18.06.2018

Dear Tony.

Thank you for your detailed email setting out 86 points about our most recent forecast - we note the areas in which you considered our approaches to be well-founded.

Dame Susan asked members of our macro forecasting team to study some of those areas where you raised questions and their response is set out below.

Kind regards

Caroline Rham



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Supply side approach

The Commission's approach to forecasting GDP is fairly standard for a five-year time horizon and is similar to the approach adopted by forecasters such as the Office for Budget Responsibility whose main purpose, like ours, is to provide fiscal forecasts. We do think a lot about the supply side of the economy because, over the five-year forecast horizon, GDP growth is largely determined by the growth rate of potential output, therefore it is necessary to anchor expectations for demand to Scotland's capacity to supply. However, it would mischaracterise our forecasts to say that we only focus on the supply side, as we do also put emphasis on the demand side of the economy, particularly in the shorter term.

In creating our forecasts of Scottish GDP up to the current quarter and one quarter ahead, we adopt a GDP(O) based forecasting model, utilising high-frequency survey data on different industries - for example retail sales, PMI, and various manufacturing and services surveys. This part of our modelling is driven by how different industries are performing in the very short term, and is therefore the most demand-side focused. As we move further into the future, we start to take into account income and capacity, and how the short and long run forecasts are brought together over the medium run through the relationship between actual and potential GDP. Our forecasts in the short to medium term are therefore constructed by looking at the interaction between GDP(I) and GDP(E), which is also a demand focused approach.

It is also important to take into account that our forecasts reflect the key judgements made by the Commission. Our forecasts are the result not only of the modelling tools

used but also of the key judgements that are fed into it. The model allows everything to be brought together into a coherent forecast which takes on board all data, analysis and judgements that we make.

Explaining recent weak growth

Paragraphs 2.11 and 2.12 of the May 2018 report refer to our previous report (particularly section 'Underlying trends in the Scottish economy' in our December 2017 report) which includes an explanation of the underlying performance of the Scottish economy since 2010 and the reasons behind the general slowdown in economic growth observed in recent years. In particular, in our December 2017 forecast we highlighted a number of temporary factors which supported GDP growth since 2010, before becoming neutral or starting to detract from GDP growth in the last two-three years; such factors are specific to Scotland and include a falling savings ratio, high oil and gas activity between 2010 and 2014, and the construction industry boom in 2015.

As you correctly point out, poor productivity growth is another important reason explaining why the Scottish economy has underperformed in recent years. This is a feature of many developed economies, rather than being unique to Scotland. In March 2018 we published an Occasional Paper 'Forecasting the long-run potential of the Scottish economy' where we describe in detail a number of factors, either temporary or permanent, which are widely considered to be responsible for the slowdown in productivity observed over the last decade. You state in your letter that the Commission does not indicate that productivity could improve over the forecast horizon – but actually our forecast points to productivity growth increases reaching 1.1% by 2023.

Use of data

In your comments you also express serious reservations about the accuracy of some of our key variables, specifically productivity, population and participation rates. I would stress that all of the data we use for these indicators are based on National Statistics, including the Scottish Government's QNAS publication for economic output and ONS regional data for population and labour market. These measures will have strengths and weaknesses, but they are the best sources available, and it is our priority to continue to work with the Scottish Government and the ONS to further improve Scottish data.

Comparison with other forecasters

You question why we do not explain in our report why our forecasts are different to those of other independent forecasters. As you know, it is not our job to critique others' forecasts. As Scotland's official forecaster we are very transparent about the data, modelling approach and judgements we have used in constructing our forecasts. Others produced their forecasts for different purposes and time horizons,

so approaches will be different. As we say above, a modelling approach is just one reason why a forecast may be different: timing and judgement differences will also lead to differences in forecasts.