Bruce Crawford
Convener
Finance and Constitution Committee
The Scottish Parliament
Edinburgh
EH99 1SP

11 December 2018

Dear Convener,

We are writing in response to the Committee's *Pre-Budget Scrutiny Report* of 7 November, which requested further information on our Scottish income tax forecasts and recent outturns. As the questions in Paragraph 91 were addressed to both the Scottish Fiscal Commission (SFC) and the Office for Budget Responsibility (OBR), we felt we could best help the Committee by providing a joint response.

Before we respond to your questions in detail, it may be useful briefly to set out our respective roles in forecasting Scottish devolved income tax receipts (i.e. income tax paid on non-savings, non-dividend (NSND) income by Scottish taxpayers):

- The SFC produces the devolved Scottish income tax forecast used in the Scottish Government's Budget. This is published in its *Scotland's Economic and Fiscal Forecasts* document. The SFC does not forecast income tax for the rest of the UK or the non-devolved income tax paid by Scottish taxpayers on their savings and dividend income.

- The OBR produces forecasts for the UK public finances, which include receipts from all taxes set and administered by the UK Government, devolved administrations and local government. This means the OBR is also obliged to produce a forecast for Scottish devolved income tax. (It also produces a forecast for Welsh devolved income tax on broadly the same basis.)

- Under the Fiscal Frameworks between the UK government and the Scottish and Welsh governments, the agreed mechanism for determining the block grants to the Scottish and Welsh governments require growth in the receipts devolved to each government to be compared to growth in the equivalent receipts in England and Northern Ireland. The OBR calculates these by subtracting its Scottish and Welsh forecasts from the UK total.

- It is important to note that although the UK Treasury draws on OBR forecasts when determining the block grant, the OBR has no direct involvement in calculating or negotiating it (so the adjustments set out in Table 3 of your report were not decided by the OBR). The grant is also adjusted subsequently to account for any difference between forecast and outturn.

Office for Budget Responsibility

Scottish Fiscal Commission

- The OBR publishes its forecasts for Scottish and Welsh devolved income tax (along with the equivalent receipts for England plus Northern Ireland) in its *Devolved tax and spending forecasts* publication. It also publishes forecasts for income tax across the whole UK in its *Economic and fiscal outlook (EFO)*. These forecasts include income tax paid on savings and dividends, which has not been devolved to Scotland or Wales. It is also worth noting that the *EFO* forecast for self-assessed income tax is produced on a receipts basis (as required by National Accounts treatment), rather than being accrued to the point (usually the previous year) when the liability was generated. In the devolved forecast publication, Scottish income tax paid on non-savings, non-dividend via self-assessment is scored on an accrued basis.

Throughout this response we compare the SFC's forecast for Scottish devolved income tax published in its *Scotland's Economic and Fiscal Forecasts* on 31 May to the OBR's Scottish devolved income tax forecast published in its *Devolved taxes and spending forecasts* on 29 October. Further information on our respective roles and the forecasts we produce is set out in Boxes 1.2 and 3.1 of the SFC's May 2018 forecast report.

As independent institutions, we both strive to produce forecasts of the highest possible quality, free from bias or political influence. While the accuracy of our forecasts is a key objective for both institutions, differences between forecast and outturn are inevitable – as are differences between the forecasts produced by each institution. In addition to seeking accuracy, we also need to ensure that our models are transparent and deliver outputs consistent with other parts of our forecasts.

We understand the Scottish Budget is affected by the forecasts we both produce. The OBR and SFC work very closely and collaboratively, but we are independent organisations. All judgements and decisions are our own. We make these based on the merits in each case. We have no qualms about producing forecasts that differ from each other, but share a determination to ensure we can explain why.

Detailed responses to each of the individual questions posed in your report are given below.

Sincerely,

Susan Rice

Dame Susan Rice, Chair of the Scottish Fiscal Commission

Robert Chote

Robert Chote, Chairman of the Office for Budget Responsibility

Q: The extent of the difference between their respective methodologies and assumptions and how much of a factor is this in explaining differences between their forecasts:

Q. Whether the HMRC data the SFC use is broadly of comparable quality and timeliness to the data used in the OBR's UK forecasts and if not where are the gaps;

Differences between SFC and OBR forecasts generally reflect differences in methodology, assumptions, data and timing.

Methodology

The SFC and OBR take different approaches for forecasting Scottish NSND income tax. The SFC produces forecasts for Scotland alone, and uses a bottom-up approach based on its own forecasts for the Scottish economy – notably for employment and wage growth. The OBR produces UK-level forecasts, and uses a top-down approach designed to ensure that its Scottish receipts forecast is consistent with its whole UK forecast. (The OBR does not produce an economic forecast disaggregated below the UK level, so does not make its own forecasts for Scottish employment or wage growth. As for the logistics of producing the forecasts, the SFC forecast is run in-house while the OBR forecast is produced on its behalf by HMRC, but using judgements and assumptions decided by the OBR.)

It is difficult to assess the extent to which these differences in approach lead to differences in forecast outputs. To do so robustly would require one organisation to deploy both modelling methodologies and to feed in the same input data and assumptions, which would be resource intensive and challenging. As the OBR model is run by HMRC, it also exploits individual-level taxpayer confidential data which - quite correctly - cannot be disclosed to officials in either the SFC or the OBR.

That said, the two institutions work closely together and officials are in regular contact to discuss our methodologies. For example, over the summer we identified differences in demographic assumptions as being one of the explanations for why the SFC predicted slightly stronger growth in receipts towards the end of its forecast.

Despite the differences in methodology, there are also strong similarities. For example, both approaches adjust the forecasts to take account of employment growth, earnings and population size (at either the UK or Scottish level) and trends specific to income tax, such as the rise in the number of individuals 'incorporating'.

Assumptions

The SFC and OBR also use slightly different assumptions when making forecasts, partly as a result of the differences in our remits. The behavioural assumptions in policy costings are a good example. When costing the impact of the Scottish Government income tax changes that took effect in 2018-19, both organisations arrived at broadly similar adjustments for behavioural changes. The SFC assumed that the static yield would be reduced by around 20 per cent in each year, while the OBR assumed a reduction rising from 18 to 24 per cent by the forecast horizon.

The SFC was able to make relatively straightforward adjustments for behaviour, as it had only to estimate the impact on Scottish receipts. In contrast, the OBR had to assess whether the 'lost' Scottish income tax would be picked up in other UK tax streams. This required more complicated assumptions, as regards whether the lost revenue would be due to individuals changing their address, or to them incorporating and paying corporation and dividends tax rather than earnings income tax.

Data

There are several sources of income tax data, with different coverage for Scotland and the UK and with availability at different times. Overall, and with some caveats, the SFC has access to Scottish data of comparable quality and timeliness to that available to the OBR. But there are richer and more timely data available for the UK as a whole than there are for Scotland.

These income tax data for Scotland and the UK includes (in order of timeliness):

- **The UK monthly cash receipts outturn:** Timely estimates of UK PAYE and SA cash receipts. The data are publicly available, but for the whole of the UK only, with no breakdown for Scotland or, at the UK level, between receipts from NSND income versus other income sources.

- **Real Time Information (RTI):** Timely estimates of PAYE liabilities for Scotland and the UK, produced by HMRC but not yet publicly available on a high frequency basis.

- **Outturn data:** High-level final estimates of Scottish tax liabilities. Publicly available, but only around 15 months after the end of the tax year.

- **Survey of Personal Incomes and its public use tape:** a detailed sample of HMRC taxpayer records, available around 18 to 24 months following the end of the tax year. The OBR's UK and Scottish forecasts are based on the full survey of personal incomes (SPI) individual-level taxpayer records. The SFC uses the anonymised public use tape (PUT), which is of near comparable quality and timeliness.

These are described in further detail below.

The UK monthly cash receipts

HMRC publish monthly data on all UK tax receipts, covering receipts up to and including the preceding month. This includes both PAYE and SA receipts for the whole of the UK.

These data give the OBR its most timely indication of movements in UK-wide PAYE and SA receipts, which it uses to adjust its forecasts. Unfortunately, no breakdown for Scotland is possible from this source, even internally within HMRC.

As noted above, it is important to remember that these UK receipts data are produced on a National Accounts basis, so that self-assessment receipts are recorded on a cash receipts basis rather than the accrued liabilities basis on which Scottish devolved income tax is forecast. These receipts will also include tax on savings and dividends income, which remains reserved to the UK Government.

When these data show movements in UK PAYE and SA receipts, we cannot tell the extent to which this reflects movements in Scottish receipts. The OBR adjusts its UK forecasts to reflect these data and this affects its Scottish forecasts indirectly. The SFC does not adjust its forecasts on the basis of these UK-wide data.

The OBR's use of UK monthly cash receipts outturns may account for a significant proportion of the (relatively modest) difference between the OBR's and SFC's forecasts of Scottish income tax, particularly in the early years of the forecast.

Real time information

The SFC and the OBR both receive monthly estimates of total Scottish liabilities from HMRC, collected via RTI. This is the timeliest source of receipts data for Scotland, although slightly less timely than the monthly cash estimates for the UK. RTI only covers the PAYE population and is a relatively new source of information. Since an individual's Scottish taxpayer status is only determined following the end of the tax year, RTI may incorrectly exclude some Scottish tax receipts while including some non-Scottish receipts. HMRC has not yet published tax information from RTI, but has published information on earnings at the UK and Scottish levels.

Neither forecaster currently uses RTI directly in its forecasts, but both actively monitor it and are keen to make more use of it in future.

Outturn data

In its 2017-18 *Annual Report and Accounts* on 21 July, HMRC published final outturn figures for the first year of Scottish income tax liabilities – 2016-17. These outturn data only became available around 16 months after the end of the 2016-17 tax year, and only at a highly aggregated level.

As noted above, the OBR's most recent forecast in October 2018 was aligned to this estimate. The SFC will align to it at its upcoming forecast on 12 December.

Survey of Personal Incomes and its public use tape

The OBR's forecast is run on its behalf by HMRC, using a model based on confidential individual-level taxpayer information. The SFC uses a publicly available version of this dataset known as the PUT. The PUT is available a few months after the SPI.

The timing of the SFC's forecasts depends on the Scottish budget cycle. The SFC usually publish its forecasts one or two months after the OBR. At each forecast so far, the SFC has used the same base year of SPI data that the OBR had used in its preceding forecast. For example, earlier this year, the OBR used SPI 2015-16 in its March 2018 forecast and the SFC used PUT 2015-16 in its May 2018 forecast. There has been no occasion so far on which the organisations have had to use different base years for forecasts published close together, and we are working with HMRC to ensure this remains the case.

When it comes to forecasting Scottish NSND income tax, the most significant divergence between the SPI and PUT arises because HMRC creates aggregate records for some high-income taxpayers in the PUT in order to protect taxpayer confidentiality. Because the aggregation is on a UK-wide basis, these composite records may not be representative of Scottish high-income taxpayers. We are working with HMRC to explore the feasibility of Scottish-specific composite records.

While this introduces some differences between the OBR and SFC forecasts, initial analysis from HMRC suggests the effect is likely to be small.

Timing

Our forecasts take place at different times of the year. This means that they will be based on different vintages of economic and receipts outturn data – and those data may then prompt the use of different modelling assumptions or methods. Our forecasts also incorporate the impact of any newly announced policy changes.

To take an example, set out in the table below, when the OBR published its October 2018 forecast for Scottish devolved income tax, the most recent SFC forecast that was available to compare it to had been published in May 2018.

	£ billion, unless otherwise stated							
	2016-17	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
SFC May 2018	11.3	11.5	12.0	12.3	12.8	13.3	13.9	14.5
OBR October 2018	10.7	11.1	11.8	11.8	12.5	12.9	13.4	14.0
Difference	-0.5	-0.3	-0.2	-0.4	-0.3	-0.4	-0.5	-0.6
Difference (per cent)	*-4.9*	*-3.0*	*-1.3*	*-3.6*	*-2.4*	*-3.1*	*-3.6*	*-3.8*

HMRC published new outturn data for Scottish devolved income tax for 2016-17 in July 2018. This was factored into the OBR's October forecast, prompting a significant downgrade from its previous forecast in March. But these data could not have been anticipated by the SFC in May, so the earliest opportunity to incorporate the data will be its next published forecasts on 12 December.

Given the five-month gap, differences in data were always likely to lead to different forecasts. In contrast, the OBR's October forecast and the SFC's December forecast will be separated by only six weeks. The SFC will be using data of comparable quality and timeliness to those underpinning the OBR's October forecast.

Q. Why does the OBR use the available income tax outturn receipts for 2016-17 and 2017-18 in preparing its income tax forecast and the SFC does not;

HMRC published Scottish NSND income tax outturn data in July 2018. The OBR was able to make use of these in its October forecast and the SFC will do so in its forthcoming December forecast.

Other sources of outturn data and their uses have been discussed above.

Q. What is the likely extent of the impact of this different approach to the use of outturn data on the respective OBR and SFC income tax forecasts;

Our forecasts are based on data that are broadly comparable in quality and timeliness. HMRC's outturn data for 2016-17 Scottish NSND income tax were used in the OBR's October forecast and will be used by the SFC in its December forecast. Therefore, in the Scottish Government's 2019-20 Budget both the BGA and the forecast for Scottish income tax receipts will be based on the same outturn data.

Differences will still arise from policy decisions by the Scottish and UK Governments, variability in economic growth and some of the factors discussed in earlier sections. One of the main differences between our forecasts is the OBR's use of the UK-wide HMRC monthly receipts data.

Q What are the implications of the difference between the SPI data for 2016-17 and the HMRC outturn data for how both the OBR and the SFC use the SPI data in preparing future income tax forecasts.

The Scottish income tax outturn data are highly aggregated, but they are now the primary estimate of total liabilities in 2016-17. It is these data that in effect we are both attempting to forecast. The SPI in turn provides valuable information on the shape of the income distribution for income tax taxpayers that is not available in the aggregate outturns.

For this reason we will both use both sources to produce our forecasts. By aligning our SPI-based forecasts with the available outturn data, we make the best use of the information available in the SPI while constraining it to be consistent with the best estimates of total liabilities.

SPI and PUT data for 2016-17 will be available in spring 2019. We do not yet know how different a picture the 2016-17 SPI will paint to the outturn data. Both organisations will make a judgement on this dependent on the size of the difference, if any, between the SPI and outturn. We will provide further analysis of the 2016-17 SPI and its relationship to outturn data in our respective forecast and evaluation reports. OBR and SFC officials will work with HMRC analysts to inform these reports.

Our future plans

We have established an excellent working relationship and will shortly publish a new memorandum of understanding. We are working together to ensure that both organisations have the best information to bring to bear on our respective forecasts.

Nevertheless, fiscal devolution is a new and evolving landscape. We are both open to any suggestions that might improve our forecasts or which would help illustrate the risks around our central forecast. We are happy to respond to any further queries.