

## **Minute of the Third Meeting of the Council of Economic Advisers**

### **4-5 February 2016 (Bute House)**

The following Council Members were present:

First Minister Nicola Sturgeon MSP  
Crawford Beveridge (Chair)  
Professor Sara Carter  
Professor Mariana Mazzucato (5<sup>th</sup> only)  
Jim McColl  
Amanda McMillan  
Professor Sir James Mirrlees  
Professor Anton Muscatelli  
Professor Frances Ruane

#### **Also present:**

Deputy First Minister and Cabinet Secretary for Finance, Constitution and Economy  
Leslie Evans, Permanent Secretary, Scottish Government (4<sup>th</sup> only)  
Dr Gary Gillespie, Chief Economist, Scottish Government  
Dr Lena Wilson, Chief Executive, Scottish Enterprise (5<sup>th</sup> only)  
David Patel, Deputy Director, Office of the Chief Economic Adviser, Scottish Government (5<sup>th</sup> only)  
Uzma Khan, Senior Economist, Office of the Chief Economic Adviser, Scottish Government  
Kevin Brady, Economic Adviser, Office of the Chief Economic Adviser, Scottish Government  
Ellie Crawford, Economic Adviser, Office of the Chief Economic Adviser, Scottish Government (4<sup>th</sup> only)  
Mia Ayres, Deputy Private Secretary to the First Minister, Scottish Government (5<sup>th</sup> Only)  
Sarah Buchanan, Deputy Private Secretary to the Deputy First Minister, Scottish Government (5<sup>th</sup> Only)

#### **Present for item on Opportunities for Data Science in Scotland (5<sup>th</sup> February) only:**

Professor Andrew Morris, Vice Principal of Data Science, University of Edinburgh;  
Chief Scientist Health, Scottish Government  
Professor Jonathan Seckl, Vice Principal of Planning, Resources and Research Policy, University of Edinburgh

#### **Purpose**

This note provides an overview of the key points arising during the second meeting of the refreshed Council of Economic Advisers. The meeting took place over the afternoon of 4<sup>th</sup> and the morning of 5<sup>th</sup> February, and focused on inclusive growth, the measurement framework for Scotland's Economic Strategy, data science, SMEs, and innovation.

## **Welcome**

The First Minister and the Chair of the Council of Economic Advisers welcomed attendees and outlined the programme for the meeting.

Apologies had been received from Professors Harry Burns and Joseph Stiglitz, who were unable to attend the meeting owing to conflicting engagements. Professor Mariana Mazzucato was unable to join the meeting on the 4<sup>th</sup>, but joined the meeting on the 5<sup>th</sup> via videoconference.

## **Update on Developments**

The Chair gave an update on developments since the last Council meeting in October.

Council Members had held a conference calls with official in December. Following an action from October's meeting, the call in December had considered proposals around approaches for measurement of the ambitions set out in Scotland's Economic Strategy around Productivity, Inequality, Wellbeing and Sustainability.

On the morning of 8<sup>th</sup> October, in his capacity as Chair of the Council, Mr Beverage met with Naomi Eisenstadt, the First Minister's Independent Advisor on Poverty and Inequality. The discussion focused on the recommendations within the Independent Advisor's recent report to the Scottish Government, and identified a number of areas of common ground between her work and the Council's workstream on inclusive growth.

## **Update on the State of the Economy**

The Chief Economist gave an update on recent economic developments in the global, UK and Scottish economies. Points discussed during this update included:

- 2015 had been a mixed and challenging year for the Scottish economy. The GDP figures for 2015 reflected the balance between the negative impact of declining oil and commodity prices and the appreciation of Sterling on Scotland's oil and gas and manufacturing sectors, the positive impact of improving household finances on parts of the service sector, and the strong performance of the construction sector.
- The continued falls in oil prices were having significant adverse impacts on profitability in the sector, with consequent impacts on employment in the sector, the supply chain, and the wider economy of Aberdeen and the North East. Oil prices were expected to remain relatively low, owing to an on-going global oversupply of oil.
- The labour market has remained resilient during 2015 despite these pressures. There has been improvements in wage growth and underemployment. Growth in real wages was heavily influenced by low inflation, and real wage levels still remained below their pre-recession averages. Household expectations remained positive.

- Trading conditions for exporters in Scotland were beginning to improve, as a result of the recent depreciation of Sterling. However, headwinds remain, particularly in relation to slowing global trade, slowdowns in China and other emerging markets, and impacts of tightening monetary policy in the US.
- The outlook for 2016 continues to be for growth in the Scottish economy overall, although with challenges for specific sectors.

The Deputy First Minister and First Minister provided a brief update on developments with the on-going negotiations with the UK Government around the fiscal framework to underpin the operation of the powers proposed for devolution through the Scotland Act.

### **Inclusive Growth**

The Chief Economist gave an overview of developments around the inclusive growth workstream since the October meeting of the Council and following December's conference call.

- In November, the Chief Economist had visited the OECD in Paris, to engage further around inclusive growth. Officials at the OECD were supportive of the Scottish approach, which they viewed as being cutting edge internationally;
- In February, the Chief Economist had visited the IMF and World Bank to find out about their work on gender equality and policymaking tools to support inclusive growth respectively;
- There is on-going engagement between officials from the Office of the Chief Economic Adviser and key Scottish delivery agencies and local authorities, to pilot inclusive growth policymaking approaches.
- Following the Council's previous advice, there had been further development of the inclusive growth policy framework, which had been applied to several policy areas, including childcare.
- Work is also being considered around developing an inclusive growth diagnostic approach for Scotland, based on the analytical approach used elsewhere by organisations such as the World Bank. The outputs of this work are intended to help identify constraints to more inclusive growth within Scotland, identify synergies between economic and social policy, and to assist with policy prioritisation.

The following points were noted during the discussion on this topic:

- Members highlighted the risk that the emphasis placed on inclusive growth in engagement work around the Economic Strategy could lead to the Strategy's other priorities being overlooked. Members were reassured that the other three I's (Investment, Innovation and Internationalisation) remained integral to the delivery of the Strategy. However, there remained a need to demonstrate how more inclusive growth was integral also central to improved economic performance, hence the continued focus on inclusive growth.
- Members highlighted practical examples of educational initiatives that, while focused on inclusion, would also have positive economic effects. These included local business-led education and employability initiatives targeted at school leavers who would otherwise leave without qualifications or skills.

- There was a recognition that these approaches had merit and, in creating pathways for people who are marginalised or disengaged to participate more fully in the economy and society, that they were a key part of an Inclusive Growth approach.
- Members also highlighted progress and emerging messages from the Widening Access Commission around approaches to increasing inclusion in higher education.
- The potential role of a diagnostics approach in challenging policymakers' assumptions around both social and economic policy, and better aligning these areas, was recognised, as was the need for a systematic framework to underpin policy development.

The Council requested that officials take forward development of proposals on an inclusive growth diagnostic, and present a worked-up version to a future Council meeting for comment and discussion.

### **Business Pledge**

The Chief Economist presented an overview of progress to date and emerging evidence around the Business Pledge. This followed the Council's request during their October meeting that work be taken forward to identify drivers around uptake of the Business Pledge.

The analysis presented highlighted that close to 200 businesses had signed up to the Pledge. Although the majority of signatories were businesses with less than 50 employees, proportionately more medium and large firms had signed up than the share of these firms among Scotland's total business population. Almost half of signatories operated in the Professional, Scientific & Technical and Information & Communication sectors. Emerging evidence was also presented as to the uptake of the various dimensions of the Pledge, and a 'driver diagram' illustrating the process through which the Pledge can effect change in business behaviour and outcomes was also shared with Council members.

There was then a wider discussion on this topic, during which the following points were noted:

- The wider international interest in the Pledge and its performance, including from organisations like the IMF, was noted.
- The importance of business to business interaction was highlighted as being key to generating further success on uptake around the Business Pledge and in promoting positive messaging around 'how we do business in Scotland'. Engaging with business representative organisations such as Chambers of Commerce was suggested to encourage wider dissemination and communication of the Pledge.
- Members emphasised the importance of the Pledge having a wide degree of ownership, rather than an approach with an emphasis on conditionality. This would risk the Pledge being seen as something 'done to' businesses, rather than being a shared view of good business practice.
- Potential barriers to interested businesses taking up the Pledge were considered, with the strictures around Living Wage accreditation being

highlighted. The idea of a 'differential Pledge' across different business sectors, reflecting sectoral conditions, was suggested.

- The need for a deeper evidence base was highlighted, with particular emphasis placed on business-focused case studies that could demonstrate the positive impact of the Pledge on business performance.

The Council requested that officials build on the existing analysis to develop the evidence base around effects of the Business Pledge (or similar initiatives) on business performance, staff retention and productivity, with particular focus on case studies of impacts on individual businesses. The Council also advised that the Scottish Government should explore options for extending Business Pledge uptake with business stakeholder organisations (with a particular focus on Chambers of Commerce).

### **Measurement of Economic Progress**

The Chief Economist gave Council members a brief update on progress around work to develop measures for the ambitions around Productivity, Inequality, Wellbeing and Sustainability, following on from the Council's conference call in December.

The Council were content to note, with minor amendments, the proposals for refreshed Productivity and Inequality measures, for inclusion in the National Performance Framework. Council members also noted analysis undertaken to rank wellbeing in Scotland against the OECD panel using the OECD's Better Life Initiative framework, and proposals to undertake further analysis to develop broader measures of sustainability. Upcoming work around the UN's Sustainable Development Goals was also noted.

### **5 February 2016 (Farr Institute, Edinburgh Bioquarter)**

The meeting resumed on Friday 5<sup>th</sup> February. Professor Mariana Mazzucato joined the meeting via videoconference. Dr Lena Wilson, Chief Executive of Scottish Enterprise, also joined the meeting.

### **Opportunities for Data Science in Scotland**

Professors Andrew Morris and Jonathan Seckl joined the meeting, and gave a presentation to the Council on options and opportunities for data science in Scotland. This followed on from a related presentation given by Professor Morris to the former First Minister's Council in September 2012, and set out the potential for data science to improve healthcare within Scotland, and support wider economic growth. The presentation also highlighted the work being carried out at the Farr Institute, which is a collaboration across a number of Scottish universities, and the University of Edinburgh's School of Informatics.

Key points highlighted in the presentation included:

- Future developments within medicine would be centred around '4P's, where medicine would be more Predictive, based on customised diagnosis and treatment; Pre-emptive; Personalised; and, Participatory.

- There are significant longer term trends and opportunities underpinning future growth of the life sciences industry globally, which present opportunities for Scotland's vibrant life sciences industry. There are also opportunities from 'second phase' of the revolution in data science, which is centred on the capacity to process and learn from data.
- Scotland has a number of assets in this field, including its academic base, research infrastructure, and assets that help generate knowledge through data analysis (such as the Farr Institute, which is a collaboration across a number of Scottish universities).
- A number of case studies of research based on use and analysis of data were presented, including around disease prevention; earlier diagnosis of illness; development of safer, more effective treatments; and analysis of NHS resource use.
- There is both an opportunity and need to position Scotland as a single research site, with collaboration between academic institutions, the public sector, and the wider industrial base.
- The role of University of Edinburgh's School of Informatics in Scotland's data science landscape was set out. The School is the largest informatics research centre in Europe, and its Centre for Doctoral Training has a large network of international partners.
- There has been a rapid development of a cluster of technology companies in Edinburgh in recent years, centred on the School. These included both established international firms, and Scottish-based start-ups that have since grown to international significance.
- Scotland has an opportunity to position itself as an agile, smart country, with strengths in data sciences, and capacity to scale up.

There then followed a wider discussion among Council members. The following points were noted:

- The extent to which advances in data science would complementing existing structures, or replace them, was discussed. It was recognised that there would be developmental challenges for existing data resources, such as IT departments, within the public sector and public services.
- The opportunities from data science for creating a more personalised approach to welfare were raised. Issues around ownership of data were highlighted, as were the potential difficulties in ensuring that data science in markets like health generated value for taxpayers.
- The question of how to create and promote collaboration to foster sustainable ecosystems was considered. This would require a clear view of where Scotland's competitive strengths lie, an ability to flexibly and rapidly appraise opportunities, and willingness to move away from areas where investments were not productive. There needs to be emphasis on a mission-orientated approach.
- The importance of leadership in fostering successful innovation ecosystems, and of being prepared to make long term investments, was also emphasised.

## **SMEs, Innovation and Inclusion**

Professor Sara Carter gave a presentation on the role and contribution of Small and Medium-sized Enterprises (SMEs) within the Scottish economy, particularly in relation to inclusion. Key points made during the presentation included:

- SMEs represent a sizeable portion of Scotland's business base and employment. Overall, SMEs (0-249 employees) account for 99% of Scotland's enterprises, 56% of employment, and 39% of turnover.
- Small enterprises (with 1-49 employees) account for 28% of Scotland's private enterprises, 43% of employment, and 26% of turnover. Medium-sized enterprises (50-249 employees) account for 1.1% of private enterprises, but 12.5% of employment, and over 13% of turnover.
- The sector is heterogeneous, and growth dynamics are complex. High growth SMEs are a small portion of the overall total, with a firms' growth pattern being related to owners' ambitions around business growth.
- Understanding the role of households in SMEs is important when looking to understand and influence entrepreneurship and firms' growth performance.
- Entrepreneurial households tend to have higher total wealth than employee households, but with higher property liabilities, and lower average pension wealth than employee households.
- Small enterprises play an important role in inclusion, by bringing people into the labour market who otherwise would be inactive. A particular example of this is around their role in assisting the social adaptation and integration of new migrants.
- UK level evidence suggests that concerns around credit constraints on SMEs may be overstated, with debt aversion being an important barrier to growth. 'Discouragement' rates are estimated to be higher for women-led businesses.
- Women-led businesses tend to start with lower levels of capitalisation than others, influencing their growth performance. This appears to result from relative debt aversion, rather than discrimination.

Following Professor Carter's presentation, Council members had a wider discussion, during which the following points were noted:

- Members agreed with Professor Carter's view on issues around the demand for finance, while highlighting this may in part be due to a lack of availability of patient, long term capital. The price of credit was viewed to be an issue, with a recognition that the innovative firms may be penalised most.
- It was suggested that issues around SME finance may in part be due to the ability of financial institutions to assess risk around small businesses, particularly those in the service sector.
- Members highlighted the need for greater granularity of data around SMEs, as the characteristics, dynamics, and issues facing businesses with 1-10 employees, 11-20 employees, and so forth could differ substantially. Adopting blanket 1-49 and 50-249 sizebands for SMEs was insufficiently fine-grained for policy purposes.

## **Challenges for the Innovation Landscape in Scotland**

The Deputy First Minister gave an overview of the challenges facing the Scottish innovation landscape, and his thoughts around priorities for reform.

The Draft Budget for 2016-17, which the Deputy First Minister had presented to Parliament in December 2015, had outlined the broad direction of reforms for Scotland's innovation approach. The Draft Budget had highlighted the need to further align approaches to innovation, pool funding, and simplify both the landscape and access to support.

Initial discussions with the Scotland CAN DO Innovation Forum had indicated that Scotland had a number of strong foundations, but a limited base of innovative companies, and a lack of focus around innovation support. Encouraging and achieving greater collaboration between Scotland's academic institutions and business base remained a challenge.

The Deputy First Minister emphasised that thinking was at an early stage, but particular consideration was being given to: how to bring forward greater collaboration between institutions, in a manner similar to innovation centres; how Scotland's asset base could generate greater economic impact; and how to encourage Scotland's universities to drive this agenda forward.

There then followed a wide-ranging discussion, drawing on the presentations given earlier in the session and on a supporting background paper. The following points were noted:

- There had been progress in improving collaboration between institutions, as had been illustrated in Professor Morris's and Seckl's presentation. Members highlighted the value in undertaking Science and Innovation Audits, similar to that being commissioned by the UK's Department for Business, Industry and Skills.
- The potential scope for encouraging collaboration through conditions of support was discussed, while the importance of identifying duplication of funding in the current landscape through a thorough review of support was highlighted.
- An additional challenge for Scotland centred on how to join up assets to develop innovation ecosystems, given the role of EU and UK funding in supporting institutions.
- The emphasis being placed on collaboration was welcome, but there remained a need for a degree of competition in order to improve performance.
- For purposes of understanding innovation performance, there was a need to move beyond a focus on business expenditure on research and development (BERD), as this was not helpful as a measure of broader innovation. The value of the Community Innovation Survey for examining broader innovation performance was highlighted, with examples of analysis of Irish innovation using this source being cited.
- Further analysis to identify how innovation and research were funded by the private sector in Scotland would be of use, as would data on capital stocks and total factor productivity, which are sizeable data gaps in both Scotland and the UK. Members also suggested there would be value in developing a better understanding of the innovation performance of Scotland's mid-sized companies, and companies with potential to scale up.
- Members stressed the value of problem-based approaches to innovation in aligning priorities and driving change in innovation performance, with



discussion of the high level problems facing Scotland that could drive innovation policy.

- Members also emphasised the opportunities in digital industries, given Scotland's existing assets, low costs to entry, and potential for dynamic growth. The difficulties around developing workforce skills in the fast moving digital environment were highlighted, pointing to a need for innovative and more flexible approaches to education and skill development.

Following the Council discussion, officials undertook to explore options for developing and boosting the Scottish data available through the Community Innovation Survey, to replicate the analysis of Ireland's innovation performance for Scotland, to provide analysis of sources of funding for business innovation in Scotland, and of levels of basic and applied research undertaken by business.

Officials also undertook to develop analysis of Scotland's mid-sized companies, investigate options for developing Scottish data on capital stocks and total factor productivity, and to review initiatives from other countries encouraging young people to participate in STEM / Digital activities.

## **AOB**

It was agreed that the Council would prepare a short report for the First Minister, summarising their reflections and advice around the main areas they had considered since March 2015.