Council of Economic Advisers

Chair's Report 2016 – 2018

Published July 2018

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Chair's Foreword

This report comes at an important time for the Council and a remarkable time in Scotland's history. The Council has provided advice on and helped shape some of the policies that have the potential to be hugely impactful to Scotland. Individual Council members have also made significant contributions to this work outside of their role with the Council, reflecting the enthusiasm that we have for these topics.

This is the first Chair's Report since October 2016, and I would like to make special mention of the contributions of Amanda McMillan, Professor Frances Ruane, and Professor Sir James Mirrlees over this period, all of whom have had to step away from the Council this year. I have learned a huge amount from the diverse contributions, experiences, and perspectives they have bought to the Council; and I know the First Minister has also greatly valued their work.

It has been an eventful period for Scotland and the Scottish economy as well. Since 2016, the process has begun to disentangle the United Kingdom from one of the world's major international unions; creating a backdrop of new challenges and uncertainty – particularly in the Scottish context. Significant general elections took place in Scotland in 2016 and across the UK in 2017. A significant election also took place in the USA in 2016, making news across the world.

Throughout this time, the First Minister's Council of Economic Advisers has remained a steady source of independent advice; offering critique and expert guidance based on robust evidence. We have met formally with the First Minister and two Cabinet Secretaries on three occasions, and between those had regular contact with the Chief Economist, including five conference calls. In addition, a number of us attended the Scottish Government's Inclusive Growth Conference in 2017. This was a prime example of Scotland contributing to the international focus on developing inclusive economies.

For Scotland's economy, two key aspects stand out over the period. The Oil and Gas sector underwent a period of significant change following the substantial fall in the oil price in 2015, which led to a period of restructuring for the sector which impacted on the broader economic performance of the Scottish economy. The outlook for the sector now looks more positive following this process, and changes in the external environment. In addition, digital and new technologies are becoming more prevalent across business, with the emergence of a new growing sector in Scotland also, utilising Scotland’s strong universities base.

The three areas that we currently focus on have also seen substantial landmarks since 2016. Notably, our work on innovation complements and links to the announcement of the development of a Scottish National Investment Bank in 2017. The new institution has the potential to substantially change the landscape of the Scottish finance sector and has benefited from the personal input and expertise of Professor Mazzucato. Entrepreneurialism and invention have long been a token of Scotland’s international reputation, and this new institution looks to strengthen business growth and innovation in Scotland.

Similarly, our focus on inclusive growth comes at a time when the Scottish Government has built up significant momentum and credibility in that area, including through the North Ayrshire Inclusive Growth Diagnostic Pilot, a partnership between the Scottish Government and North Ayrshire Council. Inequality continues to be detrimental to health outcomes, economic participation, and overall wellbeing. The work of the Scottish Government to date goes some way to determining ways of investigating the root causes of not having inclusive growth; and what actions can support Scotland becoming a more inclusive country. Going forward, it will be important for the government to continue their efforts in this area, and Professor Sir Harry Burns has brought that dimension to our discussions.

Lastly, our consideration of fiscal matters, with new powers over income tax devolved to Scotland in the Scotland Act 2016 creating opportunity and urgency for robust analysis on the impacts of changing income tax policy. We provided advice to inform Government analysis in this area, relating to the impact of a change to the additional rate of income tax. The results were published alongside the Scottish Draft Budget 2018-19 in December 2017.

I am therefore pleased to present my fourth report as Chair of the Council, which presents an overview of our deliberations and broad recommendations.

Crawford W Beveridge CBE
Chair, Council of Economic Advisers
July 2018

Recommendations

The Council have provided broad recommendations for the Scottish Government across the three workstreams:

For inclusive growth, we recommend:

- Continued engagement and collaboration with national, local, and international organisations; and, increased collaboration with the private sector;
- Maintaining an increased focus on operationalizing inclusive growth, both at a national and a regional level, ensuring a joined-up approach across Scottish Government policy activity to ensure effectiveness;
- That the Scottish Government continue to investigate what bottom-up approaches can be implemented across Scotland to support inclusive growth; and,
- Improved reporting and evaluation of the progress around inclusive growth both at a national and policy specific level to assess impact.

For innovation, we recommend:

- For industrial policies, investigating opportunities beyond existing areas of manufacturing including new areas of science;
- Continuing to review international and UK evidence of investment banks, and similar institutions, in the development of the Scottish National Investment Bank;
- On-going, thorough consideration of, and clarity on, the proposed operations and governance of the Scottish National Investment Bank, to ensure effectiveness and sustainability;
- Developing a set of missions for the Bank that are framed around Scotland specific challenges, and considering the role of the Bank to encourage innovation, and therefore innovation led growth; and,
- Developing the Bank to provide capital across a range of business types.

For fiscal matters, we recommend:

- Analysing the impact of changes to income tax announced in the Draft Budget 2018-19 (and the broader fiscal landscape) on taxpayers' behaviour;
- Further investigation of the behavioural impacts of a tax change in the devolved context, and opportunities for Scotland; and,
- Consideration of the broader economic context and economic cycle when scrutinising the impacts of tax structures and changes.

1 - Introduction

Purpose of report

This report aims to provide an overview of the evidence considered, and discussions had, by the Council of Economic Advisers from August 2016 to March 2018. This follows on from a previous report published in October 2016[1]. The evidence includes Scottish Government analysis, official reports, and additional material used to inform the discussions. Chapters 3-5 outline the discussions across the three Council workstreams: Inclusive Growth, Innovation, and Fiscal Matters. This report was drafted by the Council Secretariat on behalf of the Chair and Council members.

Associated recommendations are set out at the end of each chapter.

Role of the Council

The Council of Economic Advisers is an independent advisory group to the First Minister. In this role, we provide advice on Government policy and direction, based on robust data and evidence, with members drawing on a diverse range of expertise. We thereby act as a critical friend, providing constructive challenge and putting forward suggestions, which members of the Council believe could strengthen the Scottish economy, and thereby improve the lives of the people of Scotland.

Our overarching remit is to provide advice to the First Minister and the Scottish Government on actions to improve the competitiveness of Scotland's economy, and to tackle inequality. These are the central pillars of Scotland Economic Strategy[2], published in 2015.

Within this broad remit, we take a closer look at three key areas. The first two are inclusive growth and innovation. Over 2015-16, the third workstream was focussed on measures of economic progress; this was replaced in late 2016 with a workstream on fiscal matters. This workstream initially focussed on analysis of revenue risks and possible mitigating actions associated with differential additional rates of income tax between Scotland and the rest of the UK.

History of the Council

The Council of Economic Advisers was established in 2007 with the aim to advise Ministers on improving Scotland's competitiveness on the world's stage. In 2011, the Council scope was reshaped following the financial crisis, and tasked with advising the then First Minister on the economic recovery, jobs, economic levers, and internationalisation.

The Council's membership and remit was further refreshed following the Scottish Government's Programme for Government 2014-15 and the appointment of the current First Minister, to reflect on the delivery of Scotland's Economic Strategy published 2015. The membership of the Council continued to evolve over this period.

Membership of the Council

The Council consists of academics, business leaders, and thinkers from a range of backgrounds. There is no remuneration provided for their work on the Council and the time and commitment provided.

The membership over the time covered in this report is as follows:

- Crawford Beveridge (Chair)
- Harry Burns
- Sara Carter
- Mariana Mazzucato
- Jim McColl
- Amanda McMillan
- James Mirrlees
- Anton Muscatelli
- Frances Ruane
- Joseph Stiglitz

A full list of our members and their biography is available in **Annex A.** Council members are also involved in a number of other commitments. Harry Burns carried out an independent Review of Targets and Indicators for Health and Social Care in Scotland[3], published in November 2017. Anton Muscatelli chaired the Standing Council on Europe, which Amanda McMillan and Frances Ruane were members of. Frances Ruane was also on the Enterprise and Skills Ministerial Review Group, and Sara Carter sits on the Enterprise and Skills Strategic Board created in November 2017. In addition, Mariana Mazzucato was on the Strategic Board of the Implementation Plan for a Scottish National Investment Bank.

In January 2018, both Amanda McMillan and Professor Frances Ruane stood down from their role on the Council. Professor Sir James Mirrlees also stepped away from the Council in early 2018. Amanda McMillan, former Chief Executive Officer of Aberdeen, Glasgow and Southampton (AGS) Airports, joined the Council in January 2015. Since then, she has provided important advice from a business perspective, particularly around businesses interaction with inclusive growth ambitions.

Professors Frances Ruane and Sir James Mirrlees have been members of the Council since its creation in 2007 and have contributed extensively to Council advice. In particular, both were involved in the Fiscal Commission Working Group to advise the Scottish Government on a macro-economic framework for an independent Scotland. These were highly valued by the Scottish Government in providing clear recommendations and informing the wider public debate.

More recently, Frances expertise has been invaluable while serving on the Enterprise and Skills Review and the Standing Council on Europe. In 2010, Sir James led the Mirrlees Review investigating a tax system for the 21st century. His insight into tax structures and rates has been invaluable in guiding the Scottish Government analysis into the potential impacts of raising the Additional Rate of Income Tax.

Council Engagement's over 2016, 2017, and 2018

The Council aims to have two full meetings a year where we are joined by the First Minister, Cabinet Secretary for Economy, Jobs, and Fair Work, and the Cabinet Secretary for Finance and the Constitution.

Since summer 2016, the Council have met on three occasions and participated in five conference calls. In 2017, only one meeting took place due to Scotland's Inclusive Growth Conference (organised by the Scottish Government) in October, at which a number of Council members participated. The three meetings took place on the following dates:

- 18th - 19th August 2016
- 26th - 27th January 2017
- 18th - 19th January 2018

In advance of our meetings and calls, officials provide us with relevant data and analysis to inform discussion. Minutes of our meetings are available on the Scottish Government website at:
https://beta.gov.scot/groups/Council-of-economic-advisers/

The Chief Economist also had a number of one to one engagements with Council members. The First Minister and Chief Economist met with Professor Joseph Stiglitz in October 2017 in Edinburgh. The First Minister had also met separately with Professor Stiglitz in New York earlier in 2017. The First Minister met with Amanda McMillan in January 2018. In addition, Professor Anton Muscatelli hosted the Inclusive Growth Conference at Glasgow University in October 2017, which Crawford Beveridge also attended. Professor Sir Harry Burns and Professor Sara Carter spoke at the conference and following on from this, have participated in the development of an international wellbeing forum in 2018.

In January and March 2018, Professors Anton Muscatelli, Sara Carter, and Harry Burns gave evidence to the Economy Jobs and Fair Work Committee on the topic of Scotland's Economic Performance. Jim McColl also gave evidence, but not in a Council capacity.

Main Discussion Topics over 2016, 2017, and 2018

Across inclusive growth, discussion focused on the diagnostic approach to investigating constrains to inclusive growth, notably used during a pilot project in North Ayrshire. Importantly, we also contributed to the development of the content for Scotland's Inclusive Growth Conference, and more recently on the establishment of Scotland's Centre for Regional Inclusive growth (SCRIG).

Within the innovation remit, focus rested on discussing the role and opportunity of a national investment bank for Scotland.

Fiscal related discussions took a significant part of our time, particularly across 2017, with considerable analysis undertaken by Scottish Government analysts to model the impacts of a 5 pence increase to the Additional Rate of Income Tax.

Progress across Recommendations set out in Chair's Report 2016

In the Council report published in 2016, we set out 11 broad recommendations across the three workstreams focused on at that time: Inclusive Growth, Innovation, and Measures of Economic Progress. **Annex B** contains a Scottish Government response on progress.

In reviewing the response, the Council notes the progress made across the period against the 2016 recommendations. Significantly, we are encouraged by the collaborative work carried out to develop the North Ayrshire Inclusive Growth Diagnostic Pilot. This has gained worthy note across Scotland and the UK for the approach to ascertain constraints and then develop policies for inclusive growth. Indeed the extensive engagement within and outwith Scotland on inclusive growth is commendable, building on best practice to ensure an effective approach to moving towards inclusive growth in Scotland. Schemes such as the Business Pledge continue to set Scotland apart in thinking beyond traditional methods for business incentives, though there is scope for increased engagement with business.

Across innovation, in terms of policies we are encouraged by the continued recognition in the Scottish Government of the importance of innovation for a healthy economy. The focus on projects around encouraging young people into STEM subjects is good, and will continue to be vital in the coming years. New ways of boosting Scottish innovation have revitalised the innovation landscape in Scotland; including CivTech, which seeks to address public sector challenges through galvanising private sector innovative ideas. In addition, the Enterprise and Skills Review has been pivotal in putting in track greater alignment innovation support across Scottish Government and its partners.

Measuring economic progress continues to be important to the Scottish Government, and we note and welcome the refreshed National Performance Framework[4], which has enhanced wellbeing, as well as sustainable, inclusive economic growth at its heart.

2 - Economic Developments 2016 – 2018

A key aspect of our formal meetings is to discuss current and emerging economic trends with the First Minister. A report on the state of the Scottish economy, presented by the Chief Economist, supports this discussion. Four such reports were published across the time period - October 2016, June and November 2017, and January 2018 – available on the Scottish Government website[5].

When reporting on Scotland's Economic performance across 2016 to 2018, it is important to consider the major economic events affecting Scotland – in particular the UK referendum vote to leave the European Union as well as the on-going effects of the fall in oil prices in 2014-15 and their subsequent recovery.

This chapter provides an overview of recent economic developments, including how we have engaged with emerging analysis on the impacts of Brexit in Scotland, and two key updates in economic data.

2.1. Context

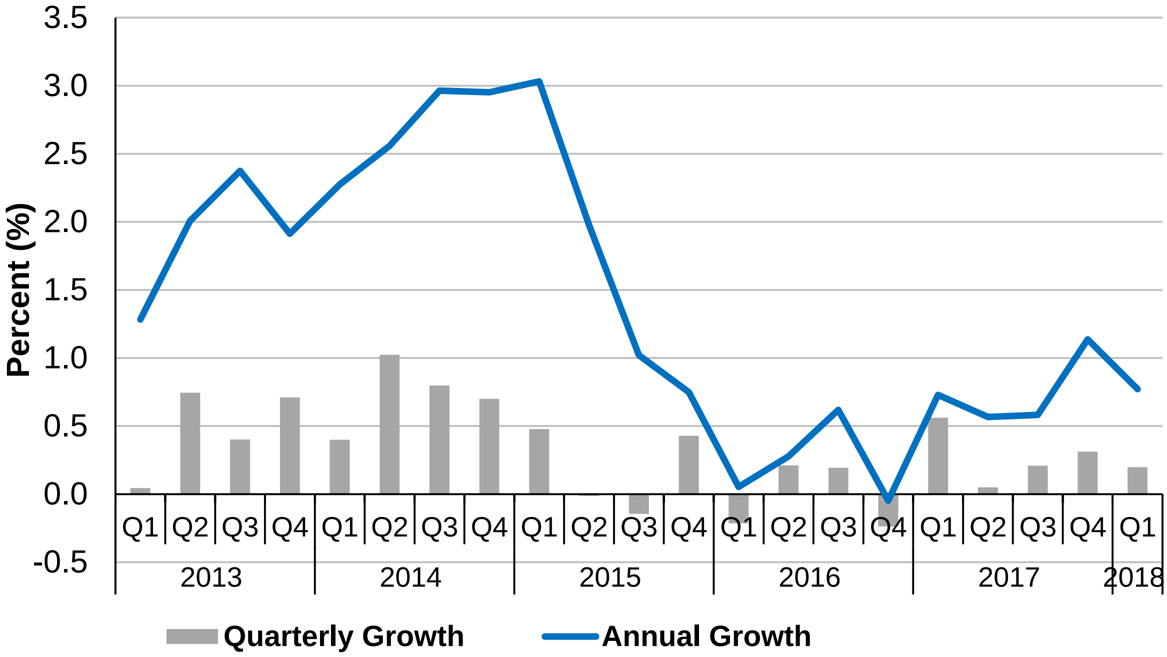
Key Economic Trends

Gross Domestic Product

Across 2016 and 2017, the Scottish economy remained resilient despite challenging economic conditions that continued to be dominated by heightened uncertainty as the UK moves closer to leaving the EU. Scotland's economic performance strengthened in the final quarter of 2017, completing a year that saw growth stronger than in 2016, however, remains below the long run trend rate. See Figure 1 below.

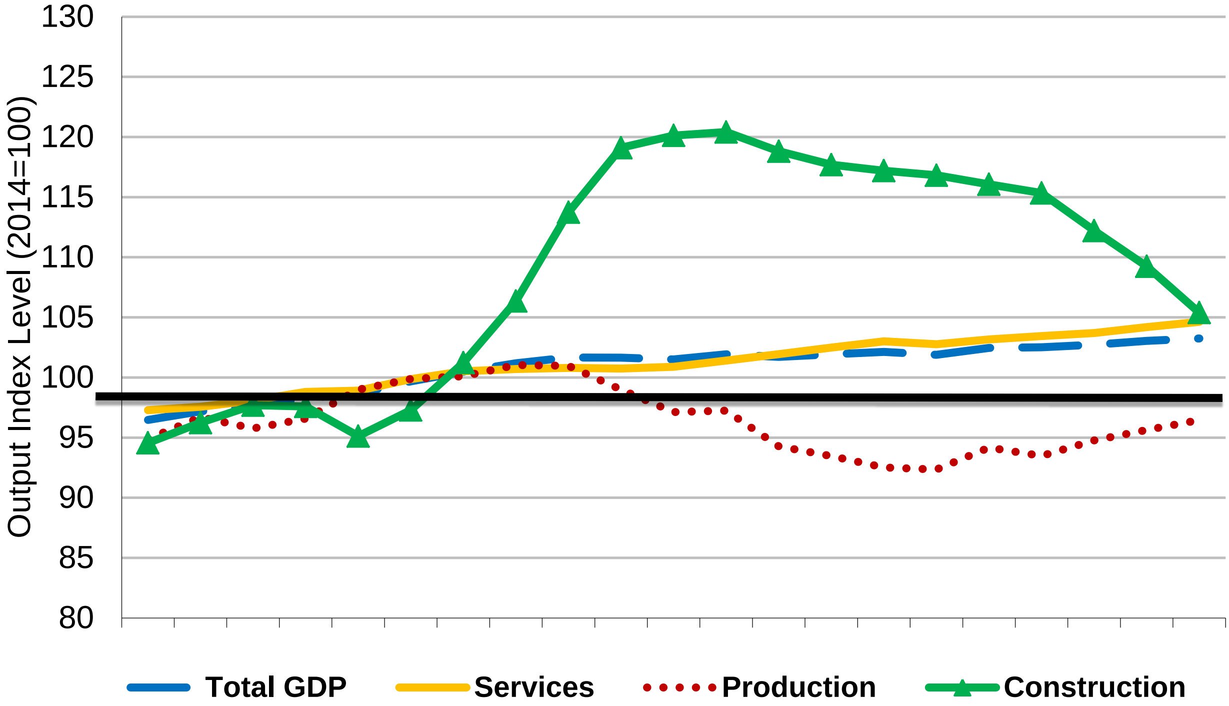
Calendar year growth in the Scottish economy was 0.8% in 2017, following growth of 0.2% in 2016 and 1.7% in 2015. The equivalent UK growth rate for 2017 was 1.8%.

Figure 1: Scottish GDP Growth, 2013-2017



Source: Scottish Government

Figure 2: Scottish Output Levels by Sector, 2013-2017



Source: Scottish Government

Stronger growth in 2017 was supported by the continuation of moderate growth in the Services sector. See Figure 2 above. In the final quarter of the year, annual growth in the sector accelerated to 1.4%, supported by a pick-up in growth in Distribution, Hotels and Catering (3.2%) and Business Services and Finance (1.0%).

A key change in performance in 2017 was the return to growth in the Production sector which achieved annual growth of 3.4% in the final quarter of the year. Stronger growth in the Mining and Quarrying Industries (6.2%) and Manufacturing (2.9%) have been supported by the improved export environment (stronger international growth and the relatively weak value of Sterling), alongside the gradual strengthening of economic sentiment and activity in the oil and gas sector.

The Construction sector contracted for its second consecutive year in 2017 with annual output contracting 6.5% in the final quarter as output from the sector adjusts back to more normal levels following exceptionally rapid output growth in 2015.

Since 2014, the construction industry business cycle has been driven by a number of high value public and private sector projects, particularly the construction of large transport and industrial infrastructure developments. Many of these projects have completed and output in the sector is returning to a more normal level, supported by on-going infrastructure projects such as the Aberdeen bypass and the Edinburgh-Glasgow rail improvements.

In the latest quarter, Scotland's annual construction output as a proportion of total construction output in Great Britain fell back to 8.4% from its peak of 10.0% in 2015, - its highest share since 1993 – now below the long term average of around 9.0%, indicating that the current cycle of contraction is nearing its completion,

Despite the readjustments since 2015, construction output is 15% higher than it was at the beginning of 2014, compared to overall GDP growth of only 4.5% over the same four year period.

The Scottish economy will continue to be influenced by factors such as the strengthening of sentiment and activity in the Oil and Gas sector alongside the construction sector completing its current business cycle, which should be supporting of growth in the medium term.

However, Brexit remains the key source of uncertainty to Scotland's economy. As we move towards March 2019, the extent to which positive expectations outweigh uncertainty will be crucial to driving medium term output growth. Scotland's economy is expected to continue to grow below trend levels in 2018 and 2019, with independent forecasters projecting growth of around 1% in both years.

Labour Market

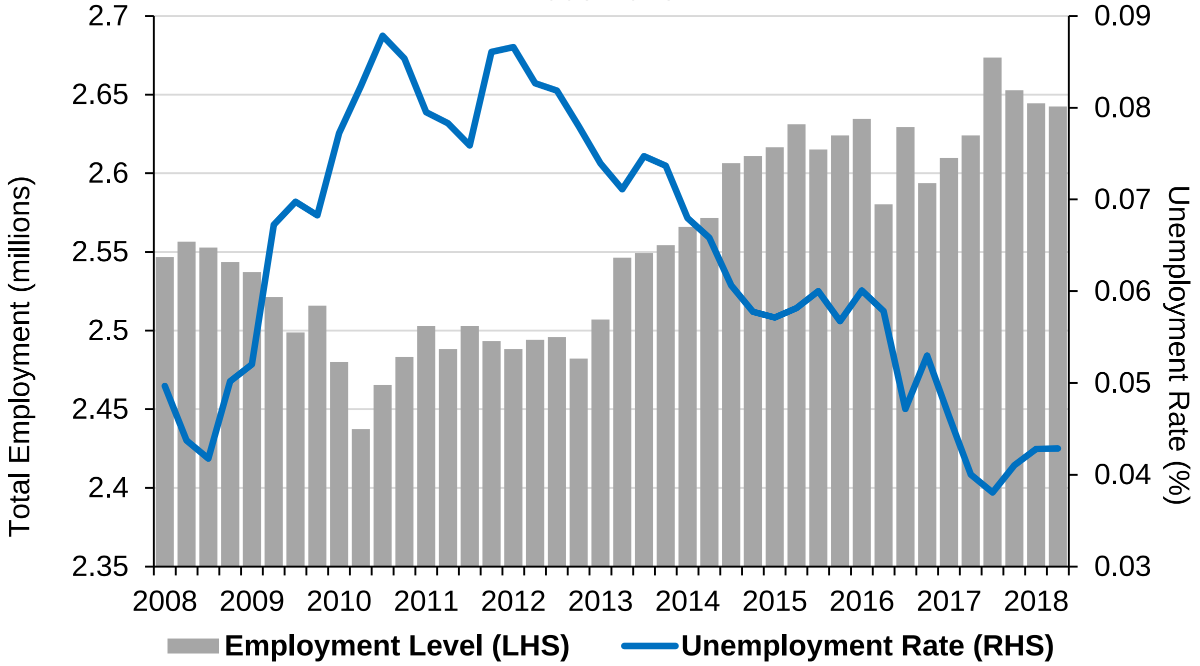
2,642,000 people were in employment in Feb-Apr 2018, 78,000 more than the pre-recession peak (Mar-May 2008), see Figure 3 below.

Since 2016, Scotland's labour market has performed strongly, with 62,000 more people in employment, 90 per cent of the increase coming from full time employment. In the same period the unemployment rate decreased by 1.5 percentage points to 4.3%.

Over the latest year to Feb-Apr 2018 the employment level has increased at a slower pace, with 18,000 more people in employment. The employment rate at 75.2% is slightly below the UK rate of 75.6%. The unemployment rate also increased by 0.3 percentage points over the latest year to Feb-Apr 2018, however at 4.3% remains close to the lowest unemployment rates in the series.

Youth unemployment rate has been on a downward trend since 2012, and in 2018 was 8.9%, down 2.9 percentage points since 2008. Likewise, Scotland has been performing well on measures of female employment exceeding the UK on female employment and unemployment rates.

Figure 3: Employment and Unemployment Rates in Scotland, 2008-2018



Source: Scottish Government

2.2. Discussion

Emerging evidence on the impact of Brexit

Following the result of June's referendum on membership of the European Union, the First Minister established a Standing Council on Europe to provide advice to Scottish Ministers and the Scottish Government on protecting Scotland's relationship with the EU. The Chair is Anton Muscatelli, who also sits on the Council of Economic Advisers. In the August 2016 meeting of the CEA, we agreed that we would provide advice on the economic impacts of Brexit for Scotland, to complement the work of the First Minister's Standing Council on Europe.

We paid particular attention to the two reports published by the Scottish Government in December 2016 - Scotland's Place in Europe[6] - and January 2018 - Scotland's Place in Europe: People, Jobs and Investment[7]. The Council discussed the economic impacts as part of our meetings, given the significance of EU exit. The analysis published was important in setting out potential impacts across different scenarios. In our considerations thus far, we are supportive of the robust and thorough analysis undertaken by the Scottish Government. Going forward, continuing to build the evidence of the potential impacts of Brexit is vital; including scenario planning, in particular trade scenarios, and looking at the risks and opportunities for Scotland. The Council believes that continuing to provide those living in Scotland, and those with interests in Scotland, with timely and accurate information on the impacts of Scotland leaving the European Union is highly important.

Scotland's Place in Europe

- **First report: December 2016**

The initial report set out Scottish Government proposals to protect Scotland's interests. Primarily, this paper set out the importance of single market membership to the Scottish economy. The Scottish Government presented evidence that the European single market has helped reduce barriers to trade and facilitated the movement of goods, services, people, and capital. The report found that the result has been greater competition, increased employment and investment opportunities across member states, highlighting the importance of progress made towards a single market in services (particularly in areas like financial services) from a Scottish perspective.

In addition, the paper pointed out that economic theory and evidence shows that increasing trade can enhance economic performance and contribute towards improvement across a range of economic outcomes. Evidence shows that trade also has a number of wider benefits such as companies exposed to international competition becoming more productive, innovative and grow faster. In addition, free movement of people has also led to improvements in the Scottish economy as well as contributing positively to the public finances and helping to fill skill gaps.

It also contained a discussion of the short-term impacts of the referendum result – noting a reduction in economic confidence, with weak consumer and business sentiment indexes both showing lower levels of confidence and higher levels of uncertainty. There is an associated risk relating to spending and investment decisions in the short term. In the longer term, the paper noted potential impacts for exports, investment, and freedom of movement.

The paper highlighted how interlinked the Scottish economy is with the EU. At time of publication, there was around 181,000 non-UK EU citizens living in Scotland – this had increased to 209,000 by June 2018 – and the EU is the main destination market for Scotland's international exports. There are 1,000, non-UK, EU owned companies operating in Scotland; employing 127,110 people.

- **Second report: January 2018**

The second paper on the subject produced by the Scottish Government, Scotland's Place in Europe: People, Jobs and Investment, presented the latest Scottish Government analysis of the implications to Scotland's economy if the UK leaves the European Union. This builds on the analysis presented in the initial report, presenting a hierarchy of preferred outcomes and an analytical report for each of the three trade scenarios examined: a free trade agreement (FTA), remaining in the European Economic Area (EEA), or a 'no deal' situation, thereby reverting to World Trade Organisation terms. The paper found that each of the scenarios would result in a permanent decrease in Scotland's GDP relative to continued full EU membership; the least damaging scenario being to remain in the EEA.

The paper also highlighted how exit from the EU may exacerbate demographic problems facing Scotland. Maintaining Scotland's working age population would be a challenge without Brexit, however leaving the EU could make the challenge much more acute.

Developments in Economic Data

The Council continue to emphasise the importance of robust data and analysis across all workstreams and welcomed the Scottish Parliament committee inquiry into economic data in Scotland. In early 2017, we identified two key aspects of economic data to investigate further – business investment and labour productivity – for the purposes of discussing how investment and innovation are driving increasing productivity and sustainable economic growth. The below sections provide a short summary of progress in these data sets and publication.

Labour Productivity

Labour productivity measures the amount of economic output produced, on average, for each unit of labour input. It is an important indicator of economic performance, as increases in productivity can reflect improved skills, innovation and investment, which are key to driving long run growth. Labour productivity statistics are derived from separate data for output and the labour market. Labour input is measured in terms of the number of jobs filled in the economy (giving a measure of output per job) and the total number of hours worked (giving output per hour worked). The data for hours worked includes the entire labour force regardless of age, so there is no technical impact on the measurement of productivity due to an ageing population.

The Scottish Government first produced labour productivity statistics in 2014. These have undergone a number of developments since then, including improvements to the timeliness of release and the level of detail available. From May 2017, labour productivity statistics for Scotland are published on a quarterly basis for the whole economy level, with annual breakdowns of productivity by broad industry group. In May 2018, the first estimates were published of the additive decomposition of annual productivity growth by industry, indicating the contribution made to the headline

Business Investment

Business investment is capital investment, by the market sector of the economy, excluding expenditure on dwellings. This includes the activity of private sector businesses and public corporations such as Scottish Water. Business investment is the largest component of total gross fixed capital formation (GFCF), followed by investment in dwellings and government investment, and forms part of the measurement of GDP using the expenditure approach.

After work to improve data, estimates of business investment and the other components of GFCF have been published in the Quarterly National Accounts Scotland statistics since November 2016. From November 2017, estimates of annual business investment breakdowns by broad industry group have also been published on an experimental basis, while the date sources and methods remain in development. These developments are very welcome. The Scottish Government, along with the ONS and the other devolved administrations, continue to investigate options for improving the raw data for sub-UK business investment.

3 – Workstream 1: Inclusive Growth

Remit:
- To advise the Scottish Government in the further development of its inclusive growth policy agenda;
- to help identify policy areas that the Scottish Government should focus on to improve access to economic opportunities and reduce inequalities; and
- to help identify methodologies and approaches that could be employed in Scotland to support policy development around inclusive growth.

Key activities: agreed and advised on launch of diagnostic; advised on content, and participated at Scotland's Inclusive Growth Conference; advised on measurement and key policy areas for progressing towards inclusive growth.

The term inclusive growth (or IG) was introduced to Scottish Government economic policy in Scotland's Economic Strategy 2015. For over 10 years, the term has been used internationally with organisations including the OECD[8] and the World Economic Forum[9] carrying out analysis into measuring and delivering inclusive growth. UK based organisations and universities are also investigating IG; including the Joseph Rowntree Foundation, who launched an Inclusive Growth Monitor[10] in 2016, and the RSA Inclusive Growth Commission[11] which ran from April 2016 to April 2017.

In the UK, the Scottish Government were early in using the term inclusive growth, and are recognised by international partners as a leader in the field. The Scottish Government's vision of inclusive growth is *'growth that combines increased prosperity with greater equity; that creates opportunities for all and distributes the dividends of increased prosperity fairly'.*

Inclusive growth is about the pace and pattern of growth in a country or region. Therefore, it should achieve sustainable economic growth, with a particular emphasis on who benefits. On this basis, inclusive growth policies are designed to tackle inequalities (in terms of outcomes and opportunities) and to stimulate sustainable growth. In doing so, they should shift the poverty curve over the longer term as a wider group will contribute to and share in the benefits of growth.

Over the past 2 years, the Council advised the Scottish Government on a range of analytical work to build the evidence base on inclusive growth in Scotland. This chapter presents the evidence that informed these discussions and the developments across the time-period. Key topics include stakeholder engagement, Scotland's Inclusive Growth Conference, and the diagnostic approach.

3.1. Context

Defining Inclusive Growth

The Council discussed the development of a framework to define and monitor inclusive growth for Scotland. Early work in 2016 used a framework to monitor IG across three themes: growth, inclusion, and sustainability. Building on this, work began to determine a national level framework to define inclusive growth, and provide a set of measures for assessing performance at a national and regional level. Development began in 2017 with a review of national and international IG frameworks already developed. These showed that a basket of indicators was essential to capture all elements. International and national evidence of key drivers of inclusive growth also informed the development.

Using the evidence gathered, and after gathering stakeholder views, officials deemed that the following components are essential to an IG monitoring framework. These are to be taken as a set, and not considered separately.

Productivity	• Economic growth is resilient, sustainable, and inclusive.
Population	• Scotland’s population is healthy and skilled.
Participation	• Improved opportunities to access work, jobs are fulfilling, secure and well-paid, and everyone is able to maximise their potential.
People	• Economic benefits and opportunities are spread more widely across Scotland’s population, with lower poverty levels.
Place	• More equal economic opportunities across Scotland’s cities, towns and regions and rural areas, ensuring sustainable communities.

The components reflect the essential aspects of inclusive growth. In particular, the distinctive focus on people – with a focus on the protected characteristics – and on place – including looking at indicators across local author areas. These also sit in the context of sustainability constraints: environmental and financial.

Scotland performs fairly strongly across the five inclusive growth components. However, significant variations remain across regions – in part to geographic differences - and people groups. This workstream seeks to investigate these issues.

3.2. Discussion

Stakeholder engagement

Scotland and UK-wide Engagement

Effective action across the public, private, and third sectors is crucial to delivering inclusive growth and requires a shared vision for inclusive growth in Scotland. We are pleased that Scottish Government officials have maintained positive and constructive engagement with both internal and external stakeholders across the economic and social policy spectrum.

Within Scotland, officials have engaged with a wide range of public sector and private sector stakeholders; in particular, working with Local Authorities and Regional Economic Partnerships working on City Deals[12] to undertake diagnostic and prioritisation analysis. In addition, officials have had collaborative discussions with think tanks such as the Joseph Rowntree Foundation, who have contributed substantially to the field of evidence and analysis on inclusive growth within the UK.

Scottish Government Policy Action

➢ Scotland's Centre for Regional Inclusive Growth

The Council has been interested in the development of Scotland's Centre for Regional Inclusive Growth. The Cabinet Secretary for Economy, Jobs, and Fair Work announced this initiative at the Economy, Jobs, and Fair Work Committee data inquiry in November 2017. The Centre will be a partnership between Scottish Government and others who have expertise and interest in regional economic development. It will provide a platform for disseminating analysis on inclusive growth at a local and regional level; sharing best practice; and developing ways to support the use of local and regional data and evidence to inform inclusive growth policies. The Centre will build on the current inclusive growth diagnostic work. It will also support Scottish Government policy initiatives on regional partnerships and city region and growth deals.

The Centre aims to increase understanding of regional strengths, challenges, and opportunities in order to drive inclusive growth in different regions of Scotland. Working with academics and other partners, the Centre will align interests in regional economic development to deliver demonstrable improvements in inclusive growth outcomes that benefit local communities and individuals.

International Engagement

In addition, Scotland's approach to inclusive growth has gained interest from a number of international organisations. At an official level, engagement has taken place with the OECD, Department for International Development, the World Bank, and World Economic Forum. Engagement has particularly concerned the work on inclusive growth diagnostics. In addition, the Chief Economist has spoken at a number of national, UK, and international engagements on the Scottish approach to inclusive growth. Most recently in 2018, the Chief Economist spoke at an event in Paris on Business and Inclusive Growth at the OECD headquarters.

Scotland's Inclusive Growth Conference

In October 2017, the Scottish Government held an international conference in Glasgow on inclusive growth. This was a landmark event in engagement on inclusive growth, and the Council was pleased to help shape and contribute to the day.

The Programme for Government 2016-17 announced the commitment to hold an international conference on inclusive growth. The conference aimed to draw together local and international leaders in inclusive growth, as well as business leaders and policy makers, to share evidence and best practice on how to move towards inclusive growth.

Council members provided advice on the broad programme and themes of the day. Including advising officials of the importance of involving the business community, to increase understanding of inclusive growth from the business perspective, and share best practice of how business can contribute to inclusive growth. Several Council members were present on the day, with Harry Burns and Sara Carter addressing the conference, and Anton Muscatelli hosting the day at the University of Glasgow.

The full day conference attracted over 140 delegates from the public and private sector who engaged in workshop sessions and heard from a number of keynote speakers. These included the First Minister, Cabinet Secretary for Finance and the Constitution, Gabriella Ramos (Chief of Staff, OECD), Gerry Rice (Director of Communications, IMF) and the Minister for Financial Markets and Consumer Affairs Minsters in Sweden, and the Minister without portfolio, responsible for Development, Strategic Projects and Cohesion in the Government of Slovenia. The day was made of three types of session: keynote addresses, panel discussions, and workshops.

- Panel sessions looked at building capacity, inclusion, entrepreneurship, and fair work for inclusive growth.
- Breakout sessions covered approaches to inclusive growth. Discussions looked at overcoming exclusion; challenges and opportunities for SME's taking a role in supporting inclusive growth; place based approaches; and fair work practices and how they can drive inclusive growth.

Speakers and delegates alike noted that the conference was a success in bringing together many influencers in the field of IG. Greater awareness emerged of best practice in policy, evidence of what works and experience in other places to progress this agenda. Moreover, presentation and discussion on potential priorities and next steps for Scotland allowed for clearer alignment of current policies with the IG ambition.

In particular, the international conference created the opportunity for the Scottish Government to share best practice with, and learn from, countries and organisations across the world. Officials have continued discussions that took place at the conference with the World Economic Forum (WEF) and OECD, and plan to widen engagement in 2018. Initial topics of discussion have focussed on approaches toward monitoring and evaluating performance, as well as on regional and local applications of inclusive growth.

Wellbeing Economy Governments

Scotland's Inclusive Growth Conference also facilitated the inaugural planning meeting for a new international group of Wellbeing Economy Governments (WEGo). WEGo will comprise of countries that seek to promote policy innovations, expertise, and best practice among countries with a shared ambition of championing a wellbeing economy for their citizens and the environment.

The October 2017 meeting laid the groundwork for advancing this agenda. Present were senior officials from New Zealand, Costa Rica, and Scotland, as well as Ministers from Sweden and Slovenia. The core group of Scotland, Costa Rica, and Slovenia are currently making plans to expand the group before launch at the OECD's World Forum in November 2018. The Council is supportive of this initiative, and welcomed the opportunity to contribute to the Group's most recent meeting (May 2018) with Sara Cater chairing an extensive evidence session, and Harry Burns giving a presentation that linked the ambition to improve wellbeing with the policy actions required to achieve inclusive growth.

The Diagnostic Approach

Underpinning the Scottish Government's inclusive growth work has been analysis of the conditions, constraints, and opportunities for delivering inclusive growth. To do this, the SG used a diagnostic approach. The Council has paid particular attention to the approach and outputs. An inclusive growth diagnostic is a systematic approach to assessing what is constraining a country from achieving inclusive growth by investigating economic and social systems. Originally developed by the World Bank and Harvard University, diagnostics are increasingly in use in developing countries.

Scotland was the first advanced economy to undertake a diagnostic. The Scottish Government's methodology started with the premise of a link between inclusivity and growth. There is a growing body of international evidence that delivering sustainable growth and addressing long-standing inequalities are reinforcing, and not competing, objectives. Recent work from the IMF[13] and the OECD[14] supports this.

The diagnostic was organised around drivers of inclusive growth, unpicking elements of inclusivity and growth to understand which constraints needs to be unlocked and prioritised. The key is considering social and economic interactions together.

Across 2016 and 2017, officials and local partners implemented the diagnostic approach. Outputs influenced the prioritisation of actions that aim to support moving towards inclusive growth. At time of writing, the diagnostic approach is in use to inform priorities for a number of Growth Deals and Regional Economic Partnerships.

In February 2016, we approved plans for the Scottish Government to take forward an inclusive growth diagnostic for Scotland. The was based around benchmarking potential inclusive growth drivers with comparator countries (New Zealand, Switzerland, Sweden, Denmark and Finland) to identify areas where Scotland does not perform so well across drivers of growth, inclusion and sustainability. Additional social and economic analysis explored the reasons why particular areas may be constraining inclusive growth.

The over 30 potential drivers of inclusive growth examined ranged from infrastructure to access to finance to equality of opportunity. Areas identified as national-level priorities, with strong evidence of impact across growth, inclusion and/ or sustainability, included digital and new business methods take up, inequality of caring responsibilities, and lifestyle choices determined by social and economic deprivation.

North Ayrshire Inclusive Growth Diagnostic Pilot

Overview

In 2017, the Office of the Chief Economic Adviser at the Scottish Government and North Ayrshire Council undertook a joint pilot project to assess what was holding back long-term sustainable inclusivity and growth in North Ayrshire (NA). This pilot refined the inclusive growth diagnostic approach, which has subsequently been applied in a number of other local areas and regions. The work sought to identify those prioritised investment decisions with the potential to deliver long-term transformational change. The project received the Policy Development Award at the Scottish Public Service Awards in December 2017.

Please see Scotland's Centre for Regional Inclusive Growth website for full, published results.

Activities

The diagnostic approach applied in North Ayrshire consists of the following stages:

Stage 1: The Inclusive Growth Story

The diagnostic process began by benchmarking North Ayrshire's performance on a range of inclusive growth indicators against neighbouring local authorities and the Scottish average to identify high-level areas of achievement and challenge. This expanded the focus of policy-making beyond the traditional measures of economic success and highlighted the areas to investigate throughout the diagnostic.

The high level inclusive growth challenges identified in North Ayrshire include:

- **Productivity and the legacy of industrial decline,** as evidenced by low GVA per head, low business start-up rates, low business expenditure on Research and Development, and significant employment in low wage, low value sectors.
- **Economic and social inclusion**, as evidenced by lagging female labour market participation (relative to the Scottish average) and gender segregation in skilled/ higher paid occupations; high unemployment, in-work poverty and high levels of deprivation; and poor health outcomes, including mental health outcomes (which are both an outcome and driver of inclusion).

Stage 2: Understanding the drivers of inclusive growth

Due to the breadth of potential issues identified, a holistic approach was used to better understand the causes of these. This covered three levels: the external environment; local conditions; and, social factors. This approach helped produce a list of drivers of inclusive growth outcomes, see Table 1 below.

This exercise identified ‘excluded’ groups – that is, groups sharing similar characteristics that have been particularly excluded from the benefits of economic growth, especially labour market inclusion. The excluded groups identified were young people, those with long-term health problems, those in in-work poverty, and females.

Table 1: Inclusive Growth Drivers in North Ayrshire

Driver	Issues
Infrastructure	•Slow roll out of digital infrastructure and poor coverage (mobile) •Lack of appropriate business premises •Housing: energy efficiency and availability of smaller properties •Transport (people to jobs) •Transport (goods to market)
Skills	•Intermediate and advanced skills •Entry-level skills/ work-readiness •Basic digital skills (which can also limit social inclusion) •Digital innovation/ advanced digital skills
Social Capital	•Community empowerment •Aspirations (individual and business) •Health, particularly mental, compounds inclusion challenges •Difficulties in accessing affordable and flexible childcare
Value/ quality of jobs	•Structure of the economy/ sectors/ industries •Availability of local jobs (jobs density) •Sustainable working population

Stage 3: Vision and Outcomes

The subsequent activity was based on an agreed vision for NA that placed equal weight on the importance of growth, inclusion, and sustainability in the local area.

At this stage, a range of groups across North Ayrshire were consulted to identify at a high level whether the constraints identified by the Pilot were considered as barriers by stakeholders. These engagements were held as part of a North Ayrshire Council officer's normal activity schedule.

Stage 4: Identifying Priorities

The prioritisation exercise ranks the identified constraints based on the interaction of two dimensions: impact and deliverability.

- **Impact** – An evidence-based approach that ranks constraints based on their relative importance in unlocking inclusive growth opportunities. The methodology takes into account an assessment of synergies and trade-offs and impact on key excluded groups.
- **Deliverability** – led by decision makers in North Ayrshire Council. This stage is a more qualitative assessment taking account of the preferences of policy-makers, local communities and the private sector, as well as a time dimension and funding feasibility. This build on community engagement NAC had carried out, as well as existing knowledge of the concerns and priorities of the community and private sector.

The main constraints to inclusive growth in North Ayrshire identified by the diagnostic include:

- Intermediate/Advanced skills
- Jobs density
- Health and wellbeing
- Basic digital skills
- Entry-level skills
- Business-specific skills
- Childcare
- Migration and population decline
- Sector composition
- Digital connectivity

Stage 5: Delivery: Operationalising Results

Following the first four steps of the diagnostic framework, North Ayrshire Council have prioritised and implemented several actions to address these constraints.

The findings of the diagnostic are used to inform investment and policy decisions in the short, medium, and long term. The analysis informed the development of strategies and programmes, including the Community Planning Partnership Fair for All Strategy to reduce inequalities in North Ayrshire and its associated Pledges.

In the short term, the work is being incorporated into current programmes. More emphasis on excluded groups such as females can be seen in Skills for Life programmes, which have focused on lone parents. Investment in health and employability services has been increased, resulting in increased employability referrals from Health Visitors, and some support has been provided with condition management through an occupational health provider SALUS. North Ayrshire

Council have also increased investment in developing basic digital skills in recent budgets. The analysis contributed to the March 2017 budget, which made a significant investment to take forward the North Ayrshire Fair for All Strategy. Investment funds created include:

- Community Investment Fund (£2,600,000);
- Poverty Challenge Fund (£850,000);
- Basic Income Pledge (£200,000); and the
- Participatory Budgeting Fund (£900,000).

In the medium to longer term, North Ayrshire Council are assessing current activity against each of the constraints and excluded groups, and identifying where further action is required. This will inform the development of key projects, including:

- Ayrshire Growth Deal
- Regional Partnership
- Supported Employment for disabled residents
- Final phase of EU funding 2019-2022
- Basic income pilot
- Implementation of Fair for All strategy

Going forward, engagement will continue between North Ayrshire Council, the Scottish Government, and its agencies. The inclusive growth diagnostic is being rolled out across Ayrshire to inform the work of the Ayrshire Growth Deal and the Ayrshire Regional Partnership. By focusing on inclusive growth, the regional partners will ensure that community's needs are considered in economic growth plans.

Scottish Government Policy Action

The Council continue to be interested operationalizing inclusive growth through policies that can drive change across Scotland, and the Scottish Government is currently looking at mainstreaming an inclusive growth policy lens across Government. Current policies with a strong link to inclusive growth ambitions are:

- **The Business Pledge**

As acknowledged earlier, buy-in from the private sector is essential to achieve the inclusive growth ambitions. The Scottish Government already supports a number of initiatives that aim to mainstream inclusive practices in companies operating across Scotland. The Business Pledge is the primary focus offering a shared partnership between the Scottish Government and business, with the shared goal of boosting productivity, competitiveness, and sustainable employment through fair work, workforce engagement and development, and progressive business practices. The Council acknowledges that there are many businesses not signed up to the Pledge that nevertheless align in ambition, but we continue to support the Pledge and its aims. **At time of writing, 500 businesses had signed up to the Business Pledge.**

- **Regional Economic Partnerships and City Deals**

The Scottish Government has committed over £1.3 billion to City Region Deals in Glasgow City Region, Inverness & Highlands, Aberdeen City & Shire, Edinburgh and South East Scotland and Stirling and Clackmannanshire; and is focused on securing deals for all of Scotland. The Scottish Government's approach to these growth deals is to support inclusive economic growth, strengthening regional economies over the longer term, creating jobs and tackling inequality.

In addition, the Scottish Government is committed to extending the Regional Economic Partnerships across all of Scotland. These Regional Partnerships seek to align resources and priorities across local authorities, the private sector, enterprise agencies, education and skills providers and others in order to boost inclusive economic growth

- **Tackling Child Poverty**

In November 2017, the Child Poverty (Scotland) Act was passed, establishing Scotland as the only part of the UK with statutory targets to reduce child poverty significantly by 2030.

The 'Every Child, Every Chance: the Tackling Child Poverty Delivery Plan' was published in March 2018. The Plan outlines actions to support progress towards the new child poverty targets. Actions include investing £12 million in parental employment support and the development of an income supplement for low income families. In addition, it includes the development of new support for childcare after school and in the holidays, and investment over the next two years to provide additional practical support to children experiencing food insecurity during school holidays. Finally, the Plan includes a new minimum School Clothing Grant of £100 delivered by each local authority in Scotland.

Reflections and Recommendations for Inclusive Growth

The Council continue to believe that inclusive growth should be the most important objective for Scotland. Despite being an economically successful nation, deep inequalities still exist indicating that the pattern of growth has not benefitted society equally. Furthermore, Scotland has potential to improve the pace of overall growth.

Concerning Engagement

The Scottish Government has been effective in engaging with a wide number of organisations learning from and adding to the theory and best practice of inclusive growth. **The Council recommends continued engagement and collaboration with national, local, and international organisations**. Scotland's International Inclusive Growth Conference proved a valuable opportunity for building partnership and we support the plan to use the Centre for Regional Inclusive Growth as a facilitator of constructive engagement.

Furthermore, **we encourage increased collaboration with the private sector in working toward inclusive growth, and promoting initiatives such as the Business Pledge.** Actions to support the private sector and businesses engage and influence inclusive growth, such as the Pledge, are commendable and continue to be important. An enhanced understanding of how the private and public sector can work together to achieve inclusive growth is essential.

Concerning the overall approach

The Council recognise the considerable work undertaken around building an evidence base for inclusive growth since mid-2016. The Scottish Government is now at the more critical time of implementing inclusive growth policies more systematically. We are pleased that the government is already taking steps to do this, and **recommend maintaining an increased focus on operationalizing inclusive growth, both at a national and a regional level**, **ensuring a joined-up approach across Scottish Government policy activity to ensure effectiveness.**

In particular, **we recommend that the Scottish Government continue to investigate what bottom-up approaches could be implemented across Scotland to support inclusive growth.** After considering national and international evidence, it remains evident that a bottom-up approach to inclusive growth can prove most effective. Indeed, this is especially important in relation to equipping people with the right skills to enter the labour market, and early years interventions. We commend the Government for such policies already in place, including for childcare.

To support delivery of effective inclusive growth policy, **we also recommend improved reporting and evaluation of the progress around inclusive growth**, both at a national and policy specific level to assess impact. Focus on the inclusive growth outcomes and the National Performance Framework will be vital.

4 - Workstream 2: Innovation

Remit:

- To provide an international perspective on Scotland's broader innovation performance and challenges, and
- to help identify specific actions that could be taken forward to illuminate and improve Scotland's performance.

Key activities: issue response to UK industrial strategy consultation; insight and comment on investment banks, especially around work of Mariana Mazzucato.

Innovation is one of the four drivers in Scotland's Economic Strategy for supporting both increased competitiveness and tackling inequality. The Council has been taking forward a workstream on innovation, which has concentrated on placing Scotland's performance in an international context, exploring issues related to mission-oriented innovation, and developing an appreciation of the challenges facing Scotland.

In late 2016, the Council decided to refocus the workstream to advise on dimensions of industrial strategy. This consideration included government plans relating to manufacturing and other key activities in the Scottish Government's Innovation Action Plan launched in January 2017. The focus has been innovation in the context of the provision of patient capital for investment and business growth.

Also in January 2017, the UK Government launched a Green Paper on Industrial Strategy[15]. The Council believed that this was an opportune moment to contribute to this dialogue and reflect Scottish priorities. Boosting access to finance in Scotland – especially for SMEs – and supporting innovation continue to be a focus of the Council. In April 2017, we provided an independent submission[16] to the White Paper, presenting the case for a national investment bank in Scotland.

In September 2017, the Scottish Government Programme for Government 2017-18 announced the appointment of Benny Higgins (formerly of Tesco Bank) to launch the development of a Scottish National Investment Bank. Since then, the Scottish Government published the Implementation Plan in February 2018 and developments are moving forward; and so this has been an exciting area to contribute to.

This section provides an overview of the evidence considered by the Council regarding the innovation performance and policy context in Scotland, and the discussions around the role of an investment bank, plus the Scottish Government developments in establishing a Scottish National Investment Bank.

4.1. Context

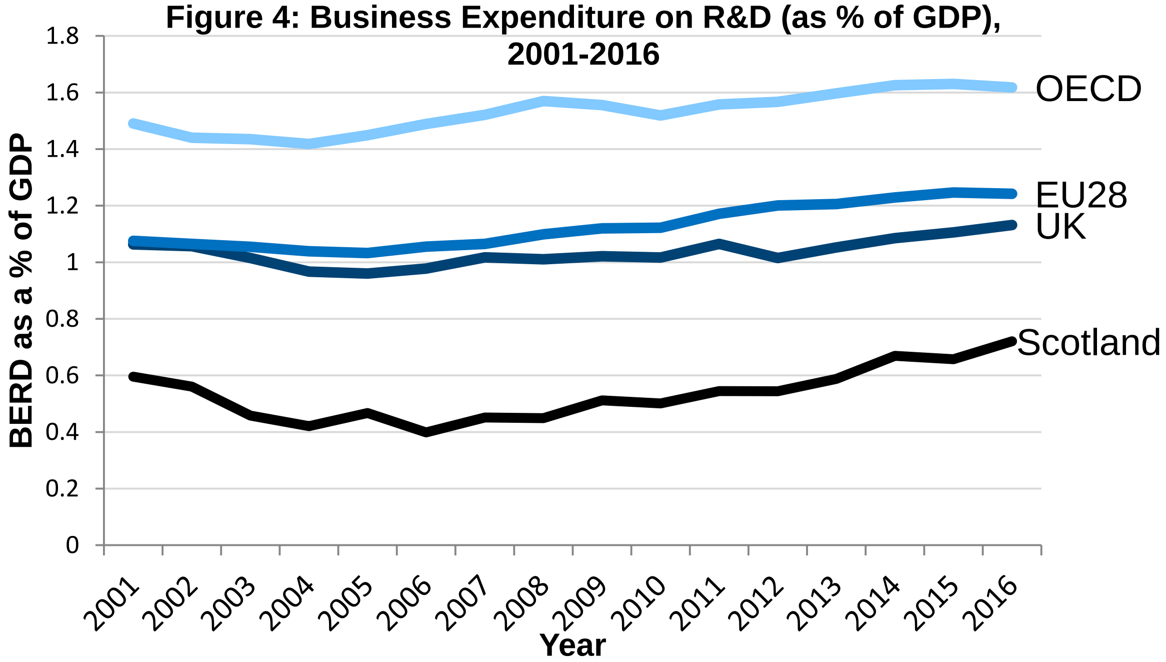
Scotland's Innovation Performance

The term innovation covers the development and implementation of new technologies and practices. The UK Innovation Survey 2017 results showed that 46% of enterprises were innovation active in Scotland in the 2014-16 period, this is down from 51% in the previous period (2012-14) driven by a decline in wider (organisational/marketing) innovation activity (rather than product/process innovation).

Internationally, Scotland lags behind the UK, the EU and the OECD in terms of overall Gross Expenditure on R&D expenditure as a share of GDP. The gap with other countries is largely as a result of relatively low business R&D spend in Scotland. Whereas Scotland's Higher Education R&D expenditure as a share of GDP ranked fifth highest in the OECD in 2016.

For business expenditure on R&D as a share of GDP, Scotland trails the UK, the EU and OECD (see Figure 4 below); highlighting that there is significant scope for businesses to increase investment. However, there are some signs of improvement; business expenditure in R&D rose in 2016 to exceed £1 billion for the first time.

Figure 4: Business Expenditure on R&D (as % of GDP), 2001-2016



Source: Scottish Government

Innovation and Industrial Landscape in Scotland

Having a thriving and dynamic innovation ecosystem is essential for improved productivity, competiveness, and growth. Scotland is renowned as an innovative country, with many Scottish inventions having been instrumental in progressing industry and the day-to-day living of people across the globe. Today, innovation amongst universities, businesses, and independent organisations, continues to mark the Scottish industrial landscape. Finance provided by a number of both public and private organisations supports much of this. The box below highlights a number of actions the Government is taking to grow innovation in Scotland. These actions considered by the Council cover initiatives to strengthen the role of manufacturing, boosting innovation, and increasing international trade and investment across sectors.

Furthermore, industrial policy is an approach that supports particular sectors to promote productivity and growth for those sectors and for the whole economy. Industrial policies are returning to prominence in the UK, driven by the financial crisis of 2007-2008 and its aftermath; by examples of successful industrial policies pursued by other developed and developing countries; and given energy by the EU referendum result. The Scottish Government's approach to industrial policy looks at investment as well as integrating new technology, innovation, methods, processes, skills, and business models into the company base.

Scottish Government Policy Action

- **The Innovation Action Plan for Scotland**: published on January 2017, this sets out four key steps and associated actions to support Scotland's innovation.

  1. Directly encouraging more business innovation: setting a goal in Programme for Government 2017 to **double Business Enterprise Research and Development (BERD)** from £871 million in 2015 to £1.75 billion by 2025, and committing an additional £45 million over the next three years to Research & Development grants for business to support this.

  2. Using public sector needs and spend to catalyse innovation: launched the £9 million **CAN DO Innovation Challenge Fund**, which uses private sector innovation to solve public sector challenges and providing £600k part funding for **CivTech** - the world's first cross-public-sector tech accelerator.

  3. Supporting innovation across sectors and places: developing and delivering the **National Manufacturing Institute for Scotland** - a centre for manufacturing excellence and a skills academy that will be a hub for stimulating innovation, improving productivity and increasing investment in the sector, with Strathclyde University as the anchor university.

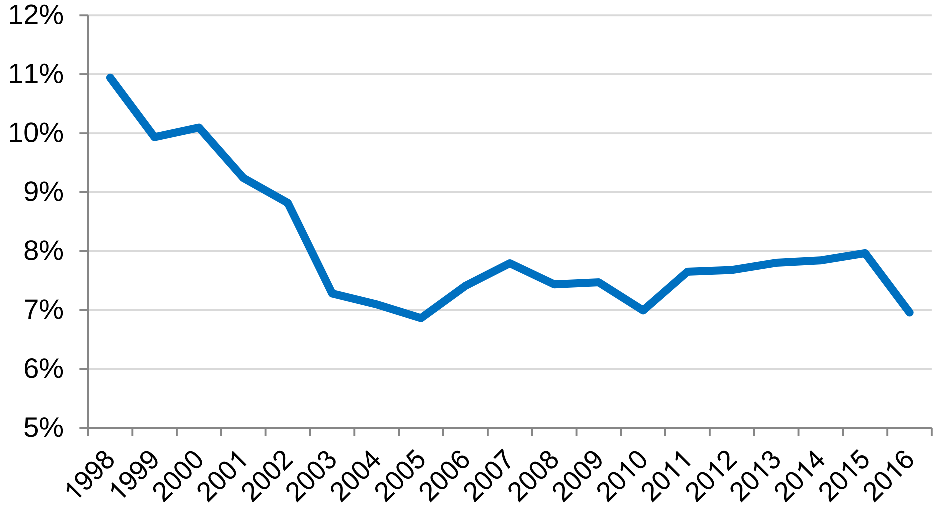
  4. Making best use of University research, knowledge, and talent to drive growth, and equip Scotland's people with the tools and skills needed to innovate: including the **£500k College Innovation Fund**; and, continuing to support the network of eight **Innovation Centres**, including backing for the £1 million Innovation Centres: Cancer Innovation Challenge.

Access to Finance in Scotland

To sustain a thriving innovative landscape, a strong capital and investment base is essential. The Council therefore considered access to finance in Scotland.

Data from the Small Business Survey 2016 indicates that 68% of SMEs in Scotland that applied for external finance obtained some or all finance sought, while 12% did not receive applied-for funding. The survey however indicates that only 16% of Small and Medium Enterprises (SMEs) applied for finance in the 12 months analysed. This figure reflects a relatively low demand for finance. In addition, 11% of SMEs in Scotland also reported needing, but not applying for, finance in the previous 12 months, an increase from 9% reported in the 2015 Survey.[17]

Figure 5: Business investment % GDP, Scotland, 1998-2016



Source: Scottish Government

Furthermore, in Scotland, business investment as a share of GDP decreased from 10.9% in 1998 to 6.9% in 2005 (see Figure 5 above); and has remained relatively stable between 2005 and 2016 at around 7.5% on average. Data for the first three quarters of 2017 indicated that business investment as a share of GDP in Scotland fell to around 6.1% on average over the first three quarters. If this trend continues in Q4 2017 then 2017 will represent the year in which business investment has made its lowest contribution to GDP across the whole time series.

The Council also reviewed the report on the Scottish Risk Capital Market, which showed total annual early stage risk capital investment in Scotland reached £334 million. However, this figure does not reflect the majority of activity or underlying trend since a small number of very large, or 'megadeals' (above £10 million) each year can skew overall market activity. After removing megadeals, the total investment for 2016 is £189 million, the highest point for over a decade.

The main source of patient capital in Scotland is at the early investment stage undertaken by business angels and business angel syndicates, who provide equity investment to a number of young, innovative Scottish companies. Scotland currently has a well-developed and professional informal investment market, with 18 active business angel syndicates, supported by their trade body, LINC Scotland. The most recent risk capital market report shows that business angels, angel syndicates, and equity crowd funding platforms doubled their investment activity in 2016 compared with 2015.

After consideration of the evidence, it is clear that there is a persistent funding gap in the provision of microfinance, debt, and early stage equity for SMEs in Scotland, presenting a business case for government intervention. As the market for SME finance is continually evolving, the precise scale and nature of the funding gap changes over time. However, funding gaps that exist reflect two broad factors:

- **Long-standing structural and systemic gaps** that primarily affect certain types of firms (e.g. start-ups, early stage high-growth companies and technology-intensive firms); and,

- **Cyclical gaps** in lending that affect a range of SMEs and reflect changes in economic conditions and regulatory requirements

The debt gap in Scotland is estimated to range between £330 million and £750 million per year in Scotland[18]. Gaps exist from the very smallest levels of finance (microfinance from £500 to £25,000) and from £25,000 to £100,000 and extend up to £1 million - £2 million. For more information, please see the Scottish National Investment Bank Implementation Plan[19].

Scottish Government Policy Action

To support the access to finance in Scotland, the Scottish Government and its agencies work proactively to supply products and services to support businesses. The approach centres on increasing the level of funding available to SMEs; expanding and deepening financial support and advice for SMEs; and, providing easier access for SMEs seeking finance. Therefore, **providing support to growth businesses: "Investing in ambition",** tools include:

- **The SME Holding Fund**: a Fund-of-Funds model which supplies microfinance, debt and equity to SMEs, as well as supporting the capacity and capability of Scotland's business angel market to increase the supply of capital available to young, innovative businesses;

- **The Scottish Growth Scheme**: a 2016 Programme for Government announcement providing a £500 million package of support for the 3 year period to June 2020. Targeting, high growth, innovative, technology based, and export focused businesses. Currently two substantive components in place: First product, the **£200 million Scottish–European Growth Co-investment Programme**, provides equity funding above £2 million; and the new, additional funding to support early stage equity funding up to £2 million.

Scottish Enterprise operates initiatives to directly incentivise business innovation, and commercialise R&D from Scotland's universities and research base. In addition, European funding, particularly from the **European Regional Development Fund (ERDF)**, has been used significantly across Scotland and is a key source of capital for the SME Holding Fund. Scotland is able to access ERDF whilst it is part of the European Union, and the current Programme of EU funds (2014-22) will be the last available to Scotland, therefore it is important that the Scottish Government use the available resources to secure a long-term legacy.

4.2. Discussion

Patient Capital and Investment Banks

In 2017, the Council considered evidence on the role of government in providing patient capital, and the opportunity and challenge of potentially establishing a national investment bank in Scotland. Patient capital is the name given for long-term capital, where investors are willing to forgo shorter term, immediate returns in anticipation of more substantial returns over a much longer period, typically 10-15 years and often provided in the form of equity, debt, loan guarantees, or other financial instruments.

Over recent years, a national investment bank (also known as promotional or development bank)[20] has been suggested as a policy vehicle to address the importance of increasing the supply of patient capital within the economy[21]. Investment banks are defined as: 'legal entities carrying out financial activities on a professional basis which are given a mandate by a Member State or a Member State's entity at central, regional or local level, to carry out development or promotional activities'.[22] They are public entities, whereby the state owns a substantial share of their equity, with the purpose of facilitating access to finance for start-ups and SMEs that face obstacles to raising financing from the market.

Considering an Investment Bank for Scotland

The Council considered approaches to supporting patient capital; in particular, we considered the examples of public banks and funds operating within Europe. We discussed the international evidence in the context of the Scottish Government approach to the provision of long-term capital to SMEs; the Scottish Government's main policy tools (for example the SME Holding Fund); and the potential benefits and opportunities created by a national investment bank[23].

Key evidence considered in these discussions was the research carried out by Mariana Mazzucato - and co-authored by Honorary Research Fellow Laurie Macfarlane - in the role of Director Institute for Innovation and Public Purpose, University College London. Two working papers were considered. The first paper[24], drawing together the evidence of six international state investment banks and the opportunities for state investment banks in the UK. And, the second paper[25], investigating the design of eight international investment banks and how these affect the provision of patient capital. Overall, Governments have historically played a key role in bringing about technological advances, and in doing so have created many high growth businesses.

Investment banks offer loan products and other types of financial instruments to SMEs either directly, or in an intermediary capacity, usually via commercial banks in order to ensure complementarity and avoid duplication of private sector provision. In addition, some national governments also provide investment banks with state guarantees and with funding to lend to SMEs. While almost all investment banks are involved in SME lending, a small number also lend for other purposes, such as to regional or local levels of government to invest in infrastructure and through public-private partnerships.

In exercising their roles in support of SMEs, investment banks can carry out a variety of economic functions[26], including:

- Address market failures such as lack of access to finance for SMEs, thereby serving as a public policy instrument;
- Provide countercyclical financing during periods of economic and financial crisis, to help counter the decline in commercial banking activity that typically follows economic or financial crises;

- Promote economic development and strengthen national and regional competitiveness; and
- Increase understanding of access to finance issues for start-ups and SMEs.

The Council's discussions highlighted a few areas where patient capital could help to contribute to long-term growth in Scotland, including investing in science and research. In particular, our discussions emphasised that an investment bank could prove a valuable tool in driving forward business start-ups, business growth and stimulating innovation led growth. Most importantly, to move towards inclusive growth in Scotland, the private sector needs to grow, invest, and innovate to create good quality jobs and opportunities.

Resulting from these considerations, the Council provided an independent submission[27] to the 2017 UK Government Industrial Strategy Green Paper[28]. This focused on the provision of patient capital in the devolved context, and the constraints within the current UK institutional arrangements.

Challenges in Establishing a National Investment Bank

After consulting a range of evidence, the Council agreed that to pursue the development of a national investment bank for Scotland would be a positive step, though would require substantial preparatory work to ensure effectiveness. The potential increase in innovation led growth resulting from the activities of a Scottish national investment bank merits the effort in pursuing the creation of such an institution for Scotland.

The Council considered the challenges associated with the establishment of an investment bank within a Scottish context and the preparatory work required. This includes the requirement for a clear understanding of UK Government and potential EU approvals required. In addition, officials made clear early in development that the governance structure underpinning the institution would need to be determined in advance of its establishment. This would include establishing the extent of government control, through the institution's memorandum, its shareholding structure, initial appointments to the institution's board and subsequent appointment arrangements, supervision arrangements, and control of financing decisions.

Consideration was also given to the impact on Scottish Government budgets in light of the agreements between devolved administrations and UK Government. This was especially in relation to the classification of an investment bank as either a Public or Private Sector institution.

Scottish Government Policy Action

➢ The Development of the Scottish National Investment Bank

The First Minister announced in the Programme for Government 2017-18 that the Scottish Government will establish a Scottish National Investment Bank (the Bank). Benny Higgins was appointed to lead on development of an Implementation Plan for the Bank. An open consultation ran from October 2017 to November 2017, and received over 1000 responses.

In February 2018, an Implementation Plan (IP) with 21 recommendations was published which provided an overview for the focus of the Bank's proposed activities and arrangements. Cabinet has subsequently endorsed the IP on 17 April, and Parliamentary support has been confirmed in a debate on 8 May in the Scottish Parliament. The vision set out for the Bank is that:
"The Scottish National Investment Bank will provide finance and act to catalyse private investment to achieve a step change in growth for the Scottish economy by powering innovation and accelerating the move to a low carbon, high-tech, connected, globally competitive and inclusive economy."

The Council reviewed the published IP and the set of principles to inform investment and governance. Key points include:

- The Bank will necessitate setting up a new public body;
- The Bank will offer financing (debt and equity that must be repaid) on a commercial basis, typically over a 10-15 year period;
- Recommended target capitalisation of £2 billion over 10 years, taking the Building Scotland Fund and initial capitalisation into account;
- The Bank should be operationally and administratively independent from Ministers with an independent Chair and Board who will make decisions about how to invest and where to invest and in which sectors to invest;
- Ministers should set the overall strategic direction for the Bank in the form of missions; and
- The Bank will not offer retail banking services (i.e. take deposits, offer mortgages, or operate a branch network).

However, the IP notes that a key dependency remains the requirement of a dispensation from HM Treasury for the Bank to carry cash balances between financial years, and any restrictions or limitations that they propose in relation to this.

In terms of the operations of the Bank, the Implementation Plan recognises that Scotland has well-established public sector support; providing funding and financing advice, and the provision of funding and financing directly or indirectly to companies seeking to grow. The IP therefore recommends that the new Bank should integrate existing financing activities provided by SG and its agencies into its remit and operating model, thereby building on the success of operations and initiatives underway, and offering an opportunity to develop strengths and build on existing skills. The Scottish Government recognises this will be a key piece of early work in transition planning.

Reflections and Recommendations for Innovation

Concerning industrial policy

The Council were encouraged by the work on industrial policies in Scotland including the policies to support manufacturing in Scotland. **We advise investigating opportunities beyond existing areas of manufacturing including new areas of science**. Recognising Scotland's unique advantages is essential to informing development of industrial strategy for Scotland. In addition, investigating synergies across and between manufacturing and service sectors could inform strategy, and all industrial policies should consider regional impacts.

Concerning the role of an investment bank

The Council's workstream on innovation across 2017-18 has mostly centred on the role of an investment bank. The period 2016 to 2018 has been pivotal for the future delivery of patient capital in Scotland. The Council has played a significant role in investigating the opportunities for Scotland that a national investment bank may provide, and are encouraged by the progress already made. **We recommend the Scottish Government continue to review international and UK evidence of investment banks, and similar institutions, in the development of the Scottish National Investment Bank;** including investigating the impact of an investment bank on the wider financial ecosystem.

The Council is supportive of the development to date of the Scottish National Investment Bank, including the publication of the Implementation Plan in February 2018. **We encourage on-going and thorough consideration of, and clarity on, the proposed operations and governance of the Bank, to ensure effectiveness and sustainability**. The ambition to address cross-sectoral challenges could be pivotal in creating change and **we recommend developing a set of missions that are framed around Scotland specific challenges**. In particular, when developing the Bank, **we recommend considering the role of the Bank to encourage innovation, and therefore innovation led growth**. Additionally, the scope of the Banks activities should also focus on Small and Medium Sized Enterprises, but **should also be sufficiently flexible to provide capital across a range of business types.**

For the Council, most of this workstream relating to the Scottish National Investment Bank is now complete. Going forward, we will keep a watching brief on the development on the Bank and provide advice as and where appropriate.

5 - Workstream 3: Fiscal Matters

Remit:

- To provide expert advice to the Scottish Government ahead of each Draft Budget on the revenue risks and possible mitigating actions associated with a rise in the Additional Rate (now termed 'Top Rate') of income tax in Scotland from 45p to 50p, and
- To advise on wider fiscal matters should that be sought by the First Minister or Cabinet Secretary for Finance and the Constitution.

Key activities: advice on Scottish Government analysis; review and sign-off of the Scottish Government's analytical paper published prior to Draft Budget 2018-19.

The amount of fiscal autonomy devolved to Scotland has increased since the Scotland Act 1998 and the establishment of the Scottish Parliament. In 1999, the only tax powers devolved were local taxation and the ability to vary the basic rate of income tax (known as the Scottish variable rate). The Scotland Act 2012 devolved two further taxes: the Land and Buildings Transaction Tax (LBTT) and the Scottish Landfill Tax (SLfT). Also introduced was the Scottish Rate of Income Tax, whereby the UK Government reduced the three rates of income tax by 10p (e.g. the basic rate fell from 20p to 10p) and the Scottish Parliament could then choose whether to increase these rates. Income tax policy was the same in Scotland and rUK until 2017-18, at which point policy began to diverge.

More recently, due to the Scotland Act 2016, the Scottish Parliament has the power to set all the rates and bands for non-savings non-dividend (NSND) income tax in Scotland. The tax-free personal allowance, and reliefs and other allowances, remain reserved to the UK Government. Prior to the 2016 Scottish Parliament elections, the Scottish Government announced its proposals for Scottish income tax in 2017-18. This announcement included the publication of an analytical note in March 2016[29], which concluded that there were significant risks to revenues due to potential behaviour effects, were the additional rate of income tax in Scotland to be set at 5 pence above the corresponding UK rate. The Government's conclusion was that the additional rate in Scotland should remain at 45p. However, the Scottish Income Tax system did diverge from that of the rUK as the Scottish and UK parliaments took different decisions on uprating the bands. At that time, the First Minister announced that the Council of Economic Advisers would be invited to update this analysis on an annual basis to inform decisions in future budgets.

In January 2017, the Scottish Government provided Council members with a comprehensive overview of the existing evidence base - including initial analysis of the additional rate taxpayer population based on detailed outturn data - and set out potential avenues for future research. Following advice from the Council, the research agenda was narrowed down to the following three broad aspects:

A. Further analysis of Scottish data
B. On-going engagement with the academic literature
C. Deepening understanding of potential behaviours

Over the course of 2017, the Council reviewed a series of further analytical papers addressing each of these three elements, and provided further advice and comments. These discussions led up to the publication of an analytical note[30] by the Scottish Government in December 2017. The minutes of the January 2017 meeting and the conference calls over the course of 2017 summarise our comments on these papers, as well as areas we felt should be explored further.

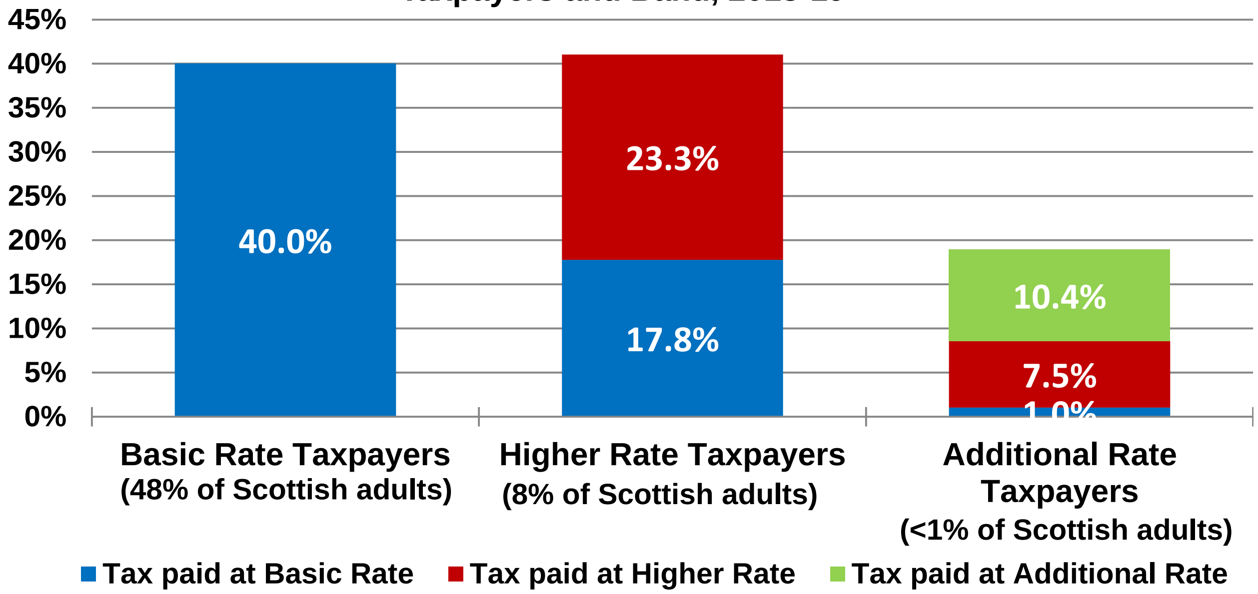
Please note: this chapter references the analysis presented to the Council in 2017 and early 2018, since then some figures may have changed due to new data being published.

5.1. Context

Additional Rate Taxpayers in Scotland

In Scotland, taxpayers who pay the additional rate (AR) of income tax account for a disproportionate share of income and tax liabilities despite being a relatively small proportion of the taxpayer population. It was expected that around 20,000, or less than 1 per cent of Scottish adults, would pay the AR of income tax in 2018-19. However, their contribution to total income tax liabilities would account for around 19 per cent of the total tax take in 2018-19. This means that total revenue from income tax is relatively reliant on these top earners and that the behaviour of a small number of individuals may have a disproportionate impact, positive or negative, on overall Scottish income tax liabilities.

Figure 6: Estimated Contributions to Income Tax Liabilities by Taxpayers and Band, 2018-19



Source: Scottish Government

This dependency of income tax revenues on high income earners is not unusual in advanced economies, however, it is worth noting that AR taxpayers make up a smaller proportion of the taxpayer population in Scotland than they do in the UK as a whole.

The data reviewed by the Council for the AR taxpayer population was for 2014-15, the latest available at the time.

Possible Responses to a Change in the AR of Income Tax

The existing income tax rates, thresholds, exemptions, reliefs, and allowances determine an individual's tax liability. There is uncertainty associated with estimating the potential revenue raised from changing income tax for very high earners. This reflects the uncertain behavioural response relating to the tax policy changes that could either erode the revenues raised from a tax rise or lessen the cost of a tax cut. Potential behavioural responses may include:

- **Avoidance** - artificially (but legally) reducing one's tax liability; e.g. incorporation, where individuals form companies to minimise tax;
- **Evasion** - which illegally reduces tax liabilities; e.g. failing to declare income;
- **Economic responses** - such as individuals choosing to seek work or increase hours worked; and
- **Migration** - taxes could also affect migration, both into and out of Scotland.

The Council considered the potential behavioural responses specifically relevant to Scotland. A divergent Scottish income tax from that in the rest of the UK would create new incentives for behavioural responses or may affect incentives to locate in Scotland.

Taxpayers' responsiveness to changes in income tax policy are usually estimated through *taxable income elasticities* (TIEs) which measure the percentage change in taxable income in response to a one per cent change in the net of tax rate. The more responsive taxpayers are, i.e. the greater the TIE, the larger will be the change in their taxable income and hence tax receipts.

While the magnitude of behavioural responses is a matter of debate, there is a general consensus that those with the highest incomes have the greatest incentives to change their behaviour as they pay a higher level of tax. Top earners will also have greater means to change their behaviour, for example the money and connections to access sophisticated and expensive avoidance schemes. Whilst significant changes in behaviour may be limited to a small number of high income individuals, these individuals pay large amounts of tax revenue, and so present disproportionate risks or opportunities for tax revenues.

5.2. Discussion

Overview of the Analysis Undertaken

The Scottish Government's analysis of behavioural impacts follows the standard approach adopted by HMRC and other fiscal institutions. It uses taxable income elasticities (TIEs), informed by discussions with a number of institutions and a review of the academic literature.

While Council Members approved of this standard approach to modelling behaviour change, their key recommendation was to broaden the existing evidence base in order to refine estimates of TIEs and capture Scotland-specific circumstances by considering the three research avenues set out in the introduction. Each of these is discussed in further detail below, alongside the Council's recommendations.

A: Further analysis of Scottish data

Firstly, Council members were interested in exploring the structure, composition, sector of activity, and residency of the existing additional rate tax base in greater depth, where possible. Scottish Government analysts therefore undertook further analysis of detailed micro-data from the 2014-15 Survey of Personal Incomes. This showed that there are relatively more AR taxpayers who are self-employed, in both Scotland and across the UK, than in the taxpayer population as a whole.

AR taxpayers in Scotland are predominately male, although there has been a marginal improvement in the share of female AR taxpayers over the year to 2014-15. In addition, Scottish AR taxpayers are also more prevalent in certain sectors. As expected, the highest number of AR taxpayers can be found in Professional Services - which includes activities, such as legal, consulting and accounting services as well as engineering and architectural services - and Financial Services and Insurance This could mean that these taxpayers are highly mobile as these sectors tend to compete for global talent.

B: Engagement with the latest academic literature on TIEs

Whilst the academic literature on the behavioural response to income tax changes is vast, there is no overall consensus on the magnitude, as estimates of TIEs vary widely across countries and time and are often focused on national tax reforms.

Council members suggested in January 2017 that reviews of the existing evidence base could be updated, focusing on regional tax competition in federations, such as the United States, Canada, or Switzerland.

In response to Council Members' suggestions, Scottish Government analysts collaborated with the University of Edinburgh[31] to undertake a refresh of the existing evidence base on taxpayers' responsiveness. This included new material published by the Institute for Fiscal Studies in August 2017[32], alongside a review of empirical studies on tax induced cross border migration in fiscal federations. The academic literature review was complemented by a quantitative study of the behavioural response of Scottish and UK taxpayers to the introduction of the 50p rate in April 2010.

Based on advice by the Council, the Scottish Government also reviewed the limited, but growing, number of empirical studies that attempt to quantify the impact of changes in taxation on people's relocation choices, both in relation to mobility across different countries and mobility across different regions or states within countries. The majority of these studies are focused on (semi) migration elasticities, which measure the percentage change in the number of people migrating in response to a 1 percentage point change in the *average* tax rate – a slightly different definition to the standard TIE. This is because migration decisions are thought to be based on total take home pay rather than marginal tax rates.

On balance, the empirical evidence is inconclusive but points towards potentially small, tax induced migration responses across state and regional borders for top earners in the United States and Spain, with estimates of the percentage of taxpayers migrating in response to tax changes ranging from close to zero to 0.23. These studies suggest that standard TIEs - which often only consider nationwide changes in income tax - may have to be uplifted, albeit by a small amount, to account for differential tax rates across regions or states and the larger behavioural response associated with this.

One analytical contribution of particular relevance was the August 2017 Institute for Fiscal Studies (IFS) publication mentioned above. The IFS investigated how high income earners in the UK responded to the introduction of the 50p rate in April 2010. The researchers concluded that, despite careful analysis, it has proven impossible to obtain precise or robust estimates of the responsiveness of top earners in the UK. Instead, different methodologies, data sources, and assumptions result in estimates of the TIE that range from 0.31 to around 1. The IFS considered HMRC's TIE of 0.48 as a reasonable central estimate for policy-costing purposes.

The 2017 IFS study also showed that there is variation within the AR taxpayer group: taxpayers just above the £150,000 AR threshold appear to be less responsive to tax changes than the AR taxpayer group as a whole.

The Council also indicated that we were interested in further analysis on the distinction between short run and long run behavioural responses. Although some evidence suggests that TIEs decrease over time, more recent research has indicated TIEs are likely to be higher over time as the costs associated with reducing taxable income are lower; meaning a more pronounced behavioural response over the longer term.

The Council's input also guided the analysis considering the impact of the rise in the AR on businesses and the wider economy.

C: Deepening understanding of potential behaviours

Council Members suggested that Officials could investigate one particular channel of avoidance highlighted by the Office for Budget Responsibility (OBR) and the Institute for Fiscal Studies (IFS): the risk that tax motivated incorporations may have on non-savings non-dividend (NSND) liabilities. Research on this issue is relatively scarce. However, analysis undertaken by the Institute for Fiscal Studies[33] suggests that the tax related benefits of individuals incorporating businesses are greatest for high-income earners. This is of particular relevance to Scotland's public finances, as taxpayers who incorporate would pay tax on earned income to the Scottish Government but pay corporation tax, capital gains tax and income tax on dividends to the UK Government.

The risk that incorporations pose to NSND liabilities, and hence the Scottish Budget, depend on two factors:

1. **The number of people incorporating** and whether trends differ in Scotland and the rUK; and
2. **Their income before incorporating and profits after incorporating,** which determine the amount of income tax liabilities the Scottish Government would forego, on average, if these individuals no longer paid NSND income tax.

In response to the Council's recommendation, Scottish Government analysts undertook further analysis. This showed that there appears to have been relatively stronger growth in the number of people incorporating in Scotland, relative to the UK, since 2014[34]. However, it is not clear what is driving this trend and whether it is likely to persist. Structural factors may be at work, such as underlying sectoral shifts and challenges in the oil and gas industry.

In addition, individuals most likely to pursue incorporation have higher income levels in Scotland than in the UK. This could mean that there is a relatively stronger incentive for Scottish taxpayers to incorporate to save tax even before any future changes in income tax policy, such as a rise in the Additional rate, is considered. Whilst the data sources point towards strong growth in incorporations in both Scotland and the UK, it is impossible to say how much of this is entirely due to tax reasons. A 2014 HMRC survey, as well as research by the Institute for Fiscal Studies[35], indicate that at least some of this behaviour is a direct result of differential tax treatment. As such, increasing the AR, now termed the 'Top Rate', to 50p would further exacerbate the revenue risk.

Council members welcomed this new evidence, which illustrated that in reality, taxpayers' responses are likely to be nuanced. The analysis also highlighted the interdependencies between income tax and the wider UK tax system, an element not fully captured by some of the national studies.

Mitigating Strategies for Legal Avoidance Behaviour

In addition to advising on revenue impacts, the Council also discussed ways in which the Scottish Government might mitigate against revenue loss arising from both legal avoidance behaviour and illegal evasion behaviour.

i. Incorporation

As mentioned above, the difference in tax liabilities between different taxes levied (e.g. income tax vs. corporation tax) is often cited as a rationale for incorporation – where an individual may be able to pay lower taxes by switching remuneration from a salary from an employer to either dividends or profits from a business. As this behaviour is legal, and the Scottish Government has limited tax powers, it would suggest that the Scottish Government could be limited in the actions it could take to prevent or mitigate against it. However, it should be noted that tax is only one component of a complex decision to incorporate.

ii. Forestalling

If the intention to increase the AR was announced in advance of implementation (e.g. in a Draft Budget) there may be a one-off effect, as individuals look to bring forward income into the financial year before the increase takes effect. This will positively affect tax revenues in the preceding year, and negatively affect them in the implementation year. However, Scottish income tax powers relate to NSND income only and it is much more difficult to bring earned income forward or postpone salary payments or pensions.

Since forestalling largely moves income tax receipts across years, the net loss to the Scottish Budget is likely to be fairly limited. However, due to the way the Fiscal Framework currently operates, the Scottish Government would see the full loss in income tax receipts from forestalling in 2018-19 but would not receive any potential uplift in 2017-18 receipts until re-conciliation occurred in Autumn 2019 (for inclusion in the Draft Budget 2020-21). Forestalling behaviour therefore represents a short-term risk to the Scottish Budget unless this impact can be mitigated through other means.

Few direct actions can be taken by the Scottish Government to mitigate the potential revenue loss. The late announcement of tax changes may reduce potential forestalling behaviour by reducing the amount of time that affected individuals would have to respond. However, this could contradict key principles of the Scottish approach to taxation relating to providing certainty and engaging with stakeholders.

iii. Cross Border Migration

A divergence in the AR could incentivise AR paying individuals to move to a nearby jurisdiction to minimise their tax liability. As income tax is collected on a residence basis, anyone who already owns, or has the wealth to acquire, a property in a different tax jurisdiction is more likely to be able to undertake this behaviour. When considering a 50 per cent tax rate, it is possible that some AR taxpayers could shift their circumstances so that they become rUK taxpayers (which currently have an AR of 45 per cent). Under this circumstance, the Scottish Government would lose all the income tax revenue from these individuals.

Again, the Scottish Government will not have any formal mechanisms to mitigate against this behaviour, under the current or any future constitutional settlement. However, as with incorporation, there are likely to be many elements involved in a decision to relocate, of which tax will be just one. As well as the tax considerations, there are many other elements of Scottish life that will likely factor into an individual’s decision on location. Therefore, work by the Scottish Government to make Scotland an attractive place to live and work can be an important, if indirect, mitigation strategy against any cross border migration motivated by differing AR tax policies across the UK.

iv. Labour Supply and Retirement Decisions

As mentioned, increases in the AR affect both marginal and average tax rates for AR taxpayers. These could lead to individuals reducing the number of hours they work, as the reward for working has reduced. This could lead to people leaving the labour market (e.g. retirement) or an individual choosing to work fewer hours (or to not increase their hours) to balance their tax liability against working and earning income. It is also possible that some people will choose to work longer hours, to make up for the additional income that they will pay in tax.

Again, although the Scottish Government will not have any direct mechanism to mitigate this, it is likely that making formal arrangements with employers to reduce hours will be costly for the individual both to implement and reverse (in terms of time etc.).

Mitigating Strategies for Illegal Evasion Behaviour

In addition, there are a number of illegal tax evasion schemes. Under the terms of the Scotland Act (2016), and associated Fiscal Framework, the collection and management of income tax remains the responsibility of HMRC. This includes the management of risks to tax revenues from illegal tax evasion. HMRC are committed to providing the same tax enforcement and compliance standards to Scottish income tax as to that in the rest of the UK and have an extensive programme of enforcement and compliance work across the UK tax base and report on this regularly.

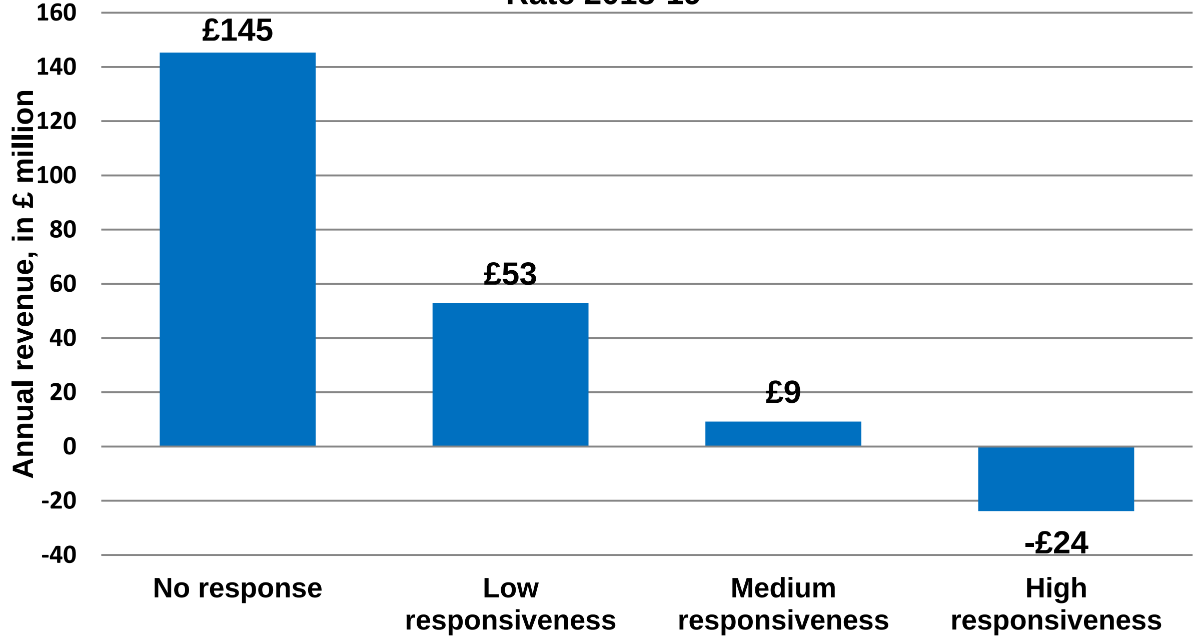
Finally, there are indirect actions that the Scottish Government can take to discourage illegal tax evasion, and promote a strong and consistent approach to tackling this issue. For example, the recent Scottish General Anti- Avoidance Rule (GAAR), introduced as part of the Revenue Scotland and Tax Powers Act (2014), allows Revenue Scotland to take counteraction against tax avoidance arrangements considered to be artificial, even if they otherwise operate within the letter of the law. Whilst this only applies to the fully devolved taxes and not Scottish income tax, it still contributes to a wider culture of tax compliance.

Revenue Risks of Changes to the Additional Rate of Income Tax from 45p to 50p

Following a re-consideration of the evidence base and Council advice over 2017, Scottish Government analysts refreshed their TIE estimates. The behavioural analysis used in the November 2017 publication adopted a range of 0.35 to 0.75 for the TIEs of those earning more than £250,000 and slightly smaller ranges for taxpayers earning less than that.

The uncertainty in estimating the revenues from a 5 pence rise in the AR, based on the new TIEs, is illustrated in the below chart. If top earners did not change their behaviour in response to the rise in the AR, the policy is expected to raise around £145 million in Scotland in 2018-19. With a low level of behavioural responsiveness, the policy is forecast to raise £53 million, whilst with a high level of behavioural response, the policy could potentially result in a £24 million loss in revenues for the Scottish Government.

Figure 7: Potential Revenue from 5 pence rise in Additional Rate 2018-19



Source: Scottish Government

The evidence presented in the December 2017 paper relates to a 5 pence change in the AR. However, the analysis also suggested that changes below this level will result in a proportionately lower behavioural response, as at the margin the differential relative to the rUK is lower. It is reasonable to conclude that a smaller divergence in tax rates will create a lower incentive for taxpayers to change their behaviour. The Scottish Government policy is outlined in the text box below.

Scottish Government Policy Action

On 14 December 2017, the Cabinet Secretary for Finance and the Constitution set out the Draft Budget 2018-19 and his proposals for income tax policy. These were later amended as part of the Stage 1 process. Table 2 illustrates the new tax bands and rates which came into effect in April 2018. The Additional Rate of Income Tax, now termed the Top Rate, sits at 46%.

Table 2: Rates and bands for 2018-19

Name	Rate	Band
Starter Rate	19%	Over £11,850* - £13,850
Basic Rate	20%	Over £13,850 - £24,000
Intermediate Rate	21%	Over £24,000 - £43,430
Higher Rate	41%	Over £43,430 - £150,000**
Top Rate	46%	Above £150,000**+

*Assumes individuals are in receipt of the Standard UK Personal Allowance
**Those earning more than £100,000 will see their Personal Allowance reduced by £1 for every £2 earned over £100,000.
Source: Scottish Government

It is important to note that forecasting responsibilities now sit with the Scottish Fiscal Commission and their forecasts, including their assessment of the extent of taxpayers' behavioural responses, determine the amount of resources the Scottish Government can draw down from HMRC.

Table 3 below compares the assumptions about taxpayers' responsiveness in the Scottish Government's analytical paper and the assumptions used by the Scottish Fiscal Commission in their Economic and Fiscal Forecasts[36] for the Draft Budget 2018-19.

Table 3: Overview of TIEs: Comparison of assumptions underpinning the SG Paper (informed by CEA advice) and the SFC forecasts

Income ranges		**SG Paper: Low Responsiveness**	**SG Paper: High Responsiveness**	**SFC Assumptions** (SFC report, Table 3.10)
From	**To**			
150,000	**200,000**	0.25	0.35	0.35
200,000	**250,000**	0.35	0.45	0.35
250,000	**300,000**	0.35	0.75	0.35
300,000	**500,000**	0.35	0.75	0.55
500,000	**1,000,000**	0.35	0.75	0.75
1,000,000		0.35	0.75	0.75

Source: Scottish Government

Reflections and Recommendations for Fiscal Matters

Officials have carried out detailed and rigorous assessment, using available data, of the revenue impact of a five pence increase in the additional rate of income tax. The Council commend the quality and thoroughness of the analysis, as well as the responsiveness to constructive comment provided by members. Going forward, **we recommend analysing the impact of changes to income tax announced in the Draft Budget 2018-19 (and the broader fiscal landscape) on taxpayers' behaviour**, **when data becomes available** though this is unlikely to be the case until May 2021. Maintaining an awareness of how these changes potentially affect the whole economy is important, as well as ensuring transparent clarity about these potential impacts on income taxpayers.

When carrying out analysis on income tax, it should be highlighted that this tax forms only one of a wider basket of taxes, most of which the Scottish Government do not have devolved power over.

Officials are encouraged to continue working in partnership with the Scottish Fiscal Commission, given their role in forecasting the impact of tax policy changes. In particular, we encourage **further investigation of the behavioural impacts of a tax change in the devolved context and opportunities for Scotland**, and the potential to facilitate positive behavioural change.

In addition, **we recommend officials consider the broader economic context and economic cycle when scrutinising the impacts of tax structures and changes**.

Annex A

Membership of the Council

Crawford Beveridge (Chair) – Chair of Autodesk Board of Directors, and a technology industry veteran with more than 35 years of experience, including as an Executive at Sun Microsystems for over 15 years. In 1991, Beveridge left Sun to become Chief Executive of Scottish Enterprise. Beveridge returned to Sun in April 2000 as Executive Vice President of People and Places and Chief Human Resources Officer. Beveridge was also Chairman of Scottish Equity Partners Ltd, and a Non-executive board member of eSilicon and iomart Group PLC. He was awarded a C.B.E. in the Queen' New Years Honours list in 1995.

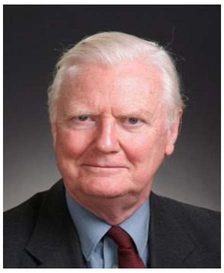
Professor Sir Harry Burns – Professor of Global Public Health at the University of Strathclyde and former Chief Medical Officer for Scotland. Sir Harry holds a leadership position within the International Prevention Research Institute. He was previously appointed as Honorary Consultant Surgeon and Senior Lecturer in Surgery at the Royal Infirmary in Glasgow and was also Greater Glasgow's Public Health Director. Sir Harry has been a key figure in tackling Scotland's health inequalities. He was knighted in 2011.

Professor Sara Carter – Associate Principal of the University of Strathclyde and Professor of Entrepreneurship in the Hunter Centre for Entrepreneurship. Professor Sara Carter is a member of the UK Enterprise Research Centre, the Scottish Government's Women's Enterprise Framework Action Group and Non-Executive Director of Women's Enterprise Scotland. She co-chaired the British Bankers' Association Diversity & Inclusion Business Council, served on the UK Government's Women's Enterprise Task Force and received an OBE for her services to women entrepreneurs.

Professor Mariana Mazzucato – Director Institute for Innovation and Public Purpose at University College London, and the Chair in the Economics of Innovation and Public Value. Professor Mazzucato previously held the RM Philips Professor in the Economics of Innovation, SPRU, University of Sussex. Professor Mazzucato advises the UK government and the European Commission on innovation-led growth and she is currently a member of the Global Agenda Council on the Economics of Innovation for the World Economic Forum. Her research focuses on the relationship between financial markets, innovation and economic growth.

Jim McColl - Chairman and Chief Executive of Clyde Blowers - a company transformed under his leadership into a portfolio of global engineering companies. He also served as Chairman of the Welfare to Work Forum that has seen 30,000 Scots enter employment.

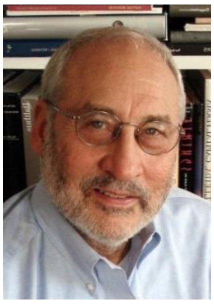
Amanda McMillan – Formally Managing Director at Glasgow Airport and Chief Executive of AGS Airports Limited. Amanda McMillan is a qualified Chartered Accountant and has spent time in manufacturing, professional practice and lecturing. In addition to being a Non-Executive Director of Business Stream, she currently serves as a member on the Glasgow Chamber of Commerce, ICAS Council, and the Adam Smith Business School Strategic Advisory Board, University of Glasgow.



Professor Sir James Mirrlees - Professor Emeritus at Cambridge University and distinguished professor-at-large at the Chinese University of Hong Kong. In 1996 Sir James was awarded the Nobel Prize for his work on economic models and equations about situations where information is asymmetrical or incomplete. In 2010, he led the Mirrlees Review of taxation which examined the principles and characteristics of a good tax system for open developed economies in the 21st century.

Professor Anton Muscatelli - Principal and Vice Chancellor of the University of Glasgow since 2009. Former Principal and Vice Chancellor of Heriot-Watt University. Professor Muscatelli has been a consultant to the World Bank and the European Commission, and chaired an independent expert group for the future financing of devolution for the Calman Commission.

Professor Frances Ruane - Honorary Professor of Economics at Trinity College Dublin and former Director of Ireland's *Economic and Social Research Institute*. She is currently a Member of the European Statistical Advisory Committee and the Economic Advisory Group in Northern Ireland. She is widely published in the area of international economics and industrial development.



Professor Joseph Stiglitz - Professor Stiglitz is Professor of Economics at Columbia University. He won the Nobel Prize for Economics in 2001 and was a member of the US Council of Economic Advisers from 1993-95, serving as CEA Chair from 1995-97. He was Chief Economist and Senior Vice-President of the World Bank from 1997-2000. In 2009 he was appointed by the President of the United Nations General Assembly as Chair of the Commission of Experts on Reform of the International Financial and Monetary System.

Annex B

Scottish Government response to the Recommendations set out in the Council of Economic Advisers Chair's Report, Published in 2016

Inclusive Growth

Recommendation	Response
"We recommend that the Scottish Government **reaffirm its position on inclusive growth** as a commitment to long-term transformational change for Scotland's economy and its people. This means that the Government should focus on **supporting creation of more and better quality jobs**, and ensuring that everyone has the **opportunity** to fulfil their potential and contribute to society".	Across 2016-18, the Scottish Government has regularly reaffirmed the commitment to pursuing inclusive growth for Scotland. This has included through publications, events, and Ministerial speeches. Notable publications include: ➢ The **Fair Work Framework,** published March 2016 where inclusive growth is an expected societal outcome from Fair Work practices. ➢ The **Labour Market Strategy,** published August 2016, outlined how the approach to the labour market would help drive inclusive growth. ➢ The **Programme for Government 2017-18**, confirmed the commitment to support the Scottish economy move towards inclusive growth. This document highlighted how policies, such as reforming the planning system and investing in digital skills, would contribute to inclusive growth. In addition, **Scotland's Inclusive Growth Conference,** held in October 2017, brought together national and international policymakers and influencers to affirm a joint position on inclusive growth, and to share best practice to support moving towards inclusive growth. The Scottish Government has implemented a number of policies to support the creation of more and better quality jobs. This includes the Scottish Growth Scheme, announced in September 2016, to support companies grow, and therefore to build demand for high quality jobs. In addition, major infrastructure investments (including the Queensferry Crossing and the M74/M8 improvement project) have created and facilitated high skilled jobs. Furthermore, the Scottish Government is taking action to support people entering the labour market, including: ➢ In April 2017, launching the transitional employment services: Work First

	Scotland and Work Able Scotland. Almost 3,500 people were supported by these programmes between April and September 2017 alone. ➢ In April 2018, launching the distinctly Scottish programme of employment support: Fair Start Scotland. This aims to support 38,000 people into employment over three years, including those facing barriers to enter the labour market.
"We would encourage the Scottish Government to continue to take forward the development of its proposals for an **inclusive growth diagnostic** and to look to reflect the importance of geography and place within it".	The Scottish Government carried out and completed a national level inclusive growth diagnostic in 2016. Key constraints identified included: the take up of digital skills and new business methods, inequality of caring responsibilities, lack of migration, and health and wellbeing outcomes. All of these particularly affects those in deprived communities. To reflect the importance of geography and place, an inclusive growth diagnostic pilot began in 2016 in North Ayrshire, in partnership with North Ayrshire Council. This undertook analysis using a six stage diagnostic model to understand the constraints and opportunities within that region. This was completed in 2017 and has subsequently been upscaled to look at Ayrshire as a region. Work around using the diagnostic methodology continues, with a current project looking at inclusive growth from a sector specific angle.
"We would encourage the Scottish Government to continue **to engage within Scotland and beyond, including with international organisations**".	Following engagement with local partners on the IG diagnostic, the Scottish Government continues to work with **local authorities and Regional Economic Partnerships** (and their associated City and Growth Deals) to drive local and regional approaches to inclusive growth, including announcing the launch of the Centre for Regional Inclusive Growth. The centre will support the development and dissemination of IG knowledge and tools, working with academic partners and other key stakeholders, and will launch by summer 2018. In addition, SG officials continue to engage with a wide range of **other stakeholders within Scotland**, including enterprise agencies and the wider public sector, business representatives, trade unions, and academics. Engagement also has taken place with **various UK wide organisations** including the Joseph Rowntree Foundation, Oxfam, and the Equality and Human Rights Commission.

	Furthermore, **international engagement** has been on-going for some years, including with the OECD and the World Bank. At Scotland's Inclusive Growth Conference, there was a number of international organisations, and countries, represented; including the World Economic Forum, OECD and Ministers from the Sweden and Slovenian Governments. Following this, officials have continued to engage with counterparts at the OECD and WEF over developing analytical tools for IG including relevant indicators. In terms of other engagement, the Chief Economist has presented in numerous international and national forums on Scotland's approach to inclusive growth, including most recently in Paris at the OECD headquarters.
"To build on its initial roll-out and early uptake [of the Business Pledge], the Council believes that the Scottish Government should **pro-actively engage with a wide range of business stakeholder organisations**, particularly Chambers of Commerce, to understand the challenges businesses may face, and encourage business-led approaches for driving increased uptake and behaviour change".	Regular **proactive engagement** with a range of business organisations has, and continues to, explore the challenges businesses face. The Scottish Chambers of Commerce and some individual Chambers have made a commitment to the Pledge. So far, business organisations have declined to lead business-led approaches specifically tied to the Pledge for driving increased uptake and behaviour change. This is due to members having a range of positions on the Living Wage, and also reservations about the Pledge being political in nature. While dialogue with bodies will continue, the Scottish Government is also working with individual Pledge companies to provide more opportunities for companies to come together to learn from each other. Events will continue to be held throughout 2018 on the business benefits of family-friendly workplace policies and gender-balanced boards.
"Building a credible evidence base around the effects of the Business Pledge (or similar initiatives elsewhere) on business performance, staff retention and productivity …" We recommend that the Scottish Government seek **to develop the Scottish evidence base**, with a	A **Monitoring and Evaluation Plan** is in place to assess the impact of the Business Pledge particularly focussing on how Pledge companies perform over time, how they perceive the impact on their business, and how other businesses that follow pledge-like businesses practices perform. The three main elements to the plan are: 1. Linking the Pledge members to the Inter-Department Business Register (IDBR) to gather headline statistics. 2. Surveying Pledge Companies. In March 2018, the **Scottish Business Pledge Survey**

particular focus on case studies of impacts on individual businesses”.	**2017** was published. This provides key findings of a short survey of businesses signed up to the Pledge which took place between 21 July and 7 September 2017. 3. Look at performance of businesses fulfilling elements of the pledge but are not necessarily signed up to the pledge: identify these business though the Small Business Survey and follow their performance. The Scottish Government launched a **review of the Scottish Business Pledge on 22 March 2018**. This was in response to the Scottish Business Pledge Survey 2017 which highlighted the case for increased awareness of the Pledge and greater support for Pledge businesses working to meet more of the Pledge elements. Work will be undertaken over summer 2018 with the current Business Pledge companies, the main business organisations, our business support partners and the wider business community to explore barriers to making a commitment to the Pledge and ways to make it more attractive to business. The review will focus on boosting its scale and impact. Nine **case studies** on Business Pledge Businesses have been carried out and highlight the broad ranging impacts to a business of signing up to the Pledge. There are found online at: https://scottishbusinesspledge.scot/information-centre/case-studies/ . A regularly updated **statistical overview** presents the number of businesses signed up to each Pledge element and also presents key characteristics of these businesses. These are found online at: https://scottishbusinesspledge.scot/?s=IDBR The **FITwork project,** at the University of Strathclyde, will also be contacting businesses and through this capture qualitative data.

Innovation

Recommendations	Response
"We therefore support the Scottish Government's intention **to simplify the innovation landscape in Scotland** and **better align the innovation efforts of the partners** working within it". "However, to guide and support this, we would encourage the Scottish Government **to develop a clear ambition for innovation in Scotland** and **to identify a set of missions for innovation in Scotland**, based on an assessment of Scotland's assets and areas of expertise".	The **E&S Review Phase 1 Report** published on 25 October 2016 recommended that the Scottish Government review, streamline, and simplify the innovation support ecosystem, connecting programmes, funding and delivery mechanisms. This project, which commenced in early 2017, seeks to provide a system of enterprise support designed around the user. To deliver this it aims to ensure strong collaboration across all partners. We are supporting innovation through the four key steps in our **Innovation Action Plan,** published in January 2017.
"The Council believes that the Scottish Government and its partners should continue **to improve the evidence base on Scotland's innovation performance**. In particular, we would strongly support undertaking an assessment of the operation of Scotland's innovation system."	A wide range of evidence was gathered and analysed to inform the innovation element of the Enterprise and Skills Review. A summary of the evidence is provided in the Enterprise and Skills Review report on Phase 2: Innovation, published on the 22nd of June 2017 and available at: https://beta.gov.scot/publications/enterprise-skills-review-report-phase-2-innovation/pages/2/
"The Council also supports further **development of the data available on innovation** for Scotland."	The Scottish Government has boosted the Scotland sample of the UK Innovation Survey (UKIS) for 2015 and 2017 to allow for a more detailed analysis of the results for Scotland. On the 24th of October 2016 the Scottish Government published analysis of the UKIS 2015 at: http://www.gov.scot/Topics/Statistics/Browse/Business/Publications/UKIS

	This analysis was updated in June 2017 to include the latest European comparisons, also available at: http://www.gov.scot/Topics/Statistics/Browse/Business/Publications/UKIS The Scotland report on the UKIS 2017 will be published in October 2018.
"We would encourage the Scottish Government **to review the initiatives being undertaken in other countries encouraging young people to participate in STEM** [Science, Technology, Engineering and Maths] **and digital activities and gain knowledge, skills and confidence in their use**, to ensure that Scotland's efforts in this area are comparable with the best in the world".	A formal review of initiatives used internationally has not been undertaken. However, a data study accompanied the publication of the **STEM Strategy for Education and Training** (published in October 2017) to ensure that it met the opportunities across Scotland. The study analysed STEM demand from the labour market in terms of: industries, occupations and supply; and, uptake of STEM learning across schools, college and university provision, and apprenticeships. The full published report also commented on evidence gaps, areas for development, and provided recommendations around KPIs. The Strategy sets out our ambition that everyone in Scotland is supported to develop their STEM capability and skills throughout their lives. The Strategy has four key aims: ➢ To build the capacity of the education and training system to deliver **excellent** STEM learning so that employers have access to the workforce they need. ➢ To close **equity** gaps in participation and attainment in STEM so that everyone has the opportunity to fulfil their potential and contribute to Scotland's economic prosperity. ➢ To **inspire** children, young people and adults to study STEM. ➢ To **connect** the STEM education and training offer to labour market need - both now and in the future. The Strategy sets out a programme of actions across these four areas, which will be taken forward during its 5 year lifespan (2017-2022). This programme is being overseen by an Implementation Group, chaired by the Minister for Further Education, Higher Education and Science. Under the Inspiration theme within the Strategy, the Scottish Government have set out a range of initiatives to help encourage young people to engage with STEM, including: ➢ the development of a Young STEM Leaders programme; ➢ developing a STEM national engagement campaign; and ➢ raising awareness of the opportunities for further STEM study and pathways into careers.

	We are also improving the support available to schools, through: i) an enhanced continuing professional learning package for teachers and early years practitioners, ii) supporting the establishment of effective school-employer partnerships for STEM, and iii) developing an online directory of STEM inspiration activities which schools can access.

Measures of Economic Progress

<table>
<tr><th>Recommendations</th><th>Response</th></tr>
<tr><td>“The Council advises that the Scottish Government uses a ‘twin track’ approach to measuring Scotland’s wellbeing, based around on-going measurement through the National Performance Framework, and an annual assessment of Scotland’s position through the OECD Better Life Index indicators.”</td><td>Wellbeing is considered to be a multi-dimensional concept, considering outcomes in people’s lives across a number of domains such as health, the environment, work-life balance and quality of life, for example. Therefore the Scottish Government continue to use a twin track approach to measure wellbeing through:
➢ Indicators and targets in the National Performance Framework, a review of which took place in late 2016, early 2017;
➢ The OECD Better Life Index, which reports at a United Kingdom level and includes housing, income, jobs, life satisfaction and education; and,
➢ The OECD regional wellbeing project which reports on Scotland. Scotland performs well in Life Satisfaction, Community, Civic Engagement, and Environment.</td></tr>
<tr><td>“The Council believes that moving to a broader measurement approach for Sustainability would be of value to Scotland. We would support the establishment of a programme of work to develop appropriate measures of sustainability for Scotland and to undertake international comparisons once appropriate frameworks become available”.</td><td>The Scottish Government continue to measure sustainability through indicators and targets in the National Performance Framework. As part of the review of the NPF, the following sustainability measures have been suggested, indicating a broader view of sustainability:
➢ Natural Capital
➢ Greenhouse gas emissions
➢ Energy from renewable sources
➢ Condition of protected nature sites
➢ Waste generated
➢ Biodiversity
➢ Marine environment
➢ Carbon footprint

In addition, the new national indicator set has been developed to facilitate reporting of Scotland’s progress towards the UN Sustainable Development Goals, and draft indicators were assessed to, among other things, ensure that they use definitions consistent with the UN Sustainable Development Goal indicators.</td></tr>
</table>

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