economic growth is likely to return to its past trend. We forecast that for the period 2020–35, Scottish real GDP growth will average 1.9%. Although some sectors of the Scottish economy may enjoy significant productivity growth, helping to boost the economy's outlook, other sectors will act as a drag on growth, due to their poor productivity performance.

¹² See <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2020/10/shaping-scotlands-economy-scotlands-inward-investment-plan/documents/scotlands-inward-investment-plan-shaping-scotlands-economy/govscot%3Adocument/scotlands-inward-investment-plan-shaping-scotlands-economy.pdf> page 15

¹³ See https://assets.ey.com/content/dam/ey-sites/ey-com/en_uk/topics/attractiveness/ey-scotland-attractiveness-report.pdf pages 8 and 12

Fig. 6. Recent performance and forecast of key variables, 2000–2035

% change y/y	Real GDP		Working age population		Total employment	
	2000–2019	2020–2035	2000–2019	2020–2035	2000–2019	2020–2035
Scotland	1.3	1.9	0.3	-0.3	0.6	0.2
UK	1.7	2.1	0.3	-0.2	0.9	0.4
UK excluding London	1.4	2.0	0.5	-0.2	0.8	0.3

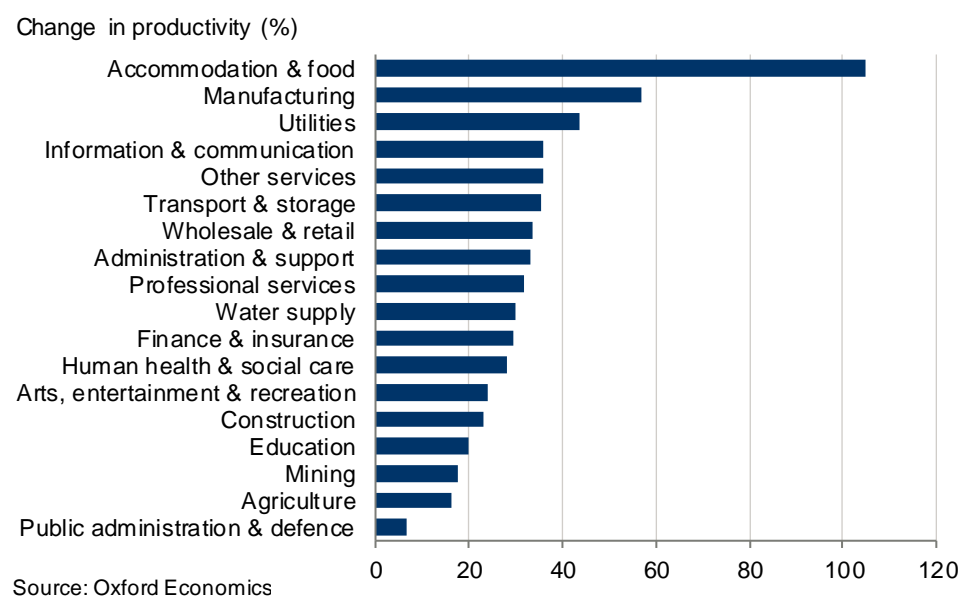
Source: Oxford Economics, using national statistics agencies data.

One likely success story, as shown in Figure 7, will be the manufacturing sector which we forecast to see productivity per worker increasing by 57% between 2020 and 2035: the sector accounts for 6% of employment in Scotland in 2020. The finance & insurance and information & communication sectors collectively accounted for 6% of Scottish employment in 2020. We forecast that both will enjoy substantial productivity per worker growth during the period 2020 to 2035. The productivity of the average finance & insurance sector worker will increase by 29% and the productivity of the average information & communication sector worker will increase by 36%.

At first glance, accommodation & food appears to be another success story. However, almost half of its growth is accounted for by a rebound to pre-pandemic levels, as this sector was hit the hardest by lockdowns. Also, even with all the growth it will enjoy by 2035, it will still be the second least productive sector in Scotland.

In contrast other sectors such as other public administration, agriculture, and mining & quarrying will struggle with productivity per worker growing by 7%, 16%, and 17% respectively during the forecast period. Overall, we forecast the productivity of the average Scottish worker will grow by 27% during 2020–2035.

Fig. 7. Scottish sectoral productivity growth, 2020–2035



Demographics in Scotland are also a potential constraint on growth. Scotland's working age population (defined as people aged 16–64) looks set to decline by

4.0% (138,000 people) over the period to 2035, compared with 2.5% for the UK. Scotland's total population will grow by only 1.2% (65,000 people) between 2020 to 2035, whereas the UK's total population will grow by 3.2% (2.15 million people).

We forecast Scottish total employment will grow by 0.2% per year during the period 2020–2035; behind our forecast for the UK of 0.4% per year.

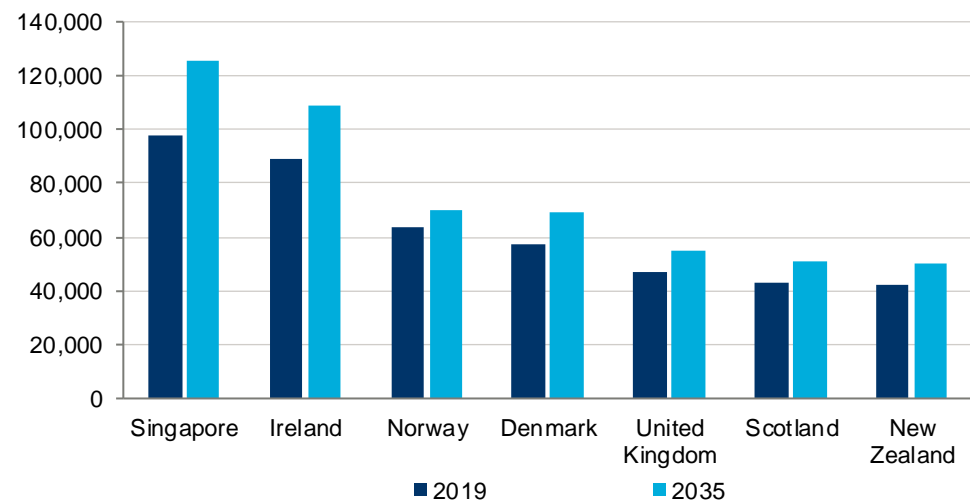
3.6 COMPARISONS WITH OTHER NATIONS

We have suggested that, despite being ahead on some measures, overall GDP per head in Scotland is lower than in the UK as a whole. However, that is partly because London raises the UK average. By the standards of the rest of the UK, Scotland compares well.

But that ignores differences within Scotland. Also, and importantly, when we compare Scotland with other nations with broadly similar sized populations, Scotland mostly lags—in some cases quite dramatically. As Figure 8 suggests, in 2019 Scotland's level of GDP per head was a mere 44% of Singapore's, 48% of Ireland's, 68% of Norway's, and just 75% of Denmark's. It was, however, 101% of New Zealand's level.

Fig. 8. GDP per head of population, 2019 and 2035

US\$, exchange rate adjusted, 2017 prices



Source: Oxford Economics, national statistics agencies

And looking forward to 2035, in only one case do we forecast that the gap is likely to be closed. We project that between 2019 and 2035, Scotland's GDP per head of population will grow by 18%, whereas Norway's will grow by only 11%. So, Scotland catches up a little. Even so, the gap remains large.

In the same period we project that New Zealand's GDP per head will grow by 19%, so Scotland will remain marginally in front. But we forecast that Singapore's GDP per head will grow by 28%, Ireland's by 23%, and Denmark's by 21%. For Scotland to catch up Singapore or Ireland by 2035 would be a mammoth undertaking. Indeed, even if Scotland's GDP per head of population doubled by 2035, it would still be behind those two.

To be fair, Singapore is an unusual economy: indeed, more like London or New York than an ordinary national economy. And although Ireland is a more obvious comparator, the Irish figures are distorted by a number of global technology companies claiming that their Irish operations contribute to very large proportions of their overall European activities—claims that have been disputed in court by the European Commission, and which mean that Irish GDP is potentially very over-stated.

But to be markedly behind Norway and Denmark, and only very marginally ahead of New Zealand (a nation seriously disadvantaged economically by its location) is not a strong result for Scotland. So, in the next two chapters, we discuss whether better economic policies, whether at the Scottish or UK levels, might be able to close the gaps between Scotland and these comparators.

We look first at the existing set of policies that are currently in place, and the possibility of making incremental improvements that might raise Scottish GDP. And then we look more widely at economic policies in general, and whether a radical rethink of economic policies might generate a transformation of the Scottish economy, within the next decade and a half.

4. IMPROVING POLICY DESIGN & DELIVERY

4.1 CURRENT ECONOMIC POLICIES AT THE UK LEVEL

Scotland's economic performance and outlook, described in Chapter Three, are heavily influenced by the policies pursued by both the UK and Scottish governments, both in terms of how they have responded to external events (not least the pandemic), but also in terms of what their economic priorities are, and what instruments they have chosen or been able to use, to try to improve economic outcomes. Which suggests the possibility that changes to those policies and perhaps priorities might improve the outlook for Scotland. In this chapter we consider incremental modifications, and in the next one we take a 'no options off the table' look at the possibilities.

Of over-arching importance to date has been the fiscal policy position of the UK government, which largely sets the parameters within which all policies operate, including those of the Scottish government. Leaving aside the response to the Covid emergency, the UK government's approach in recent years has been to try to keep fiscal policy very tight. It has implemented tax increases and has curbed spending growth, and it has claimed for itself three policy goals:

- Net budget balance: UK government revenues should cover 'day-to-day' spending;
- A net investment rule: public sector net investment should not exceed 3% of GDP; and
- A debt interest rule: if servicing the Government debt exceeds 6% of Government revenues, then the Government must reassess its fiscal plans.

In eight of the nine years between 2011/12 and 2019/20 the attempt at following these rules (or their predecessors) has acted as a drag on GDP growth. But in 2020 there was a significant loosening, with the Government suspending any attempt to follow its own rules. In the fiscal year 2020-21 it provided around £285 billion (14% of GDP) in fiscal support to fight the coronavirus pandemic.

Looking forward, the UK government clearly wants to claw back some of the financial support that it provided in 2020. In his March 2021 Budget the Chancellor of the Exchequer announced an increase in income tax, by freezing personal allowances. And although he also announced a temporary two-year tax break for companies investing in capital equipment, he said that from 2023 the standard rate of corporation tax would be increased to 25%. We estimate that these measures, and some planned spending cuts, will amount to fiscal tightening for the UK, equivalent to 1.3% of GDP in 2025/26. This will affect Scotland, and the budget of the Scottish government, just as it affects every other part of the UK.

Monetary policies are of course devolved to the Bank of England. They comprise interest rate adjustments and changes in the extent to which the

Bank buys government debt—an activity (Quantitative Easing or QE) which has the effect of allowing the government to run fiscal deficits without having to rely on the private sector to fund the deficit (although the Bank of England does not itself portray it in those terms). In recent years, and in contrast to fiscal policies, these monetary policies have tended to be moderately accommodating, reflecting the fact that inflation has been low, and indeed often below target. This has been helpful to the Scottish economy.

During 2020 the Bank of England went further: it cut its bank rate to 0.1% and undertook a large rise in QE. Looking forward, we expect few significant monetary policy changes, not least because we forecast a fairly stable path for UK inflation.

These policies have been supplemented with so-called 'supply side' reforms to boost growth. These have included welfare reforms, mainly the introduction of Universal Credit, which the UK government says is designed to incentivise work, as well as tax incentives for activities such as shale gas exploration and research and development (R&D), which the UK government regards as growth-enhancing.

Back in 2017 the UK Government also announced an Industrial Strategy, which it said would promote growth in all parts of the UK, including Scotland. However, this has now been replaced by *Build Back Better: our plan for growth*, covering infrastructure, skills, and innovation.¹⁴ Under infrastructure, the plan states that the UK Government will increase capital spending to £100 billion in 2021/22, a significant increase of £30 billion compared to 2020/21. The UK government also says that it will reform post-16 technical education, that it will help to finance new technologies through a Future Fund, and that it will reform pension laws to encourage investment in high growth industries.

4.2 CURRENT SCOTTISH GOVERNMENT POLICIES

These UK level policies overlap with others at the Scottish level. Under the present constitutional settlement the Scottish government can spend as it wishes across a range of headings (education, health, police, housing, the economy, infrastructure, and some parts of social security), using a block grant that it receives from Westminster every year and also revenue from certain domestically raised taxes. It also has very limited powers to borrow directly from the capital markets. This budget, called the "Scottish Consolidated Fund", was approximately £40 billion in 2020/21.

The Scottish government also has the ability to vary some tax rates including income taxes, non-domestic rates, Scottish landfill tax, and the land and building transaction tax. It has put these powers to use to make income tax rates slightly more progressive than elsewhere in the UK, as shown in Figure 9.¹⁵

¹⁴ <https://www.gov.uk/government/publications/build-back-better-our-plan-for-growth>

¹⁵ those earning more than £100,000 see their Personal Allowance reduced by £1 for every £2 earned over £100,000. This applies across the UK, including Scotland see: <https://www.gov.uk/income-tax-rates/income-over-100000> and <https://www.gov.scot/publications/scottish-income-tax-2020-2021/>

Fig. 9. Income tax rates, Scotland and the UK, 2020/21

Scotland			UK		
Band	Taxable income	Rate, %	Band	Taxable income	Rate, %
Starter rate	£12,501–£14,585	19	Basic rate	£12,501–£50,000	20
Scottish basic rate	£14,585–£25,158	20			
Intermediate rate	£25,158–£43,430	21	Higher rate	£50,001–£150,000	40
Higher rate	£43,430–£150,000	41	Additional rate	Over £150,000	45
Top rate	Over £150,000	46			

Source: gov.uk, gov.scot

In deciding on its spending allocations, the Scottish government refers to its *National Performance Framework*, which sets out its aims in the areas of human rights, health, environmental, social, and economic outcomes, and also its *Economic Action Plan*. This last describes eight 'fundamentals', as set out in Figure 10.

Fig. 10. Scottish government's Economic Action Plan

Fundamental	Specific actions
Investment	<ul style="list-style-type: none"> The delivery of the Digital Scotland Superfast Broadband (DSSB) Programme. £3.3 billion to deliver at least 50,000 affordable homes.
Enterprise	<ul style="list-style-type: none"> Significantly reducing or abolishing business rates for 100,000 premises.
International	<ul style="list-style-type: none"> A new Food and Drink 5-Year Export Plan.
Innovation	<ul style="list-style-type: none"> A new £56 million Medicines Manufacturing Innovation Centre. Establishing the National Manufacturing Institute for Scotland and an Advanced Manufacturing Challenge Fund.
Skills	<ul style="list-style-type: none"> Investing £214 million in Skills Development Scotland. Funding of over £600m in 2019–20 to deliver at least 116,000 full-time equivalent college places. Fair Start Scotland—is designed to give individualised support to 38,000 individuals furthest removed from the labour market.
Place	<ul style="list-style-type: none"> City Region Deals for all Scottish cities and investment of up to £1.125 billion over the next 10 to 20 years for the deals.
People	<ul style="list-style-type: none"> The Child Poverty (Scotland) Act 2017 sets out our ambition for reducing and ultimately eradicating child poverty.
Sustainability	<ul style="list-style-type: none"> A Route Map on an Energy Efficient Scotland, that will lead to over £10 billion of activity to retrofit existing homes and buildings throughout all parts of Scotland.

Source: <https://economicactionplan.mygov.scot/>

In addition, the Scottish government has a range of other strategies and plans. To take one example: its *National Transport Strategy* (NTS2) sets out its transport spending priorities over the next two decades, which are supposed to reflect four objectives, of which one is helping to deliver inclusive economic growth. The others are reducing inequalities, tackling climate change, and improving health and wellbeing in Scotland. Promoting economic growth is therefore just part of a broad range of ambitions for transport policy. And the same is true in other areas.

4.3 THE CASE FOR FEWER, MORE FOCUSED ECONOMIC OBJECTIVES

One possible area for reform is the complexity of policy goals and instruments that exists, even within Scotland itself, let alone when UK and Scottish arrangements are laid on top of each other. Some commentators have suggested that within Scotland, the number of strategies and action plans—and

also the number of bodies created to oversee them—is overly complex and leads to confusion, duplication and weakened accountability. The Fraser of Allander Institute also argues that the complexity makes evaluating what works very difficult.¹⁶

This is not an exclusively Scottish problem. The UK government's 2017 industrial strategy was probably guilty of being overly complex, with five economic foundations, four grand challenges and four sector deals—which had expanded to nine by 2020. The strategy also made 28 commitments to review other policy areas. That said, its recent replacement, the *Build Back Better: our plan for growth* has been criticised for having the opposite characteristics: being too vague, lacking long-term plans for large parts of UK industry such as manufacturing, and without targets or transparency.¹⁷

An implication is that the UK and Scottish governments could usefully focus more clearly and identify a smaller number of priorities, target resources where they would be most effective, monitor their effectiveness, and adapt the implementation of policies, accordingly.

4.4 POSSIBLE TAX CHANGES

One of the implications of having many different policy objectives is that governments necessarily make compromises in the use of whatever powers they have. As we noted above, while the majority of taxes in Scotland are set by the UK government, the Scottish government does have some independence, and is set to have more when air passenger duty and the aggregates levy are devolved. Nevertheless, overall these powers are not large. Analysis by the Institute for Public Policy Research (IPPR) suggests that the variations that the Scottish government has so far made to taxes will bring in just £180 million more revenue by 2023/24, signalling that the economic impact, in whichever direction, is also likely to be modest—something that our own forecasts attest to.¹⁸ By comparison, the IPPR calculates that an increase in wages growth of 1% above current forecasts for all taxpayers in Scotland could see over £700 million per year additional tax revenue in 2022/23.

Business rates are a major source of grievance for companies across the UK. The rate in Scotland is set by the Scottish government, and the money is collected by councils and is worth 22% of their revenue funding.¹⁹ The Scottish government claims to offer the most generous package of non-domestic rates reliefs in the UK, worth an estimated £750 million in 2019.²⁰ This includes the Small Business Bonus Scheme (SBBS) which has reduced or abolished business rates for over 100,000 premises and is claimed to have saved small businesses over £1.7 billion cumulatively since 2008.

But it is unclear what the impact of that on business behaviour and performance has actually been, in terms of investment, employment, or productivity. While business rates are clearly a cost, they apply to all

¹⁶ <https://fraserofallander.org/economic-policy-landscape-scotland/>

¹⁷ Financial Times, Business dismay at decision to drop plan for UK industrial strategy, March 8 2021

¹⁸ <https://www.ippr.org/research/publications/how-productivity-could-deliver-inclusive-growth-in-scotland>

¹⁹ <https://www.bbc.co.uk/news/uk-scotland-scotland-politics-51327124>

²⁰ <https://economicactionplan.mygov.scot/enterprise/competitive-business-environment/>

businesses that operate from physical premises, and so can be passed on to customers, on whom the real burden falls. The IPPR has argued for a review of the SBBS to find ways to maximise its impact in driving productivity improvements and sustainable inclusive growth over the long term.²¹

Another possibility would be to introduce new local taxes to broaden the tax base, and thereby create the opportunity to cut other taxes. A broad base of relatively low taxes is in general better for the economy than a narrow base of high taxes, generating the same amount of revenue. Amongst advanced nations, the UK is an outlier in collecting very little of its tax revenue locally, as part of a large pattern of centralising decisions.²²

One way to broaden the tax base would be a tourism tax. Indeed the Scottish government was planning to introduce the Transient Visitor Levy Bill in 2020. However, this was delayed due to coronavirus, and its status is currently unclear. The legislation would have allowed councils to introduce surcharges for overnight stays (and potentially other tourism activities) to fund investment in local infrastructure, under pressure from increasing tourist footfall. What the net impact on economic growth would be is unclear: the Scottish Tourism Alliance argues that pushing up prices relative to other destinations would reduce visitor numbers and average spending by visitors.²³

4.5 REPLACEMENTS FOR EU POLICIES

A key development for the Scottish economy was Brexit, and the UK's subsequent departure from the EU's single market, and the signing of the Trade and Cooperation Agreement between the UK and EU. The UK government now has plans to negotiate trade deals with other nations, and Scotland is of course subject to these. The UK government is also putting in place a new migration policy, although the details on this are not settled, and it must develop new regulatory policies. Replacements are needed for EU schemes to fund R&D, to support under-performing regions such as the Highlands and Islands, and to replace the Common Agricultural Policy. Fishery policies have been a big cause for concern, and these may be subject to change, while financial services (and indeed all other services) were left out of the Trade and Cooperation Agreement, and are being negotiated separately. As we noted in Chapter Three, the financial services sector is important to Scotland in terms of its contribution to exports.

In all these areas, Scotland is currently treated no differently to most of the rest of the UK, whereas Northern Ireland has different arrangements in some respects (and in a few cases such as corporation tax rates, had them even before Brexit).

Overall, we currently estimate that by 2030 the UK will be three percentage points smaller than it otherwise would have been, as a result of Brexit. The impact on Scotland is likely to be very similar. Of course there are many uncertainties, and it is possible that this view is too pessimistic. But arguments

²¹ <https://www.ippr.org/research/publications/how-productivity-could-deliver-inclusive-growth-in-scotland>

²² <https://www.instituteforgovernment.org.uk/explainers/tax-and-devolution>

²³ <https://scottishtourismalliance.co.uk/what-might-a-tourist-tax-mean-for-you/>

for possible beneficial impacts from Brexit tend to be far more speculative than the evidence of likely adverse impacts.

THE IMPACT OF BREXIT ON THE SCOTTISH FISHING INDUSTRY

The fishing and processed foods industry is particularly large in Scotland. In 2018 the 8,900 full-time job equivalents in Scotland's 139 seafood processing sites accounted for 46% of the industry's jobs throughout the UK. In the Brexit agreement, both sides have agreed that 25% of EU boats' fishing rights in UK waters will be transferred to the UK fishing fleet by mid-2026. But British seafood exporters are experiencing problems accessing EU markets due to the Export Health Certificates required for a consignment of several different species. In 2026 negotiations will start that will shape the industry's future. At that point the UK could stop all EU fishing in UK waters; however, the EU could retaliate by blocking the UK's industry access to the EU market, to which 333,000 tonnes of British fish were exported in 2019, with Scotland accounting for a large share.

Major concerns relate to the impact of migration controls on labour supply—especially important for Scotland in view of the demographic squeeze referred to in the previous chapter—and the risk that, with reduced access to EU markets, the UK will become a less attractive destination for inward investment—something that, as we noted in the previous chapter, has been a modest strength for Scotland. Another key issue is the likely scale of non-tariff barriers, on which the evidence to date has not been encouraging. The likelihood is that Brexit will result in a fall in international trade in both directions, and hence reduced specialisation and consequent lower efficiency. That will add to the UK's productivity shortfall—and by implication, Scotland's.

Against that, there may be opportunities for new policy objectives and instruments, and for a reappraisal of how to improve Scotland's economic performance. It is possible that the combination of Brexit and the Covid pandemic will produce new thinking on appropriate economic policies for Scotland. But this is speculation: there is little hard evidence of that happening so far.

4.6 SHIFTING SPENDING TOWARDS ECONOMIC DEVELOPMENT

Spending on economic development is completely devolved to the Scottish government. In the 2018/19 financial year, total identifiable Scottish government expenditure was £63.2 billion, of which £7.1 billion or 11% was spent on 'economic affairs'—a very broad category including expenditure on enterprise and economic development, science & technology, employment support, agriculture, and transport. This spending is equivalent to 5% of Scottish GVA, and is higher than in most other regions and devolved nations of the UK, but is less than is spent by two thirds of European countries.²⁴

This spending is dwarfed by contributions to social protection (34% of the total budget), health (20%) and education and training (13%). The implication is that relatively small cuts in those areas would produce a relatively large increase to the economic affairs budget. But it seems unlikely that there would be any

²⁴ <https://www.davidhumeinstitute.com/research-1/2020/11/6/report-scotlands-productivity-challenge>

strong political consensus around making such adjustments. We return to the economic case for a much greater focus on economic development spending in Chapter Five.

Fig. 11. Total identifiable expenditure on services by function, Scotland and UK, 2019–20

	Scotland		UK	
	£m	% of total	£m	% of total
General public services	1,349	1.9	8,434	1.2
Defence	3	0.0	49	0.0
Public order and safety	3,013	4.3	31,878	4.4
Economic affairs	7,085	10.1	62,501	8.6
<i>Economic development</i>	1,736	2.5	14,494	2.0
<i>Science & Technology</i>	528	0.8	6,784	0.9
<i>Employment policies</i>	215	0.3	2,237	0.3
<i>Agriculture, fisheries & forestry</i>	880	1.3	5,797	0.8
<i>Transport</i>	3,726	5.3	33,189	4.6
Environmental protection	1,364	1.9	11,404	1.6
Housing & community amenities	2,442	3.5	14,416	2.0
Health	13,696	19.5	163,303	22.6
Recreation	959	1.4	7,531	1.0
Education	9,206	13.1	90,687	12.5
Social protection	24,067	34.2	270,728	37.4
Total identifiable expenditure	63,184	-	660,931	-

Source: HMT Country and Regional Analysis: 2020²⁵

One issue that does have to be addressed is the scale of support for agriculture, with the clear need to replace the EU's Common Agriculture Policy (CAP) following the UK's departure from the EU. According to Scottish government figures, £864 million was spent on agriculture, forestry & fishing in 2019/20, equivalent to 1.3% of total identifiable Scottish government expenditure or 0.6% of GVA. But the agriculture sector contributes only around 0.8% of Scottish GVA, and in 2019 it contributed around £32,000 per job in Scotland compared with an economy-wide average of £52,000 per job.

This high level of support for agriculture, relative to its contribution to the Scottish economy, partly reflects the structure of the CAP. Scotland receives the largest proportion of CAP payments of any of the UK nations and regions. And more than 80% of payments that farmers receive are based on how much land they farm. The remainder pays mainly for rural and environmental farm management schemes. A major criticism of CAP is that it has done little to

²⁵ <https://www.gov.uk/government/statistics/country-and-regional-analysis-2020>

increase food production, and instead has increased land values while according to some critics, damaging the natural environment.²⁶

However, the UK government has guaranteed the current annual budget to farmers in every year of the current Parliament (to 2024). Beyond that there is as yet no clear plan in Scotland on the future of agricultural subsidy. The Scottish government says that maintaining the status quo until 2024 provides time for farmers to adjust to what it promises will be an improved system. And while the economic case for supporting the agricultural sector to the degree that it has enjoyed under CAP is weak, the case for subsidy in the sector to protect the environment and grow the rural economy is perhaps stronger.

Furthermore, the Scottish government says that agriculture employs around 2.5% of Scotland's working age population, which makes the 1.4% of its budget devoted to agriculture look less excessive.²⁷ And the overall amount, relative to that spent on other sectors is small. So even a large cut in agricultural support would be too small to produce a significant uplift to other sectors.

4.7 ATTRACTING MORE INWARD INVESTMENT

The Scottish government actively seeks to attract inward investment, both from the rest of the UK and from abroad. In October 2020 it published *Scotland's Inward Investment Plan: Shaping Scotland's Economy*.²⁸ This sets out nine sectors for growth and 18 actions which the Scottish government says it will take to build investment in Scotland. Ensuring the UK remains a leading destination for global investment is also presented as a key part of the UK government's *Building Back Better: our plan for growth*, mentioned above.

The amount of scope that the Scottish government has for attracting inward investors is not enormous—and of course, competition is fierce. Scotland is competing for investment with other UK nations and regions as well as internationally, and largely on the same basis as the rest of the UK, although the Scottish government perhaps has greater ability than English regions to align some of its policies, such as infrastructure (both physical and digital) and education and training towards making the country more attractive to inward investors.

Since corporation taxes are not devolved to Scotland (unlike for Northern Ireland), the Scottish government is unable to set lower corporation taxes to attempt to lure foreign direct investment. In any case, the evidence on the effectiveness of cuts in company taxes is thin—which is partly why the UK government has decided to raise corporation tax rates, after a temporary phase of large investment allowances. Cuts in corporation taxes are probably useful for provoking investment relocations within a single geographical economy or nation—hence their use by state governments within the US, and the UK

²⁶ <https://www.instituteforgovernment.org.uk/explainers/common-agricultural-policy#:~:text=For%20most%20of%20its%20existence,they%20were%20paid%20for%20produce.&text=CAP%20payments%20are%20an%20important,of%20farm%20incomes%20in%202014.>

²⁷ <https://www.gov.scot/publications/farm-business-survey-2018-19-profitability-scottish-farming/pages/2/>

²⁸ <https://www.gov.scot/publications/shaping-scotlands-economy-scotlands-inward-investment-plan/pages/1/>

government's willingness to countenance lower rates in Northern Ireland, which faces very direct competition from the Republic of Ireland, but not in Scotland.

Overall, as we noted in Chapter Three, Scotland already appears to be moderately successful at securing inward investment in terms of the number of projects, but less so their scale. The Scottish government's analysis concludes that inward investors constitute 3% of Scottish businesses but are responsible for 34% of employment and 46% of GVA.²⁹ But it is important to note that this substantially reflects foreign companies buying existing Scottish businesses, notably in sectors such as financial services and utilities, rather than the creation of new enterprises from scratch. And research by the Enterprise Research Centre suggests that the wider economic benefits accruing to Scotland from foreign direct investment (FDI) have in the past been weak, relative to the rest of the UK.³⁰ Based on historic performance, a doubling of FDI in Scotland would only increase productivity by 0.1%, significantly lower than the UK average impact of 1.5%.³¹

As a result, the Scottish government now seeks to maximise not just the amount of investment but also its impact, such as increases in R&D, exporting, and productivity. The Scottish government suggests that the *Inward Investment Plan: Shaping Scotland's Economy* has the potential to increase GDP by £4.2 billion, and exports to £2.1 billion annually, and add in the region of an additional 20,000 jobs.³² It says that this would represent a 2.5% increase in annual Scottish GDP by 2040.

These government estimates assume that Scotland matching the best performing UK region, the East of England, in terms of productivity gains realised from FDI. In defence of that, the Scottish government says that Scotland has several similar characteristics to the East of England, in terms of population, universities per head, and sectors that attract FDI, and so the latter represents a reasonable benchmark. However, one reason that FDI in Scotland has a lower economic impact is probably geographical, with research showing that the distance between organisations has a negative impact on the magnitude of FDI spill-overs.³³ The location of Scotland, and to some degree its geographically dispersed nature (outside of the central belt) may therefore contribute to the lower impact of FDI on GVA. And the characteristics of the East of England are quite different in terms of the type of investment it receives, much of it reflecting the special success of Cambridge, and also the region's relationship with London and other parts of the greater South East. To replicate these advantages in Scotland would be quite challenging, and would take time.

²⁹ <https://www.gov.scot/publications/shaping-scotlands-economy-scotlands-inward-investment-plan/pages/2/>

³⁰ <https://www.enterpriseresearch.ac.uk/publications/spillovers-from-inward-investment-a-comparison-of-northern-ireland-with-the-rest-of-the-uk/>

³¹ <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2020/10/shaping-scotlands-economy-scotlands-inward-investment-plan/documents/analytical-methodology-note/analytical-methodology-note/govscot%3Adocument/analytical-methodology-note.pdf>

³² <https://www.gov.scot/publications/shaping-scotlands-economy-scotlands-inward-investment-plan/pages/2/>

³³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/731144/DIT_FDI_analysis_report_v16_accessible.pdf

4.8 ENCOURAGING ON-SHORING BY SCOTTISH COMPANIES

There has been some speculation that following the disruption to global supply chains as a result of Covid-19, companies will review their suppliers, sourcing goods and services closer to home to de-risk supplies and shorten lead times for customers. And certainly there are examples of companies that have successfully brought production back to the UK.³⁴ But a survey by Make UK / Oracle found that while there is a moderate shift in appetite for using more UK suppliers in the future, there is little evidence of manufacturers planning to change their current suppliers.³⁴

Reshore UK was an initiative launched by the UK coalition government in partnership with the Manufacturing Advisory Service (MAS) in 2014 to provide a one-stop-shop service to companies to help them bring back production to the UK. It no longer seems to be active and there is little evidence that there is an active specific on-shoring policy for either the UK or Scotland.³⁴

The extent to which on-shoring can make a big difference to Scotland is also limited by the scale of Scotland's company base, especially its manufacturers. So, for example, while some electronic companies in Scotland may have potential here, in many cases they themselves are primarily suppliers to foreign companies, or are assembly operations owned by overseas investors. So, the risk is that on-shoring, combined with Brexit, could result in activity moving away from Scotland, not towards it. And of course, some important Scottish products such as whisky are already sourced entirely locally.

4.9 STRENGTHENING THE SCOTTISH NATIONAL INVESTMENT BANK

Officially launched in November 2020, the Scottish National Investment Bank (SNIB) is a publicly owned body that seeks to invest in businesses, projects, and communities across Scotland. The Scottish government says that its core aim is to achieve a step change in economic growth.³⁵ However, its investments are targeted to support three somewhat different aims—a clear example of the point made earlier about the multiplication of policy objectives:

- Support Scotland's transition to net-zero by 2045;
- Build communities and promoting equality by 2040; and
- Harness innovation to enable Scottish people to flourish by 2040.³⁶

Critics of SNIB say that while the Scottish government's *Economic Action Plan* states that the SNIB will increase productivity in Scotland, this is just one of a number of goals set for the bank, and there is no evidence of it being a priority—still less raising innovation and business practices. The SNIB has been criticised for failing to align with the needs of the Scottish innovation system, while IPPR has called for a specific focus for SNIB on driving productivity gains in the everyday economy.³⁷

³⁴ <https://www.theengineer.co.uk/reshoring-uk-manufacturing/>

³⁵ <https://www.gov.scot/news/missions-approved-for-new-investment-bank/>

³⁶ <https://www.thebank.scot/>

³⁷ <https://www.ippr.org/research/publications/how-productivity-could-deliver-inclusive-growth-in-scotland>

And given its wide remit, the funding for the SNIB is not particularly generous. But additional funding would only be likely to have an impact on Scotland's growth rate if there was a clear focus on achieving growth as a goal, together with sufficient oversight and transparency to ensure that funds are suitably allocated and—when needed—reallocated. The SNIB is backed by £2 billion of Scottish government funding over the next decade, plus access to funds available from existing funding vehicles.³⁸ To date, it has only made two investments: £12.5 million in Glasgow-based photonics and quantum technology company M-Squared and £40 million in PfP Capital's Mid-Market Rent Fund, which will support provision of up to 1,500 energy efficient homes at affordable rents.^{39 40} The latter has been criticised, since the Scottish government had already invested £48 million in the scheme, and the long-term rental housing sector is not struggling to attract private funds.⁴¹ And the impact on Scottish economic growth of investing in housing is clearly not likely to be large.

Overall, the SNIB does have potential to increase Scotland's economic growth rate, but at present that is clearly not its only purpose, and arguably not its main one.

4.10 MORE SUPPORT TO START-UPS AND SCALE-UPS

The Scottish government also aims to grow the economy by supporting SMEs and has committed to deliver a more streamlined system of business support.⁴² Broadly, support available to SMEs covers guidance and advice, access to finance, policy to reduce the burden of regulation, the promotion of innovation and entrepreneurship, maintaining Enterprise Areas, and providing digital support for businesses. There is also industry-specific support for rural areas, tourism, food and drink, and the creative sector.

Assessing the effectiveness of business support is difficult, particularly in relation to improving business performance. From available data, it is difficult to assess whether a company's performance improves because it received business support or because it was growing already and actively sought further support to help it grow.⁴³

Research by the ERC suggested a series of recommendations for improving the effectiveness of government support, including more effort from government to identify underperforming firms, particularly those that were performing well in the past. They found that enterprises seeking to achieve profitable growth might be better served by focusing their investments on people (e.g. skills development) and future business growth opportunities,

³⁸ https://www.heraldscotland.com/business_hq/17259605.scottish-national-investment-bank-chief-pledges-pay-caps-no-bail-outs/

³⁹ <https://www.thebank.scot/our-portfolio/m-squared/>

⁴⁰ <https://www.thebank.scot/our-portfolio/pfp-capital/>

⁴¹ <https://www.thetimes.co.uk/article/scotlands-new-state-bank-handed-40m-to-fund-set-up-by-holyrood-k8cn19t9c>

⁴² <https://economicactionplan.mygov.scot/enterprise/>

⁴³ <https://www.enterpriseresearch.ac.uk/wp-content/uploads/2018/05/ERC-ResPap70-Gregson-et-al.pdf>

rather than short term marketing and promotional activities. All of these recommendations are within the gift of Scottish policy makers to reinforce.

As we noted in Chapter Three a key issue for Scotland may be scale-ups rather than start-ups. There are a number of initiatives in place to help businesses to scale-up, most notably Scale Up Scotland, Start2Scale, CAN DO Scale, and Unlocking Ambition Programme. Scale-ups are also described as an area of focus for the SNIB, helping ambitious small companies to gain access to patient finance.

The programmes are having some success. Scale Up Scotland (a partnership between The Hunter Foundation, Scottish Enterprise, Scottish EDGE, and Entrepreneurial Scotland) supported 19 businesses in its first cohort that finished in 2019. The average turnover at the start of the programme was £2.4 million growing to £4.1 million on completion. In the first year of the programme there were 66 new jobs created, an increase of 19%, and a further increase of 163 new jobs the year after. External investment grew from £2.2 million to a cumulative £22.7 million, one year after completion. At the start of the programme 44% of the businesses traded internationally, which rose to 66%. A digital version of the programme has also been launched.⁴⁴

Scottish Enterprise's Start2Scale portfolio has maintained numbers of around 230 scale-ups during the year supported by account managers and specialists. 60% of participants of the Unlocking Ambition Pilot developed new products and 30% have expanded their markets. Participating businesses have also raised £5.8 million in investment.⁴⁵

4.11 FOCUSING MORE ON INNOVATION

The UK and Scottish governments have both set targets to grow R&D to drive innovation. The Scottish government has set itself a target of increasing Scotland's business enterprise R&D (BERD) from £0.9 billion in 2015 to £1.7 billion by 2025. And the UK government recently re-committed to increasing Gross Domestic Expenditure on R&D (GERD) to 2.4% of UK GDP. However, the most recent evidence from the 2019 UK Innovation survey suggests that the proportion of Scottish businesses that were innovation-active fell from 45% in 2014–2016 to 32% in 2016–2018⁴⁶. There was a fall across all UK nations and regions, but the decline was largest in Scotland. It seems that R&D spending may be increasingly concentrated in a small number of Scottish firms, many of whom are non-Scottish owned.⁴⁷

The need to raise innovation is presented as a central theme in the *Economic Action Plan 2018/19*, which sets out Scottish government plans across a very wide range of areas:

- Driving Business Innovation
- Innovative Sectors and Places

⁴⁴ <https://scaleup.scot/>

⁴⁵ <https://www.scaleupinstitute.org.uk/scaleup-review-2020/scotland-2-2/>

⁴⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/903582/UK_Innovation_Survey_2019_Main_Report.pdf

⁴⁷ <https://www.gov.scot/publications/business-enterprise-research-and-development-2019/>

- Using Public Sector Spend to Catalyse Innovation
- Making Best Use of University and College Research, Knowledge and Talent
- Internationalising Research and Innovation Engagement
- Data Driven Innovation and Cyber-Resilience
- Technology and Creative Industries
- Circular Economy and Green Innovation

In terms of where any focus should be, one area where Scotland is already performing relatively well is higher education R&D, which at £1.1 billion in 2018 represented 13% of the UK total. Oxford Economics analysis for BEIS found that at the UK level, public R&D investment leverages private sector R&D investment, so that every £1 spent on public R&D stimulates between £1.96 and £2.34 of private R&D.^{48 49} However, in Scotland most businesses do not have links with higher education. Just 4% of broader innovation businesses reported universities or higher education institutions as important sources of information in the 2016–2018 period, which was only marginally higher than the UK at 3%, despite the universities themselves being stronger.⁵⁰ And just 24% of firms in Scotland reported collaboration links with higher education, although this was an increase from 19% in 2014–2016.

This suggests the possibility that in Scotland, the issue is not primarily a shortage of public sector funds for R&D: it is private sector businesses' capacity or desire to engage in innovation that needs to be addressed. We discuss this important distinction further in Chapter Five.

4.11.1 Investing more in education & skills

Government spending decisions on education and skills are fully devolved to Scotland, with full powers to set education policy and spending. Scotland already spends more per head of population on education than other regions and devolved nations in the UK, partly reflecting its great degree of geographical dispersion, partly reflecting more young Scottish people going to university, and partly reflecting the different student grant system in Scotland.

However, there is evidence that Scotland does not utilise the skills of its workforce as well as it could. Almost one in five graduates work in non-graduate roles and 35% of employers say they have over-qualified or over-skilled employees in a variety of roles.⁵¹ There has also been a deterioration in the proportion of the workforce in job-related training, with Scotland slipping behind other home nations on this measure.⁵²

Studies also point to poor levels of management skills in Scotland, which may be linked to the small size of many of its firms and the high proportion of family-owned businesses which, on average, score poorly for management practices.

⁴⁸ Includes R&D funded by the government, research councils and higher education sectors

⁴⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/897470/relationship-between-public-private-r-and-d-funding.pdf

⁵⁰ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/903582/UK_Innovation_Survey_2019_Main_Report.pdf

⁵¹ Measuring Scotland's economic performance, Fraser of Allander 2019

⁵² <https://www.cbi.org.uk/media/3331/cbi-scotland-scottish-productivity-final.pdf>

OECD research suggests that the UK could improve its productivity by 5% or more if it reduced the level of skills mismatch to that of high performing international comparators.⁵³ The figure for Scotland is likely to be at least as high.

Looking ahead, globalisation, digitalisation, and technological developments are all leading to new types of jobs, and also to changes in the skills needed for existing jobs. Workers will need to upskill and re-train to keep pace with, and benefit from, the changes that new technology brings. In these circumstances, simply shifting more spending to education and training on its own would be unlikely to yield significant improvement in economic performance. Instead or as well, Scottish education policy perhaps needs a greater focus on aligning the education system to the needs of businesses, as well as encouraging lifelong learning, and a clearer focus on management skills, and on the technologies and challenges of the future.

Encouragingly, the Scottish government says that it is committed to more apprenticeships and developing alternative technical career pathways, additional funding to deliver full-time equivalent college places, and implementing the recommendations of the Learner Journey review to better align the education and skills system for 15–24 year olds.⁵⁴ Scotland also has a Science Technology Engineering and Maths (STEM) strategy which aims to build Scotland's capacity to deliver excellent STEM learning, and to close equity gaps in participation and attainment in STEM. And it has a National Retraining Partnership, to identify the best collaborative way forward to help workers and businesses prepare for future changes by enabling the workforce to upskill and/or retrain where necessary.

But evidence on the likely impact of these initiatives will inevitably come only slowly. There is clear international evidence of a link between participation in education past the age of 40 and labour market participation.⁵⁵

4.12 IMPROVING TRANSPORT INFRASTRUCTURE

Transport policy is also devolved to the Scottish government which maintains and invests in transport via its national transport agency Transport Scotland. The transport budget in Scotland was around £3.9 billion in 2019/20.⁵⁶ As we noted above, the *National Transport Strategy 2* (NTS2) has four priorities for the transport system including reducing inequalities, tackling climate change and improving health and wellbeing. Inevitably, therefore, the promotion of economic growth is not an over-riding priority.

Much of Scotland has relatively good transport connectivity, with fast and frequent rail services connecting its most populated areas across the Central Belt and an extensive road and rail network that supports short commuting times experienced by the majority of workers. However, there are no high-speed trains to London and the rest of the UK and Europe, and no plans to introduce them. And although Scotland has five main airports which (pre-Covid)

⁵³ <https://www.gov.uk/government/publications/build-back-better-our-plan-for-growth>

⁵⁴ <https://economicactionplan.mygov.scot/future-skills/executive-summary/>

⁵⁵ <https://onlinelibrary.wiley.com/doi/full/10.1111/ejed.12322>

⁵⁶ <https://www.gov.scot/publications/government-expenditure-revenue-scotland-gers-2019-20/pages/5/>

provided connections to over 150 destinations worldwide, the number of flights to major cities in Asia and North America is modest.

The main economic aims of transport spending are to reduce transport costs for businesses and commuters, to raise the productivity of existing firms and workers, and to attract new firms and private sector investment. But the international and domestic evidence on the benefits that transport investment actually produces tends to be underwhelming. This is partly because the gains, though real, are often insufficient to cause significant changes in the behaviour of individuals and companies, and partly because—for various reasons—the wrong investments are frequently made.⁵⁷

So, while the Scottish transport system is far from perfect and faces many challenges in coming years to meet the competing needs of greater demand whilst reducing carbon emissions, the fact that the transport network is already well developed means that it is unlikely that increasing transport spending will lead to a substantial improvement in Scottish economic growth.

⁵⁷ <https://whatworksgrowth.org/policy-reviews/transport/why-transport/>

5. MORE RADICAL POLICY CHANGES

In Chapter Three we suggested that, on present policies, Scotland's GDP per head of population is unlikely to catch up with the rates of several comparator countries, and indeed is more likely to fall further behind.

In Chapter Four we considered whether there are policy changes that might be introduced that would improve on that conclusion, without stepping beyond the broad policy envelopes currently set by the Scottish and UK governments. Our conclusion was that there probably is indeed some scope for improvement, but that realistically the likely gains that might be achieved will not be large.

In this chapter we therefore ask whether there are more ambitious policies which, if they were to be introduced, might stand a chance of generating a significant uplift in Scotland's economic growth. By 'significant' we mean enough to bring GDP per head in Scotland up to about the level of some of the comparator countries that we have identified in Chapter Three, within about the next decade and a half. Such policies would go beyond the boundaries that have currently been set by the Scottish and/or UK governments.

What might those policies be? Suggestions are many, but they can be summarised under three headings:

- Increases in government borrowing and/or cuts in interest rates to stimulate stronger growth in demand and hence output;
- Significant tax cuts and deregulation, to improve competition and incentives in the economy; and
- Large increases in government support for businesses, either directly or through increased spending on infrastructure, education & skills, innovation, or key economic sectors.

These three are not mutually exclusive: indeed, if there is to be radical change, then there is a strong case for a combination of all three. But to help the discussion we take them in turn, before considering whether by combining them, the size of the hill that Scotland might wish to climb can actually be scaled within about a decade and a half.

5.1 EXPANSIONARY FISCAL OR MONETARY POLICIES

5.1.1 Arguments in favour of expansionary fiscal policies

We start by considering the likely impact on Scottish economic growth of expansionary macroeconomic policies. For simplicity of exposition, and because it is the economic effectiveness that concerns us and not the politics, we first assume that those policy changes would be implemented by the UK government, or the Bank of England, and then consider whether the conclusions would be any different, if it was a Scottish government (or Scottish central bank) that was introducing them.

By 'macroeconomic policies' we mean those measures that governments and central banks typically use to speed up or slow down the economy in the short

term, but instead applied at a greater scale or over a longer period, in the hope of raising the economic growth rate permanently or semi-permanently.

These would mostly be fiscal measures: essentially involving increasing the gap between taxes and spending. They could also be monetary policies, comprising short term interest rates, but also so-called unconventional monetary policies, such as quantitative easing. But since monetary policies are controlled by the Bank of England, and are focused on inflation targeting, and since interest rates are already near-zero, we mainly leave them to one side, and focus primarily on fiscal policies.

Most economists are nowadays sceptical whether in general, expansionary fiscal policies are likely to raise economic growth rates over the long term. Their main role is seen as boosting the economy in the short term, when it has slipped into recession, and when monetary policies alone are proving unable to provide the necessary kick to get it growing again. The measures that were put in place by the UK government in 2020 to compensate for the loss of output during the current Covid crisis, such as employment subsidies and tax breaks, and that largely continue in place today, are an obvious example of this.

The normal expectation is that once an economy is out of recession, any expansionary tax cuts or spending increases will then be reversed. One reason for this is that such policies involve an increase in borrowing, and the resultant debt must be serviced and, eventually, paid off. And indeed that was an important theme of the UK government's March 2021 budget, involving as it did immediate increases in income tax (by not raising personal allowances) and future increases in corporation tax—albeit after a short period in which increased allowances would temporarily lower the effective tax rate for some companies.

POLICY LESSONS FROM DENMARK

Key policies that have driven Denmark's economic growth in recent decades include significant levels of infrastructure development to support growth. Denmark's State Guarantee Model (SGM) uses the country's excellent credit rating to underwrite loans for infrastructure construction whether the loans are raised in private capital markets or from the state itself. The use of Public Private Partnerships (PPP) is also common. SGM and PPP have led to the cost-effective delivery of projects, such as the Storebaelt and Oresund Bridge link, providing world class transport links across the country and with other countries such as Norway and Germany. It would have been near impossible to finance these projects through the public purse alone. Denmark has also pursued free trade and is a net exporter with a healthy current account balance. It keeps its currency pegged against the Euro. Transparency International's Corruption Index rated Denmark the least corrupt country in the world (alongside New Zealand) in 2019 and 2020.

But the need for 'fiscal responsibility' can be exaggerated. Although higher borrowing increases government debt-servicing costs and future repayment liabilities, it also increases the income and assets of the private sector—mainly pension funds and insurance companies, and so ultimately householders. Admittedly the numbers will not match, because some of the debt will be held

by non-residents, so there is some drain from the economy; but not to the extent that is often claimed.

Furthermore, if the fiscal expansion causes the economy to grow faster, then it raises future incomes, and to that extent it perhaps increases the economy's future capacity to fund and repay the debt. A key issue here is therefore by how much more the economy grows, relative to the extra cost of servicing the debt. And although the debt has to be repaid eventually, so long as that can be funded from future borrowing, then the cost of repayment can be postponed, literally indefinitely. And debt that is rolled over gradually declines through time relative to GDP, as the latter expands. Refinancing it should therefore become gradually easier.

Our conclusion is that worries over future debt burdens do not **in themselves** represent a serious reason for avoiding more expansionary policies for Scotland.

5.1.2 Problems with relying only on an expansion in demand

Unfortunately, that is not the end of the story. There are several related reasons why using fiscal policy to permanently and significantly increase the economic growth rate is not normally an option. The first is that financial markets are unlikely to be sufficiently sanguine for them to finance what they are likely to see—rightly or wrongly—as irresponsible borrowing. Or more precisely, the interest rates that they will require to take on the perceived risk will probably be quite high, whereas the virtuous circle of higher borrowing leading to faster economic growth relies on low interest rates. The adverse response of the US Treasuries market to President Biden's recent Covid recovery package illustrates this caution on the part of markets.

Second, while more borrowing in one year may raise growth in that year, simply keeping borrowing at the same increased level the following year is likely to cause growth to fall back to its previous rate. So, more and more borrowing may be needed, which is likely to be unsustainable.

Third, and most important, there is reason for scepticism whether the borrowing will actually cause economic growth to increase significantly. Demand will rise, but will supply rise too, in the shape of higher output of goods and services, and higher employment? The answer depends partly on how much spare capacity there is in the economy to start with, and how quickly capacity can be raised via, for example, increased corporate investment, or more people deciding to look for work. If there is little spare capacity, or if the economy is not very responsive, then the increased demand is likely to lead to some mix of higher imports, companies focusing on domestic sales at the expense of exports, or higher prices.

And in the case of Scotland, it might be that an increase in spending or cut in taxes by the UK government might cause output to rise in other parts of the UK, but not in Scotland, if the latter's economy is already closer to capacity, or less able to quickly ramp-up capacity, than some parts of the UK. (The same would be true for any other individual UK nation or region.)

Unfortunately measuring the amount of spare capacity in an economy is not straightforward. The economic value of idle capacity can sometimes

deteriorate quickly, while managements can often find ways to squeeze more output from facilities that they had previously thought were fully used. Our econometric estimates suggest that at the UK level, the economy entered the pandemic with a modest amount of spare capacity of between $\frac{1}{2}\%$ and $\frac{3}{4}\%$ of GDP. That implies that if demand were to be boosted by about that amount, then there would be no problems with inflation, but a larger boost over a sustained period would be inflationary, unless accompanied by the sort of 'supply-side' measures to raise either capacity or efficiency that we discuss below. The same is likely to be true for Scotland.

5.1.3 Would it be easier if Scotland could borrow in its own right?

That leads to the issue of whether the situation would be different if the increases in government spending or reductions in taxation were to happen only in Scotland and not in the rest of the UK—either because of complete Scottish independence, or because of much greater devolution of power to Scotland. The answer must depend on the factors mentioned above. Would the bond market be more or less willing to fund the higher borrowing than if the policy applied to the whole of the UK; does the Scottish economy have more or less spare capacity than elsewhere; and is the Scottish economy better or less able to respond with a rise in corporate investment or an increase in participation in the labour market?

As far as borrowing is concerned, bond markets would almost certainly be nervous if the UK government appeared obliged to raise funds to cover tax or spending decisions in Scotland (or elsewhere) over which it had little or no control. So, significantly devolved tax or spending powers, going far beyond present arrangements, would probably only work if Scotland was issuing debt in its own right, without Treasury backing, just as States in the US do. And under those arrangements the bond markets would face a borrower—Scotland—without a track record of effective economic management. Why should the markets expect the economic growth rate to suddenly and permanently improve, just because it was Scotland that was doing the borrowing? Once again, the ability to 'tell a good story' on this would be critical to the success of such a change in political and institutional arrangements. So Scotland would need convincing 'supply side' measures.

5.1.4 Is expansionary monetary policy an option?

As we noted above, monetary policies are controlled by the Bank of England, or more precisely by its Monetary Policy Committee (MPC), which is currently obliged to try to keep UK inflation close to 2%. It does so by monitoring all aspects of the economy, to try to predict what will happen to inflation. Indeed, the Bank says that: 'Sometimes, in the short term, we need to balance our target of low inflation with supporting economic growth and jobs'.⁵⁸ So effectively, the MPC accepts significant responsibility for the short-term management of the economy.

Indeed, there is a widespread view among economists that in terms of smoothing out the economic cycle, and helping the economy to recover from

⁵⁸ <https://www.bankofengland.co.uk/monetary-policy>

recession as well as trying to avoid rising inflation, it is monetary policy and not fiscal policy which is the preferred instrument. So fiscal policy should be used to stimulate short-term growth only in the rare situation when monetary policy will not be sufficient. Such a situation has clearly existed since the start of the pandemic—but many economists believe it also existed for several years previously, given that nominal interest rates were near-zero, but the UK economy grew at historically low rates. This testifies to the likelihood that the scope for raising the UK's growth rate—or Scotland's—by more relaxed monetary policies is currently very limited.

POLICY LESSONS FROM IRELAND

Several key government policies have contributed to economic growth in Ireland in recent decades. The most noticeable policy shift that took place in the late 20th century and one that has contributed to Ireland's economic success is from a closed protectionist economy to an open and export-orientated economy. Closer ties have been sought with Europe through EU membership and with the USA through attracting US FDI, via Ireland's low rate of corporation tax. Ireland has successfully executed industrial strategies for decades, causing it to specialise in sectors such as pharmaceuticals and ICT. Ireland has then exploited its comparative advantage by exporting goods from these sectors around the world's high-income nations—although the scale of this is almost certainly exaggerated by tech companies claiming to produce more value-added in Ireland than is really the case. Additionally, labour relations in Ireland are harmonious due to its 'Social Partnership' which seeks to resolve industrial disputes and ensure wage growth moderation. Ireland was ranked as the 20th and 18th least corrupt country worldwide in 2020 and 2019 respectively by Transparency International's Corruption Perception Index.

It is true, however, that as we noted in Chapter Four, the Bank of England has been assisting the UK government's support to the economy by buying large volumes of gilts (government bonds), thus effectively financing the budget deficits. As the Bank of England's Chief Economist Andy Haldane said in a speech

'The justification for the QE actions taken by the MPC this year, and which I have supported, is that they will support demand and act as an insurance policy against any premature and undesirable rise in borrowing costs which would otherwise risk setting back the economic recovery and put at risk hitting the inflation target.'⁵⁹

Indeed, it had been doing this since the global financial crisis, so to that extent it was making the government's fiscal policy easier to deliver. And it might be argued that going forward, this behaviour could be taken much further, allowing the government to borrow even more, without being constrained by bond market caution and scepticism.

However, over time the Bank will need to find buyers for its gilt holdings. And the greater its stock of debt, the harder will it be to sell any of those gilts,

⁵⁹ <https://www.bankofengland.co.uk/-/media/boe/files/speech/2020/what-has-central-bank-independence-ever-done-for-us-speech-by-andy-haldane.pdf?la=en&hash=E89B59B9A236C37F6DCE94CDC567B38A52835813>

because of fears of subsequent sales depressing prices. The Bank of England is very nervous of the gilt market coming to believe that it will support any level of government borrowing, because at that point the market would lose confidence, and so would not be willing to buy either newly issued gilts, or those that the government itself holds. Effectively, therefore, Quantitative Easing postpones any problems—it does not remove them.

5.1.5 Combining demand expansion with measures to improve supply potential

What all of the above implies is that, for expansionary fiscal policies to have any chance of success, they need to run alongside 'supply side' policies that are likely to raise the growth rate. The role of the expansion in demand is therefore not to **raise** growth: it is to **facilitate** an increase in growth that is happening for other reasons. The fiscal expansion merely makes sure that the growth is not cut off by too restrictive policies. This raises the question of what the 'other reasons' might be. We look at the main candidates.

5.2 LOWER TAXES AND DEREGULATION

5.2.1 The case for leaving it to the market

One possible way forward might be to try to promote economic growth through lower taxes and a less regulated economy, with the expectation that the consequence would be improved incentives to work and invest, and higher economic efficiency. As with a fiscally-driven growth strategy, there are arguments in favour of this, and arguments against.

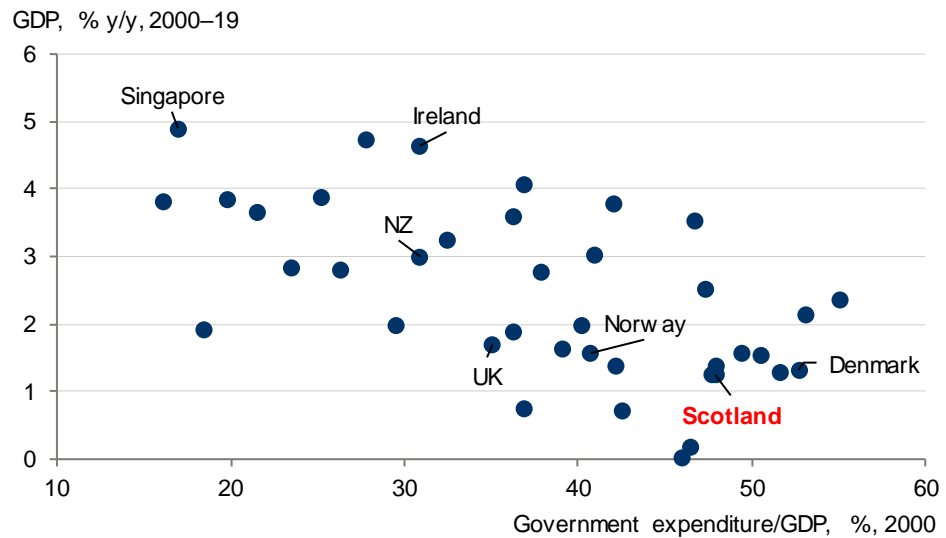
Part of the case for thinking that lower taxes and fewer regulations will promote economic growth depends on the belief that, left to themselves, individuals will pursue higher incomes, and companies will pursue higher profits—and it is that which provides the dynamism in any economy. High taxes and widespread regulation are therefore both accused of interfering with such behaviour, and so impeding growth.

In addition, it can also be argued that problems arise because high taxes are associated with high levels of government spending, and that these spending levels themselves weaken growth, because the recipients of the spending have less incentive to earn their own incomes—whether they be individuals or companies.

And while there is general acceptance that some taxes and some regulations are needed (to fund basic services such as pensions and to protect people from danger), slow economic growth is offered as strong evidence that either taxes (and spending) are too high, or regulations are too demanding, or both.

As Figure 12 indicates, there is some sense in which countries with low levels of government spending (as a share of GDP) tend to achieve faster growth than those with higher shares, but it is far from exact. And it is not clear in which direction causation flows. Countries where growth is fast have less need for welfare payments, and typically have fewer elderly citizens. So, it is very unlikely that simply cutting taxes and spending would be enough to significantly improve Scotland's growth. And in a situation where there is considerable reliance on the public sector, they would potentially do more harm than good.

Fig. 12 The relationship between the size of the government sector and economic growth: Scotland plus all OECD economies



Source: Oxford Economics, national statistics agencies

As we discussed in Chapter Four, both the Scottish and UK governments have a range of policy objectives. Between them these partly result in the present tax, spending and regulatory arrangements. In addition, there is significant inertia in public policies and institutions, and often an unwillingness to take unpopular decisions, even at the expense of a government's ability to deliver on its own objectives. We also spoke in Chapter Four about the case for the Scottish government having fewer policy objectives, and it is clear that radical changes in taxes, spending, or regulation would require the abandonment of various objectives by either or both of the Scottish or UK governments. To take an obvious example: if faster economic growth is to be achieved primarily by widespread deregulation, then one implication would be the abandonment of efforts to avert or adjust to climate change. The same would be true with respect to promoting equality in the workplace, to take another example. And although some would argue that such a refocusing would provoke an overall welfare gain, it probably lies beyond the current political consensus.

5.2.2 The case for reforming the tax system

There probably are, however, changes to the existing tax system that would make it more growth-friendly. The UK tax system is heavily progressive, and Scotland's slightly more so. At the UK level, people whose income is between £30,000 and £50,000 thousand a year typically pay £4,620 in tax, whereas those whose income is between £100,000 and £150,000 typically pay £34,200.⁶⁰ According to the Institute for Fiscal Studies, the top 1% of earners now account for more than a third of income tax paid to the UK government.

A major reason for this is that between a third and a half of adults are exempt from making tax payments, mainly as a result of many years of above-inflation increases in personal allowances. Meanwhile, various measures have been introduced in the past decade to increase income taxes paid by high-income

⁶⁰ <https://www.ifs.org.uk/uploads/BN259-How-high-are-our-taxes-and-where-does-the-money-come-from.pdf>

individuals, and the taxation of wealth—primarily real estate—has risen as property prices and financial markets have risen. The result is that while total UK tax revenue is lower per head than the average of G7 group industrial nations, and also lower than in most countries in western Europe, the taxation of high-income people in the UK is higher than average, while the taxation of middle-income people is lower, and the taxation of low income people is similar (and typically zero).

Whether cuts in taxes for those on high incomes would stimulate economic activity is a moot point, however. The suggestion that tax cuts increase the return on work, and hence cause people to work more, is partly undercut by the fact that such cuts reduce the amount of work that people need to do, in order to earn any particular level of income. There is evidence that those on high incomes are more responsive to tax changes—but that their response has as much to do with taking steps to reduce their tax liability (which people on low incomes generally cannot do) as it has to do with changing work effort.⁶¹

Furthermore, high marginal tax rates are probably at least as prevalent towards the low end of the income spectrum as at the top end, thanks to the sometimes perverse (and unintended) interactions of the income tax, National Insurance, and benefits systems. The introduction of Universal Credit was intended to partly address that, but has been hampered by low levels of funding and poor implementation, meaning that significant numbers of people have been subjected to sometimes acute hardship.

5.2.3 Tax reform to encourage saving and investment

The issue of how to foster economic growth through tax changes probably has more to do with how to encourage saving, investment, innovation, and risk-taking, than how to reduce the taxation of incomes. So, for example, the tax system currently penalises equity financing by businesses while subsidising debt finances, and this probably makes businesses more risk averse, resulting in a lower overall growth rate.

All governments have tinkered with tax reform but provided little overall coherence. The Institute for Fiscal Studies (IFS) has suggested a shift towards a tax system which gives 100% up-front tax deductions for all savings and investments, but then taxes all incomes and capital gains at the same rate, when they are received, regardless of the source.⁶² IFS propose that tax rates should be equal between employees, the self-employed, and corporations—while giving the self-employed full access to benefits. This echoes the conclusions of the UK government's Taylor Review.⁶³ Currently the tax system encourages self-employment, which may mean too many low-productivity businesses are created, with little capacity for growth (witness the fact that the large majority of sole traders have very low income).

Another likely distortion: Capital Gains Tax (CGT) is currently levied only when an asset is sold, so that the holder becomes liable for a single large tax payment. This may make investors and entrepreneurs reluctant to sell one

⁶¹ https://www.ifs.org.uk/docs/mirrlees_dimensions.pdf

⁶² <https://www.ifs.org.uk/publications/mirrleesreview> and <https://www.ifs.org.uk/publications/15319>

⁶³ <https://www.gov.uk/government/publications/good-work-the-taylor-review-of-modern-working-practices>

investment and transfer their funds elsewhere, where they might be more productive. This can mean that existing slow-growth companies persist while newer potentially high-growth businesses struggle to raise capital. Exacerbating the problem: capital gains released at death are not taxed at all. At present self-employed people are provided with roll-over relief, so that they can defer paying their CGT liabilities until they dispose of their replacement assets. But this and similar arrangements such as the Enterprise Investment Scheme are selective and limited in scope.

POLICY LESSONS FROM NEW ZEALAND

Over the past 30 years New Zealand has shifted from an agrarian economy to an industrialised free market economy. New Zealand's pursuit of market liberalisation at home and free trade have contributed to that shift. It is a member of the Cairns group and the Asia-Pacific Economic Cooperation (APEC) forum. It was the first OECD country to sign a free trade agreement with China. Additionally, corporate taxes have been reduced from 40% in 2000 to 28% in 2020. That said, New Zealand is neither an especially high growth nor a very high income economy. But New Zealand citizens' quality of life is raised by a temperate climate, impressive natural scenery, and a peaceful society. The latter is linked to high levels of social cohesion and collaboration.

There are many other examples of distortions caused by the differences between income taxes and corporation taxes, and the fact that debt financing costs are deductible against the latter but not equity financing costs. Dividend taxation further complicates the picture. A large proportion of business decisions are driven by tax minimisation considerations rather than company growth maximisation decisions—as are many of the decisions of entrepreneurs and company executives. So, for example, the IFS advocates that with corporation tax, deductions for interest costs should only apply to interest payments above a risk-free rate, to encourage the financing of risk-taking by businesses, and that tax reliefs for losses should be symmetrical to the taxation of profits or capital gains—again, to encourage less risk-averse business decisions, with the result that more investments go ahead.

It is beyond our scope here to design a tax system for Scotland—or indeed the UK. But a key point is that if Scotland did have full control over tax rates, either as part of or outside of the UK, or indeed if the whole UK tax system could be systematically overhauled, then there are reasons for thinking that a comprehensive redesign towards a system that taxed all income and capital gains the same, and that did not act to deter saving and investment, and which supported entrepreneurial risk-taking, would improve economic efficiency and hence growth.

But a major note of caution is needed. Any redesign involves both winners and losers—and it is possible that the negative response of losers will be stronger than the positive response of winners. That is especially true in present circumstances. And although cutting taxes places more spending power in the hands of consumers and/or businesses, it takes spending away from government. Since both consumers and businesses tend to save some of their income and government does not, the consequence is likely to be a short-term dip in activity. If this happens when the economy is growing fast it would

probably be no bad thing—in present circumstances it would be potentially quite damaging. So: timing matters.

5.2.4 Could deregulation boost Scotland's growth?

Another potential way to shift to a more market-driven economy and hence, hopefully, a faster growing one, is to reduce regulations. It is indeed nowadays generally accepted that, as a generalisation, encouraging stronger competition in markets for goods and services encourages faster economic growth. A related point is that excessive regulations can restrict economic growth.

There are several reasons for these conclusions. Regulations raise production and trading costs, which make it more difficult to compete against unregulated rivals. At the extreme they can prevent economic activities altogether. But research across different economies shows that the real issue is not compliance costs as such: it is that regulations often act as entry barriers, and keep rivals out of markets. That is how the most damage is done to economic performance. Competition tends to force companies to develop new products and services, or cheaper or better ways of making and selling existing ones. It puts managements under pressure to perform better, and makes it harder to get away with cosy relationships. Excessive regulations get in the way of that.

But there are several important caveats to this, which suggest that the scope for radical change in this area are probably quite limited. The first is that not only are there good social and environmental reasons for many regulations: there are also often good business reasons for them too. Standardised sizes for components foster rather than restrict competition and improve efficiency, and regulations that increase customer trust are likely to boost demand—most notably for example in the manufacture and operation of aircraft. And although regulations on, for example, health and safety at work may involve a cost to the individual employer, that is likely to be offset by the gains to the economy as a whole from a population with fewer injuries or health problems.

POLICY LESSONS FROM NORWAY

Several key government policies have contributed to high GDP per head of population in Norway. The Norway Government Pension Fund has used its oil-related surplus to help finance superior public services while keeping public finances on a stable footing. Norway has pursued free trade policies through European Economic Area (EEA) membership. Norwegian governments have successfully modernised the economy showing a willingness to reform the nation's economy when necessary, helped by Norway's 'flexicurity' labour market model which promotes competitiveness while preserving incomes.⁶⁴ Norway has also remained open to immigration to compensate for an ageing domestic population.

The second caveat is that if increased competition forces prices down to the level where profit margins are largely eroded, then the result may be less investment and innovation, and not more. That is most likely to be the case in markets where the amount of value-added is low and there is limited scope to

⁶⁴ <https://www.economist.com/leaders/2013/02/02/the-next-supermodel>

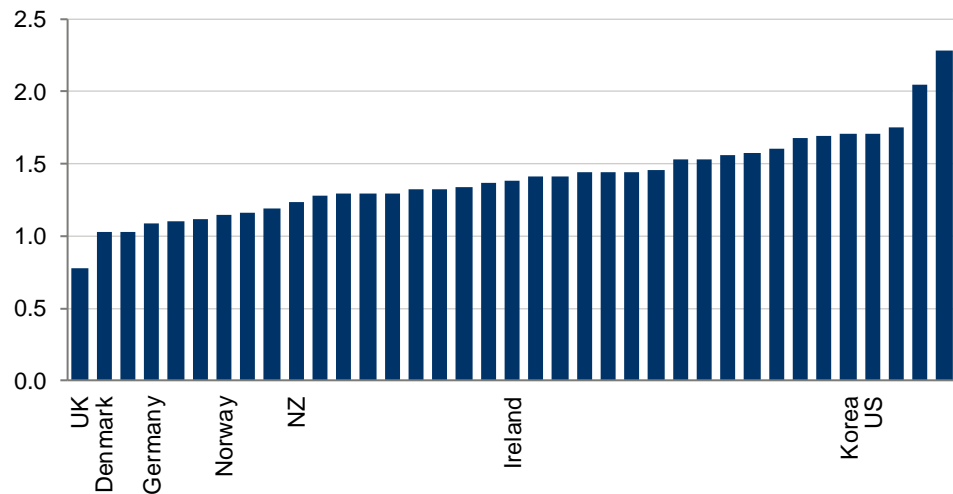
differentiate products on the basis of quality (actual or—thanks to clever marketing—perceived). In other cases, there is a danger of a low price, low profitability, low growth trap. And since there is always somewhere in the world where costs are lower, the mix of this and globalisation can be very challenging.

The implication of these caveats is that any attempt to raise Scottish growth by deregulation—whether at the Scottish or the UK level—needs to proceed only on a case-by-case basis. Hence, while there probably are some gains to be made, it is not realistic to think that the overall impact will be transformational.

The biggest caveat is that the UK, and hence Scotland, is already amongst the most lightly regulated of all advanced economies. Indeed, Figure 13 suggests that in product markets, the UK is the least regulated nation in the OECD—with the United States, contrary to reputation, among the most regulated.

Fig. 13. Degrees of product market regulation: OECD economies

OECD 2018 PMR indicator (0 represents international best practices)



Source: OECD

And similar if slightly less extreme results hold with respect to labour market regulation, and also regulations on foreign ownership and for example the financial services sector. Given that the UK was one of the pioneers of deregulation, and that deregulation has featured under UK governments of different political persuasions, it seems reasonable to conclude that the scope for large scale growth-enhancing deregulation in the UK has by now been largely exhausted.

5.2.5 Does Brexit mean there is new scope for deregulation?

It is of course true that those who hope that Brexit will generate stronger growth in the UK economy base much of their argument on the view that EU membership added significantly to the regulatory burden on the UK, largely because regulations designed to ensure a single market across the EU applied to all UK companies—so affecting those selling only domestically, as well as those selling across European borders. This therefore raises the possibility that, following Brexit, although Scottish companies wishing to sell into EU

markets will still need to meet EU standards, those selling only to the home market can be excused. So that creates a new deregulation opportunity.

But even if that is feasible, it is small scale. And any benefits to the Scottish economy as a whole are likely to be offset by the fact that customs barriers have now been introduced between the UK and the EU. For exporters, that is equivalent to an increase in regulations. Overall, therefore, Brexit has probably raised not reduced any regulatory inhibitions on Scottish economic growth.

5.3 A MUCH MORE AMBITIOUS INDUSTRIAL POLICY

5.3.1 Arguments in favour of intervention

The third way in which policy might seek to achieve a major transformation of Scotland's economic prospects is for government—whether in Edinburgh or in London—to become more interventionist. This would therefore take some of the existing policy instruments and institutions discussed in the previous chapter, or alternatives to them, and substantially scale them up, reflecting the very interventionist policies that have in the past been associated with economic success in for example Singapore and Germany. This approach can be seen as the opposite to the ideas discussed in the previous section—although our view is that they are best seen as complementary, not rivals.

There are several arguments in favour of an ambitious industrial policy. One of the most important is that Scotland might have an industry that is small but with high growth potential, and that needs support to get to a scale where it becomes globally competitive. The underlying assumption here is that the financial system (banks, bond and equity markets, venture capitalists) will not do this, perhaps because of short-termism, or perhaps because it is difficult for any single company to prevent its good ideas being adopted by its rivals—so that an investment which is very growth-positive at the Scottish level, is not so for the individual company. This may be especially the case where similar companies cluster together in a local or regional area, since such clustering perhaps accentuates 'spill-overs' from one company to another. And it may be especially the case where there are overseas rivals that are already much bigger, implying that the Scottish company needs to be given extra help until it is of equivalent strength in the global market.

A variation on this is that rather than identifying industries, the focus should be on identifying technologies, or on addressing whatever major societal challenges seem likely to generate the biggest market opportunities. So, for example, Artificial Intelligence is a technology with applications across many industries, and climate change is a challenge that many industries can address. The UK government's recently abandoned Industrial Strategy had both of these features—albeit with only limited resources placed behind it.

The actual help provided might be specific support for R&D investment; or for scale-up companies in their growth phase when they are no longer a start-up but not yet benefitting from economies of scale (the so-called valley of death); land-use or transport policies to promote clustering or access to markets; or skills policies where future skill needs are appreciably different to or higher than current needs, so that employers and individuals themselves struggle to justify making the necessary financial or time investment.

If it was clear that just one of these dominated all the others as a constraint, then that would imply that the focus should be mainly on that problem: alternatively a multi-faceted approach would be preferable if all of these (and perhaps other) problems co-exist, since addressing one without tackling the others would probably lead to failure. The analysis in Chapter Four suggests that Scotland's problems are more multi-faceted than having a single cause.

An issue that is important here is whether really transformational growth can only occur when there is a radical new technology that disrupts markets. The new technology does not need to embody new scientific ideas—the shipping container was critical to the emergence of the 'Asian Tigers' in the last quarter of the twentieth century—but they do tend to come about only occasionally.

Another issue is the possibility that support for small businesses should be focused as much on their managerial capabilities, entrepreneurship, and organisational architecture, as on what particular technologies they possess or products or services they make or deliver.

The same applies to attracting inward investors: the company perhaps matters more than the sector or technology. Indeed, the most successful companies may absorb technology from elsewhere, and switch markets quickly in response to new opportunities. Part of the success of high-growth Asian economies came from copying technologies, and many companies (possibly most) now focus on collaborative or 'open' innovation with other businesses, or on finding ways to pass innovation up and down the supply chain.

This then implies that networking relationships between businesses, of which supply-chains are perhaps the most concrete, also matter strongly, along with relationships between businesses and universities and research centres.

POLICY LESSONS FROM SINGAPORE

Globalisation and attracting international business to Singapore have played key roles in the country's success. Singapore has shrewdly positioned itself as an ally of both China and the US. The government has targeted the transfer of human capital from immigrants to the domestic population. Those immigrants have been attracted by the nation's low taxes. On top of attracting foreign human capital, Singapore has developed domestic human capital through a world class public education system. And although unemployment benefits are extremely limited, public housing, healthcare, and pensions are all provided generously. This reinforces a very strong work ethic. However, the Singapore government has struggled to develop strongly innovative companies, and although Singapore's income levels are very high, its growth no longer is.

As an example, research suggests that in the period 1995–2005 the contribution of new information and communication technologies (ICT) to labour productivity growth was twice as large in the UK and US as it was in France or Germany. This was largely because UK and US companies were better able to reorganise internally, facilitated by lower levels of job protection, and fewer entry barriers for new firms. But these more liberal regimes did not cause the higher productivity growth: they just made it possible. Meanwhile, other evidence suggests that in the same period American-owned firms made

better use of IT than other firms in the same locations (and so with the same regulatory regimes), because their people-management practices were more conducive to adopting the new technology.

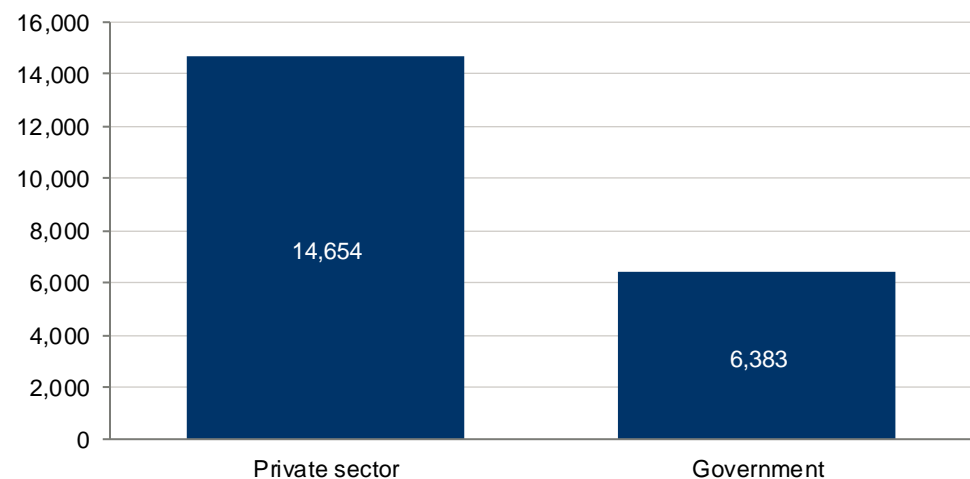
5.3.2 Problems with poorly designed industrial policies

The problem is that the track record of industrial policies, at least in the UK and also Scotland, has not been very positive. One reason is politics. Government interventions are often criticised for being biased towards creating 'photo-opportunities'—most obviously the opening of a new bridge or business park—but also the announcement of a new tax break, or rescuing a business that was otherwise likely to fail (and that often does so, a year or two later). And government schemes and bodies themselves sometimes persist even when the evidence is that they are failing, or else they get cancelled or abolished without a good economic reason, just because of a change of government or minister.

A basic point already made in Chapter Three is that the funds available for spending on industrial policy are small compared with the size of the economy, and will remain so, so long as health, welfare, education, and health take very large shares of the UK and/or Scottish budgets. Even total investment by the public sector, including roads, schools etc, is only a third the size of business investment, as Figure 14 illustrates.

Fig. 14. Scottish government and business capital spending, 2019

Gross Fixed Capital Formation, Scotland, 2019 (£ million, current prices)



Source: Scottish Government QNAs

As the Institute for Government put it, when writing about the UK:

'There is no conceivable level of government investment large enough to shift the UK's overall economic performance, without assuming implausibly large returns.'⁶⁵

⁶⁵ https://www.instituteforgovernment.org.uk/sites/default/files/publications/design-successful-industrial-strategy_0.pdf

This suggests that the best impact of policy is to either change the decisions that the private sector itself makes—especially but not exclusively investment decisions—or to increase the size of the private sector by for example attracting in foreign investment, or by encouraging people into work, or by attracting in highly skilled migrants. Even then, the scale of change needed to close the gap with for example Norway, let alone Singapore, is substantial. So, the behaviour or scale of the private sector needs to change quite radically.

5.3.3 Opportunities for Scotland: what is Scotland's comparative advantage?

We have suggested that currently in Scotland there is an overload of different objectives, policies, and institutions. But at the core of most successful strategies is the principle of comparative advantage: focus not on all of the things you want to do, and not even on all the things that you are good at, but only on the things that you do best.⁶⁶ At present the Scottish government has a list of six priority sectors:

- Food and drink (including agriculture and fisheries)
- Creative Industries (including digital)
- Sustainable tourism
- Energy (including renewables)
- Financial and business services
- Life sciences

If the idea is to nudge the economy to perform a little better, then this is a perfectly reasonable list. If the idea is to have a large impact, then it is far too long. A strategy that involves making a radical change has to be more focused.

Analysis by the Institute for Government suggests that government industrial policies work best when they are aligned to some other policy that a government (indeed society more generally) is strongly committed to. Healthcare might be an example, but does not appear on the Scottish government's list. But renewable energy is on the list, and addressing climate change is a genuine priority, which commands widespread popular support.

So, with the COP26 climate change conference in Glasgow this year, we recommend considering the case for making addressing climate change, including the promotion of renewable energy, the single heart of a Scottish industrial policy, supported by measures that encourage a more competitive economy, and the expansion of demand to ensure that the resultant economic growth is not choked off.

The Scottish government's commitment to net zero carbon emissions by 2045 is already a demanding one. To help achieve that, the Scottish government is committed to investing £1.6 billion over a five-year period to help transform the heating and energy efficiency performance of Scotland's buildings. This involves the installation of energy efficiency measures and zero emissions heating systems, which it says are responsible for one fifth of Scotland's greenhouse gas emissions each year.

⁶⁶ <https://www.johnkay.com/foundations-of-corporate-success/>

However, this in itself will clearly not be economically transformational. The government expects the investment to support up to 5,000 jobs a year by 2025–26—small in the national context. The investment will not involve exporting products or services beyond Scotland, nor any significant shift towards a high value-added per head economy. It really is just one of many steps that could be taken.

The UK government has recently committed to a *North Sea Transition Deal* which provides a commitment to the oil and gas industry as the UK transitions to net zero. The deal should secure investment in Scotland and support jobs in the oil and gas sector, offsetting at least some of the expected decline, but also including a transition to carbon capture and hydrogen manufacturing, to help achieve net zero and decarbonise industrial activity.⁶⁷ Many of the skills required to install and maintain renewable technologies are similar to those utilised in the oil and gas industry, so Scotland ought to have an advantage here.

However, there are challenges. The oil and gas industry has a relatively older and highly paid workforce that to date has shown little appetite to move across to the renewables sector which tends to be lower paid. So, there is a role for government support in making the transition easier, and for doing it strategically rather than after a crisis has occurred.

The North Sea sector also provides a valuable lesson, since it has allowed the emergence of Scottish companies that are able to export services—how to design platform, how to maintain them, how to find oil reserves, how to negotiate deals—which can be exported. The scope for service sector exports from investing in renewables may be very large. Because Scotland clearly has a comparative advantage in the generation of renewable energy in the form of large scale tidal, wave, and wind sources.

INDUSTRIAL DECARBONISATION STRATEGY

In March 2021 the UK government set out an approach to decarbonisation in line with net zero while remaining competitive and without pushing businesses and emissions abroad. It seeks to lower emissions from industry and increase the use of carbon capture storage and usage by getting investors and consumers to choose low carbon, transforming industrial processes (including the adoption and development of new technology) and maximising the UK's potential both domestically (aligning to the government's levelling up ambition) and internationally. The strategy cites Project Acorn, under which a range of Scottish industrial stakeholders have developed plans to decarbonise the Lothian/Grangemouth/Fife to St Fergus industrial cluster, one of the largest in the UK. Project Acorn's plans include the development of a scalable hydrogen production hub that could help to achieve Scotland's net zero target, as well as economic growth and an energy and job transition for Scotland.

⁶⁷ <https://www.gov.uk/government/news/north-sea-deal-to-protect-jobs-in-green-energy-transition>

But renewable energy can also be generated at the very local level, thanks to the emergence of new technologies. Small scale manufacturing creates the scope for helping the emergence of 'circular cities' where the technology is built locally and the energy generated and used locally. This requires commercial businesses able to market such systems. It is a new form of infrastructure which has important similarities to and links into the digital economy. It is not implausible to suggest that there are business opportunities that resemble those that generated Silicon Valley, several decades ago.

Any focus on renewables would also need to be picked up by the rest of the economy, by for example, working with the universities and with the financial sector to make it a priority for them. It could, for example, provide much-needed focus for the SNIB, if combined with a focus on innovative SMEs keen to gain a footing in renewables, very broadly defined.

In general, venture capitalists supposedly fill the gap between SMEs who are risk-takers but who are unable to access bank finance on sufficient scale because they lack the necessary collateral, and large corporations who have easy access to finance but who tend to be risk-averse. But the problem is that venture capitalists are concentrated in and around London. Creating a venture capital community in Scotland, with SNIB at its core, and with specialist expertise in all aspects of the green economy, could be transformational.

As evidence for this, venture capital has always been at the heart of the Silicon Valley economy—if Scotland is to grow fast, venture capital it needs to be at the centre of Scotland's economy.

5.4 DRAWING THE STRANDS TOGETHER

The experience of other countries and the analysis provided above suggests the following major points:

- It is not realistic to think that the current economic policies of either the UK or Scottish governments will produce a transformation of Scotland's economic performance. There are marginal improvements that would be helpful, but real economic improvements require some serious rethinks at either the Scottish or UK levels, or both.
- The need to keep government borrowing in check is a bit of a red herring: if expansionary policies were clearly likely to lead to stronger long-term growth, then the funding would almost certainly become available and anyway, the gap would close with time. But that requires a credible 'supply-side' response.
- That response needs to include ensuring that competitive forces play an important role in the economy. In fact, Scotland is already a low regulation economy. Similarly, high taxation is not really a problem for Scotland today. The bigger issue is that the tax system is not designed to encourage work, saving, investment or entrepreneurial risk-taking. Fundamental rather than piecemeal reform is needed.
- The response should also include well-designed industrial policies. The scale of these will always be small relative to the economy, so they need to be designed to help make companies more responsive to opportunities of all sorts, rather than simply providing cash. Crucially, the policies need focus and clarity, not multiple objectives. A possible

way of giving that clarity would be a focus on a single sector, technology or societal change. We suggest renewable energy as a candidate. Probably with the SNIB refocused as the core of a Scottish venture capital sector focused on renewables, and on climate change opportunities more generally.

What might the impact of that be—and indeed how realistic is it to think that Scotland could close the GDP gap with its peers? Some back of the envelope calculations may help.

First, to achieve the same GDP per head as Singapore by 2035, Scotland would need annual productivity growth over the period that would average over 6.2% a year, compared with 1.2% of the period 2000–2019.

That is not realistic. But to reach GDP per head the same as Norway or Denmark would require productivity growth a little below 3.5%. That would be very challenging, but not completely unknown for advanced economies. By way of comparison, we expect San Jose—the US metropolitan area that best approximates Silicon Valley—to see GDP per head of population growth over that period of 3.4%. (Which is a great deal lower than it has achieved in the past.)

A different way of looking at it sounds rather more challenging: Scotland would need a business, comparable in size with Google's total global output, to bring its GDP per head up the level of Norway's—or of course 20 companies, each one twentieth the size of Google.

Against that, the idea that Scotland could never aspire to be the equal of nations such as Denmark or Norway sounds somewhat defeatist. But a reasonable conclusion is that if anything like that ambition is what political leaders have in mind, then their present policy offers are really not going to deliver. Bigger policies are required.



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