OFFICIAL REPORT
AITHISG OIFIGEIL

Economy, Jobs and Fair Work Committee

Tuesday 23 January 2018

Session 5

The Scottish Parliament
Pàrlamaid na h-Alba

Tuesday 23 January 2018

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ECONOMY, JOBS AND FAIR WORK COMMITTEE
3rd Meeting 2018, Session 5

CONVENER

*Gordon Lindhurst (Lothian) (Con)

DEPUTY CONVENER

*John Mason (Glasgow Shettleston) (SNP)

COMMITTEE MEMBERS

*Tom Arthur (Renfrewshire South) (SNP)
*Jackie Baillie (Dumbarton) (Lab)
*Colin Beattie (Midlothian North and Musselburgh) (SNP)
*Kezia Dugdale (Lothian) (Lab)
*Jamie Halcro Johnston (Highlands and Islands) (Con)
*Dean Lockhart (Mid Scotland and Fife) (Con)
*Gordon MacDonald (Edinburgh Pentlands) (SNP)
*Gillian Martin (Aberdeenshire East) (SNP)
*Andy Wightman (Lothian) (Green)

*attended

THE FOLLOWING ALSO PARTICIPATED:

John Ireland (Scottish Fiscal Commission)
Mairi Spowage (Scottish Fiscal Commission)
David Stone (Scottish Fiscal Commission)
David Wilson (Scottish Fiscal Commission)

CLERK TO THE COMMITTEE

Alison Walker

LOCATION

The David Livingstone Room (CR6)

Scottish Parliament

Economy, Jobs and Fair Work Committee

Tuesday 23 January 2018

[The Convener opened the meeting at 09:30]

Decision on Taking Business in Private

The Convener (Gordon Lindhurst): Welcome to the third meeting in 2018 of the Economy, Jobs and Fair Work Committee. I remind everyone to turn off electronic devices that might interfere with the sound system.

Agenda item 1 is to make a decision on whether to take in private items 3 and 4. Does the committee agree to take those items in private?

Members *indicated agreement.*

Scotland's Economic Performance

09:30

The Convener: Agenda item 2 is our inquiry into Scotland's economic performance. Today we have, from the Scottish Fiscal Commission, David Wilson, who is the commissioner; Mairi Spowage, who is the deputy chief executive; John Ireland, who is the chief executive; and David Stone, who is the head of economy and income tax forecasting. I welcome you all to the committee and invite David Wilson to make an opening statement.

David Wilson (Scottish Fiscal Commission): Good morning, and thank you for the opportunity to give evidence.

As the committee will know, we published our first report, as a statutory organisation, on 14 December, alongside the Scottish draft budget for 2018-19. That report includes a number of forecasts, in particular on the economy, that will be of interest to the committee, and it also forecasts likely income from devolved taxes and demand-led expenditure on social security. Our focus this morning will mainly be on the economy.

Our report includes a set of forecasts for on-shore gross domestic product for five years. Our understanding is that this is the first time any organisation has made forecasts over such a time period. We hope that they will be of use to the committee in its inquiry on the performance of the Scottish economy.

The report provides a range of detail—there are a lot of numbers in it. We are very conscious of that and will be delighted to explain any aspect of the details that have been included. We would also be happy to provide additional figures or breakdowns of the data, if the committee wants that. The report includes the most important aspects. We also published on our website on 14 December, alongside the report, a set of spreadsheets containing additional detail.

One of the main conclusions in our overall assessment of the Scottish economy is that we forecast what we describe as "subdued" economic growth over the next five years. A number of factors underpin that. One of the key points to make is that we have taken a balanced approach: we have tried to take into account the long-run performance of the Scottish economy since before the financial crash and in the period thereafter—in particular, taking into account the most recent information over the past two to three years. We have tried to draw up a set of detailed thinking on how the economy might roll out over the next five years or so.

I will pick up on a couple of the main points. As the committee will be aware, since the financial crash, overall growth has been very weak by international and historical standards. That has also been the case at United Kingdom level and internationally. We have tried to assess whether that might continue, or how far and how quickly we might get back to the levels of economic growth that we saw prior to the financial crash. Our overall assessment is that it will take some time to return to the historical levels of growth: the key message of the report is about managing expectations of how quickly we could return to those levels. That is a feature at Scotland and UK levels.

Secondly, we try to draw out several particular factors that have impacted on and affected Scotland's economic activity over the past five years or so. We have identified factors in the early part of the decade, particularly in construction and oil and gas activity, whose impact was to buoy up economic growth. There were particular strengths in that period that come through in the overall assessment data. However, at least some sectors—I am thinking of construction and oil and gas—have weakened recently. Our assessment is that those key areas, along with some others that we might go into later, are unlikely to provide the boost to economic activity that they did in the early part of the decade. That is a second key factor, alongside the weakening of international economic growth, which led to our conclusions about the future.

I emphasise the importance of underlying productivity to the overall performance of the economy: productivity is key to our forecasts. We can unpack that and give the committee some more detail on it.

I want to mention two other things on which we can go into further detail. First, population projections are important in understanding gross domestic product per head, which is a key factor that drives incomes and the future labour market. Population projections are a key additional factor on which we would be happy to answer questions.

Secondly, there is the potential impact of the change in the relationship with the European Union for the UK as a whole and for Scotland in particular, which is something on which we have made a broad-based judgment as part of our forecasts. That is factored into our assessment.

Finally, as one forecaster from the National Institute of Economic and Social Research put it, over the past seven or eight years,

"productivity has … surprised forecasters to the downside."

In other words, many people's expectations about growth in productivity have been disappointed. However,

"employment has surprised to the upside".

In other words, there have been very high levels of employment activity and historic low levels of unemployment. It is worth taking into account that those are two sides of the same coin and are current features of the Scottish and UK economies. That is a key aspect in our forecast. Although much of the emphasis and comment on our forecast has been about the subdued nature of our productivity and growth projections, it is worth emphasising that that sits alongside historically high levels of employment and low levels of unemployment, which we expect to continue.

That is an overview. We would be delighted to take questions and to give further details.

The Convener: Thank you for that.

Gillian Martin (Aberdeenshire East) (SNP): Your forecast paints a weak picture of productivity. You said that employment is up—as we know—but productivity is down. You make a correlation between productivity and household incomes and earning, which are down. Does that mean that jobs are not paying as well as they used to?

David Wilson: That is a fair summary. Although we have seen very high levels of employment and low levels of unemployment, we have also seen relatively flat real wages over the most recent period—one of our forecasts is an assessment of real wages.

One would expect over the long term a fairly close link between the growth of productivity and, particularly, nominal wages and income, which are the key driver of the pounds in people's pockets, but how that works out month by month and year by year is one part of the complex picture with which we are dealing. As many people have described the situation that we are in as a low-productivity but high-employment scenario—or equilibrium, or however you might want to describe it—we have taken particular care over looking at one particular aspect. If our productivity performance were to improve markedly—if, for example, productivity growth were greatly to exceed what we had expected—that might be partly due to having fewer people in employment or vice versa. Productivity and levels of employment very closely interact with each other.

Gillian Martin: So, policy decisions on fair work will probably make quite a big difference in that respect. Do you take any other policy decisions into account in your assessment—for example, increased childcare; digital access, particularly in rural areas where productivity is lower as a result of not having such access; and improved transport infrastructure? Are all those things and the fair work agenda taken into account in your projections?

David Wilson: Yes and no. Gillian Martin is absolutely right: all those examples, especially the fair work agenda, are critical in terms of measures that the Government can take not only to support individual businesses and improve their productivity but—ideally, in a fair work situation—to increase productivity and to maintain, if not increase, levels of employment. The agenda might address the underlying weaker-than-expected productivity levels in the economy. Those are certainly all crucial factors that impact on the economy's performance.

I responded to your question by saying, "Yes and no," because we do not develop our forecasts by making policy-by-policy assessment of the impact of the fair work agenda, transport policies, enterprise policies or whatever, and then try to develop forecasts for the economy based on those impacts. That would be exceptionally difficult. Instead of making detailed individual assessments or evaluations of policies such as the fair work agenda or productivity, and feeding that through to our projections, we have a number of modelling capabilities that we use to make judgments about overall productivity, population and other key drivers of the economy, which give us our overall assessment. In that sense, there is no direct link that can be unpacked in our numbers to show the impact of fair work or other policies.

Gillian Martin: Finally, on household income and earnings, you have said that real household incomes will not recover to their 2007 levels until 2022. I get what you said about oil and gas, which will be of particular interest in my area of Aberdeenshire, where people have lost a lot of work and earnings are going down. How do you use the data that you have now to assess what household incomes will be?

David Wilson: I will ask one of my colleagues to give you a more detailed assessment. That, again, is part of our overall model of the economy. It builds up assessments based on productivity, population and everything else and gives us a set of detailed estimates of nominal and real wages, which are the key driver of household incomes. Again, it is all part of a consistent story about the future of the economy. I will ask David Stone to give you a bit more detail about how we do that work.

09:45

David Stone (Scottish Fiscal Commission): We get most of our information on historical household incomes from the national accounts data. On the forecast, wages broadly grow in line with productivity, so real wages increase as productivity increases, but because we have very muted growth in productivity, we get very limited growth in real wages. Combined with higher inflation, that brings down real wages somewhat. We will also have slower employment growth over the next few years than we have had historically, which will slow down growth in real household incomes. Because we have a growing total population, that will reduce real disposable income per capita over the next few years.

Gillian Martin: You do not take into account things such as the policy of increased childcare provision resulting in two people in a household being able to work.

David Stone: No—our work cannot take into account individual policies such as that.

John Ireland (Scottish Fiscal Commission): It is worth adding that all the past policies on, for example, childcare will influence the data that we look at, so we do not completely ignore the impact of those policies. The historical impact is there in the data, from which we project.

Gillian Martin: Thank you.

Gordon MacDonald (Edinburgh Pentlands) (SNP): We have talked quite a lot about productivity, but I want to expand on that. I understand that most productivity gains in the economy come from the private sector. What tools are available to Government to influence productivity?

David Wilson: In giving you a detailed answer to that, there is a slight risk of going beyond our remit, which is to produce forecasts of the economy rather than to assess policy options for the Government.

Gordon MacDonald: I am trying to understand why levels of productivity growth for Scotland are lower than those for the UK as a whole. I am thinking about the things that influence productivity, such as inward migration of skilled labour, raising the national minimum wage and tax breaks for new technology.

David Wilson: You have started a good list of the interventions that Governments can make and which Governments in Scotland have been making in the recent past and over a long period. I will pick up on a couple of headline messages. Perhaps the key thing underpinning the future development of productivity and, in turn, economic growth overall is technological progress. Basically, it is about the extent to which the economy, or particular sections of it, can produce more outputs with the same or fewer inputs. Underpinning the productivity performance of the UK and Scottish economies is the fact that technological progress through innovation appears to be weakening and is not achieving the levels of productivity improvement that we have seen in the past.

Perhaps the key explanation of that is that it appears to be getting altogether more difficult to produce innovations and productivity enhancements in the economy than it perhaps was in certain periods in history. People have drawn attention to things such as Moore's law, which relates to the ever expanding increase in computing power. Over time, that increase in computing power has been getting slower and more expensive to deliver. That is an important factor in its own right and a wider metaphor for the challenges that we face. Innovation is getting more difficult, which appears to be flowing through to the more challenging economic performance.

One of the key things that Governments can do is to work ever harder to support innovation activity in the private sector, the university sector and other areas that can support research and development. More interventions to support innovation and R and D are critical, as are measures to ensure that there is diffusion—to use the technical term—into the wider economy of the innovations that are out there. In other words, it is about ensuring that businesses take advantage of what the best businesses are already doing. That is another important factor. That is the set of activities that the enterprise bodies are very active in and which the Scottish Further and Higher Education Funding Council is supporting in universities and so on.

Perhaps an additional element to draw out—again, it is a particular feature of the moment—is the key driver of technological improvements and progress and productivity. Those will not happen unless there are high levels of investment in the economy—investment by businesses in their own businesses and investment by Government and collectively in overall infrastructure and skills—to ensure that we have the capability as an economy to support individual businesses.

A particularly challenging feature of the economy—at a UK level, this has been drawn out quite sharply—is that, in international terms, there is relatively low investment in skills and relatively low public investment in infrastructure overall. Again, that is an area that both the UK Government and the Scottish Government are taking action to enhance.

There is a whole range of different matters to consider—we have touched on fair work—but investment and technology are perhaps the key areas to draw out.

Mairi Spowage (Scottish Fiscal Commission): On the comparison with the UK that was mentioned, as David Wilson said, our approach to modelling the economy is very much about looking at recent data—by recent, I mean the last five to 10 years of data—and drawing out the trends and seeing how that can inform us about our projections. Historically, Scottish productivity growth has been slower than that of the UK. In the past few years, that trend has continued. Towards the end of the forecast horizon, although we are not quite at the same level as the UK, we catch up a little bit; by the end of our forecast, we are not too far apart in terms of productivity growth.

Gordon MacDonald: Yes, I noticed that the difference was only 0.2 per cent at the end of your forecast. We have always had this discrepancy in productivity growth between Scotland and the UK. How much of that is down to the fact that many of the policy levers that are available to Government are not available to Scotland? The economy in the UK as a whole is not even, as different parts of the UK have different key industries. How much of an influence is that on Scotland's productivity growth?

David Wilson: That is a very difficult question to answer at a high level. You would probably want to look at a number of factors in terms of the different structures of the Scottish economy. The overall demographics and structures of the Scottish economy differ from those of the UK economy. At times, that difference has been to our benefit and, at others, it has led to some weakness in the Scottish economy.

The particular feature over the past 10, 20 or 30 years has been the overall positive impact of the oil and gas sector. That has had a considerable impact on the productivity performance of the Scottish economy and it has been one of the many positive factors. However, if you look at the overall structure of the UK economy, in particular at the financial sector and the innovation performance in London and the south-east, you see that that set of factors is perhaps not as prominent in Scotland. Differences in structure are perhaps the principal explanation for differences between the economic performance of Scotland and that of the UK as a whole. That is what our modelling work seeks to assess rather than looking in any great detail at a micro level at the impact of particular policies.

Mairi Spowage: The performance of different parts of the UK economy is very different. It is quite difficult to look at the UK in aggregate because London and the south-east are so different from any other parts of the economy. In England, the experience of the north-east and north-west is very different from the experience of London, the south-east and the east, which tend to be higher-productivity areas.

Gordon MacDonald: Your GDP per capita figures are much more pessimistic than those for the UK as a whole. How much of the percentage increase is based on the fact that Scotland starts from quite a high base? The Eurostat data that was released in 2017 had Wales and Northern Ireland each with per capita GDP of about €22,000 and Scotland, including offshore, with about €32,000. How much of an influence is that data on the commission's percentage growth figures?

David Wilson: I may look again to my colleagues to give more specific answers about the GDP per capita figures.

One feature of the relatively recent performance of the Scottish economy has been convergence of its GDP per capita with that of the rest of the UK. Our reports have to be very precise about what we compare things against—that is key, and I hope that we are very careful about it. GDP per capita in Scotland has had a degree of convergence with that of the rest of the UK, such that it has been fairly well at the same level at some points. Part of that has been down to the interplay between GDP growth and the relatively weaker and lower population growth in Scotland, which has meant that GDP per capita has been relatively stronger.

A factor that I touched on earlier is how to make an assessment of what that might mean in the future. We are concerned that, if population growth in Scotland weakens, on the face of it that might lead to improvements in GDP per capita. If Scotland has fewer people but they manage to produce the same or more goods, that might lead to downsides for the overall development of the economy and the richness of the labour market. How the population goes forward, particularly with changes in the relationship with the EU, will be a key factor that will underpin our GDP forecasts and how that plays out in GDP per capita.

The headlines are that Scotland is on or around the same level of GDP per capita as the UK as a whole, and that Scotland has consistently had higher GDP per capita levels than Wales and Northern Ireland, as you have mentioned. In turn, that underpins Mairi Spowage's point about the richness and diversity of the UK's overall economic performance.

Mairi Spowage: Figure 3 in our summary shows GDP growth and the growth in GDP per capita over the forecast horizon. Members can see that there is quite a difference between overall GDP growth for Scotland and the UK. The forecasts for GDP per capita growth are much closer together and broadly similar by the end of the forecast horizon, but the population differences are significant for overall GDP. That underlines the demographic challenges for total GDP in Scotland.

Gordon MacDonald: You said that the relationship with the EU might influence how the figure for GDP per capita growth will move. What have you built into your forecasts for such things as Brexit and access to European skilled labour?

10:00

David Wilson: To underpin our forecast for overall GDP and, crucially, our fiscal forecast, we had to make an assessment of what we think the Scottish population will be over the next five years. To do that, we took the Office for National Statistics projections and the national records for Scotland and produced a set of projections. I emphasise that those are projections as opposed to forecasts—that is very important.

There is a lot of jargon in this world, but what I think the ONS is seeking to emphasise is the fact that it extrapolates some known and existing trends; it does not produce a statistical model that somehow takes fully into account what might happen, whether that be a changed relationship with Europe or any other factor. It produces a set of projections and a number of variants in that respect, and we made it very clear that, instead of producing our forecasts, as we might or could have done, we wanted to use one of the variants prepared by the ONS. However, we had to judge which of those variants to choose.

Late last year, the ONS produced a set of projections taking into account a set of possible impacts as a result of the changes to the UK's relationship with Europe. We decided that the most likely projection was reducing in-migration from and out-migration to the European Union from the UK over the period going forward to around half the current level, and that projection led to a set of numbers that we included in all our forecasts. We used that so-called EU 50 per cent projection as opposed to what we might have used, which was the principal projection.

As I said to the Finance and Constitution Committee, a key thing to emphasise as far as the five-year period is concerned is that, with regard to the impact on our forecasts of the changed projection for interaction with the EU, the change to our GDP and GDP per capita is actually very small in the short term. However, cumulatively over the longer term—and particularly if the forecasts are more pessimistic than we have assumed—population becomes crucially important. It is therefore simultaneously a relatively minor factor in our forecasts but a very important one in the big picture over the longer term, depending on how things play out.

Gordon MacDonald: Thank you very much.

Dean Lockhart (Mid Scotland and Fife) (Con): I want to explore one of the SFC's central observations in its forecasts, which is that the economy is operating at or above capacity. You might already have covered some of the underlying factors, but can you explain that observation, given that we have seen practically zero or very low economic growth in the past two or three years?

David Wilson: I will make some very brief comments and then pass to one of my colleagues for a more detailed assessment.

As far as general expectations are concerned, I would say that, since the financial crash and the recession in the early part of this decade, people look at growth of, say, 0.4 per cent a year and immediately think, “There must be spare capacity in the economy and measures that we can take to boost demand and have higher growth in the short term. That’s the solution.” The overall assessment that we have reached—and, indeed, the assessment that the Bank of England has been looking at in some detail—is that the scope for boosting the economy through utilising spare capacity is relatively limited.

One of the key pieces of evidence for that is the experience in the labour market. One would be brave to conclude that, with historically very high levels of employment and historically very low levels of unemployment, there is significant spare capacity in the economy. As a result, that is not the assessment that we have made; broadly speaking, we feel that the Scottish economy is working at its current capacity. We have produced fairly fine-detailed estimates of whether we are slightly above or below capacity, but the overall message is that we are probably at capacity, with some variation. That in itself tells you a lot about our overall assessment of the economy’s productive potential, which is what we model over the longer term and which is fundamentally driven by productivity.

Our expectations of how fast the economy will grow over the next couple of years and over the five-year period have therefore been reduced to well below what I think were everyone’s collective expectations prior to the crash. That has brought down the path of economic activity, and we broadly feel that we are on that path at the moment.

David, do you want to say a bit more about how we make these assessments of capacity?

David Stone: I will make a few points. Our forecasts highlight a small but positive output gap, while the Office for Budget Responsibility has highlighted a small but negative gap for the UK. Really, though, we are very close, and what we are both saying is that the economies of Scotland and the UK are close to capacity.

That conclusion is based on a number of factors. Our model looks at trends over the past few years such as the very low—indeed, unprecedentedly low—unemployment rate in Scotland, very high participation levels and slow productivity growth, and as a result of those trends, we thought that we are close to capacity. However, we also look at, for example, the information that we get from businesses; we survey hotels to see how many spare rooms they have and ask businesses whether they could increase production tomorrow if they had to, how much they are investing and so on. Those surveys paint a very similar picture of capacity in the Scottish economy being used up over the past few years and not much spare in the economy to allow for faster growth.

Dean Lockhart: Since the 1960s, long-term growth in the Scottish economy has been at 2 or 2.5 per cent. If we are now at capacity with a growth rate of 0.5 per cent, what has happened structurally to the economy to reduce its inherent capacity?

David Wilson: I am not seeking to be flippant, but trying to understand the productive potential of not just the Scottish economy but the economy of the UK and the world is the billion-dollar question. Indeed, many great minds are seeking to answer what has been christened the productivity puzzle.

At the risk of giving you a slightly unclear answer, I would say that although we do not have the answer to your question, what is clear is that this is not just a challenge or problem that Scotland alone is facing; it is a key factor at UK and international levels. That brings me back to my earlier point about what some have christened secular stagnation—the suggestion that the economy no longer has the capability or capacity to produce growth of 2 per cent plus. A big element will be managing expectations in that respect.

Is there a simple explanation of the situation? Almost certainly not, but the closest and probably best explanation has perhaps already been given by David Stone. As appears to have become the story over the past 10 to 15 years, it is becoming ever more difficult and expensive to produce the economic innovations that lead to technological progress and, in turn, to economic growth.

Looking forward, I note that a number of people, who have been christened digital optimists, have been looking at the change in the nature of the digital economy and see this as a sort of temporary period; they think that five, 10, 15 or 20 years from now, we might well get back to higher growth levels. There is certainly a camp that sees very significant growth in future. Although I am not in any sense discounting that view, we would expect the current situation of relatively subdued growth to continue over the five-year period that we are looking at.

Dean Lockhart: Finally, the most recent GDP numbers—for the third quarter last year—came out last week. Has anything in those numbers, the commentary or the underlying analysis changed your outlook?

David Wilson: The overall numbers were broadly in line with what we were expecting, although I would not say that we took any satisfaction from that, because they were on the subdued side. There was nothing in those statistics or the details playing out of the economy that led us to any fundamental rethink. In fact, particularly with the fine detail of the numbers, the figures were extremely close to the quarterly forecast in our assessment.

Mairi Spowage: Obviously, one quarter's data can be quite volatile and there can be movements in different sectors. We see continuing decline in the construction industry. Production was actually quite strong, although it was buoyed by one particular sector, but services growth was sluggish. However, we would not want to put too much weight on one quarter, because the data will bobble about a little. We would not change our long-term outlook on the basis of one quarter, although, this time, the figures were very close to what we forecast.

Dean Lockhart: Thank you.

Andy Wightman (Lothian) (Green): The SFC has published central forecasts for various metrics in the economy with variants. For example, trend unemployment has a low variant of 4 per cent and a high variant of 5 per cent. You have explained how you chose the migration figures and the other high and low variants. For example, you say:

> "The high average hours scenario assumes convergence of Scottish average hours with UK average hours over the forecast horizon."

Will you say a little more about the basis on which you chose those low and high variants and the thinking that lay behind that? They make sense, but you could have suggested a high one that was above the figure for the UK.

David Wilson: I will ask David Stone to give you a more detailed answer but, by way of introduction, the key point is that we were keen to include those as illustrations so that people could get a sense of what the sensitivities might be to different judgments. I would not say, and I do not think that David Stone will say, that there is any particular rocket science or in-depth thinking on the choice of the variants. They are designed to be illustrative.

David Stone might want to give you a bit more of an assessment.

David Stone: There are no strict criteria for choosing those variants. We are trying to give our users a sense of what the range of uncertainty might be. In a couple of cases, there were some fairly obvious choices to make. For example, on migration, we looked at the impact of using the different population variants that we had. On average hours worked, there has been a divergence between Scotland and the UK recently. Therefore, on the one hand, we looked at what would happen if Scottish hours met those in the UK and, to get the opposite of that, we looked at what would happen if the figures went in the other direction.

Overall, we were trying to give the picture that it is really productivity that is the biggest sensitivity in our forecast. In selecting high and low variants for that, we used the growth in productivity that we have seen over the past five or six years for the low variant and compared that to the growth in productivity that we saw prior to 2008, which was much higher. It is hard to get those sensitivities and variants so that they are directly comparable in a meaningful way. We just tried to choose numbers that would be helpful.

Andy Wightman: You say that the figures are illustrative, and you have just said that you want to show

> "what the range of uncertainty might be",

but a range of uncertainty might be anything, because it is uncertain. Clearly, the figures are simply illustrative and are there to help the reader, the policy maker and the Government to see what the outcome would be if, for example, we converge with UK trends on a particular metric.

David Stone: It is very important that our users understand how uncertain the forecasts can be. At the moment, we cannot say how accurate our forecasts will be, because we do not have a forecasting history to look back on and say how right or wrong we were in previous years. Over time, we will evaluate our forecasts, which will allow us to build up that picture. In the meantime, we can present such illustrative sensitivities and we can look at the forecasting error of other organisations as a comparator.

Andy Wightman: On the margin of forecasting error, in statistics, there would usually be a confidence interval, but of course that is based on measurable data and, as you have just said, you are forecasting but you do not have historical data—or good historical data, at least—against which to measure that. Can you give us a qualitative sense of what the Scottish Fiscal Commission's report will be like in the first year of the next session of Parliament, for example? How much more confident will you be about your forecasts then?

10:15

David Wilson: That is a good one.

John Ireland: The Bank of England's quarterly forecast has fan diagrams, which is the conventional way of producing such forecasts. The diagrams typically show that, as the forecast horizon increases, the confidence intervals increase, too, which is an important factor when you are thinking ahead to the beginning of the next session.

As David Wilson said, because we do not have historical forecast areas, we cannot produce those fan diagrams. That hampers us in answering the question that you have asked. We do not know what our forecasting track record will be, given the methods that we employ, so it is hard to comment on what the fan charts would look like. The only thing that we can say with any real confidence is that, as the forecast horizon increases, the level of uncertainty increases, too. By the start of the next session, you would expect that those forecasts—

Andy Wightman: Sorry, can you repeat that? You are saying that one increases and another increases, too.

John Ireland: As the forecast horizon increases—as we go further out—we know that the uncertainty attached to the forecast will also increase, because potential error builds upon potential error. You will remember that the diagrams provided by the Bank of England fan out. We can say with great certainty that that will happen, but, at this stage, we cannot give you a sense of how wide the fans will be.

David Wilson: Everything that John Ireland says about the uncertainty widening is clearly right, but we are taking action in two areas to mitigate that to an extent. First, we will seek to be as transparent as we can be through publishing what we will call forecast evaluation reports—we will regularly produce reports that evaluate our own performance in forecasting.

That measure will be part of our ever-improving modelling capability and evaluation of how we are performing as a forecasting organisation. Part of that will be about building up the capability to do as the Bank of England and other organisations do, which is to look back at their own forecasting performance to inform future forecasts. We will do all that. However, we are a new organisation, and you are considering our first forecasts.

The other point to emphasise relates to the status and use of our forecasts. The clear and most important purpose of our forecasts is to feed into annual Scottish budgets. The budget process may well evolve over time into, for example, multi-year budgeting. We will be undertaking two forecasting exercises over the year, so we will be learning, and the budget can adapt to that learning. This time next year, we will have a new set of forecasts and a new budget, and we will take the information into account going forward.

We hope that our near-term forecasts are as fair and balanced as they can be, taking into account all the information, and that they are as transparent in relation to decision making as they can be. We also hope that our longer-term forecasts, which are crucial for decision making and the overall assessment of fiscal and financial matters, will adapt and improve over time.

Mairi Spowage: In figure 1.1 in our report, we give an example of an OBR GDP growth forecast fan diagram, which gives you an idea of the level of uncertainty that has come through its historical forecasting errors. By the end of the five-year period, the fan is very wide. Given that Scotland has a smaller economy, and taking into account all the other issues, it is reasonable to expect that the forecast errors may be larger for Scotland. As I say, figure 1.1 gives you a feel for the uncertainty that we are talking about when you go five years out.

John Mason (Glasgow Shettleston) (SNP): When the Scottish Fiscal Commission gave evidence to our inquiry on economic data, it highlighted a few areas, such as earnings and Scotland-specific prices, where it did not have a lot of information or where information was difficult to get. How has that issue impacted on your forecasts? Have you been able to work around that, or are there caveats simply because you have not been able to get some of that information?

David Wilson: I might ask Mairi Spowage to follow up on my answer, but I think that the headline response to that question is that the earnings issue remains the core, critical area here. If we are to find answers to questions about the interaction between productivity and employment and the performance of the economy at present, it is critical that we look at the performance of the labour market. As a result, any improved—and more current—information that we can get about the particular features and experiences of the labour market will be of huge value, not just to us but to a range of Government organisations in understanding what is going on at the moment.

We have sought to address the particular challenges that we faced with the earnings statistics, which are perhaps of relevance to our fiscal forecasts and, in particular, our income tax forecasts. I am happy to go into more detail, if necessary, but I think that our ask—if that is the best way of describing it—would be for improved information and data on price deflators and information on employment and wages. As I remember saying to you during your previous inquiry, we can do only the best that we can do;

we make the best assessment that we can make, but every improvement is of huge value to us.

Mairi Spowage: We have used the most up-to-date data on Scottish earnings and wages that is available—

John Mason: But how up to date is it?

David Stone: The latest annual survey of hours and earnings that has been published was up to March to April 2017.

Mairi Spowage: The Scottish national accounts statisticians take account of that data in producing their compensation of employees series, which we also use, and they project that forward from the latest data to the latest quarter that they are publishing for, using the UK movements. Although that data is not Scotland specific, we are using it, too.

As we said in our submission and discussed as part of your inquiry on economic data, if we could explore the possibility of using more regular UK-wide surveys—for example, average weekly earnings—to get Scottish cuts of that information, which we could look to boost, if necessary, that would be invaluable in allowing us to understand more recent movements in wages. That is what happens with things such as economic output.

Other things that we have had to work around include the expenditure components that are published in the national accounts. Although that information is very important for our economic models, we have to deflate it and put it into real terms ourselves, because it is not published in that form by the Scottish Government—we mentioned that in our submission to your previous inquiry. The national accounts statisticians are obviously experts in that data and know how to do that work, and if they published it on that basis, it would not only be available for everyone to use however they wished but be in a consistent form. That would make things easier for us and make the information more accessible to other people. Those are some examples of the things that we have had to work around, but it would be better if more information were available.

David Stone: Specifically on the issue of wages, the information that we have is probably fine at an aggregate level and for looking at trends over several years. However, what we are missing is granularity of detail so that we can see what is happening to wages from quarter to quarter, by age and gender and in different income groups. Because we are missing that information, we cannot explain in detail why what has happened to wages has happened; we can look at the issue only at the most aggregated levels.

Mairi Spowage: With the microsimulation model that we use for our income tax forecast, in particular, it is really critical that we have that richness of data in order to make forward projections.

John Mason: I am interested in your use of the word "critical" there. How much of a difference would it make if we could improve the data? Would the effect be marginal or major—or is there some other word that you would use to describe the scale of that effect?

Mairi Spowage: It is quite difficult to say. In the future, we may be able to start to evaluate how we performed in the years for which we do not have the full survey of personal incomes information and compare that with the years when we had that information. When we get outturn data for income tax and can see how close our projections were for past years, using data that is a few years out of date, that will start to give us a feel for how much improvement we can make when the data is better. However, we are still forecasting into the future.

John Mason: It is inevitable as you build up a record that things will improve anyway. However, you also look for improved data from the Scottish Government and HM Revenue and Customs. Are those the main two organisations for earnings data?

Mairi Spowage: Yes—and the ONS. Some of its UK-wide surveys definitely have potential as well in relation to earnings. On the other side of our house—the social security side—we are having to work with the Department for Work and Pensions to get good information.

David Wilson: We are satisfied that our capability and the information that we have enable us to give robust forecasts. However, in pursuit of continuous improvement, we are trying to identify which areas can incrementally further improve what we do. To draw a contrast, there are very few, if any, of our areas where we have to say that we do not have the data and therefore cannot produce something in which we have confidence. However, in all the areas for which we forecast, there is always something that could give us more information and a more intuitive and up-to-date feel for where we are. We emphasised during your economic data inquiry that having information in two areas—particularly contemporary information about wages and incomes so that we can interpret what is going on for our tax and fiscal forecasts—would give me ever-increasing confidence in our forecasts.

Colin Beattie (Midlothian North and Musselburgh) (SNP): One particular facet of productivity is that weak output growth combined with a strong labour market equals weak productivity growth. Your forecast for productivity here for the next five years is consistently lower than the OBR's forecast for the UK. Will you give a little more detail about what leads you to that conclusion? Why is Scotland different?

David Wilson: I will give the headlines and David Stone can give the detailed modelling assessment. For many structural reasons, the Scottish economy is different from the overall UK economy. The long-term experience has been that Scotland's productivity performance has been a bit lower than that of the UK. At times, there has been a process of catching up and, at other times, productivity has been better. Most of the modelling and forecast assessments for the Scottish economy have shown a long-term gap in productivity performance between Scotland and the rest of the UK.

Our broad judgment is that that will continue. We have been at pains to emphasise that our overall growth forecasts for Scotland look very significantly lower than the UK's. However, a range of factors underpin that and have to be taken in to account, including wider demographic and other factors. The gap between our productivity growth assumption and the OBR's is much smaller and much more in line with overall historical performance.

In developing the overall assessment, our modelling approach does not take the OBR's assessment—or any other UK-wide models and assumptions—and just say that we will notch off 0.1 or 0.2 from here or add 0.1 or 0.2 there. We have made our assessment of the overall Scottish performance, which has led to our forecast.

The answer to the nub of your question is that our productivity forecast reflects historical and structural factors that underpin the Scottish economy. However, the productivity differential between Scotland and the UK is but one aspect; a number of other aspects are crucially important.

David Stone will give his assessment of the comparison with the OBR forecast.

10:30

David Stone: It is important to note that we did not know OBR's productivity forecast until quite late in the process of forming our forecasts. Its forecasts were published only a few weeks ahead of ours, by which time we had, largely, closed down our process. Our productivity forecasts did not change much after that.

As David Wilson said, we did not base our forecast on the OBR's forecast for the UK, but on our assessment of Scotland-specific factors and trends. We had seen slow, and possibly slowing, growth in productivity since around 2004, as we said in our report. To try to get a better understanding, we broke down growth and productivity to particular factors over the past four or five years—for example, the oil and gas industry, which had supported growth in productivity between 2010 and 2014, and Scotland's declining savings ratio, which had supported consumption and, in turn, productivity growth. We saw, once those factors were stripped out, that growth in productivity was even more subdued.

That was our starting point. Productivity growth over the past year has been something like 0.2 per cent, which is below our forecast, and we thought about how it might grow over the next five years. Our forecast is very close to the OBR's for the UK; I would not say that that is a coincidence, but we did not form our forecasts by comparisons with the OBR.

Colin Beattie: I have a daft-laddie question. We have talked a lot about historical data and trends. How do you decide how far back to go to determine those trends? The economies of Scotland and England change all the time. When do such comparisons become irrelevant?

David Wilson: People always say that the so-called daft-laddie questions are the best questions. That question is about a crucial issue. An easy answer is that we use the data that we can rely on, which goes back only a limited number of years. It would be a fascinating intellectual exercise—that many of us would want to do—to have really good GDP assessments and national accounts that went back 10, 15, 20 or 30 years, but we do not have those.

We have robust good-quality information. Mairi Spowage had a huge amount to do with that, because she previously ran the national accounts process for the Scottish Government. We use previous national accounts and GDP assessments, which are robust. Using the evidence that we have, we have had to make judgments about which bits of historical information are more relevant to the future. How much might the past year drive the next few years? How much will the next year be about the pre-2008 experience? Based on the best information and statistics of historical performance, the judgment is partly about which bits of history are most relevant to a forward view. An essential underpinning is to know and understand what has happened historically, but we have that information for only a relatively limited period.

Colin Beattie: How far back is that limited period?

Mairi Spowage: The detailed national accounts are available back to 1998 and some of the other sources of information, for example on earnings, go back to the early 2000s. That is the sort of time period for most of the information that we deal with: the survey of personal incomes is more limited and does not go back so far.

A good illustration of the differences in trends is in figure 2 in our report, which shows productivity growth. It shows the differences between the pre-2008 productivity trend, the post-2008 trend and our forecast, which is between those two lines. It is a big judgment to decide which of those average growth trends it is sensible to be closer to. That is a big part of the judgment of forecasting. However, one of the classic breaks in the past 20 years was the 2008 financial crisis, when something seemed to change in the Scottish economy.

David Stone: In figure 2.1 of the report, we somewhat arbitrarily break down the recent performance of the Scottish economy into three periods. We have the pre-2008 period, which we call the long-run stable trend. We have national accounts data back to 1998, but there is information available for much earlier than that. For example, we can go back to the 1960s and see quite smooth growth, at around 2 per cent. That is the long-run trend for the economy historically. We then have the financial crisis years of 2008 to 2010 when the economy contracted.

The starting point for our forecasts is the period from 2010 onwards, which we call the recent history of the economy. Over that period, growth has averaged just 1.2 per cent. Most of our work has been on scrutinising and trying to understand and break down that period. We feel that those six or seven years are most indicative of what will happen over the next few years.

Colin Beattie: Do you work to or acknowledge any particular margin of error?

Mairi Spowage: We do not have a forecasting record, so it is difficult for us to see historical forecasting errors and, therefore, how they should be considered in the context of our previous forecasting errors. Where we can, it is important to do sensitivity analyses so that anyone who reads our report has a real understanding of the key assumptions that we make, what really matters and what the forecast is really sensitive to—population, productivity or anything else. That is what we do to inform readers of our report where the real uncertainties lie and what our key assumptions are, so that our forecast is as close as it can be to what actually ends up happening. As we build up a forecasting record, we will know more about our historical errors.

David Wilson: We do not expect forecasts to play out exactly; I encourage members, too, not to expect that, because we are in an uncertain business. However, I emphasise that if the economy plays out very differently to what we forecast, we will seek to evaluate and understand where that difference comes from and what implication it has for the statistics. That is why the sensitivity analysis that we have produced is important. As I mentioned in response to an earlier question, if productivity performance is much better than we expect, that might lead to a reaction somewhere else in the system, which might lead to lower employment. If migration is lower than we expect, that will have an impact somewhere else in the system.

The first purpose of the forecasting models is to provide a set of estimates that the respective Governments need to use in the fiscal framework. However, a second and important purpose is to enable us to understand systematically how the economy might differ from what we expect: that will come through. I hope that the report adds to consideration of where the various impacts change over time. Certainly, we should expect a margin of error because that is the stuff of economic forecasting.

Colin Beattie: I will move on to something slightly different. We have heard from witnesses about the rise in job insecurity in the labour market and the squeeze on earnings in Scotland and the UK. Will you set out a bit more what you think conditions in the labour market will look like over, say, the next five years?

David Wilson: As I touched on earlier, our forecasts are underpinned by a central expectation that productivity will remain relatively subdued but employment and unemployment will remain at record levels—in fact, we are expecting further increases in employment and reductions in unemployment. For labour market processes and how that feels on the ground, the story is one of a continuation of the trends of the recent past, many of which members have drawn attention to. The key feature will be the flexible labour market in the UK and Scotland, with issues of precarious employment, the trends in part-time/full-time work and the wider gig economy. We have not dwelled on those issues in detail in the report or drawn out their implications, but implicit in our forecasts is the fact that we expect those trends to continue. That is part of the answer to your question.

A second and crucial point probably goes beyond our five-year horizon—or at least up to that point. A key issue that we expect to evaluate over the months and years ahead is changes in the labour market as a consequence of the change in our relationship with the EU. If in-migration is lower and out-migration changes, that might lead to further pressures and changes in the Scottish labour market. Many people are speculating on what the impact might be. We have yet to do full assessments, but high levels of employment, low levels of unemployment and reduced migration would add a reinforced dynamic to the labour market and be key to future assessments.

Colin Beattie: Is the changing pattern of employment in the labour market subduing economic growth?

David Wilson: Both Scotland and the UK appear to be recovering from the post-financial crash recession and we have found ourselves in a low-productivity growth, high-employment scenario or equilibrium, to use a phrase that I used earlier. That is at the heart of our forecasts, and we expect it to continue. The answer to the question of what is hampering economic growth depends on how you define those terms. Record levels of employment are positive in many ways, but they have had consequences for productivity.

If I can slightly reframe your question to ask whether the flexibility of the UK and Scottish labour markets has interacted with our productivity performance since the recession to lead us to where we are, the answer is, undoubtedly, yes; the labour market has been a crucial factor. There is the potential for a different scenario depending on the availability of workers post-Brexit—it might lead to limited labour availability, which might lead to increased wages, which might lead to increased investment to improve our capital performance. Some say that that could be a positive; others say that it might lead to skills shortages and constraints on economic activity. I am sure that we will come back to those questions.

Colin Beattie: Over the next few years, are you expecting the composition of the labour market to be unchanged—to be more of the same?

David Wilson: I expect the workings of the labour market—the issues around part-time/full-time and the gig economy—to continue.

10:45

Kezia Dugdale (Lothian) (Lab): Your evidence suggests that the process of negotiating Brexit and, indeed, “the final settlement” will have a negative impact on Scotland’s economy. We heard in your responses to Gordon MacDonald a little bit about the migration factors that you have built into your analysis, but what other headline assumptions have you made about the final settlement on Brexit?

David Wilson: My headline response to that question is that we have very much made a broad-brush assessment of the potential effects of any changes on our forecasts. To be clear, we have not assessed what might happen in the economy in the absence of any change or if there is any change; that is not how we and the Office for Budget Responsibility approach our forecasts. Instead, we have tried to factor into our overall assessment of growth for the next five years a broad-brush set of what we have called assumptions that cover the short-term impact of uncertainty and the process of any changes that might happen as well as a broad assessment of what that might mean for the longer term. Being realistic, and given the transition period that is being talked about at the moment, I think that any impact of activity outwith the EU would very much come at the end of our forecasts.

In short, therefore, we have made a broad-brush assessment that is broadly in line with what the OBR has done for the UK as a whole and that is deliberately designed to cover a range of different scenarios or outcomes from the negotiation process. After all, as you will know, there is no firm picture of the precise end point to allow us to evaluate it and factor it into the forecasts. What we have done covers a range of different outcomes of the current process.

Kezia Dugdale: That is possibly a wise move. More specifically, though, what assumptions have you made about our being either a member, or as close as possible to a full member, of the single market?

David Wilson: Again, similar to what the OBR has done, in so far as we can we have made an assumption based on what the UK Government said its policy approach would be, and we have taken into account the speeches made by the Prime Minister, in particular the ones at Lancaster House and in Florence. Those things have set out the UK Government’s broad direction and provide the background for our assessment. With regard to the precise detail of how that will play out, as I have said and as you have acknowledged, we have deliberately designed a broad-brush assessment to cover a range of different outcomes within the broad direction of what the UK is seeking to negotiate at present.

Kezia Dugdale: Just for the record, do your projections therefore assume that the UK is leaving the single market?

David Wilson: That is the UK Government’s policy at the moment, so that is what we have taken as the core driver of the policy approach that will impact on the UK and Scottish economies. However, I should again emphasise that we have not carried out a detailed assessment of the impact on trade or the impact in the short to medium term, which I know some other organisations have carried out. That is not the purpose of our exercise; instead, we have taken a broad-brush set of assumptions that, alongside all the other tail winds, head winds and factors, is having an impact on and affecting the economy and have factored that into our overall assessment.

Kezia Dugdale: Earlier, you said that the impact of Brexit would be minimal in the short term and that because you are projecting only five years ahead, the impact will not be as significant as we might commonly expect it to be. Is that because the current growth rates are so subdued that any further instability is not really going to have a dramatic effect? Secondly, can you tell us anything about what will happen five years from now? Do you expect quite a steep rise—or, indeed, fall—in economic activity?

David Wilson: I was just trying to emphasise that if the timetable for leaving the EU is spring 2019 plus a two-year transition period, that takes us into 2021. As a result, according to the current timetable that the UK Government has set out for the UK, the first year of the new post-transition arrangements would effectively be the final year of our forecast. It will take us some time to get there. We will be fine tuning and developing the forecast in future months and years, but we have not yet assessed the potential implications for our growth forecasts of the new arrangements post the transition period. We do not know or have the details of what they are, so it would be unreasonable for us to do any such assessment.

Kezia Dugdale: Are you drawn to reconsidering your forecast in light of the possibility of staying in the single market? Would that change matters markedly?

David Wilson: Our role is to assess the economic picture based on current Scottish Government policy. We have interpreted our broad assessment so as to include current UK Government policy—we make our assessment on the basis of the stated policies of both Governments; it is not our role to make any assessment based on what the Government might or might not do in the future or the impact of the range of future policy options. At the moment, we simply assess, in the broad terms that I have described, the current trajectory of UK Government policy.

Kezia Dugdale: Is that a no?

David Wilson: It is what I said.

Jackie Baillie (Dumbarton) (Lab): I have several quick questions. I understand that you have used a supply-led forecasting model, rather than a demand-led model. For those of us who are not economists, could you explain why you have done so and what difference that has made to your ultimate forecast?

David Wilson: I will leave it to our head of economic forecasting to give you an answer to that question.

David Stone: We consider both the supply and demand sides of the economy—we do not look at one or the other exclusively. In considering near-term economic performance, we place more emphasis on the demand side of the economy—how much money people are spending today. We have some short-term models that focus on the available data and what is coming through in the surveys, such as business expectations. We use that to drive our forecasts over the next few quarters and first couple of years.

In the longer term, such as considering what the economy will look like in five years' time, we need to anchor our forecasts to something. In order to make that assessment, we have to start thinking about population, demographics and longer-term trends in the labour market and productivity. For that five or six-year outlook, we place more emphasis on the supply side of the economy. Our models then bring the supply and demand sides together to form a complete picture of the economy over a five-year period.

Jackie Baillie: That is helpful.

I want to ask about the impact of the offshore economy on the inshore economy. You have clearly separated them, as you should. In the north-east, however, the impact of the offshore economy is evident. There has been a slight upturn in the price of a barrel of oil, which I hope is sustainable in the long term. I am keen to know whether that positive impact has been captured in your modelling.

David Wilson: I will answer briefly and then I will pass it back to David Stone. The higher oil price that we have seen in the past few months is a positive factor for overall activity. The committee will recognise that our forecasts are on onshore GDP—as Ms Baillie has described—rather than offshore activity, but there is a strong interaction. We have based our assessment on a close reading and analysis of current and future activities in the North Sea, recognising the views of industry—for example what Oil & Gas UK has said. However, the forecast is a broad-brush assumption.

I would not say that the more recent upturn in oil prices over the last few weeks would lead us to rethink any of the detail of what we have said. Oil prices are higher and there have been some positive announcements about overall exploration and production, which is a further indication that the oil and gas sector has gone from an exceptionally buoyant period up to 2014, through a price fall around the start of 2015 and a period of sharp retrenchment and is now getting back to making a significant positive contribution to the economy, although not at the level that we saw in the early part of the decade. It is good news, but I do not expect it to change our overall assessment fundamentally.

Jackie Baillie: I will quickly move on to productivity. We have always been told that productivity is increasing rapidly, but I understand from your paper that it is largely unchanged since 2015. My question relates to unemployment. There are studies from Sheffield Hallam University that talk about the underlying level of unemployment being much greater than is shown in the official statistics—in some cases, it is almost double. Did you assess that data? To me, that could be where there is productive potential.

David Wilson: In headline, we mainly assessed the balance between overall productivity and employment. The reason why we were so keen to do the sensitivity analysis was that there is potentially scope in the economy for those who are already in work to work increased hours and to boost the productive capacity of the economy by reducing economic inactivity and bringing that activity back into the economy. In as far as there are areas where there could be an increase in capacity, I share Jackie Baillie's view that the point that she mentions is a potential sensitivity that, by definition, might lead to an increase in employment that might boost GDP. However, as I was trying to get at earlier, there is a balancing act because, if more people are in work and more people are working longer hours, that might lead to weaker growth in productivity and vice versa. That is the balancing act that we need to consider as we go forward.

The issue links back to John Mason's question about wages and employment activity. We need a better understanding of where we can potentially bring more people back into the labour market, particularly where the labour market has high levels of employment, as that is an area where we can potentially boost economic activity and impact on wider social objectives, such as that of reducing poverty. That area certainly could be looked at further.

Jackie Baillie: You seem to suggest that, because you believe that we are operating above capacity, there is an inherent structural problem in our economy—it is not just a temporary weakness that we can apply a little policy to and massage away; there is something more fundamental going on that suggests that there is a problem.

David Wilson: There is something more fundamental, and that goes back to the productivity levels and the overall performance of the economy.

The Convener: Do members have any further questions?

Jamie Halcro Johnston (Highlands and Islands) (Con): I have a quick question on the back of David Wilson's answers to Jackie Baillie and his prediction for what he calls subdued growth going forward: have you identified any particular sectors that are more likely to suffer from subdued growth or lack of growth?

David Wilson: There are the areas that we have touched on that are contributing less than previously to the overall performance of the economy—we have mentioned oil and gas, construction and other areas. For the performance of the economy to be better than we are forecasting, we would certainly look to the manufacturing sector to further boost its productivity and we would expect the same of the oil and gas sector, which has been a key driver. Those are the areas of the economy that have shown strong productivity performance. However, to have strong improvements in productivity, we would expect to see improvements across the economy as a whole—in services and in Government activities such as the health service and others. That would be a key contributor to the overall performance of the economy.

The Convener: As there are no further questions, I thank all of our witnesses for coming.

10:59

Meeting continued in private until 12:31.

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