



**OFFICIAL REPORT**  
AITHISG OIFIGEIL

# Economy, Jobs and Fair Work Committee

**Tuesday 3 October 2017**

**Session 5**



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**Tuesday 3 October 2017**

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**ECONOMY, JOBS AND FAIR WORK COMMITTEE**  
**25<sup>th</sup> Meeting 2017, Session 5**

**CONVENER**

\*Gordon Lindhurst (Lothian) (Con)

**DEPUTY CONVENER**

\*John Mason (Glasgow Shettleston) (SNP)

**COMMITTEE MEMBERS**

\*Jackie Baillie (Dumbarton) (Lab)  
\*Ash Denham (Edinburgh Eastern) (SNP)  
\*Jamie Halcro Johnston (Highlands and Islands) (Con)  
\*Richard Leonard (Central Scotland) (Lab)  
\*Dean Lockhart (Mid Scotland and Fife) (Con)  
\*Gordon MacDonald (Edinburgh Pentlands) (SNP)  
\*Gillian Martin (Aberdeenshire East) (SNP)  
\*Gil Paterson (Clydebank and Milngavie) (SNP)  
Andy Wightman (Lothian) (Green)

\*attended

**THE FOLLOWING ALSO PARTICIPATED:**

Professor David Bell (University of Stirling)  
Gemma Diamond (Audit Scotland)  
Dr Stuart McIntyre (University of Strathclyde)  
Alastair Nicolson (Highlands and Islands Enterprise)  
Kenny Richmond (Scottish Enterprise)

**CLERK TO THE COMMITTEE**

Alison Walker

**LOCATION**

The David Livingstone Room (CR6)



## Scottish Parliament

### Economy, Jobs and Fair Work Committee

*Tuesday 3 October 2017*

*[The Convener opened the meeting at 09:31]*

### Decision on Taking Business in Private

**The Convener (Gordon Lindhurst):** Good morning and welcome to the 25th meeting of the Economy, Jobs and Fair Work Committee in 2017. I ask everyone to turn off their electrical devices or switch them to silent so that they do not interfere with the sound system. There is no need for witnesses to press any buttons, because our sound team will operate the speakers.

I have apologies from Andy Wightman, who is on other parliamentary business, and from John Mason and Dean Lockhart, who will be arriving later.

Our first agenda item is a decision by the committee on whether to take items 3 and 4 in private. Do members agree to do so?

**Members** *indicated agreement.*

## Economic Data

09:32

**The Convener:** Our two witnesses for our first panel today are Dr Stuart McIntyre, Fraser of Allander institute, and Professor David Bell, University of Stirling. I welcome you both to the committee and thank you for coming to give evidence on our economic data inquiry. I remind members to keep their questions short, sharp and focused and witnesses to keep their answers similarly brief. You do not have to answer every question, but if you have something to add to the discussion, please indicate that you wish to come in.

I will begin with the first question. Last week, the committee heard from several witnesses, and one witness from the Club of Rome urged us to consider what we are measuring and why we are measuring it. Are we collecting the right data and do we understand the reasons for collecting it and the purposes to which that data can be put?

**Professor David Bell (University of Stirling):** I will make a couple of points on that. It is important to collect data for a couple of reasons. First, you should be thinking whether, if you had that data, you would change a key policy decision that hinges on knowledge or lack of knowledge of that information. That is a utilitarian, cost benefit approach. You also have to bear in mind that collecting data is an expensive process. I may expand on that point later.

Secondly, there is a wider perspective on data. Many democratic decision-making institutions rely on a well-informed public, as well as a well-informed set of policy makers. There is a strong case for having the general basis of information that most western democracies have. It is necessary to allow for public debate and discussion, based on evidence rather than a lack of knowledge.

There is the immediate approach—what information do I need to make decisions about policy? There is also the more general approach—what kind of information do we need to be able to conduct a coherent democratic debate?

**The Convener:** Do you think that, in Scotland, we collect the information and data that we need to approach matters as you have suggested we should?

**Professor Bell:** We are not too badly served. There are areas where information is not that great. There are also problems in that the nature of information is changing, so relying on what has happened in the past and the previous ways of

collecting data is not necessarily going to work for the long term.

For example, I understand that the committee has had discussions on the shrinking sample size in the labour force survey. Collecting data from households or businesses is becoming more difficult, partly because individuals' time is more precious to them, and partly because they are being constantly bombarded with requests for information. Why should they treat a request for information from the Government differently from one from Tesco or Facebook? There are multiple pressures on people to provide data. They become more selective, and that is a problem when it comes to encouraging people to provide data.

A smaller sample size may not be that much of a problem, but it could be if the user wants to disaggregate the data extensively and it may lead to biases in the data. Those using the labour force survey want to know that they are getting an accurate estimate of, say, the unemployment rate.

People may be selectively not responding to surveys; for example young men, who are often out when interviewers knock on doors, are less likely to respond, so it may be difficult to get a good estimate of youth unemployment. All those things have to be taken into account.

**Dr Stuart McIntyre (University of Strathclyde):** I want to pick up a couple of points that David Bell made.

There is good coverage in Scotland of high-level data that is internationally comparable—which is all that a lot of people want to talk about or measure—subject to some of the concerns about sample size and other things.

There is a second stage, which involves thinking about programme-specific and policy-specific data. Rather than focusing on management information about how well a programme is working, perhaps in terms of consumer feedback from people on the programme, it could be more a matter of thinking about how we can capture the data that we need at the point at which we are designing policy, so that we can properly evaluate it. That area gets a lot less attention. Economists have a toolkit of methods that let us evaluate programmes in certain cases, even when that has not been thought about. Capturing the data within the programme in a way that allows it to be evaluated complements the high-level stats.

At the moment, there is a big focus on asking what a policy that has been brought in is doing to gross domestic product. In reality, the transmission mechanisms are so varied between that intervention and GDP that trying to track down the contribution of a particular policy to GDP is quite difficult.

Inevitably, we have to have higher-level data, because we have to produce internationally comparable data, but there is a second stage to which more attention needs to be given, which is capturing the data that we need in designing programmes so as to evaluate them properly.

To pick up on David Bell's point about sample sizes, I agree absolutely. It is a big issue with the labour force survey. It is one of the reasons why there has been a move towards using more administrative data to get round some of the problems of poor response rates to surveys. There is definitely a move in that direction. More probably could be done and should be done and—to be honest—is being done. We are at the early stages of fully utilising some of the administrative data that we have.

**The Convener:** Richard Leonard has some questions that might relate back to what David Bell was talking about.

**Richard Leonard (Central Scotland) (Lab):** You have begun to address this already, but I wish to ask you to say for our benefit what you consider to be the strengths and weaknesses of the current suite of statistics on the economy that we collect for Scotland. Secondly, from your vantage point, as people who work with that data day in, day out, are there any specific improvements that you would recommend?

**Professor Bell:** The trade data, for example, is pretty difficult, for all kinds of reasons. There is a question of why you need the trade data. That is an open question but, in relation to the matter of democratic debate, rather than that of taking a new policy direction, there is probably a case for enhancing the trade data.

There is an interesting issue in relation to income data. In looking at the papers for this morning, I was quite surprised that there was no mention of inequality or distributional aspects of the economy. I take it that inequality is one of the issues that may be of considerable interest to the committee. If you are trying to compare the incomes of the rich relative to the incomes of the poor, you have to have enough data in what I would call the tails of the distribution: the very high levels of income and the very low levels of income. That creates a necessity around the overall size of the data that you collect.

On Stuart McIntyre's point about administrative data, HM Revenue and Customs has data on incomes. There are issues with accessing it fully, but having more access to those kinds of data would be of interest. We are moving into a situation where Scotland has control over income tax, so it is not just a general interest question; it is of particular interest to the Scottish Government.

09:45

To pick up again on what Stuart McIntyre said, I will make a point that perhaps has not been made to the committee. If you are looking to evaluate policy where you think that the outcome of that policy may take some time to come through, there are great benefits to having data from longitudinal studies, in which you measure businesses, households or individuals at a point in time and follow them up later, and then follow them up again.

In that regard, I commend the Scottish Government's growing up in Scotland survey, which started around 2000 and followed children who were born that year. If you are looking to find out about the effectiveness of early years intervention policies, if you have information about children and their parents at a very early stage in their lives, you know what they have been exposed to by way of early years interventions; you then follow them up into their 20s, and you can track back to see whether those early interventions had the desired effect. The United Kingdom is the best country in the world for such longitudinal studies, but there are other opportunities. Unfortunately, they are very expensive, because there is a continuing follow-up.

I have given you just a couple of examples, but I think they are quite relevant.

**Dr McIntyre:** I will pick up on a few points. I agree with David Bell with respect to trade data. We have three different measures that get at trade: the index of manufactured exports, export statistics Scotland and the HMRC data. They all tell us slightly different things, but the best among them is probably the export stats Scotland data.

From looking at the documentation that the Scottish Government has put out, I think that one of the challenges for that concerns the response rates of firms. Firms are not required to complete the information so, as a result, the sample sizes are not as comprehensive as they could be. There is an issue around the fact that particular types of firms tend not to answer them—larger firms or whatever.

In our submission to the committee, we outlined how moving towards a situation in which the Scottish Government can compel firms to complete the information, on the same basis as the Office for National Statistics, which has such a power just now, seems infinitely sensible. That could be one way to broaden the coverage and at the same time improve the sample size and the quality of the data.

It is important to recognise that Scotland is very well served with economic data relative to other parts of the UK, both in terms of quality but also as

far as timeliness is concerned. This year, we got GDP data less than 100 days after the end of the quarter for the first time. Typically, we get that data in 110 to 115 days. We will not find out until December what happened to the economy of the north-east of England in 2016. Relative to other parts of the UK, we are pretty well served in terms of timely quality indicators.

There are things that I know the Scottish Government is considering that will drive improvements in some statistics. The Scottish Government is now getting better access to the monthly business survey, which it uses to produce the index of manufactured exports, and that may have spillover effects for GDP data, for instance.

There is a programme of continuous improvement, both on the ONS side and on the Scottish Government side, to try to produce better-quality, more timely data. It is worth stressing that.

I would say from an academic perspective that, when we are thinking about headline indicators, we need a long enough consistent time series. For instance, if someone is trying to forecast gross value added or most other macroeconomic indicators, they need a long enough time series on which to estimate that model. If we are investing in new data series or changing existing data series, we have to consider the compatibility of that over time and relative to other parts of the UK.

**Richard Leonard:** There are still time lags, though, in, for example, productivity data, including sub-regional productivity data, and business research and development data. There is quite a time lag in some of those things and in an era in which we are facing shocks, whether it is the oil price shock or the possibility of the effects of Brexit. With the new powers that the Scottish Government has got, it seems to me that timeliness is extremely important. Can you comment on that?

There is an extremely helpful point in Stuart McIntyre's submission about capital flows—inflows and outflows—and the extent to which foreign direct investment data is robust. The Scottish Government talks a lot in its reckoning of how well the Scottish economy is doing about the EY attractiveness survey and so on and so forth. Do you have any views about how robust, reliable and comprehensive a picture that paints?

Also, on capital investment, your submission states:

“there is little in the way of data on investment for Scotland either in the aggregate or by sector.”

It seems to me that that is a fairly important piece of information on which to base an understanding about what is happening to innovation and investment and what the long-term prospects for

the economy are going to be. Can Dr McIntyre and then Professor Bell comment on those two aspects?

**Dr McIntyre:** You are right that one of the obvious things that are missing from the landscape is a better understanding of investment—in particular, foreign direct investment. I will not comment too much on the EY attractiveness survey data because, frankly, I do not know how it is put together. I will say that probably the takeaway that everyone takes from that is that Scotland is the number 1 destination for FDI within the UK. That is fine, if we base that on the number of projects. If we look at the number of jobs, we are not. It is a good illustration of the fact that reading beyond the headlines is sometimes very important. If you look at the number of jobs that are supported by FDI projects in Scotland, there are not as many as there are elsewhere and we do not rank as highly. However, in terms of the number of projects, we do. If you take the same project and divide it in two, you can see how that system can quite easily be gamed. I will not comment much more on that, but I think that you have identified what is a very obvious gap in the landscape.

**Professor Bell:** The only other point is that it is costly for businesses to supply data and quite a lot of the delays are based around a legal requirement for them to submit data. If you think, for example, of self-employment, people who are not under the pay as you earn system have around 15 months after the end of the tax year before they have to submit their last cash payment for income tax. While that persists, you will have to estimate self-employment income over that period of time.

There is a question about matching up the cost of opportunities to make decisions that are lost because data is not timely against the cost to businesses of making that data available more quickly. I think that HMRC is in the process of trying to get individuals to more or less continuously supply data on income—with the information technology systems that we have now, it may be easier to do that. It may not be necessary to continue with the 15-month delay, which may have been all right for a time when IT systems were not so sophisticated. There is the question of how important it is to get the data immediately at the end of the relevant quarter.

**Richard Leonard:** May I ask one brief last question?

**The Convener:** Very briefly.

**Richard Leonard:** When you talked about trade flows, you did not mention input-output tables. Are those an important measure of interregional trade

and trade between Scotland and other parts of the world?

**Dr McIntyre:** As I said earlier, there are three main indicators through which we get the data. The Scottish Government statisticians then balance principally the “Export Statistics Scotland” data with the supply and use tables in the national accounts. The IO tables provide us with nice sectoral coverage that is richer in detail than the information in “Export Statistics Scotland”, but they are the output of various sources. “Exports Statistics” alone will thus not perfectly align with the IO data. The IO data, however, will give a much richer sectoral picture and is constrained by and balances with the rest of the economy, whereas I understand that “Exports Statistics Scotland” is a survey of certain firms and sectors.

**Gil Paterson (Clydebank and Milngavie) (SNP):** There has been a lot of talk about exports, and there are certainly questions in relation to that. Putting my business hat on, particularly with Brexit, however, we do not have very much information on imports.

Our agencies that are charged with improving the Scottish economy must decide who they are going to support. I would have thought that they would need information on imports, because it might be the easiest shift for a business to make, to replace its imports from within Scotland. We are very light on that information. How do we overcome that? Where do we go to get those numbers?

**Professor Bell:** The vast majority of imports into Scotland will originate in the rest of the UK and will either come from the rest of the UK or have been channelled through the rest of the UK from some foreign originator. It might be difficult to track that information.

My second point is that a lot of international trade now works round complex supply chains, in which goods cross borders, possibly multiple times. I heard a discussion last week on the car industry in which it was said that some components cross out of and into the UK 42 times. Goods are moving back and forth across the Scottish border a lot of times. It becomes difficult to know how to track them.

There will be a set of imports that will be relatively easy to identify, but, for some businesses, trying to identify which goods or components of goods are important, and where domestic value is added, will be difficult.

**Dr McIntyre:** I will pick up on a couple of things. First—this addresses Richard Leonard’s point—although it is not as timely as some other measures of trade, and may not be as detailed as we would like, the information in the national accounts about import flows is there. If we think



about what the alternative routes to gather that data might be, it is true that Brexit and requirements about rules of origin might help with the administrative data. As David Bell said, however, most of Scotland's imports come from the rest of the UK—and there is a huge issue about trying to estimate those flows—or from the rest of the European Union. The HMRC data on imports does not do a great job of capturing that either.

Secondly, I know that Rebecca Riley, who is director of the ONS's new Economic Statistics Centre of Excellence and who also works at the National Institute of Economic and Social Research, was at the committee last week. One of the centre's projects—the work plan is being led by one of my colleagues—involves using innovative data sets to understand the flow of interregional trade in the UK. It is looking at financial transactions, for example, to help us to better understand the flow of goods and services within the UK. However, it is incredibly complex to back that up.

10:00

**Gil Paterson:** I agree with you. From experience, I understand the amount of goods that land in England and are held in warehouses before being shipped. We are the Economy, Jobs and Fair Work Committee, and it is very important for the Scottish economy that we understand that issue. We are all politicians and there is a great debate, but at present we cannot provide the population with answers to seemingly straightforward questions on imports and exports. Those are fundamental issues. Is it not worth investing in the collection of that data so that we can square the circle?

**Professor Bell:** I agree that that is a very important part of the political debate. It is simply a question of the costs of collecting all that information at the level of detail that would be necessary to provide accurate estimates that the public could rely on.

**The Convener:** Jamie Halcro Johnston has a question that may lead on from that point.

**Jamie Halcro Johnston (Highlands and Islands) (Con):** I was going to ask about the key gaps in coverage in Scotland—that subject has been touched on quite a bit. On the regional side, Dr McIntyre mentioned the north-east. Where are the key gaps in regional and local data, and what can we do to fill them?

**Dr McIntyre:** There is a point that I did not touch on earlier in response to Richard Leonard's comments about gaps in the data. One of the fairly obvious gaps in data—to be fair, the ONS has recognised this—relates to regional price data.

The Scottish Government and the ONS are engaged in on-going work, which is funded partly by HMRC and partly by the Scottish Government, to improve the sample coverage of the living costs and food survey that produces the weightings for the price indices, so that we can get a more Scottish index. There is still a gap, but something is being done; I meant to mention that earlier.

I read through the various submissions to the inquiry. The submissions from North Ayrshire Council and various other people mention localisation of data. There is a difficulty with some of the high-level headline indicators such as gross national income and investment. The more localised the data is, the easier it is to identify fluctuations in particular forms. I know that the ONS is very concerned about the extent to which people and activities can be identified through the production of more localised data, which is perhaps one of the reasons that it censors such data.

There is a trade-off here. I will highlight one good thing that the ONS does, which the Scottish Government may want to think about doing. When the ONS produces its GVA data, which is not anywhere near as timely as the Scottish Government data, it breaks that down at NUTS—nomenclature of territorial units for statistics—levels 2 and 3.

Going from the Scotland-wide picture to the NUTS 2 and NUTS 3 regions provides for much more spatial granularity in the ONS data, which we do not get from the Scottish data, although those data are produced quarterly, whereas the ONS data are published annually. More can be done to split those data out, which is quite important for the reasons that we identified in our submission.

**Professor Bell:** I want to pick up on three points. First, Stuart McIntyre mentioned anonymisation, which occupies my mind quite a lot. I have just done a fairly large-scale survey of Scotland's ageing population.

In the course of that, I have had to pass three different courses on anonymisation to ensure that I never present data in a way whereby an individual or a household can be specifically identified. I will not go into the complexity of that, but it is something that the suppliers of data are very concerned about because the last thing that they want is for some firm or individual to find that they have been identified and that some information on them has been released that they do not want released.

Data in relation to prices, which Stuart McIntyre mentioned, is important. An area of prices that is very important is housing costs in general. We do not have good data on those, which are particularly important with regard to differences

between the generations. At the moment, the net income of pensioner families is above that of working-age families, and the reason for that is that housing costs for pensioner families are much lower than those for working-age families. That is what makes the difference, so housing costs make up a very important element of prices.

In relation to geographical data, we tend to think of economies operating in relation to markets, not constituencies. What is the appropriate way to think of the labour market in the north-east? Clearly, Aberdeenshire and Aberdeen city interact very strongly, so it might not make much sense to consider them separately. There are arguments for looking at very detailed data, which we can do with Department for Work and Pensions data on benefits, for example. However, we should be cautious about that. If we want to use geographically granularised data, we must be careful that the indicators that we are interested in make sense at that level.

**Jamie Halcro Johnston:** I am an MSP who represents the Highlands and Islands, and we have Highlands and Islands Enterprise giving evidence next. One of the questions that I want to put to HIE is how it uses the information that it is able to collect. Is there information collected by local authorities or other bodies that is not being fed into the ONS collection of data? I would not necessarily call it lost data, but is there data that is not part of the wider process?

**Professor Bell:** If you are talking about the whole spectrum of data and not just business and economy data, the DWP data that I just mentioned is probably the most granularised because it covers benefits, pensions and so on. The data held at local authority level tends to be data on education and care, and there is probably some data associated with property. Other than exploring novel ways of addressing data collection, such as using Google searches, I am not sure that there are many other existing data sets that we can interrogate. Obviously, there is the census, but it is historical and is also quite expensive—the 2011 census cost £65 million. The National Records of Scotland tries to update the census data in terms of births, marriages and deaths in local areas, but it is never completely accurate. We will get the next shot at that in 2021.

**Dr McIntyre:** As I noted, the ONS produces more localised GVA data, although it is not as timely as we would like—the most recent that we have is from 2015. From the annual population survey data, we get localised information on the labour market. That is kind of high level, but other surveys take place more regionally that I expect would feed into more localised decision making.

As we move towards better use of administrative data, there are opportunities to tie

activity more closely to localities, although that is subject to an acknowledgement that a business that is reporting in one area might have enterprises spread across other areas, and thus we get into issues of how we apportion its turnover, employment or whatever across Scotland, or indeed the UK. There are opportunities but also challenges with using the admin data.

**Gordon MacDonald (Edinburgh Pentlands) (SNP):** We have talked this morning and in previous weeks about the gaps in economic data. Given that the ONS is the UK's national statistics institute, is it doing enough to fill those gaps and address those issues?

**Dr McIntyre:** I should perhaps declare an interest as part of the ONS's economic statistics centre of excellence project.

Looking back, we can see that Charlie Bean's review, which came out in 2016, pushed the ONS to up its game in a number of key areas. We are now seeing a development that involves moving the ONS's regional GVA data so that it is much more timely. I am involved in some of that—the ONS is working on one part and we are working on another. The aim is to improve the coverage of the ONS's regional GVA data and make it more timely and that will complement what the Scottish Government is doing.

Another example is that, as I mentioned, the Scottish Government and HMRC are working to boost the coverage of the living costs and food survey so that we can start to get more of a regionalised price index for Scotland, which is important. In a sense, the ONS is illustrating a willingness to listen to people. Indeed, one thing that came out of Charlie Bean's review and that the ONS is really being challenged on is engaging with users and responding to user needs. The Scottish Government has the same responsibility, and I think that it does a good job on that.

In part, the onus is on us as users and on the devolved Administrations and Parliaments to put a bit of pressure on the ONS if we think that it should be doing something that it is not doing. However, particularly since the Bean review, there has been a real change in approach from the ONS, which is positive.

**Gordon MacDonald:** We are talking about an organisation that carries out 80 surveys and issues 1.7 million questionnaires to more than 290,000 businesses, so the data must be there to an extent. A quick google will find plenty of reports from the ONS on England and Wales data only, but it is very difficult to find a similar Scotland-only report.

**Dr McIntyre:** I have one quick point on that. The ONS produces around 20 per cent of national

statistics, so it is not the dominant producer of those, although it does a lot. Increasingly, as the Scottish Government is getting access to HMRC data—it has already had some access for evaluations of land and buildings transaction tax—and as the work that I mentioned on access to the monthly business surveys progresses, that treasure trove of ONS data is being made available. There was an issue when there were no clear access protocols and the legality of access was not clear, but that has now been cleared up with the Digital Economy Act 2017. The question now is whether we will see an opening up of that treasure trove of data.

10:15

**Professor Bell:** I am critical of the ONS's presentation of data. It is quite difficult to find what I am looking for on the ONS website. I think that the Organisation for Economic Co-operation and Development and Eurostat give you much more opportunity to interrogate quite big databases and construct your own tables without too much difficulty.

The ONS is trying to improve how it visualises data. There have been great advances in data visualisation in the past three or four years and I would say that the Scottish Parliament information centre is ahead of the ONS in the reports that SPICe regularly puts out. As Stuart McIntyre said, the ONS is not a monopoly provider of statistics in the UK. The Economic and Social Research Council does a very good job in terms of producing other data sets—I used to be on one of its panels.

Since Stuart has plugged himself, I will plug myself. One of the things, rather puzzlingly, that was funded by UK-based departments—namely the DWP and HM Treasury—was the English longitudinal study of ageing, which is restricted specifically to England. I have been trying for some years to produce an equivalent survey for Scotland. I think that I have now succeeded in doing that, and we are going to release it in December. That has really been a struggle.

I do not in general find a consistent bias towards England and Wales, although it is true that quite a lot of data are England and Wales specific. Sometimes that is due to the way that the Administrations are working, either together or differently.

**Gordon MacDonald:** Given the gaps that we have, are there any areas that the ONS could improve and help with?

**Professor Bell:** Clearly, going back to the price data, you have to have a basket. If you are going to have a price index, you have to have a basket. Therefore, you need expenditure surveys. This is

important now for VAT in particular. There is clearly a need to do more in relation to understanding how Scottish households spend their money.

**Dr McIntyre:** That is now in train, with the 100 per cent boosted survey of living costs and food in Scotland, which is paid for jointly by HMRC and the Scottish Government. It is being carried out for precisely the reason that David Bell identified: the VAT issue.

**Gordon MacDonald:** Richard Marsh's report refers to the fact that ONS

"staff are overwhelmingly focussed on simply 'getting the statistics out'. Relatively little attention is devoted to how the quality and relevance of the statistics, or their delivery, could be improved."

Given those concerns, should Scotland have its own statistics authority that is similar to the ONS? Northern Ireland has one and the Scottish Government already has to supplement a lot of the surveys that are carried out in order to get reasonable information.

**Professor Bell:** Although Northern Ireland has its own statistics authority, I am not clear at all on whether the outputs from that are any better than those for Great Britain. Scotland could have its own statistics authority, which would possibly be more focused, but I would still argue that it is important to maintain close comparability with whatever kinds of data are being collected in other parts of the UK and more widely.

I am a little concerned about what may happen in relation to Eurostat after Brexit—about whether we will continue to collect data in the same way as it is being collected in Europe as a whole. For example, the labour force survey in the UK is embedded in the European labour force survey, which I have been using over the past few days and which broadly asks the same questions.

**Dr McIntyre:** To be honest, I am not sure that I recognise Richard Marsh's characterisation of the ONS. It might have been true at one point many moons ago, but more recently—this has been accelerated by what has come out of Charlie Bean's review—the ONS has been forced as an institution to change its culture a bit. One need look only at the ONS's honesty in saying that the retail prices index is, in its current form, not a useful measure and that, frankly, it cannot become one. It has also been pretty honest about the quality of the data.

As for the Northern Ireland Statistics and Research Agency, I can see the intuitive appeal of setting up a separate Scottish stats authority, but I point out that NISRA is not as independent as it might seem—it is an agency of the Northern Ireland Department of Finance.

To build on David Bell's point, I think that we need to keep comparability, but we also need to avoid duplication. If we are now in a world in which the ONS, HMRC and other UK-wide data collection agencies are making information—including raw, unprocessed data—much more freely available to the devolved Administrations, the need for those Administrations to have their own stats authorities to collect essentially the same data does not seem particularly strong.

**The Convener:** Before we plough on with questions from John Mason, I will follow up some of the points that Dr McIntyre just made. Should the Scottish Government be a producer of data and statistical information, as well as a user from a policy point of view?

**Professor Bell:** In general, I am in favour of statistical agencies being at arm's length from the Government. In a sense, National Records of Scotland is at arm's length, and the UK Statistics Authority oversees the ONS and its impartiality. Whatever organisational arrangements are made, the organisation that is responsible for collecting and publishing data should be at arm's length from the Government.

**Dr McIntyre:** I tend to agree. The other issue to highlight, which I know has come up in previous sessions and which we address in our submission, is pre-release access. Post the Bean review, the ONS has removed that access to its statistics; in Scotland, however, we have the anomaly that not only do we still have such access but it is much more generous with timescales than was previously the case elsewhere. That is an obvious area to take action on.

**John Mason (Glasgow Shettleston) (SNP):** First, I apologise to the convener and the rest of the committee for being late. The other committee that I am a member of met in Orkney last night, and there are limitations on travel back. However, I was quite impressed to be here by 10 o'clock.

I realise that gaps in data have been discussed, but I am interested in hearing your feelings on the access that you as academics get to data and statistics. You will not get access if the data is not there, but is there a problem that, sometimes, you believe that the data is there and you are not being allowed to see it? A previous witness told the committee that, when they ask the ONS for information, they generally get a positive response, but when they ask HMRC, the response is not so positive. Do you identify with that view?

**Professor Bell:** Access to data is close to my heart, partly because, with a slightly different hat on, I access health data, and there are huge qualifications around that and long processes to go through in order to do so. Data from HMRC

might be covered by different legislation from that on data from the ONS.

In general, the kinds of data that I use are accessible by bona fide academics from around the world through the UK Data Service site, which is probably the best in the world for making raw data available, in a suitably anonymised form, to interested researchers. That covers stuff such as the family resources survey and the labour force survey.

Accessing data such as the annual survey of hours and earnings is more tricky. To get that, people have to move up a level of access—they have to go into secure access, which means in effect that their work has to be checked to see whether it will reveal any information about individuals. There is a higher level still, which I am about to go on to later this morning, as I am heading from here to the BioQuarter at the Royal infirmary of Edinburgh to access health data, and I can do that only under the supervision of individuals whose job it is to check that I am using that information properly.

**John Mason:** Do you find that arrangement satisfactory? Are you saying that those rules are necessary, or do you find all that to be a bit over the top?

**Professor Bell:** It is a bit over the top, but I understand why. There are huge sensitivities around access to data. In England, there was a disastrous initiative that involved sharing general practitioner data without individual consent. When individuals found out about it, the scheme collapsed under the objections. Now, accessing health data is much more difficult in England than in Scotland. There have to be safeguards. They might be a bit over the top, but I understand why they are there.

**Dr McIntyre:** I have had much the same experience. I am waiting for similar health data to that which Professor Bell is talking about. Inevitably, we are developing a series of protocols that are becoming more consistent across data providers in the UK. HMRC, the ONS and other providers are working on a more consistent programme for training researchers in issues of the safe use of data—David Bell and I have undertaken the training. The aim is to ensure that researchers are not trying to retrieve information through which an individual might be identified. That is all perfectly sensible and proportionate.

Academics are getting better at accessing such data and at acknowledging that they have to go through training to do so. I agree with David Bell that the UK Data Service site is great. It allows researchers to access a range of surveys and to put up their own survey data.

Frankly, the only roadblock to data access for researchers is the resource that is needed by the analysts on the other side of the desk, as it were, to get the data into a form that researchers can access. The analysts have all the data; they need to remove names and addresses and so on from it and then put it on a safe haven for researchers to access. From a researcher's point of view, the only roadblock is the availability of resources for those people to enable that to happen.

10:30

**John Mason:** Do you feel that things are getting worse rather than better?

**Dr McIntyre:** Software, training and the comparability of requirements for researchers to apply for data—the process that they go through—are getting a lot better. What is getting worse is the amount of analyst time that is required on the other side to produce data in a form in which they can be accessed. That has become a bit more difficult for some of the more sensitive administrative data.

**Professor Bell:** A general problem is having enough skilled people on both sides of the fence to deal with data. We talk about the fact that we are moving into an era of big data. We have to have people with the skills—statistical skills, by and large—to deal with that. The ESRC has put quite a lot of money over the years into trying to make social scientists more quantitatively able. It seems to have had some success, but more probably needs to be done to get skilled people in front of the data, because the amount of available data is increasing exponentially.

**John Mason:** On a separate issue, in one sense there are gaps in data and statistics—we accept that—but I presume that one of our aims is to track progress in relation to the Scottish Government's economic strategy or the national performance framework. It therefore does not matter, perhaps, if the data was slightly flawed last year and it is still slightly flawed this year, as long as we compare like with like. Is that too simplistic a way to look at the situation?

**Professor Bell:** Part of my issue with the performance framework is that it is difficult to know whether the Government really has a handle that it can turn that will cause an indicator to change for the better—or for the worse. We can take a measure of productivity as an example and ask how far Government policy affected whatever change in productivity occurred. The change might just have been a function of the economic cycle that might be unwound at another point. The Government might look to take credit for it or, if it goes the wrong way, try to avoid any discussion of

it—but it might not have been the Government's fault in the first place.

**John Mason:** Are you saying that we can tell whether productivity is improving, decreasing or staying the same, but we cannot tell why?

**Professor Bell:** Yes. That is difficult. If we knew exactly what the levers for productivity were, we would be turning them as hard as we could. There is a lot of debate and discussion—Andy Haldane at the Bank of England looked at this recently—but there is no clear set of interventions that people know of that will immediately have a result. I say “immediately” because certain interventions might have an effect only after five or 10 years. My concern is that we cannot be sure what the causal linkage is.

**Dr McIntyre:** I will add slightly to that and pick up on something that I talked about when John Mason was not here. Collectively, we have been a bit concerned that everyone focuses on very high-level aggregate figures—whether they are GDP, productivity, employment or unemployment figures—that are used as indicators of progress. If we look at the longer term and smooth out some of the issues with the business cycle, they may well be indicators of progress, but a much more interesting and important thing is that, even if we do not know what works, we may have ideas about what might work. We should therefore embed proper, robust programme and policy evaluation in each policy initiative, pilot or whatever, so that we can get to the other side and say, “Here's the impact of this.”

It might be a bit difficult to aggregate that up to look at the economy-wide impact. However, at least we could say that we had tried an intervention, evaluated it robustly and found that it had an impact, so it works, rather than saying that we did an initiative and GDP or productivity went up or down, when the causal link between those things is intangible.

**Jackie Baillie (Dumbarton) (Lab):** Stuart McIntyre has answered this question in part, but I will put it to Professor Bell. Pre-release access to statistics still applies to ministers in Scotland. As we have heard, however, the ONS and the Bank of England have ceased that practice. Should we follow them?

**Professor Bell:** In general, my view is that politicians should not necessarily be in a better position than others when it comes to the release of data.

**Jackie Baillie:** I move to public finance, in which I know that you have taken an interest. Given our new powers, do we have enough information on the overall financial position of the public sector? In other words, do you see a value

in whole-of-Government accounts and assets and liabilities being set out clearly?

**Professor Bell:** There is a strong case for that, which Audit Scotland could make. There is a debate around contingent liabilities. For example, how should future pension liabilities be valued? Such liabilities may change a lot with a small change in the interest rate, so we have to treat them with some caution. Nevertheless, if we look at the Government's financial position over the medium to long term, there is a very high probability associated with some things—an ageing population, for example—that means that we may need to be a bit more radical in our thinking if we are to prepare for the changes in liabilities that we know are likely to come down the line.

**Dr McIntyre:** We make much the same point in our submission. Some of the concerns about an ageing population build on our budget report of a few weeks ago, which emphasises that point.

If we look at the UK whole-of-Government accounts, we see that all the Scottish Government bodies, non-departmental public bodies and everything else are in there. The information is there—it is just a question of how we reparcel it.

**Gillian Martin (Aberdeenshire East) (SNP):** We heard evidence last week on the definition of inclusive growth, and Professor Bell has mentioned inequality. Do we have the ability to measure inclusive growth and inequality with the data that we currently have? Could any tweaks be made to the data that is currently available?

We have had issues with data in some of our investigations into the gender pay gap. The data is out there, but it is not disaggregated at the level of gender. That is just one example that has come up recently.

**Professor Bell:** Most of the inequality literature uses one of two sources for measuring inequality. One is the family resources survey, which is paid for by the DWP, and the other is the understanding society study, which is paid for by the ESRC. You asked whether there is enough information. Again, in terms of granularity, you could make quite a good guess at the differences by gender within Scotland from those two surveys, but you would not get a guess at all for the differences between ethnicities. Although the understanding society study shows a boost for the non-white population, it is not enough to allow you to guess at the differences in Scotland.

We know a lot about income inequalities but not very much about wealth inequalities, and I am trying to address that with my ageing survey. The main source for that in England is the English longitudinal survey of ageing or the wealth and assets survey. In Scotland, the sample size for the

wealth and assets survey is not that big and ELSA does not cover Scotland. Over time, we are likely to see more emphasis on wealth inequalities than has been the case recently. Currently, most of the information and research that hit the public are about poverty and inequality levels as measured using income, not wealth.

**Dr McIntyre:** I agree with David Bell. There is a range of data. As always with such surveys, there are difficulties when you start trying to get down to particular groups. A few years ago, Oxfam wanted to focus on less-heard groups. If you start going down that line in the existing survey data, it becomes difficult because, almost by definition, less heard groups are less likely to be sampled and, if they are, they will be in a distinct minority in that sample. We run into problems with the data when we start to drill down into income by characteristics of individuals.

**Gillian Martin:** So we are going to get access to the administrative data from HMRC, but none of it will really help us to analyse inclusive growth or inequality.

**Professor Bell:** Administrative data are limited compared with survey data because they are collected for administrative purposes. They do not necessarily have all the characteristics of individuals that you might want to do analysis of a sub-group. For example, HMRC data will have gender but perhaps not ethnicity, because people do not have to state their ethnicity on their self-assessment form.

**Dr McIntyre:** Something that has been talked about for a while and which I think is finally happening is linking some of the bigger administrative data sets. For example, DWP data sets are being linked with HMRC ones. My colleagues have been talking about that. If somebody disappears from the HMRC data, they might well show up in the DWP data, and if they leave the DWP data, they might well show up in the HMRC data. Linking the data sets gives us a better understanding of people's transitions through time. However, as David Bell said, the administrative data that is collected might well not capture the characteristics that you are interested in.

**Professor Bell:** To give an example of the benefits of linkage, our survey is an hour-and-a-half survey of people, so we collect loads of information on their characteristics so that we can assign them to sub-groups. We then link that to their health data so that we can see what kinds of people are frequently in hospital, often go to the dentist, have care packages and that kind of thing. That is the great benefit of linking a survey to administrative data. We can put all the characteristics that we might want to use to assess inclusive growth together with the admin

data, which enhances the power of the survey hugely.

**Gillian Martin:** I presume that, if we wanted to analyse in-work poverty in Scotland, it would be a case of linking all the available data and analysing it.

**Professor Bell:** Yes. If we could link, for example, the labour force survey to DWP records, we would be able to look at somebody's benefit history. The labour force survey is similar to our survey in that it has a lot of individual characteristics about people's health and disabilities. Once that linkage is made, it is a very powerful data resource.

10:45

**Dean Lockhart (Mid Scotland and Fife) (Con):** It sounds as though there is some useful data out there for benchmarking inclusive growth, but as far as what we are trying to measure is concerned, is there an internationally recognised definition of inclusive growth?

**Professor Bell:** I am not familiar with any.

**Dr McIntyre:** I am not aware of one.

**Professor Bell:** I could think of a combined measure involving inequality and GDP per capita growth, but I do not think that there is an accepted international measure.

**Dean Lockhart:** So far as you aware, is there any such definition that the Scottish Government uses to measure changes in and progress against the target of inclusive growth?

**Dr McIntyre:** Not that I am aware of.

**Professor Bell:** I am not sure whether there is any, either.

**Dean Lockhart:** I have a similar question about another of the four Is: innovation, which is obviously a key driver of productivity and clearly an issue that everyone is focused on. Is there a recognised way of measuring innovation and progress in innovation?

**Professor Bell:** Work is being done on that. For example, John Van Reenen, formerly of the London School of Economics and now at the Massachusetts Institute of Technology, has recently done some work on innovation and another topic that is very rarely mentioned: management quality. However, that research is exploratory at the moment, and it might be some time before a national statistic for measuring innovation emerges.

**Dr McIntyre:** In July, the ONS published a paper in which it tried to scope the possibility of distinguishing with regard to total productivity between improvements in labour productivity,

capital productivity and multifactor productivity. One of the things that John Van Reenen is focusing on is that, although we can measure labour productivity and, to some extent, capital productivity, there is another component. The question is: what is that, and how do we impact on it? As David Bell has said, Van Reenen is looking at management practice as another form of technology to try to come to a better understanding of this issue. We can estimate the increase in productivity that is not due to improvements in labour or capital productivity—what is known as the Solow residual—but in order to understand what lies within that, we have to focus more on firm-level studies to understand why some forms are more productive than others.

**Dean Lockhart:** Finally, we have all read about the OECD's top quartile, second quartile and so on of innovation and productivity. How does it measure a country's innovation levels? Is there some benchmark that it looks at?

**Dr McIntyre:** I am not familiar with the OECD's measure, but from experience I can say that it is very good at producing methodology papers alongside its work. I am very happy to look into that matter, if that will benefit the committee, but I expect that it will have made that information available.

**Dean Lockhart:** Thank you.

**The Convener:** We are running short of time, but Gil Paterson has a final quick question.

**Gil Paterson:** How do you see the Digital Economy Act 2017 improving the quality and timeliness of economic statistics in the UK, and what can Scotland learn from that?

**Dr McIntyre:** This brings us back to my point that the 2017 act cements in place data access and makes it absolutely clear to HMRC that, legally, it can share a lot of its administrative data with other Government departments and the devolved Administrations. However, although the act moves us well ahead as far as data access is concerned, there will, as David Bell has suggested, always be an issue with the timeliness with which people have to report information to, say, HMRC. That necessarily imposes a time lag on the data, but I think that through the 2017 act we will see much better, fuller and more timely access to data for other Government departments and the devolved Administrations.

**Gil Paterson:** The Royal Statistical Society has pointed out:

"The DEA will not provide devolved administrations with direct access to these data sources but they should be able to access them through ONS".

Is that not a bit of weakness in that legislation? Does it not take us back to where we already are?

Should the “should” in that sentence not be “shall” to ensure that devolved Administrations have the right to such access? In your experience, does it make any difference?

**Dr McIntyre:** I think that the RSS is making a distinction where there actually is not much of a difference. It comes back to the point that HMRC will prepare the data by cleaning it and assessing it as a complete set, and then it will be put on to its microdata lab so that Government departments can access it or on to the ONS’s virtual microdata laboratory. That data product will be there. I cannot speak for the RSS, but I suspect that the distinction that is being made is between that and the Scottish Government, for example, being able to look at people’s tax records directly.

**Gil Paterson:** Thank you.

**The Convener:** As members have no more questions, I thank our witnesses for attending. I suspend the meeting so that we can move to our next evidence session.

10:51

*Meeting suspended.*

10:57

*On resuming—*

**The Convener:** I welcome our second panel of witnesses. They are Alastair Nicolson, who is head of planning and partnerships at Highlands and Islands Enterprise; Gemma Diamond, who is a senior manager at Audit Scotland; and Kenny Richmond, who is economics director of Scottish Enterprise. You may have heard some of what was said in the previous session about the strengths and weaknesses in the current suite of economic statistics and data for Scotland. What specific improvements would you suggest?

**Kenny Richmond (Scottish Enterprise):** I think that it was mentioned in the previous session that although there is a great range of economic statistics for Scotland—we are probably better placed than many other UK regions in terms of availability of data, and we are also able to compare data internationally, which is very useful for benchmarking Scotland’s performance—as with any economy, there is always room for improvement or areas where data can be improved.

I think that some of the issues were covered earlier this morning. Some aspects of trade data could be improved, particularly at a sub-Scotland level—the number of exporters, for example.

Also, we have some gaps in business investment data at UK level, but we have that gap particularly at Scotland level. There are some

challenges, especially when you go down to the sub-Scotland level to look at the granularity of data. Such challenges are not unique to Scotland—they are found in many other economies.

**Gemma Diamond (Audit Scotland):** In Audit Scotland’s report on the enterprise agencies last year, we noted that it was very difficult to measure the progress of the economic strategy. The economic strategy itself does not really have targets and progress measures, and it links directly to the national performance framework. You heard in the previous evidence session that that very high-level data makes it very difficult to measure what the public bodies are doing to contribute to the statistics.

We found that at individual public body level—enterprise agency level—a lot of evaluation work on the impact of their spending and what difference that is making is published. However, we found that it is very difficult to aggregate the information together.

11:00

**Alastair Nicolson (Highlands and Islands Enterprise):** HIE is an enthusiastic consumer of national statistics, and changes in the key metrics influence our organisation’s policy choices and resource allocation priorities.

The current suite of data certainly has its limitations, particularly when analysis is required at the level of the more granular functional economic areas that make up our region. The supersparsity of population constrains the value of sample-based statistics, particularly when they are designed to be robust at Scotland or UK level. We are keen to work with the Scottish Government and other partners to share research and insights, and to look at ways to improve our understanding of the changes that are taking place in the economy and society.

**Jamie Halcro Johnston:** How do Highlands and Islands Enterprise and Scottish Enterprise use the current suite of statistics in their responsibilities for economic performance and support of business growth and enterprise? What gaps are there and what can be improved?

**Alastair Nicolson:** HIE regularly tracks a number of key statistics at the most granular level possible in order to produce internal reports and economic commentaries on what is happening in the economy, which we use to inform resource allocation and policy choices. We identify typologies for our fragile areas based on our understanding of the makeup of the regional economy, and the areas that are more in need of support get a disproportionate amount of our attention over a planning period.



**Kenny Richmond:** SE uses economic indicators to understand where Scotland's opportunities and performance challenges are across the drivers of economic growth and productivity. That helps to underpin where we want to focus and prioritise our activity. We analyse and monitor over time to see where Scotland's biggest performance gaps are, and we marry that with real-time feedback from the companies and sectors that we work with. The information from the official stats plus the intelligence that we pick up on the ground give us a good body of evidence.

**Jamie Halcro Johnston:** We have heard from a number of witnesses that regional statistics are quite weak. What issues does that create for you? How should we combat it?

**Kenny Richmond:** I go back to the previous point that economic statistics give us a broad indication of challenges and opportunities. We augment that with our research and the evidence that we create, plus feedback from our contacts in businesses and sectors—chambers of commerce and other partners—and that gives us quite a rich information data set or evidence base on which to base policy.

**Alastair Nicolson:** The GVA data at NUTS 2 and 3 level is two years old when it is published, so it is interesting rather than useful, from a policy development perspective. Over the long run, it informs regional policy at Scotland and UK levels, including the allocation or identification of assisted areas, which influences state-aid intervention rates and suchlike. Structural funds programmes follow on the back of that, so understanding the changes is still very informative for the long-term game of regional development—albeit that the data is pretty historical by the time it is published.

**Richard Leonard:** I heard your answers to questions 1 and 2, but people who are watching the meeting might still want to ask you directly about the weaknesses and gaps in the data that is collected on exports, investment and innovation, which are your key policy targets to improve. How do you know what impact your work is having on those targets and on the economy? Do you have any sense of whether things that you do work or do not work?

**Kenny Richmond:** There are two issues there. Through our own monitoring, evaluation and research, we can get a pretty good idea of the impact that we are having on the back of specific programmes, whether they are to do with companies or sectors. As Gemma Diamond mentioned, we carry out an evaluation programme, which we publish. The information is available and it gives a good idea of what is working, why it is working and the extent to which

it is working on the companies and sectors with which we work.

As David Bell and Stuart McIntyre said earlier, it is very hard to link that information to overall economic data. That is not just very hard for Scottish Enterprise; it is the case for any economic development agency, because so many things are going on in the wider economy. Making a direct link from what we do to productivity growth is very difficult. We can do it easily on the basis of the companies and sectors that we work with, but it is very difficult to do at the macroeconomic level.

**Alastair Nicolson:** I echo that. In the Highlands and Islands, we do not have any reliable data on the total value of exports, but within our client portfolio we know which companies export, which markets they export to and what proportion of their turnover is generated through exports. That helps to inform the types of support that we give them to expand their markets or deepen their engagement in particular markets over time, and it helps us to understand at sectoral level within our client base which markets are growing and what needs additional support.

Although we cannot really analyse the bare data at a very local level, we know from our understanding of our clients where they sit on the spectrum that goes from innovation happening by chance to innovation being part of the company's cultural operation. That informs the types of support that we give companies to help them to innovate more. We know about the strong correlation between innovation, productivity and internationalisation.

**Richard Leonard:** I think that you called the data that you collect "granular". Maybe it is microdata; I do not know. Do you use that data only internally, or is it published? Is it in the public domain?

**Alastair Nicolson:** HIE would publish with caution the information that we hold; I refer to what the previous panel said: it would be quite easy to identify individual companies in some sectors or geographical areas. It is important to recognise that the businesses that we work with are not a representative sample of the regional economy as a whole. They are the businesses with the most growth ambition and the most potential to expand, and they work in markets in which we see future growth. They are certainly not average or representative. However, we would look to compare how our clients perform against the economy as a whole, and we work with Scottish Enterprise on trying to match our data with national data sets in order to try to see what difference our interventions with our clients are making compared with how the economy as a whole is performing.

**Kenny Richmond:** SE has a policy of publishing research and evaluation findings. We also try to use the raw data that we collect in a number of ways. In the past, we have opened that information up to university students, for example, to come in and base their dissertations on it. However, we could probably do more in making that data more freely available. There has not been demand for it, but if we publicised the fact that we have data that academics, for example, could use, perhaps there would be more demand for it. We are actively pursuing that at the moment.

**Richard Leonard:** Last year Audit Scotland published a report that looked into the internal performance evaluations that HIE and Scottish Enterprise conducted. I recall that you were quite impressed by the extent to which they had internal checks and ran their own internal auditing procedures, but were less impressed by the Scottish Government's measurement of its economic strategy. Will you talk a little about what you found in looking at HIE and Scottish Enterprise?

**Gemma Diamond:** When we looked across the enterprise agencies, we certainly saw a systematic approach to evaluation. That is very much part of what they do in looking at impacts so that the information can feed back into improving how they do things.

Scottish Enterprise has a separate website on which it publishes everything that it does, so it is quite transparent in terms of its activity. HIE certainly makes a lot of its evaluations available, and it published a programme setting out when it would look at things. We were reassured by that methodical process.

The economic strategy as a whole is very wide ranging and covers a lot of ground. We found a couple of things. First, quite a wide evidence base goes into making that strategy, but we recommended that that information be more accessible and transparent, so that people can easily see what evidence is used and how the Scottish Government interprets it to make its policies. As the committee has heard from a range of witnesses, people have differing views on the same sets of data and use them in different ways. We therefore thought that, in the interests of transparency, the Scottish Government should make the evidence base for its strategy more available, so that people can see how it makes its policy decisions.

Obviously, as auditors, we follow the money. We looked at the £2.2 billion that went into what was, at that point, the strategic forum—the enterprise agencies, Skills Development Scotland, the Scottish Further and Higher Education Funding Council and VisitScotland—and asked how the Scottish Government knew what value it

got from that combined investment and what difference it made to progress on the strategy. We found that it was very hard to measure at that level.

Now, with the enterprise and skills review and the new strategic board, the Government is talking about having a framework to aggregate some of the measures. We found quite a lot of differences in measurement—the two enterprise agencies measure things in different ways, for example. A more methodical assessment would be quite helpful, because it would allow us to see what is actually achieved for what the Scottish Government puts in—that £2.2 billion—and to measure the difference that it makes.

**Gil Paterson:** I have a quick question about the export information that you have—not about what is exported but about the actual exporters. It sounds as if you have a good handle on that, but given your social responsibility for communities, do you track the supply line? Do you look at who supplies the exporters?

**Alastair Nicolson:** Are we talking about imports?

**Gil Paterson:** No—exports. I thought that you said that you do not know the value of exports but you know your exporters.

**Alastair Nicolson:** We know the value of exports by the clients that we work with directly.

**Gil Paterson:** Yes, I understand that. Do you track the people who supply the exporters?

**Alastair Nicolson:** We probably do not do that on a wholly systematic basis. As David Bell said earlier, that is very difficult to do. Businesses often do not know where their raw materials come from originally—they are not particularly interested in that. At the moment, while they are trading in a very large single market, they buy in the materials that are available and affordable to them through wholesalers and suchlike.

**Gordon MacDonald:** We have heard a lot about the use of key economic statistics—you talked about tracking them and about how they help to inform economic policy—but it has been suggested that there is a lack of consistency among the organisations that carry out statistical analysis. For instance, Reform Scotland explained that there are compatibility issues between local authority finance stats and Scottish economic data. There are also differences between Scottish figures and ONS figures about productivity. I just wonder what impact, if any, that has on your function of investing, targeting enterprise support and so on.

**Kenny Richmond:** SE has found in our work that there can be methodological differences between some of the major datasets. You

mentioned the differences between the data that are produced by the Scottish Government and those that are produced by the ONS. Generally, the differences are not great; the user just needs to be aware of what the data are based on and to understand the methodologies, and then, if there are differences, we can look at why that might be.

In terms of informing policy, we have not found that to be a significant issue from a Scottish Enterprise point of view, because we can understand what the differences are. The data findings are massively different across the sources.

11:15

**Alastair Nicolson:** I echo that response for HIE.

**Gordon MacDonald:** Given that there is duplication, do you have any recommendations about removing some of it?

**Kenny Richmond:** Yes, I think so. There is work going on at the ONS at the moment. For example, for some of the business databases, it is looking to introduce what I think will be called a business index. I do not have specific details, but it will seek to bring together two or three different data sets into one in order to try to prevent some of the duplication. The ONS is aware of the duplication, and work is being done to try to simplify things.

**Ash Denham (Edinburgh Eastern) (SNP):** On the topic of how we assess the progress that the Government is making according to its own agreed framework, one of the Scottish Government's four Is is inclusive growth. Last week, we asked panels whether there was a definition of inclusive growth and what they understood it to mean. It seems that there is not an internationally agreed definition of inclusive growth, so what do you understand it to mean?

**Alastair Nicolson:** From our perspective, we would look at inclusive growth as meaning that although our engagements and interventions need to support economic growth, we need to ensure that all of society is able to share in the benefits of increased wealth. We would look at people who live on the margins of society and the margins of geography. For example, in the Highlands and Islands, if our target was to make GDP in the region grow as fast as possible, we could put all our investment in and around large projects in the Moray Firth and greater Inverness area, which would make the regional statistics increase but would not help Orkney, the Outer Hebrides, Argyll or Lochaber. We therefore have to balance the interventions that we make, capitalising on opportunities where we see them and addressing

need in some of the more peripheral and marginal parts of the region.

**Kenny Richmond:** I echo that and I agree that there is no internationally agreed definition of inclusive growth. From what I have seen, a lot of measures are included in a basket of indicators, whether that reflects equality of opportunity across different types of groups, for example, or regional equality. A lot of the attention is also on the quality of opportunities—for example, how fair work is or how good jobs are. As you said, there is no specific definition of inclusive growth, but having a basket of indicators, rather than just focusing on a single measure, is useful for understanding how inclusive economic growth is.

**Gemma Diamond:** When we reported last year, which was the first time that the four Is had appeared in an economic strategy, we noted that the evidence base for inclusive growth was just being built, so there was no clear definition of what it was and how it would be measured. Again, we made a recommendation about that.

**Ash Denham:** I think that you were here when the previous panel was giving evidence, and you will have heard that they mentioned that a number of areas are missing. For example, longitudinal data is missing, and it might help us to measure inclusive growth, details on household income changes and so on. That is obviously not an exhaustive list, but if we are missing those and other types of data, how do we measure inclusive growth? It is difficult to do that with the indicators that we have, so can you suggest other indicators that might help us to measure it?

**Alastair Nicolson:** We rely quite heavily on the census, which gives us a clear indication every 10 years of what has changed within the region, down to a very granular level. From our perspective, people vote with their feet in the long run, so if we are developing a community and a society that is attractive and appealing to people, we will see it grow and prosper over time. If better opportunities are offered elsewhere, we will see a decline in the population. In the long run, that is the core indicator that we would track.

We would always like more understanding of household income and its composition in terms of how much of it comes from full-time employment and how much from part-time employment. The Highlands and Islands, particularly in the more peripheral areas, are disproportionately more reliant on self-employment. Often, that is through necessity rather than choice. In more peripheral areas, the earnings from self-employment tend to be below those from other types of employment, whereas in urban areas, where self-employment is through choice, people often earn more than average.

It is important to understand the choices that people make and, on the flipside of that, the cost of living, particularly at a socially acceptable standard. The types of cost that people experience in peripheral areas are, in many cases, quite different from those that people experience urban areas. Over the longer term, it is particularly important to understand those differences and consider where policy can intervene to address some of the higher costs of living or doing business.

**Kenny Richmond:** For some measures of inclusive growth, we probably have good data at the Scottish level, but, as I mentioned, when we drill down below that it can be a bit more challenging. One matter on which we have less information on not only Scotland but other economies is the understanding of fair work and good-quality jobs. The work of the fair work convention should help to address that. The OECD has been doing a little bit of work on that recently and has produced a job quality index. However, those are new initiatives especially on that element of inclusive growth, which a number of agencies and bodies are considering.

**Gemma Diamond:** It is important to set out clearly what the ambition is and what the priorities are so that we can decide the best basket of measures and what is relevant to Scotland. In our report on the enterprise agencies, we noted how hard it is to measure impact. There is a time lag and that time is needed, so it is really important to think about the consistency of measures and to have measures that we can follow over a long period and that are not subject to changes in definition over time.

**Dean Lockhart:** Last year's Audit Scotland report highlighted a different set of performance targets within each of the enterprise agencies. With the new strategic board in place and the objective of hard alignment, what work will you do to ensure that your performance targets are aligned across the agencies and with the four Is economic strategy?

**Kenny Richmond:** There is work going on at the moment on developing an interim plan for the strategic board. Work is under way on what the performance framework on the back of that plan could look like. The Scottish Government is leading that and we and the other agencies, including Alastair Nicolson's, are feeding into it. There will be work to ensure that our individual operating plans and the measures in them link into that performance framework, which will inform the strategic plan. The analytical unit that is in the process of being set up will take that work on as well. It will consider the types of performance measures that are appropriate and how the agencies will feed into them.

**Alastair Nicolson:** It is important to recognise that the measures that we have are a representation of progress against the strategy in the long run. Although using similar metrics would be valuable progress, the support to businesses provided and the jobs created are only part of the impact that we make on the region. The business support element is probably the most similar between HIE and Scottish Enterprise. However, interventions that we make on community development and regional infrastructure are equally important. Their tangible short-term measurable job impact is decidedly more limited, but, in the medium to long term, they make much more of an impact.

We need to strike a balance between need and opportunity. We might capitalise on an opportunity and create 500 jobs, and that would be fantastic. However, if we are tackling need, we might invest heavily in infrastructure that would turn around the fortunes of a region or a part of it over 10, 15 or 20 years. The benefits of that would be less tangible in the short term. Therefore, a race for numbers could lead to suboptimal decision making and we always need to be cautious of that when we work out what we are trying to do across the piece.

**Dean Lockhart:** If there is alignment of data, will the agencies provide more transparent data on which of their performance measures have been achieved and which have not? That would be helpful for us and for the overall objective of increasing data on the economy.

**Kenny Richmond:** Yes. It would be the focus of the analytical unit, on the back of the performance framework that is being set up, to try to make the data as transparent as possible.

**John Mason:** I want to develop what Richard Leonard was asking about, especially with regard to the data that you produce yourselves. You said that you were encouraging students and others to use some of the data that you produce. Is that to help them study you and your performance, or is it to help them, in the case of HIE, to understand the whole of the Highlands and Islands economy?

**Alastair Nicolson:** It was Kenny Richmond who spoke about students.

**Kenny Richmond:** We do not produce official statistics as such, but we carry out evaluations and bespoke economic research studies, which may collate information and data from businesses that we survey. We try to mine that as much as possible to understand the impact that we are having. That data can also give us evidence on the types of challenges that businesses are facing, so it is real-time evidence that we can use alongside the official statistics.

The evidence that we collect if we are carrying out an evaluation is just about the businesses that

we support, so it would not be representative of the Scottish economy as a whole. Analysis of that type of evidence can give an indication of issues and challenges that could be faced by a wider cohort of businesses, but it is focused evidence and data from the businesses that we support. As I said, we try to mine it as much as possible, and it is open to others to go in and do some cleverer analysis than perhaps we can do.

**John Mason:** That is what I was wondering. You are targeting growing businesses and bigger ones as well, so are there any lessons that other people could learn from the data that you have, or do you reckon that it is so specialised that it is not much use to the wider world?

**Kenny Richmond:** We think that it will be of use to the wider world, which is why we publish as much of our evaluation and research findings as possible. We can consider whether some of the findings are relevant to the wider economic population. A lot of them will be, so we can use that evidence to understand the challenges that businesses in the sector face, whether they are around exporting or developing new products and services. That evidence can help.

**John Mason:** How does confidentiality come into that? I presume that companies tell you things that they do not want the world to know.

**Kenny Richmond:** It is nearly exactly the same as the position with official data. When we share that information with academics, we anonymise it so that users are not able to see information that could be related to a specific company. Quite often, we contract independent consultants or academics to do these types of analyses, and as part of the survey work those academics will ask the companies whether they are happy for the information to be shared with Scottish Enterprise. Some will say yes, which is great. Others will say no, so we cannot get access to that raw data. Most companies are happy for us to see that information, but when we share it more widely we have to anonymise it.

**John Mason:** Is giving out data more of a challenge for HIE because you are dealing with a smaller number of places? If you talk about an aluminium producer, for example, that could mean only a limited number of companies.

**Alastair Nicolson:** Yes, it gives the game away. We certainly have to be cautious, and we follow the same principles and approach as Scottish Enterprise does in how we release data. We look to publish all the research that we undertake. We currently have a business panel through which we survey 1,000 businesses across the Highlands and Islands. That sample of the regional economy is stratified by business size, industry sector and by geography. That is a much

wider group than just the businesses that we engage with, and we are trying to understand what are the issues and challenges that are faced by businesses more widely across the region, as well as identifying where the opportunities are. We publish that online and through the media.

**John Mason:** Are those accepted as official statistics?

**Alastair Nicolson:** No, they would not meet those criteria. It is a thorough survey, but it is based on 10-minute telephone interviews to get an indication of confidence levels, growth prospects, opportunities and challenges, rather than on granular numeric figures for performance, employment numbers and suchlike.

11:30

**Gillian Martin:** Following on from John Mason's line of questioning, I have a supplementary about the fact that you are creators as well as consumers of data. In our inquiries over the past year, we have found that witnesses do not have a lot of access to granular data—that was clear in our reports on the gender pay gap and Brexit. We also look at the business pledge commitments, and we will be looking at the performance of the Scottish economy. Is there anything that the enterprise agencies have decided to do differently in how they collect data, for example through their surveys with clients, that might help us to fill in those gaps?

**Kenny Richmond:** We are moving towards web-based surveys with clients and away from detailed telephone conversations, which are expensive and can be a burden on businesses. Our customers can fill in web-based surveys when it is better for them, rather than having to wait around for an interviewer to get in contact. Those surveys are easier to analyse, so we can turn that information around more quickly. We have a bit more scope in the questions that we can ask; for example, in a regular rolling survey, we can change a couple of questions to focus on a specific topic, every so often. We can use different methods to collate that type of evidence and data.

**Alastair Nicolson:** We look at how political events impact on business decision making, so we have asked a lot of questions about the importance of the single market or the free movement of people to businesses across the region to get indications by sector, size and geography. We keep an eye on what areas this committee and others are interested in and look at how we can tailor our questions to meet the needs of a likely response from us to a parliamentary inquiry.

**Gillian Martin:** The enterprise agencies are a major influencer on fair work practices. Have you

considered any adjustments to surveys to include questions about fair work? When it comes to the business pledge and the gender pay gap, for example, we are not talking about things that people have to do, but we still need a picture of which companies are engaged in fair work practices.

**Alastair Nicolson:** That will be a focus of one of our future region-wide surveys.

**Kenny Richmond:** We are looking at the fair work convention's outputs on fair work to see whether the measures that it has suggested could be used to monitor progress. If they could be, we will look to include some of those in our surveys, so that our approach to measurement is consistent.

**Gil Paterson:** How easy is it to get access to key economic statistical information?

**Kenny Richmond:** We find it relatively easy for the types of inquiries and research that we do. We often collaborate with Scottish Government statisticians, who can be very helpful in helping us to access information and data. It is harder to access ONS data, as we have to get our staff licensed to do that—we are going through that process at the moment. It will become easier once more of our staff have those licences and are allowed to access that data.

**Alastair Nicolson:** We have reasonably good access—we have the same access as everybody else—to the top-level data. We have not explored getting more detailed access to ONS data in the way that Scottish Enterprise has, but we are aware that, particularly for earnings, information sample sizes are very small, so getting a sufficiently robust picture of earnings at the level below the Highlands and Islands level is a particular challenge for us.

**Gil Paterson:** Do you have any suggestions about improvements that could be made to make things better for you?

**Alastair Nicolson:** The big opportunity is to have a way to access the data that HMRC holds. HMRC knows a great deal about all of us from our earnings, our postcodes, what we do and all the rest of it. Being able to access that data would give us a much clearer picture of earnings and flows of wealth around the economy and the country.

**Kenny Richmond:** On business performance, too, that data could be a really rich source of information in the future.

**Gil Paterson:** From what you understand, do you see that information being freed up?

**Kenny Richmond:** Yes. The work that is being done by HMRC, ONS and so on to free up that

information will be a great step forward, and we look forward to seeing what opportunities that might create.

**The Convener:** Does Gemma Diamond have anything to add to those comments on the question of access to information and whether improvements could be made?

**Gemma Diamond:** Like the agencies, we can get access to the high-level data, and we have explored getting licences to get to some of the regional data. The important thing for us is what we are looking at the data for and what we are trying to see in it, which comes back to my earlier point about what the priorities are that we need the data to measure. There is a huge amount of data out there, so we need to approach it with the purpose of what we are looking for in our minds. We have to know the context of what questions we are trying to answer and what we are trying to measure or prove before we look to see what data is there and how we need to improve it.

**The Convener:** Is there too much data of a type that is not necessarily useful, as opposed to data that we need? I am thinking of the internet, where there is a huge amount of information and data that is not necessarily useful or organised usefully, as the witnesses on the previous panel touched on. Is that a problem for statisticians or those who prepare the data?

**Kenny Richmond:** I would not say that there is too much data. The challenges are in making best use of the data that is available, having the statistical expertise to analyse it, understanding where it comes from and understanding its strengths and weaknesses. It is also key that we are able to identify the "so whats". It is not that there is too much data; it is more about being able to analyse it and understand what it tells us about the economy.

**Gemma Diamond:** In our reports on the new financial powers that are coming in, we have discussed the importance of making the data as accessible as possible so that there is an ecosystem of researchers, academics and think tanks that have access to the data and can analyse it, make judgments on it and use it to inform decision making. If the data is accessible to more people, the ecosystem of people looking at the data and making judgements on it will be bigger, which can only lead to improvements in the data.

**Alastair Nicolson:** It is the analysis and understanding of what is happening and what is driving the changes in data that is really important. You cannot have too much data; you just have to be careful about how you navigate your way through it to make sure that you interpret things correctly. That is the skill.

**The Convener:** So volume is not a problem, but resources and having the time to navigate through the data might sometimes be a problem.

**Alastair Nicolson:** That can be an issue. In our case, in particular, there is an issue with the granularity of data. When we cut down to small geographies or, at regional level, when we cut by gender or sector, the sample sizes are often too small to do anything useful with the data.

**Jamie Halcro Johnston:** We talked earlier about the regional level of data. I want to go down to the local level, although we have covered some of that. How do you access local data, how useful is it and where could more data be collected or utilised?

**Alastair Nicolson:** We always regard the census as our first port of call for developing socioeconomic profiles of each of the subregions that make up the Highlands and Islands. For example, we produce an economic profile of Orkney and, within that, we look at the settlement profile of Kirkwall to understand how important that is in its wider setting. In the intercensus years, we track change over time using whatever indicators are reliably available. Although it is two years old when it is published, the GVA per capita gives us a trend.

There are unemployment figures—certainly, the claimant count figures are very easily available. Because it is a count rather than a sample, we can be very confident about what is actually happening. We also look at demographic flows over time through the mid-year estimates and suchlike.

**Kenny Richmond:** Again, the publicly available official statistics are a good source of information. There is usually fairly easy access to those statistics. We augment that information with the evidence and information that we pick up from conversations with partners at a local level, which gives us a non-official but more real-time indication of what is happening with the economy.

**Jamie Halcro Johnston:** Is there data available that you are not able to access, which you think would be helpful? You might not be aware of it, otherwise you would be accessing it. Are there other sources of data that could be made available?

**Kenny Richmond:** Some local authorities might undertake their own surveys that just look at their own areas. Some of the business organisations will have data, which sometimes might not be cut to a local level, because the sample size is not big enough or because they have that data but have not released it.

Alongside the official data, there is a lot of other, non-official data that can be drawn on, which can

be really useful. We do not always see it, but quite often, through a conversation with partners, we can get access to it, in addition to sharing our own intelligence.

**Jamie Halcro Johnston:** So it is about being proactive.

**Kenny Richmond:** Exactly. For example, the community planning partnerships could be one way of making our partners aware of the different information and evidence that are available and how they can be shared.

**Alastair Nicolson:** Working at agency level, we and the likes of Scottish Enterprise, SDS and VisitScotland proactively share our research plans, so we have a pretty good idea of what work is being done out there. Locally, we have a pretty good working relationship with the local authorities in the region. We collaborate with them on local pieces of research or help to make best use of the findings from work that is being done at a very local level.

**Jackie Baillie:** I will direct this question to Gemma Diamond. Audit Scotland has made comment in the past about improving the coverage of public finance statistics, including whole-of-Government accounts. Can you report on any progress that you have seen the Government making on that?

**Gemma Diamond:** Absolutely. We have been making a recommendation for a number of years now about the need to have that additional piece of the jigsaw in producing a balance sheet for Scotland. In our latest report on managing the new financial powers, which was published in March 2017, we again made that recommendation, but we highlighted that work is under way in the Scottish Government to produce that.

The Scottish Government is looking to have the 2016-17 financial year as a kind of shadow year to produce those whole-of-Government accounts. The March 2017 report recommended that the Government make more information publicly available about the timing for that. We are aware that work is under way in the Scottish Government to pull something together that would be a version of whole-of-Government accounts for Scotland.

**Jackie Baillie:** Do you think that that will be ready for the coming financial year?

**Gemma Diamond:** I am not aware of the timing for that. It might be something to check with the Scottish Government.

**Jackie Baillie:** Do any of your organisations get pre-release of statistical information prior to publication? The practice is that ministers get that information 24 hours in advance, I think. Do any of you get that pre-release of information?

**Alastair Nicolson:** No.

**Gemma Diamond:** No.

**Kenny Richmond:** No.

**Jackie Baillie:** What is your view of that? I think that you were all in the room when we heard from the earlier panel. Professor Bell said that he did not think politicians should get 24 hours' notice, or words to that effect. Do you share the view that everybody should get the statistics at the same time?

**Kenny Richmond:** I do not really have a specific view on that. Scottish Enterprise would not benefit from getting a pre-release view of statistics.

**Alastair Nicolson:** Out of enthusiastic curiosity, you want to see the information as soon as possible, obviously, but beyond that, it is not something that we have a view on.

**Gemma Diamond:** It is not something that we have a view on, either. What is important is that there is trust in the data so that, when the data is out, the conversation is about what the data means and what we are going to do about it rather than about the data itself.

**The Convener:** As there are no further questions from committee members, I thank the witnesses for coming in. We will now move into private session.

11:44

*Meeting continued in private until 12:25.*



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