
Forecast Evaluation Report

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ISBN: 978-1-911637-47-9

Published by the Scottish Fiscal Commission, August 2022

Laying Number: SFC/2022/3

Foreword

Our forecasts play a central role in the Scottish Budget. It is therefore important for us to critically evaluate our performance and consider whether any lessons can be drawn to improve our forecasts in the future. Our annual Forecast Evaluation Reports are the main way we do this.

In this report we have evaluated our January 2021 forecasts for the economy, fully devolved taxes and social security in 2021-22, and our February 2020 forecast of Scottish income tax revenues in 2020-21.

Our income tax forecast covers the first year of the Coronavirus (COVID-19) pandemic. This was a period of fast paced and exceptional change, which was unforeseen when we published our forecasts in early February 2020. We believe our overestimate of income tax revenues in 2020-21 can be attributed largely to the economic effects of the pandemic.

At the time of making our January 2021 forecasts, there was still a significant degree of unpredictability around the future path of the pandemic and how the UK and Scottish governments would respond. We had to make assumptions about these highly uncertain external factors and the likely effects on our forecasts. Our January 2021 forecast errors were largely a result of this unusual and challenging context.

While we still have large relative errors for some elements, particularly some of the fully devolved taxes, in aggregate our forecast errors are relatively small.


To help continue improving the data available to the Commission, we have also published our fourth Statement of Data Needs alongside this report. We would like to thank everyone who has contributed to these reports, in particular those data providers who have worked hard to ensure we have the information we need. This includes the Scottish Government, Revenue Scotland, Social Security Scotland, HMRC, DWP and the OBR.



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30 August 2022

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Summary

- 1 In this report we evaluate our January 2021 economy, social security and full devolved taxes forecasts for 2021-22. For income tax, we evaluate our February 2020 forecast for 2020-21 because this is the latest year for which outturn data are available.

Figure 1: Summary of headline evaluations

Forecast	Forecast	Outturn	Error	Relative error (%)
Economy – GDP growth	7.5	11.8	4.2	
Income tax	12,365	11,948	-417	-3
Devolved taxes	2,813	3,040	227	8
Devolved Social Security	3,618	3,754	136	4

Source: Scottish Fiscal Commission

Forecast, outturn and error for tax and social security are given in £ millions. GDP growth is given in per cent with the error in percentage points.

- 2 The Coronavirus (COVID-19) pandemic has contributed significantly to errors across the forecasts we are evaluating in this report. At the time of making our February 2020 forecast of income tax, the first COVID-19 cases in Scotland had not been diagnosed so, while we treated the pandemic as a potential risk to the global economic outlook, COVID-19 was not part of our February 2020 central forecast.
- 3 For our January 2021 forecast, we made a number of broad-brush assumptions about the pathway of COVID-19 and associated public health restrictions and the likely effects on our forecasts, but there was significant uncertainty related to:
 - The length and severity of the lockdown that began in January 2021
 - The extent of government policy measures to protect individuals and businesses from the economic consequences of the lockdown
 - The future evolution of the virus, including the emergence of new strains
 - The scale of the vaccine rollout programme and the effectiveness of the vaccines
 - The need for future restrictions and lockdowns
- 4 The rest of this summary looks in turn at our forecasts of income tax, the economy, the fully other devolved taxes, and social security spending.

Income tax, reconciliations and the 2023-24 Budget

- 5 The Scottish Government receives a Block Grant from the UK Government determined by the Barnett formula. This is the funding the Scottish Government would have received had there been no devolution of tax or social security powers to Scotland.
- 6 The UK Government adjusts the Barnett-determined block grant by removing funding where the Scottish Government is now raising tax revenue and adding funding where the Scottish Government is responsible for paying social security. These are called Block Grant Adjustments (BGAs).

- 7 The Scottish Budget is set in advance of each financial year based in part on forecasts. As information becomes available over time, the forecasts are updated or aligned with outturn data. The Scottish Government's funding is then adjusted in response to these changes. These changes in funding are called reconciliations.
- 8 Scotland's income tax funding in the 2020-21 Scottish Budget was set using our February 2020 forecast of Scottish income tax revenue in 2020-21 and a BGA based on forecasts by the Office for Budget Responsibility (OBR). In July 2022 HMRC published outturn data for 2020-21 so we can now evaluate our 2020-21 income tax forecast against outturn. We now know the size of the reconciliation resulting from the difference between the original forecasts and outturn.

Figure 2: Errors in the net effect on budget and reconciliation

£ million	Scottish income tax	BGA	Net effect on Budget
Budget setting forecast	12,365	-12,319	46
Final outturn	11,948	-11,852	96
Reconciliation			50

Source: Scottish Fiscal Commission, HMRC (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)), Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)).

Figures may not sum because of rounding.

- 9 In February 2020, we forecast that the net effect of income tax on the Budget was £46 million. The outturn data show that the net effect of income tax on the Budget is actually £96 million, which leads to a reconciliation of £50 million. We expect this reconciliation to be applied in the 2023-24 Scottish Budget, increasing the Scottish Budget by £50 million. This will be the fourth time a reconciliation has been applied in the Scottish Budget under the current fiscal framework and the first time it has been positive.

Economy forecasts

- 10 Scotland's GDP is estimated to have grown by 11.8 per cent in 2021-22, which is 4.2 percentage points higher than our January 2021 forecast of 7.5 per cent. This error is higher than usual and dominated by the effect of COVID-19 on the economy. In particular, we underestimated GDP growth in 2021 Q1 and this was because of two main factors: the lockdown in early 2021 was not as significant as we anticipated; and we underestimated the scale of the economic activity generated by the rollout of the vaccine and associated testing programme.
- 11 The labour market in 2021-22 also turned out to be more resilient than anticipated, with employment continuing to grow after the end of the furlough scheme on 30 September 2021. Average earnings in 2021-22 grew at a significantly faster rate than we forecast, partly driven by labour shortages and recruitment difficulties in the wake of the pandemic as well as rising inflation. There were also COVID-related temporary effects boosting average pay growth, especially in the first half of the year.

Tax forecasts

- 12 Total revenues from the fully devolved taxes (Non-Domestic Rates (NDR), Land and Buildings Transactions Tax (LBTT) and Scottish Landfill Tax (SLfT)), in 2021-22 were 8 per cent (£227 million) higher than our forecasts for 2021-22. This forecast error is because of large forecast errors for LBTT and SLfT and these taxes relate to 31 per cent of fully devolved taxes revenue.

- 13 Revenues from NDR were £31 million (1 per cent) lower than our forecast. More revenue than we expected was lost to successful appeals but this was offset because awards of Retail, Hospitality, Leisure and Aviation relief were less than we expected.
- 14 LBTT revenues were £221 million (38 per cent) above our forecast. This forecast error is large compared to previous forecast evaluation reports. There was a broadly similar level of error for the more volatile non-residential component compared to our last forecast evaluation report (39 per cent compared to 32 per cent). Errors relating to residential and ADS components were much higher than in previous years (40 per cent and 30 per cent, respectively). These errors arose because house prices grew faster than expected and the share of residential properties paying the top two tax bands increased. This likely reflects unpredictable reactions to the end of pandemic-related restrictions, wider macroeconomic changes and changing buyers' preferences.

Social Security forecasts

- 15 Total spending on devolved social security in 2021-22 was £3,754 million. This is 4 per cent higher than our forecast of £3,618 million. This is similar to last year, when we reported an error of 3 per cent for our February 2020 forecasts of spending in 2020-21.¹ The reasons for the error are also similar to last year, with around half associated with the COVID-19 pandemic.
- 16 Personal Independence Payment (PIP) again had the largest single error, with spending £115 million higher than our forecast. This is partly because it is by far the largest devolved benefit, but the relative error of 7 per cent is also large.
- 17 Most of our forecast errors are temporary pandemic effects or have already been accounted for in our more recent forecasts, but our May 2022 forecast for Personal Independence Payment did still fall around 2 per cent short of the outturn so it is likely that we will need to make a further increase in our next forecast.
- 18 The new Child Disability Payment was launched in late 2021. During 2021-22 only £5 million was spent on the new payment and limited data are currently available, so we are not yet able to evaluate our costing. Our Statement of Data Needs, published alongside this report, sets out the data that we need to inform our forecasts and evaluations.²

¹ Scottish Fiscal Commission (2021) Forecast Evaluation Report – July 2021 ([link](#))

² Scottish Fiscal Commission (2022) Statement of Data Needs – August 2022 ([link](#))

Chapter 1

Introduction

Background

- 1.1 This report provides an evaluation of the Commission's recent forecasts. We publish our forecast evaluation report to:
- Provide transparency about our forecasts
 - Help others to understand the limitations and likely degree of accuracy of our forecasts
 - Learn lessons to improve our forecasts
 - Aid understanding of the effect of our forecast errors on the Scottish Budget, including reconciliations

What is forecast error?

- 1.2 Forecast error is typically defined as the difference between the outturn and the forecast for a particular variable. Relative forecast error is the forecast error as a fraction of the forecast value.

Definition of forecast error

$$\text{Error} = \text{Outturn} - \text{Forecast}$$

Definition of relative forecast error

$$\text{Error} = (\text{Outturn} - \text{Forecast}) / \text{Forecast}$$

- 1.3 Forecast errors are inevitable and do not necessarily mean that the forecasting method was flawed. The future cannot be known with certainty, and sometimes a sound forecasting method can produce a large forecast error because of unexpected changes in the world.
- 1.4 To help users understand what represents a reasonable forecast error, where possible we provide comparisons based on the OBR's forecasting record as they produce forecasts of a similar range of variables.
- 1.5 Our aim is to reduce our average forecast error by learning lessons from previous forecasts. Forecasts can differ from outturn for many reasons, including:
- **Data revisions:** Sometimes, the data on which we base our forecasts are revised, or new data are released that were not previously available, and this can change our understanding of historical data and our judgement on future trends.
 - **Modelling errors:** We rely on a large number of models to create our forecasts. These generally rely on identifying trends in historical data, and use a combination of the historical patterns and some theory to predict how these trends will change over time. Sometimes, we may incorrectly identify historical trends, or misjudge how a trend might change in the future.

- **Unexpected events:** Some events simply cannot be predicted in advance, and we cannot control for them, the COVID-19 pandemic being a clear example which affected the income tax forecasts for 2020-21.
- **Incorrect judgements:** Forecasting relies on a large number of judgements. This is often done when there is limited information or evidence on which to base a forecasting decision. There are often events we know will happen in the future that will affect our forecasts, but for which we have limited information on the exact effects. For our January 2021 forecasts of spending in 2021-22, the ongoing pandemic had moved into this category. We have to use a mixture of modelling and judgement to account for these events, but may still incorrectly predict the effect that the event will have.
- **Analytical mistakes and human error:** While we see simplicity as an asset in our models, some are necessarily large and complicated, such as our income tax model which projects income tax records of thousands of individual taxpayers. With such models some relationships can be incorrectly specified (analytical error) and, in addition, there can be coding errors and incorrect cell referencing (human error).

1.6 Where possible, we have tried to understand which categories have contributed to our forecast errors. However, in many cases, errors will be a result of several overlapping reasons. We may not always be able to disentangle how different factors have contributed to our overall forecast error. Nevertheless, attempting to identify the sources of forecast error is an important first step in making improvements and understanding what actions to take.

1.7 For example, if we see modelling errors, we would try to develop a better model. If the error was because of analytical mistakes, we would review our internal quality assurance processes.

1.8 We also compare the errors to measures of our historical performance. In some areas, we don't have a long forecasting record – particularly in social security where several payments were still relatively new, and eligibility for Scottish Child Payment did not start until shortly after we published our January 2021 forecasts. Our use of the terms 'average error' and 'average absolute error' are best illustrated by example: a forecast with errors of +1 per cent and -1 per cent over the last two years would have an average error of 0 per cent, but average absolute error of 1 per cent.

1.9 We have published comprehensive forecast performance charts providing the full forecast history of the main forecasts included in this publication compared to the outturn data. We have made these charts available in the Supplementary Tables published on our website to accompany each chapter.³

³ Scottish Fiscal Commission (2021) Forecast Evaluation Report – August 2022 ([link](#))

Chapter 2

Economy

Introduction

- 2.1 In this chapter, we evaluate our January 2021 economy forecast for the year 2021-22. Our Gross Domestic Product (GDP) forecast error is relatively large and dominated by the effect of the Coronavirus (COVID-19) pandemic on the economy.
- 2.2 In early 2021, there was still a high degree of unpredictability around the economic and labour market outlook. This was largely caused by governments selectively shutting down and re-opening sectors of the economy in response to a rapidly changing public health crisis.
- 2.3 The significant uncertainty at the time of our forecast means it is difficult to identify what lessons we can learn to improve our forecast accuracy, but there are general conclusions we can draw out. The January 2021 forecast required us to have analytical flexibility, be able to quickly adjust our forecasting approaches and judgements in response to new events, and clearly explain the risks and uncertainties surrounding our central forecasts. This has been useful knowledge and experience that we continue to apply and build on to improve our forecasts.

Gross Domestic Product

Headline forecast error

- 2.4 In January 2021, we forecast GDP growth in Scotland of 7.5 per cent for 2021-22. The latest GDP outturn estimates show growth of 11.8 per cent for 2021-22, a higher than usual forecast error of 4.2 percentage points. This is shown in Figure 2.1.

Figure 2.1: Headline evaluation – January 2021 forecast of GDP growth in 2021-22

Headline	Per cent [1]
Forecast	7.5
Outturn	11.8
Error	4.2
Historical average absolute error from HM Treasury and OBR [2]	1.2

Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Scottish Government (2022) GDP Quarterly National Accounts: 2022 Quarter 1 (January-March) ([link](#)), OBR (2022) Historical official forecasts database ([link](#)).

Figures may not sum because of rounding.

[1] Error is expressed in percentage points.

[2] Average absolute error since 1983, based on calendar-year forecasts. Average absolute error since the creation of the OBR in 2010 is also 1.2 percentage points.

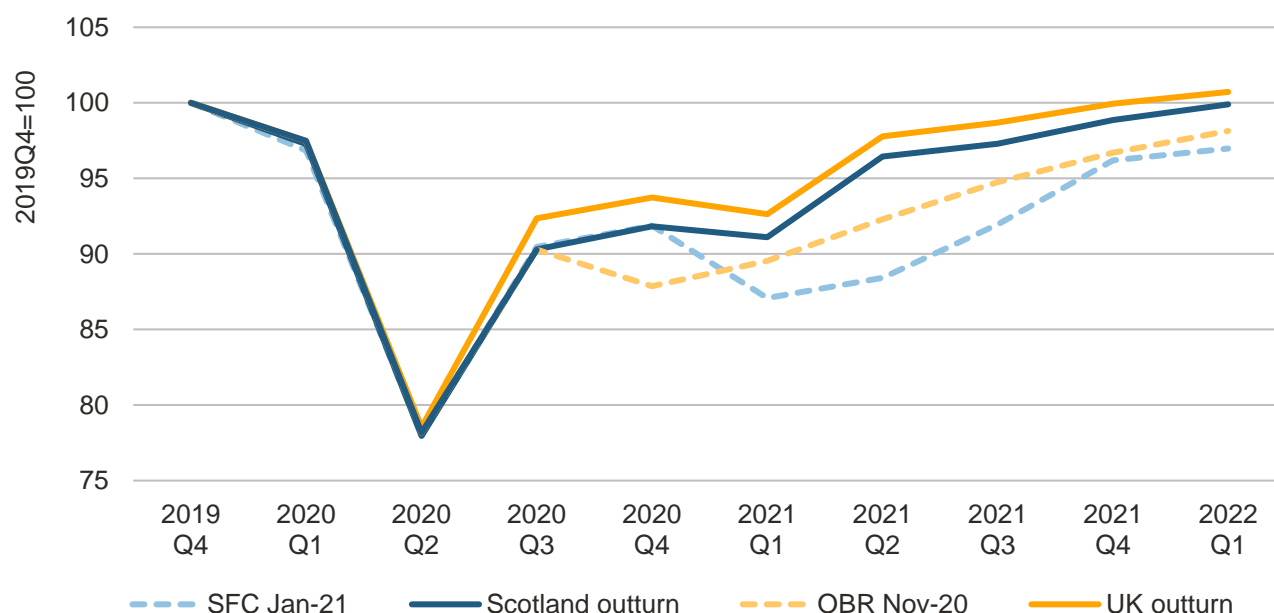
- 2.5 Our GDP forecast error was largely a result of the pandemic. We published our January 2021 forecast when GDP was still considerably below its pre-COVID 2019 Q4 level. Two weeks before we closed our forecast, a new lockdown was announced in Scotland to control rising COVID-19

cases following the emergence of the Alpha variant of the virus. As shown in Figure 2.2, the main explanation for our GDP forecast error is that we underestimated GDP growth in 2021 Q1.

2.6 We expected GDP to fall in 2021 Q1 by around 5 per cent, a smaller fall than during the first lockdown in 2020 Q2. We produced this forecast by developing a new bottom-up sectoral model where we made judgements about the effects of the early-2021 lockdown on individual sectors. In doing this, we used evidence from the first lockdown but we also took into account that – compared to the 2020 Q2 lockdown – more sectors of the economy remained open, many businesses had adapted to the restrictions, and support schemes such as furlough were already in place.

2.7 The latest outturn data show GDP fell by only 0.8 per cent in 2021 Q1. There are two main reasons why our forecast for the first quarter of 2021 was too pessimistic. Firstly, there was a smaller fall in education activity because of the phased reopening of schools in February and March, in contrast to our assumption that schools would remain closed throughout 2021 Q1. Secondly, the rapid rollout of the vaccine and associated testing programme contributed to faster output growth in the health sector than we expected.

Figure 2.2: January 2021 GDP forecast and outturn



Source: Scottish Fiscal Commission (2021) Scotland’s Economic and Fiscal Forecasts – January 2021 ([link](#)), Scottish Government (2022) GDP Quarterly National Accounts: 2022 Quarter 1 (January-March) ([link](#)), OBR (2020) Economic and Fiscal Outlook – November 2020 ([link](#)), ONS (2022) GDP quarterly national accounts, UK: January to March 2022 ([link](#)).

2.8 Our January 2021 forecast of Scottish GDP, when compared to the OBR’s November 2020 forecast of UK GDP, met the criteria for a Scotland-specific economic shock to be triggered in 2021 Q3. As we discussed in our January 2021 forecast publication, we believed that most of the difference between the two forecasts was likely to be because of timing issues – that is, the fact that the OBR’s November 2020 forecast did not account for the lockdown which began in January 2021.⁴

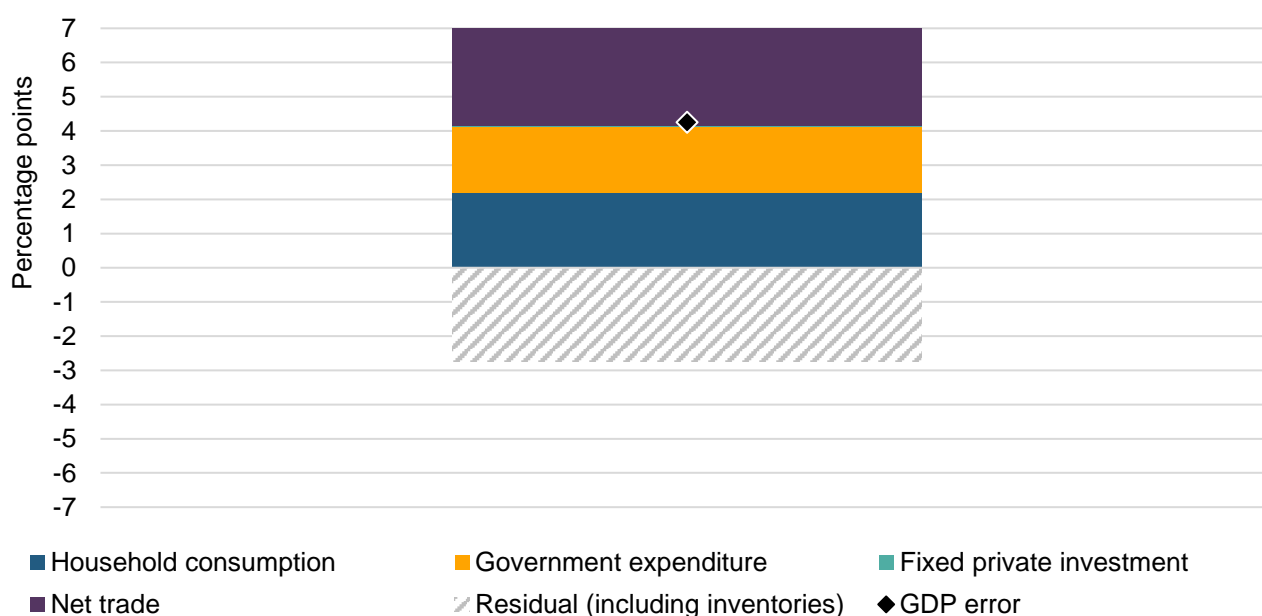
2.9 In February 2022, following publication of the 2021 Q3 GDP statistics, the outturn statistics did not show a shock occurring in 2021 Q3. Because of the effects of the pandemic, estimates of both UK and Scottish GDP are likely to be less certain and more subject to revision than usual. In the latest data, the criteria for a Scotland-specific economic shock are met in 2020 Q4 to 2021 Q2.

⁴ Scottish Fiscal Commission (2021) Scotland’s Economic and Fiscal Forecasts – January 2021 ([link](#))

Understanding our forecast error

- 2.10 Figure 2.3 shows our 2021-22 GDP forecast error for our January 2021 forecasts by components of expenditure. Household consumption, government expenditure, and net trade made similar contributions to our underestimate of 2021-22 GDP growth, partially offset by an error in the opposite direction associated with inventories and other residual factors.
- 2.11 Household spending in 2021-22 was higher than we anticipated, resulting in a forecast error for household consumption of 2.2 percentage points. This is because we overestimated the duration of restrictions and hence their effect on consumer spending. Government expenditure growth in 2021-22 was also stronger than our January 2021 forecast, by 1.9 percentage points. This reflects the rise in testing and vaccination activity in response to the Omicron variant, which boosted output growth in the health sector. Our forecast error for net trade of 2.8 percentage points is mainly driven by lower than expected imports growth, partly because of rising import prices in the second half of 2021-22, while export growth was more in line with our forecast.

Figure 2.3: Decomposition of January 2021 GDP forecast error for 2021-22



Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Scottish Government (2022) GDP Quarterly National Accounts: 2022 Quarter 1 (January-March) ([link](#)).

Labour market

Headline forecast errors

- 2.12 Figure 2.4 shows the errors in our January 2021 forecasts of employment and nominal earnings growth for 2021-22, and how these compare to errors in the OBR's November 2020 forecasts on which the budget setting income tax Block Grant Adjustment for 2021-22 was based. Both we and the OBR underestimated employment and earnings growth for 2021-22, as the labour market in Scotland and the UK has been more resilient during the pandemic than expected, but the OBR has larger underestimates.
- 2.13 This implies that, although our GDP forecast was more pessimistic than the OBR's, we were relatively more optimistic on the labour market. There are a number of explanations for this difference. Firstly, the forecasts were made at different points in time and hence based on different

information. In particular, after the OBR’s forecast was published in November 2020 but before we finalised our forecast, the furlough scheme was extended by one month and the UK and Scotland entered a new lockdown. Other explanations are outlined below.

- Because of the furlough scheme, the effect of the pandemic on GDP has been very different to the effect on employment and earnings, so we would not necessarily expect the difference in GDP forecasts to be fully mirrored in the labour market forecasts.
- Labour market data has been a source of uncertainty during the pandemic especially while the furlough scheme was in place, with initial headline figures from the Labour Force Survey (LFS) overestimating employment in 2020-21 before being reweighted and revised down.⁵ Differently from the OBR, we based our modelling on Pay As You Earn (PAYE) Real Time Information (RTI) data which showed a greater employment fall in 2020-21, and greater recovery over 2021-22, than the LFS. The gap between our and the OBR’s employment forecasts, also present in the outturn data, may be explained by the use of different measures of the labour market.
- On average earnings growth, our and the OBR’s forecasts were broadly similar when these were created. The OBR’s larger underestimate is because average earnings turned out to grow more strongly in the UK as a whole than in Scotland. We provide more detail on this in the subsequent section on understanding our forecast error for average earnings.

Figure 2.4: January 2021 forecast error in employment and nominal earnings growth for 2021-22, and comparison with OBR

Per cent	Determinant	Forecast	Outturn [1]	Error [2]
Scotland: SFC January 2021	Employment (RTI-based)	-0.7	1.6	2.3
Scotland: SFC January 2021	Average earnings	2.5	4.4	1.9
Scotland: SFC January 2021	Total earnings	1.8	6.7	4.9
UK: OBR November 2020	Employment (LFS-based)	-2.2	0.5	2.7
UK: OBR November 2020	Average earnings	2.1	6.1	4.0
UK: OBR November 2020	Total earnings	0.0	7.5	7.4

Source: Scottish Fiscal Commission (2021) Scotland’s Economic and Fiscal Forecasts – January 2021 ([link](#)), Scottish Fiscal Commission (2022) Scotland’s Economic and Fiscal Forecasts – May 2022 ([link](#)), OBR (2020) Economic and Fiscal Outlook – November 2020 ([link](#)), OBR (2022) Economic and Fiscal Outlook – March 2022 ([link](#)).

Figures may not sum because of rounding.

[1] Outturn data as available at last forecast (SFC May 2022 and OBR March 2022). Average earnings are equal to QNAS total earnings divided by employees. Our outturn employee measure is based on RTI. This, together with the self-employment share of total employment from APS, gives our outturn employment measure.

[2] Error is expressed in percentage points.

2.14 This has significant implications for the income tax net position and reconciliation for 2021-22. Our January 2021 forecast of Scotland’s total earnings growth for 2021-22 (1.8 per cent) was higher than the November 2020 OBR forecast of UK total earnings growth (0.0 per cent). This positive gap for Scotland, driven by employment, led to an artificially high income tax net position of +£475 million when the 2021-22 Scottish Budget was set.

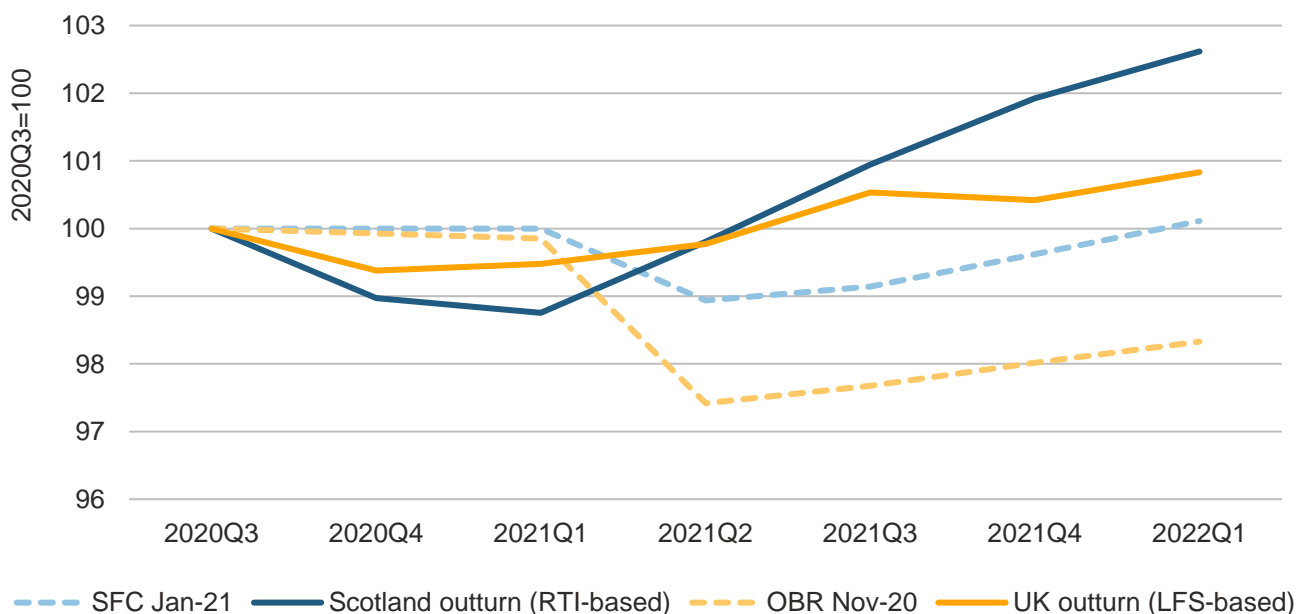
⁵ One issue affecting the LFS since the start of the pandemic in March 2020 was that survey responses were still grossed up to pre-COVID population projections from 2019, which resulted in LFS employment levels being overestimated. To address this, on 15 July 2021, the ONS implemented a new LFS weighting methodology using updated population weights based on RTI, with updated estimates released on 14 June 2022.

2.15 The latest outturn data show that UK total earnings growth in 2021-22 (7.5 per cent) outperformed Scotland's (6.7 per cent), as there is a similar positive employment growth gap for Scotland to the one between the forecasts but this is more than offset by faster average earnings growth in the UK. This contributed to stronger growth in UK income tax revenues in 2021-22 and a shift in the estimated net position to -£342 million. These two factors have resulted in an anticipated reconciliation of -£817 million to be applied in 2024-25.

Understanding forecast errors for employment

- 2.16 Figure 2.4 in the previous section shows that, in January 2021, we forecast employment growth in Scotland of -0.7 per cent in 2021-22. Our employment forecast error, taking RTI as outturn measure, is 2.3 percentage points. Using the LFS, the OBR has a slightly larger employment forecast error for the UK of 2.7 percentage points.
- 2.17 The main reason for our and OBR's underestimates is that employment proved resilient to the end of the furlough scheme on 30 September 2021. The quarterly profile of the two forecasts has been affected by the timing of government announcements about the duration of the scheme.
- 2.18 When the OBR published its November 2020 forecast, the furlough scheme was expected to end on 31 March 2021, but in December 2020 the UK government announced an extension to 30 April 2021. We could reflect this information in our January 2021 forecast and this is partly why, although both we and the OBR predicted employment to decline in 2021 Q2, we forecast a smaller fall. In March 2021, the furlough scheme was extended until 30 September 2021, so that the anticipated employment drop in 2021 Q2 did not materialise.
- 2.19 Our use of RTI rather than LFS data is also likely to have contributed to our smaller underestimate of Scottish employment growth in 2021-22. This is because the RTI shows more of a recovery in 2021-22, following a greater employment fall in 2020-21, whereas the LFS was more stable throughout the pandemic.

Figure 2.5: January 2021 employment forecast and outturn, and comparison with OBR



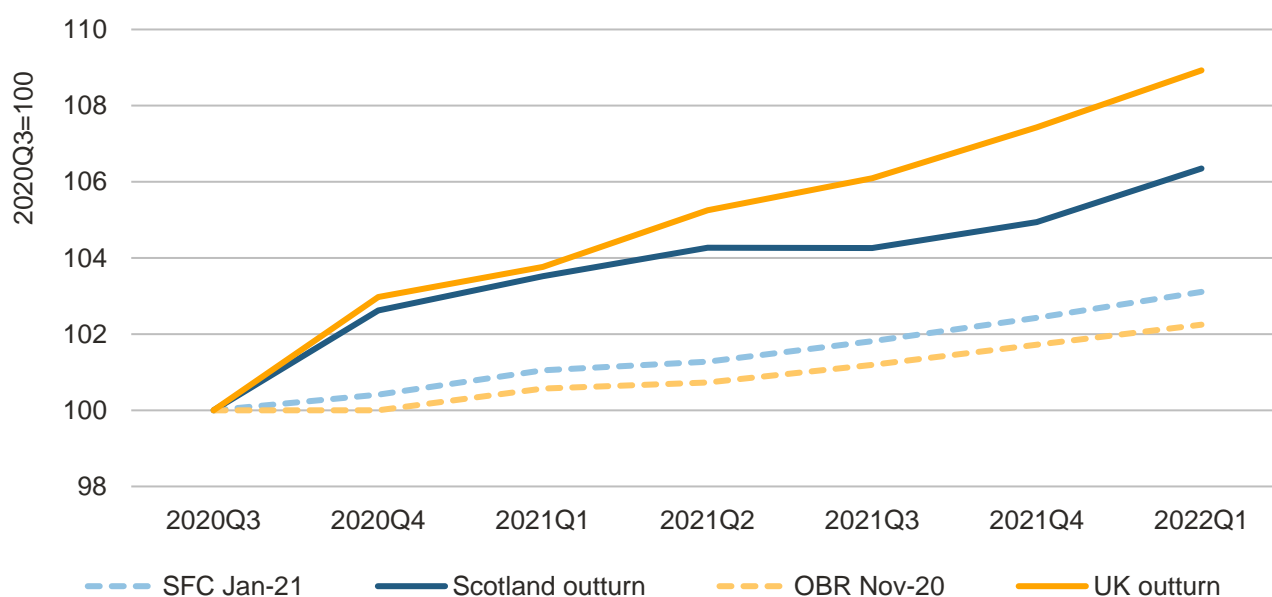
Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Scottish Fiscal Commission (2022) Scotland's Economic and Fiscal Forecasts – May 2022 ([link](#)), OBR (2020) Economic and Fiscal Outlook – November 2020 ([link](#)), OBR (2022) Economic and Fiscal Outlook – March 2022 ([link](#)).

[1] Outturn data as available at last forecast (SFC May 2022 and OBR March 2022).

Understanding forecast errors for average earnings

- 2.20 Figure 2.4 in the previous section shows that, in January 2021, we forecast average earnings growth in Scotland of 2.5 per cent for 2021-22. The latest outturn estimate shows growth of 4.4 per cent, a forecast error of 1.9 percentage points. The OBR has a larger underestimate of UK average earnings growth, of 4.0 percentage points.
- 2.21 Figure 2.6 illustrates that both we and the OBR did not anticipate the strength of Scottish and UK average earnings growth in 2021-22, but this was the case especially at overall UK level. There were a number of factors behind the strength of the Scottish and UK earnings data.
- 2.22 In the first half of 2021-22, although underlying pay growth was moderate, average earnings growth in Scotland and the UK was boosted by COVID-related temporary factors. These included: compositional effects, that is the loss of lower-paid jobs during the pandemic boosting average pay; and furlough effects, as employees who generally had pay cuts while on furlough returned to work at their normal pay. These effects contributed up to half of average earnings growth according to UK estimates by the ONS and the Bank of England.⁶
- 2.23 In the second half of 2021-22, compositional and furlough effects started to unwind or even reverse, but underlying pay growth picked up significantly in line with historically low unemployment and record-high vacancies – often referred to as a tight labour market – and higher inflation. Labour shortages have been driven by a combination of labour market bottlenecks and mismatches in the wake of the pandemic and a shrinking labour force because of rising inactivity, all of which added to recruitment difficulties and put upward pressure on pay growth.
- 2.24 The UK has seen even stronger average earnings growth than Scotland, especially in the highly-paid financial services sector in London, boosted in part by strong bonus pay growth.

Figure 2.6: January 2021 nominal average earnings forecast and outturn, and comparison with OBR



Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Scottish Fiscal Commission (2022) Scotland's Economic and Fiscal Forecasts – May 2022 ([link](#)), OBR (2020) Economic and Fiscal Outlook – November 2020 ([link](#)), OBR (2022) Economic and Fiscal Outlook – March 2022 ([link](#)).

[1] Outturn data as available at last forecast (SFC May 2022 and OBR March 2022).

⁶ ONS (2021) Labour market overview, UK: April 2021 ([link](#)), Bank of England (2022) Monetary Policy Report – May 2022 ([link](#)).

Conclusions

- 2.25 In late 2020 and early 2021, COVID-19 policies were changing rapidly in the UK and Scotland, and there was significant uncertainty about the evolution of the pandemic and the outlook for the economy and the labour market. Our aim is to reduce our average forecast error by learning lessons from previous forecasts. While it is difficult to do this, given the unpredictable environment in which we made our January 2021 forecast, there are some general conclusions we can draw out.
- 2.26 The January 2021 forecast required us to have analytical flexibility and be able to quickly adjust our forecasting approaches and judgements in response to events such as the early-2021 lockdown. We did this, for example, when we deployed a new bottom-up sectoral model to forecast the effects of the restrictions on short-run GDP. The January 2021 forecast also required us to improve our analysis of the risks and uncertainties surrounding our central forecasts, which is particularly important at times such as during a pandemic when it is more difficult than usual to predict the future. This has been useful knowledge and experience that we continue to apply and build on to improve our forecasts.

Chapter 3

Tax

Introduction

- 3.1 In this chapter we evaluate our February 2020 forecast of Scottish income tax (SIT) for 2020-21, our January 2021 forecasts of Land and Buildings Transaction Tax (LBTT) and Scottish Landfill Tax (SLfT) for 2021-22, and our March 2021 supplementary costing of Non-Domestic Rates (NDR).
- 3.2 In Figure 3.1 we compare our forecasts against outturn. Scottish income tax outturn for 2020-21 was £11,948 million which was £417 million lower than our forecast of £12,365 million. For the devolved taxes total revenue was £3,040 million, which is £227 million or 8 per cent higher than our £2,813 million forecast.

Figure 3.1: Summary of tax forecast errors

Tax	Forecast (£ million)	Outturn (£ million)	Error (£ million)	Relative error (%)
Income tax	12,365	11,948	-417	-3
Total devolved taxes, of which: [1]	2,813	3,040	227	8
Non-Domestic Rates	2,139	2,108	-31	-1
Land and Buildings Transaction Tax	586	807	221	38
Scottish Landfill Tax	88	125	37	42

Source: Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)), HM Revenue and Customs (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)), Scottish Fiscal Commission (2021) Supplementary costings – March 2021 ([link](#)), Scottish Government (2022) Non-domestic rates income statistics ([link](#)), Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts - January 2021 ([link](#)), Revenue Scotland (2022) Provisional Outturn Data 2021-22 ([link](#)).

LBTT and SLfT forecasts are the January 2021-22 forecasts of 2021-22 revenues and the NDR forecast is the March 2021 supplementary costing. The income tax forecast evaluated is the February 2020 forecast of 2020-21.

[1] The outturn figures for Non-Domestic Rates, Land and Buildings Transaction Tax, and Scottish Landfill Tax are provisional and may change once the final audited figures are available.

Income tax

- 3.3 In July 2022, HMRC published the Scottish income tax outturn statistics for 2020-21.⁷ In this chapter we evaluate our forecasts of Scottish income tax for 2020-21, particularly the budget setting forecast published in February 2020.⁸
- 3.4 At the time of our forecast, the first COVID-19 cases in Scotland had not been diagnosed. We noted COVID-19 as a potential risk to the global economic outlook but it was not part of our central forecasting judgement that the situation would evolve into the COVID-19 pandemic that would shut down large parts of the Scottish economy in March 2020.

⁷ HMRC (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#))

⁸ Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#))

Headline forecast error

Figure 3.2: Headline evaluation – Scottish income tax forecasts by SFC and OBR

Description Unit	Forecast (£ million)	Outturn (£ million)	Error (£ million)	Error (relative %)
SFC February 2020	12,365	11,948	-417	-3.4
OBR March 2020	12,792	11,948	-844	-6.6
SFC January 2021	11,850	11,948	98	0.8
OBR March 2021	11,940	11,948	8	0.1

Source: Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)), Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Office for Budget Responsibility (March 2020) Economic and fiscal outlook ([link](#)), Office for Budget Responsibility (March 2021) Economic and fiscal outlook ([link](#)).
Figures may not sum because of rounding.

- 3.5 The 2020-21 Scottish Budget for was set using our February 2020 forecast of £12,365 million. In 2020-21 Scotland faced extended periods of restrictions on retail, hospitality and socialising which affected the economy and people's incomes.
- 3.6 The Coronavirus Job Retention Scheme (CJRS) and the Self-Employment Income Support Scheme (SEISS) largely protected the labour market from the economic consequences of the pandemic. While GDP fell sharply in 2020 because of lockdown restrictions, there was lesser effect on the employment and earnings data for 2020-21. However, these economic effects still reduced the amount of income tax that collected in this period and outturn data show that we overestimated Scottish income tax revenues by £417 million.

Understanding our February 2020 forecast error

- 3.7 Our income tax forecast relies on forecasts of employment and earnings from our economy forecast. When we produced our February 2020 forecast, we only had income tax outturn data for 2017-18. Therefore, we had to use economy data and forecasts covering the period 2017-18 to 2020-21 to create our income tax forecasts. Figure 3.3 shows the forecast growth rates of employment and earnings between 2017-18 and 2020-21 compared to outturn.

Figure 3.3 Growth rates of key economic determinants between 2017-18 and 2020-21, SFC

Determinant	Forecast (per cent)	Outturn (per cent)	Difference (percentage points)
Employment	0.1	-3.9	-4.0
Average earnings	8.9	10.9	2.0
Total earnings (COE)	9.0	9.8	0.8

Source: Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)), Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – May 2022 ([link](#)).

- 3.8 We anticipated that growth in employment would be very small but the outturn data show that employment decreased by 4.0 percentage points. We show in Figure 3.3 that average earnings increased by 2.0 percentage points but this growth is partly boosted by compositional effects. Job losses were concentrated in lower-paid sectors which had the effect of increasing average earnings growth. We provide more detail on our employment and average earnings determinants in the economy chapter of our July 2021 FER.⁹ If at the time of our forecast we had known the outturn

⁹ Scottish Fiscal Commission (2021) Forecast Evaluation Report – July 2021 ([link](#))

values for employment and earnings then our income tax forecast would have been £321 million lower, this explains most of our forecast error.

- 3.9 The remaining £96 million of the error resulted from a number of unobservable factors including unexpected policy effects, individual behaviour changes, minor data and modelling issues, or unobservable changes in the income distribution over time. It is not possible to provide a detailed breakdown of this remaining error.

Figure 3.4 Disaggregation of 2020-21 Scottish income tax forecast error

Component	£ million
SFC forecast February 2020	12,365
Economic forecast	-321
Other	-96
HMRC outturn July 2022	11,948
Total error	-417

Source: Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)), HM Revenue and Customs (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)).

Our other forecasts of income tax for 2020-21

- 3.10 We made our December 2018 and May 2019 forecasts before we knew COVID-19 would affect Scotland which explains the similar errors to the February 2020 budget setting forecast. Our January 2021 forecast reduced by over £500 million compared to February 2020, primarily because of our better understanding of the effect of the COVID-19 pandemic as reflected in the reduction in our employment and earnings forecasts.

Figure 3.5 Previous 2020-21 income tax forecasts and errors compared to July 2022 outturn

Forecast	Forecast (£ million)	Error (£ million)	Error (Relative %)
December 2018	12,285	-337	-2.7
May 2019	12,332	-384	-3.1
February 2020 (Budget Setting)	12,365	-417	-3.4
January 2021	11,850	98	0.8
August 2021	11,938	10	0.1
December 2021	11,938	10	0.1
May 2022	12,118	-170	-1.4

Source: Scottish Fiscal Commission, HMRC (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)), Scottish Fiscal Commission (2018) Scotland's Economic and Fiscal Forecasts – December 2018 ([link](#)), Scottish Fiscal Commission (2019) Scotland's Economic and Fiscal Forecasts – May 2019 ([link](#)), Scottish Fiscal Commission (2019) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)), Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts - January 2021 ([link](#)), Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts - August 2021 ([link](#)), Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts - December 2021 ([link](#)), Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – May 2022 ([link](#)).

Figures may not sum because of rounding.

- 3.11 In December 2021 we had an increased earnings and employment forecast following the more rapid re-opening of the economy than we had anticipated and the extension of the furlough scheme to 30 September 2021. We also had HMRC Real Time Information (RTI) data on income tax collected via the PAYE system up to September 2021 and this showed stronger growth than we expected in

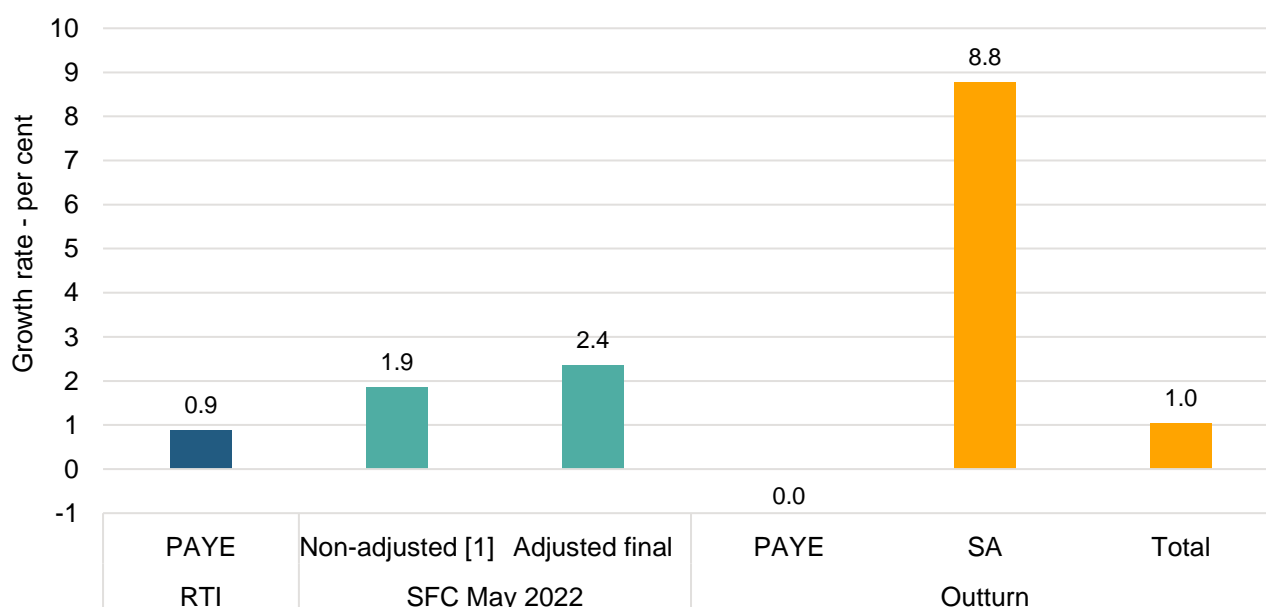
January 2021. Our updated economy forecast and RTI data led us to increase our income tax forecast by £88 million, which was only £10 million lower than the final outturn.

3.12 RTI income tax revenue data only cover the PAYE element of income tax, which accounts for around 90 per cent of all NSND income tax revenue. However, RTI is not a perfect predictor of the final PAYE outturn figure, and it does not provide information on those paying income tax via self-assessment (SA) – mostly the self-employed and those earning more than £100,000 per year. There is also the possibility that tax-payers might appear in RTI figures during the year, but at the end of the year file a self-assessment claim and their revenue appear in the SA figures.

3.13 When using RTI data in our forecasts, we have historically assumed that the income tax revenues paid via SA grow at the same rate as the income tax revenues paid via PAYE. In May 2022 we had evidence from HMRC and OBR of strong growth in SA revenues so we decided to increase our forecast by £180 million to account for this. We explain the reasons for this adjustment in more detail in our May 2022 publication.¹⁰

3.14 In Figure 3.6 we compare the growth rates of income tax revenue from RTI data, our May 2022 forecast and the outturn data for 2020-21 published by HMRC. When we created our May 2022 forecast, RTI data indicated that the PAYE element of income tax revenues was growing by 0.9 per cent from 2019-20 to 2020-21. Outturn data show that growth in PAYE revenues in 2020-21 was 0.0 per cent and growth in SA revenues was 8.8 per cent. This data suggest it was the PAYE element of our May 2022 forecast that was too high and that we were correct to include an SA adjustment.

Figure 3.6: Income tax revenue growth in 2020-21 from RTI, SFC forecast and HMRC outturn



Source: Scottish Fiscal Commission, HMRC (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)).

[1] Non-adjusted means that we haven't adjusted to account for the effects of PAYE RTI data and our SA adjustment.

Previous budget setting income tax forecast errors

3.15 In Figure 3.7 we show the income tax forecast errors in each of the budget setting forecasts for which we now have outturn data. The Scottish Government published the February 2017 forecast, before the creation of the Scottish Fiscal Commission in its present, statutory form. Forecasts produced before summer 2018 were subject to higher forecast errors because until then there were

¹⁰ Scottish Fiscal Commission (2022) Scotland's Economic and Fiscal Forecasts – May 2022 ([link](#))

no outturn data for Scottish income tax revenues available. To fairly compare forecast errors the 2017 and February 2018 forecasts have been adjusted to strip out the effect of not having had access to outturn data at the time the forecast was made.

Figure 3.7: Summary of budget setting forecast errors

Budget setting forecast	For Budget year	Error (£ million)	Error, adjusted for outturn (£ million)	Relative error, adjusted for outturn (%)
February 2017 (SG)	2017-18	-941	-121	-1.1
February 2018	2018-19	-621	-84	-0.7
December 2018	2019-20	149	149	1.3
February 2020	2020-21	-417	-417	-3.4

Source: Scottish Fiscal Commission (2019) Forecast Evaluation Report – September 2019 ([link](#)), Scottish Fiscal Commission (2020) Income tax evaluation – October 2020 ([link](#)), Scottish Fiscal Commission (2021) Supplementary Forecast Evaluation Report – August 2021 ([link](#)).

3.16 Our headline forecast error of -£417 million is largest error to date, after adjusting for not having had access to outturn data. This is understandable given we created the forecast before we knew the economic effects of a global pandemic.

Effect on the Scottish Budget

3.17 Income tax funding in the 2020-21 Scottish Budget was based on both our February 2020 forecast of Scottish income tax revenues and the corresponding Block Grant Adjustment (BGA), which is based on the OBR’s December 2019 forecast of income tax revenues in the rest of the UK. It is worth noting that this was a restatement of the OBR’s March 2019 forecast. With the publication of outturn data for 2020-21, we have values for 2020-21 Scottish income tax revenues and the income tax BGA.

3.18 Differences between our forecasts of income tax revenues and outturn, and similarly differences between the OBR-based forecast of the BGA and the final BGA, will be corrected through reconciliations to the Scottish Budget for 2023-24. We show the calculation of the reconciliation based on the forecast errors in Figure 3.8. We give detailed information on how the Scottish Budget is set, and how reconciliations are calculated in our publication “Funding for the Scottish Budget”.¹¹

Figure 3.8: 2020-21 Scottish income tax and BGA forecast errors and reconciliation

£ million	Scottish income tax	BGA	Reconciliation
Budget setting forecast	12,365	-12,319	
Final outturn	11,948	-11,852	
Forecast error	-417	468	50

Source: Scottish Fiscal Commission. HMRC (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)), Scottish Fiscal Commission (2019) Scotland’s Economic and Fiscal Forecasts – February 2020 ([link](#)).

Figures may not sum because of rounding.

3.19 Our headline budget setting income tax forecast error was an overestimate of £417 million. Funding from income tax revenues should have been £417 million lower in the original 2020-21 Scottish Budget. The income tax BGA was also overestimated by £468 million and so the downwards

¹¹ Scottish Fiscal Commission (2022) Funding for the Scottish Budget ([link](#))

adjustment in funding for the Scottish Budget related to the income tax BGA should have been £468 million lower. The forecast errors were in the same direction so they partially offset each other. The combined effect of these forecast errors is a positive income tax reconciliation of £50 million.

Income tax net effect on budget and reconciliations

- 3.20 Scottish income tax revenues are a source of funding for the Scottish Budget. The income tax BGA reduces funding in the Scottish Budget to reflect the devolution of income tax to Scotland. The net effect of income tax on the Scottish Budget is how the additional Scottish income tax revenues compare to the income tax BGA. In 2020-21, outturn income tax revenues were £11,948 million, and the income tax BGA was £11,852. Therefore, 2020-21 income tax has a positive net effect on the budget of £96 million, the difference between the two.
- 3.21 Alternatively, we can present reconciliations as the result of errors in the estimated net effect on the budget when it is first set, based on forecasts of its two components. We show this in Figure 3.9. At the budget setting forecast in February 2020, we forecast income tax revenues in 2020-21 to be £46 million greater than the BGA. The outturn data show this difference in greater with income tax revenues £96 million greater than the BGA. Therefore a reconciliation of £50 million will be applied to the 2023-24 Scottish Budget.

Figure 3.9: Errors in the net effect on budget and reconciliation

£ million	Scottish income tax	BGA	Net effect on Budget
Budget setting forecast	12,365	-12,319	46
Final outturn	11,948	-11,852	96
Reconciliation			50

Source: Scottish Fiscal Commission. HM Revenue and Customs (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)), Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)). Figures may not sum because of rounding.

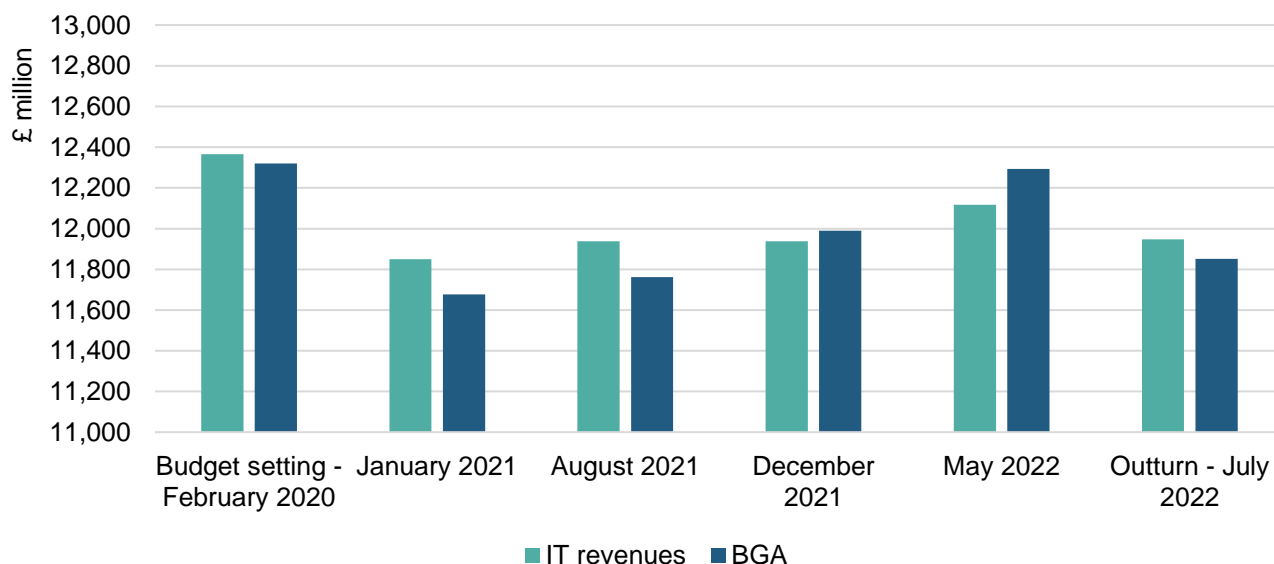
Evaluating our forecasts of income tax and reconciliations

- 3.22 After the Budget has been set but before the publication of outturn data, we provide estimates of income tax reconciliations based on our latest forecasts and the latest BGAs. Figures 3.10 and 3.11 show how estimates of the income tax reconciliation for 2020-21 have developed over time.
- 3.23 Figure 3.10 shows forecasts and outturn of Scottish income tax revenue and the income tax BGA for 2020-21. In Figure 3.11 we compare the income tax net position with the interim estimated reconciliations published at each forecast event from the original February 2020 budget setting forecast up until the final reconciliation calculated from July 2022 outturn.
- 3.24 The income tax net position is the difference between income tax revenues and the BGA. For example, in the original budget setting forecasts we forecast Scottish income tax revenues in 2020-21 to be £12,365 million compared to a BGA of £12,319 million, with a net position of £46 million. Interim reconciliations are the estimated changes in the net position since the original budget setting forecast at each subsequent forecast event. In January 2021 both income tax revenues and the BGA were revised down because of the effects of coronavirus (COVID-19). However, the BGA was revised down more which led to a positive £127 million interim reconciliation.
- 3.25 In December 2021 both income tax revenues and the BGA were revised upwards compared to January 2021 because the outlook for the economy had improved. The BGA was revised upwards by more than income tax revenues so we forecast a negative net position and reconciliation for

2020-21 for the first time. In May 2022 income tax revenues and the BGA were revised upwards further and again the BGA revision was greater than the income tax revision. This decreased the net position to -£175 million and meant our interim estimated reconciliation was decreased to -£221 million.

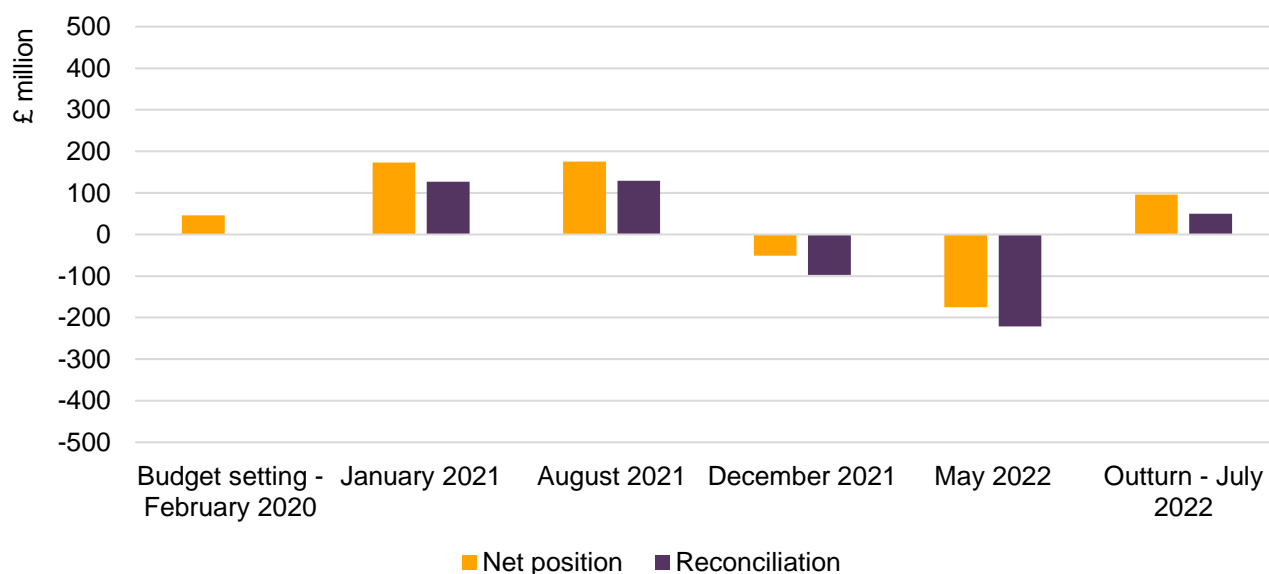
3.26 Overall, outturn data show that both our Scottish income tax forecasts and the BGA have decreased by a similar amount compared to the initial budget setting forecasts but the BGA has decreased by £50 million more. This has increased the net position and means a positive reconciliation of £50 million will be applied at the 2023-24 Scottish Budget.

Figure 3.10: Forecasts of 2020-21 SFC Scottish income tax revenues and the BGA



Source: Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)), Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts - January 2021 ([link](#)), Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts - August 2021 ([link](#)), Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts - December 2021 ([link](#)), Scottish Fiscal Commission (2022) Scotland's Economic and Fiscal Forecasts – May 2022 ([link](#)), HM Revenue and Customs (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)).

Figure 3.11: Estimates of income tax reconciliations for 2020-21 at previous SFC forecasts



Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)), Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts - January 2021 ([link](#)), Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts - August 2021 ([link](#)), Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts - December 2021 ([link](#)), Scottish Fiscal Commission (2022) Scotland's Economic and Fiscal Forecasts – May 2022 ([link](#)), HM Revenue and Customs (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)).

Conclusions

- 3.27 The 2020-21 Scottish Budget was set using our income tax forecast of £12,365 million. Compared to the 2020-21 outturn data of £11,948 million, our Budget setting forecast from February 2020 overestimated Scottish income tax revenues by £417 million, or 3.4 per cent. This is largely because at the time we made our forecast we did not include as part of our central forecasting judgement that the COVID-19 pandemic would shut down large parts of the economy from March 2020. Errors in our underlying forecast of the economy contributed £321 million of the error whereas other factors contributed to the remaining error.
- 3.28 In February 2020, we forecast that the net effect of income tax on the Budget would be £46 million. The outturn data show that the net effect of income tax on the Budget is £96 million, which leads to a reconciliation of £50 million. We expect this reconciliation to be applied in the 2023-24 Scottish Budget, increasing the Scottish Budget by £50 million. This will be the fourth time a reconciliation has been applied in the Scottish Budget under the current fiscal framework and the first time it has been positive.

Differences in forecast timing, methodology and the net position

- 3.29 The estimated net income tax position at the time the Scottish Budget is set, and the subsequent reconciliation once the income tax outturn data is available, depend upon both SFC and OBR forecasts. When the Scottish Budget is set the SFC forecast Scottish income tax revenues and the most recent OBR forecasts of income tax revenues in England and Northern Ireland are used to calculate the BGA.
- 3.30 There has been some discussion of the effects of differences in timing, judgement and methodology on the funding position of the Scottish Government, including in the May 2022 Medium-Term Financial Strategy which compared the effect of using SFC and OBR forecasts of Scottish income tax to calculate the net position highlighting the differences between them.¹²
- 3.31 We now have available four years' worth of outturn data for Scottish income tax revenue since the Scotland Act 2016 devolved the power for the Scottish Parliament to set and change its own tax rate bands and limits.
- 3.32 The OBR produce an illustrative forecast of Scottish income tax by calculating the Scottish share of their UK-wide NSND income tax forecast and then adding on the effects of policy measures. In Figure 3.12 we show the income tax reconciliations that have arisen based on our forecast and the BGAs. We also show the reconciliations that would have occurred had the OBR's forecasts of Scottish income tax produced pre-Scottish Budget and post-Scottish Budget been used in place of the SFC budget setting forecast.
- 3.33 There is nothing systematic about the size of reconciliations in the three scenarios shown in Figure 3.12. It is clear in each scenario, there will always be reconciliations.

¹² Scottish Government (2022) Scotland's Fiscal Outlook: The Scottish Government's Medium-Term Financial Strategy – May 2022 ([link](#))

Figure 3.12: Final income tax reconciliations based on SFC and illustrative OBR forecasts

£ million	2017-18 [1]	2018-19	2019-20	2020-21 [2]
Final Outturn [3]	-204	-309	-34	50
OBR pre-Scottish Budget [4]	-115	-285	-249	-214
OBR post-Scottish Budget [5][6]	-191	-411	-181	-350

Source: Scottish Fiscal Commission, HM Revenue and Customs (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)), Office for Budget Responsibility (2022) Historical official forecasts database ([link](#)), Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)), Scottish Fiscal Commission (2018) Scotland's Economic and Fiscal Forecasts – December 2018 ([link](#)), Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts – December 2017 ([link](#)).

Figures may not sum because of rounding.

[1] The Scottish income tax forecast for 2017-18 was produced by the Scottish Government.

[2] For the 2020-21 Scottish Budget there wasn't a UK fiscal event in the preceding Autumn. Instead the OBR restated their March 2019 forecast in December 2019 to include recent ONS statistical changes.

[3] Final outturn reconciliations are based on the SFC forecasts of Scottish income tax and OBR forecasts of the BGA.

[4] OBR pre-Scottish Budget forecasts would not include any policy measures made in the Scottish Budget.

[5] OBR post-Scottish Budget forecasts would also include UK Government policy measures.

[6] The Block Grant Adjustments used in these calculations have also been updated to those published at the time of the next UK fiscal event after the Scottish Budget.

3.34 In Figure 3.13 we provide information on the estimated and outturn income tax net positions. Where the estimated forecast net position is more positive, leading to increased funding in the Budget setting year, there is a correspondingly more negative reconciliation once the outturn position is known resulting in a reduction in funding in a later year.

Figure 3.13: Income tax net position based on SFC and illustrative OBR forecasts, and final outturn

£ million	2017-18 [1]	2018-19	2019-20	2020-21 [2]
Budget-setting position	107	428	182	46
OBR pre-Scottish Budget [3]	18	404	397	310
OBR post-Scottish Budget [4][5]	94	529	329	447
Final outturn [6]	-97	119	148	96

Source: Scottish Fiscal Commission, HM Revenue and Customs (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 ([link](#)), Office for Budget Responsibility (2022) Historical official forecasts database ([link](#)), Scottish Fiscal Commission (2020) Scotland's Economic and Fiscal Forecasts – February 2020 ([link](#)), Scottish Fiscal Commission (2018) Scotland's Economic and Fiscal Forecasts – December 2018 ([link](#)), Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts – December 2017 ([link](#)).

Figures may not sum because of rounding.

[1] The Scottish income tax forecast for 2017-18 was produced by Scottish Government.

[2] For the 2020-21 Scottish Budget there wasn't a UK fiscal event in the preceding Autumn. Instead the OBR restated their March 2019 forecast in December 2019 to include recent ONS statistical changes.

[3] OBR pre-Scottish Budget forecasts would not include any policy measures made in the Scottish Budget.

[4] OBR post-Scottish Budget forecasts would also include UK Government policy measures.

[5] The Block Grant Adjustments used in these calculations have also been updated to those published at the time of the next UK fiscal event after the Scottish Budget.

[6] Final outturn reconciliations are based on the SFC forecasts of Scottish income tax and OBR forecasts of the BGA.

Non-Domestic Rates

3.35 In this chapter we evaluate our forecast of NDR revenue in 2021-22 which was published as part of our Supplementary Costing of Non-Domestic Rates in March 2021.

Figure 3.14: Headline evaluation – March 2021 forecast of 2021-22

Component	£ million
Forecast (£ million)	2,139
Provisional Outturn [1] (£ million)	2,108
Error (£ million)	-31
Relative Error (%)	-1
OBR average absolute error [2]	1

Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Scottish Fiscal Commission (2021) Supplementary costings – March 2021 ([link](#)), Scottish Government (2022) Non-domestic rates income statistics ([link](#)), OBR (2022) Historical official forecasts database ([link](#)).

Figures may not sum because of rounding.

[1] The outturn figure may change once the final audited figures are available. The average annual difference between provisional outturn and final audited figures between 2010-11 and 2020-21 was £1.8 million.

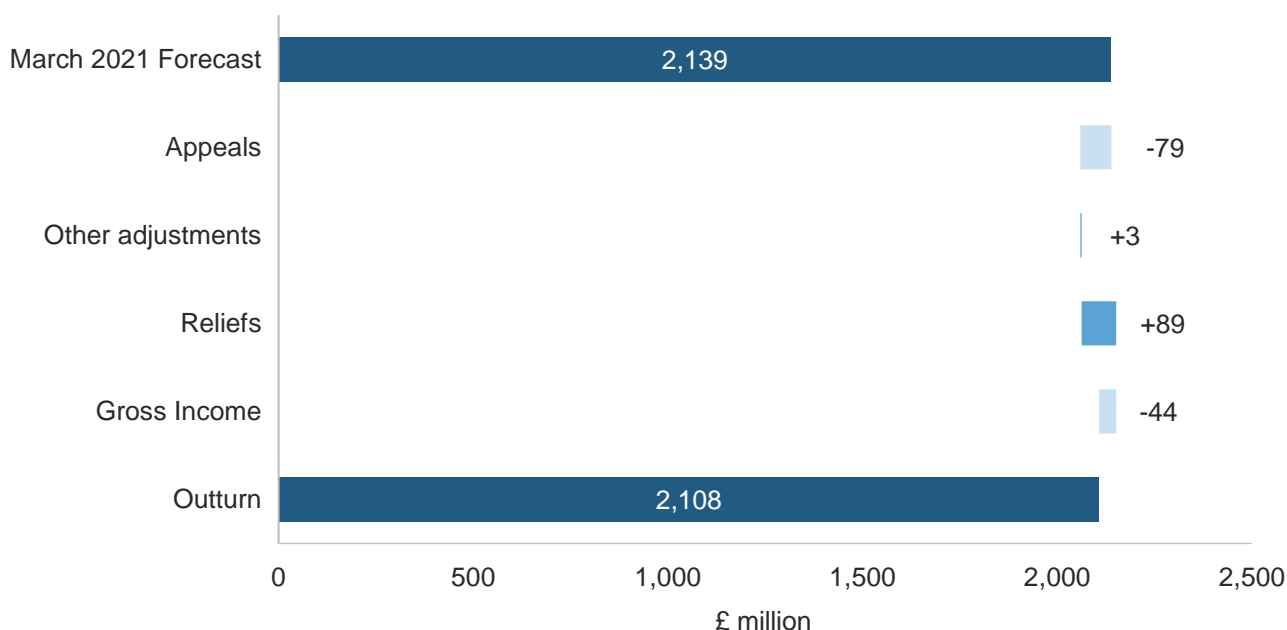
[2] The OBR average is based on the average one-year ahead forecast error over the period 2010-11 to 2019-20.

3.36 NDR revenue for 2021-22 was £2,108 million based on notified returns which is £31 million or 1.5 per cent lower than our March 2021 forecast of £2,139 million. This error is similar to both the average one-year-ahead error of 1 per cent from our previous forecasts, and the OBR's average one-year-ahead absolute forecast error of 1 per cent for UK-wide Business Rates.

3.37 There are several reasons for this forecast error. More revenue than we expected was lost to successful appeals. Counteracting this, awards of Retail, Hospitality, Leisure and Aviation relief were less than expected.

Understanding our forecast error

Figure 3.15: Decomposition of March 2021 NDR forecast error for 2021-22



Source: Scottish Fiscal Commission (2021) Supplementary costings – March 2021 ([link](#)), Scottish Government (2021) Non-domestic rates income statistics ([link](#)). Figures may not sum because of rounding.

- 3.38 We published our main forecast of NDR revenues for 2021-22 in January 2021. In February 2021, the Scottish Government announced a year-long extension to its 100 per cent relief for retail, hospitality and leisure (RHLA) from 3 months to 12 months and a delay to the end of charity relief for independent schools. Our March 2021 forecast was a supplementary costing to cover NDR policy changes announced since January 2021. These policy changes were included in the Budget before it was finally voted through parliament. We have used the NDR forecast including these supplementary policy costings to evaluate our NDR forecast for 2021-22. The January 2021 forecast was £2,680 million before the March 2021 policies were announced, and we reduced it to £2,139 million after the policy costings were included.
- 3.39 We can see from notified return data that the actual cost of the RHL relief in 2021-22 was £640 million. We forecast this policy to cost £719 million, of which £541 million came from the 9-month extension included in our March 2021 supplementary costing. We can also see that the actual cost of appeals losses from notified return data is £136 million, which is £79 million higher than our March 2021 forecast of £57 million.
- 3.40 We have updated our forecast since January 2021 because of data updates on the provisional contributable amount and mid-year estimates, and data updates on appeals losses. This lower revenue appears to have been partially because of the effect of higher than expected appeals losses during 2021-22. We increased our assumed appeals loss rate for the 2017 revaluation cycle in May 2022 from 5 per cent to 6 per cent.

Box 3.1: Non-Domestic Rating Account

The Commission forecasts the contributable amount of NDR, which can be thought of as being the amount collected by local authorities that subsequently flows to the Scottish Government. The contributable amount is pooled at a national level, before being redistributed by the Scottish Government as part of the local government finance settlement. The amount of NDR income redistributed to local authorities is known as the distributable amount.

In January 2021, we provided an illustrative projection of the balance of the Non-Domestic Rating Account in 2021-22 based on our forecast of the contributable amount, and the distributable amount that had been set by the Scottish Government. Figure 3.16 shows the difference between our projection and the final balance of the rating account, also known as the pool.¹³

Figure 3.16: Provisional balance of the Non-Domestic Rating Account in 2021-22

£ million	SFC illustrative projection	Provisional outturn	Difference
Provisional contributable amount (A)	2,680	2,054	-626
Net effect of prior year adjustments (B)	-68	-104	-36
Distributable amount (C)	2,631	2,090	-541
Annual balance (D) (A + B - C)	-20	-140	-120
Cumulative balance (E) (E from year before + D)	-75	-200	-125

Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Scottish Government (2021) Scottish Budget 2021-22, Scottish Government (2022) Non-domestic rates income statistics ([link](#)). Figures may not sum because of rounding.

¹³ The provisional balance is based on the most recent figures. The audited pool balance is usually published in late September.

The balance of the pool is affected by several factors, not just our forecast accuracy. Contributions to the pool are determined by local authorities' own estimates of collections for the year ahead, which are submitted to the Scottish Government shortly after the start of the financial year. The final audited NDR figure only becomes available after the end of the financial year.

Our forecast of the contributable amount was very different to the amount reported by local authorities, as they submitted their returns after the COVID-19 policy changes were announced. However, the effect on the pool balance was moderated by the Scottish Government reducing the distributable amount based on our subsequent forecast of the contributable amount, once the policy change had been announced.¹⁴

In the provisional outturn for 2021-22 the cumulative balance is -£200 million. This is a result of the large negative prior year adjustment, the distributable amount exceeding the contributable amount, and a negative cumulative balance carried over from 2020-21.

Conclusions

- 3.41 Our NDR forecast had a reasonably low overall forecast error because of errors in both directions. We have identified the sources of these errors.
- 3.42 Our appeals loss assumption has increased for the 2017 revaluation cycle which should adjust for that source of forecast error. However, the appeals process is changing on 1 January 2023 and a new valuation roll will be produced on 1 April 2023. This is likely to lead to further changes in our methods and assumptions.

¹⁴ Scottish Fiscal Commission (2021) Supplementary Costings – Non-Domestic Rates Measures March 2021 ([link](#))

Land & Buildings Transaction Tax

3.43 Land & Buildings Transaction Tax (LBTT) is a fully devolved tax payable on transactions of eligible land and buildings in Scotland. The legislation devolving the tax was passed in the Scotland Act (2012)¹⁵ and LBTT replaced Stamp Duty Land Tax (SDLT) from April 2015. As a fully devolved tax, it is collected and managed by Revenue Scotland. We forecast each of the three components of LBTT – residential LBTT, Additional Dwelling Supplement (ADS) on residential properties and non-residential LBTT. Here we evaluate our forecasts of the 2021-22 financial year for LBTT using the provisional outturn data from Revenue Scotland.¹⁶

Figure 3.17: Headline evaluation – January 2021 forecast of 2021-22 LBTT revenues

Tax	Forecast (£ million)	Outturn (£ million)	Error (£ million)	Relative Error (%)
Residential LBTT	299	418	119	40
Additional Dwelling Supplement	108	140	32	30
Non-Residential LBTT	178	248	70	39
Total LBTT	586	807	221	38
OBR average absolute error [1]				8

Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Revenue Scotland (2022) Provisional outturn data ([link](#)), OBR (2022) Historical official forecasts database ([link](#)).

[1] The OBR average is based on the average one-year ahead forecast error for property transaction taxes over the period 2011-12 to 2020-21.

LBTT revenue is net of ADS repayments, excludes penalties and interest and also excludes revenue losses.

Figures may not sum because of rounding. Figures are still provisional, pre-audit and subject to change.

3.44 In our January 2021 forecast, total LBTT revenues for 2021-22 were forecast at £586 million. With record outturn at £807 million, our overall forecast error was 38 per cent. Unlike in previous forecast evaluations, forecast error was high across all three components of LBTT: residential, additional dwelling supplement (ADS) and non-residential.

3.45 This chapter examines each of the components of LBTT in turn: residential LBTT, paid on residential property transactions, Additional Dwelling Supplement paid on residential properties where the buyer already owns at least one residential property, and non-residential LBTT paid on conveyances or leases of any non-residential property.

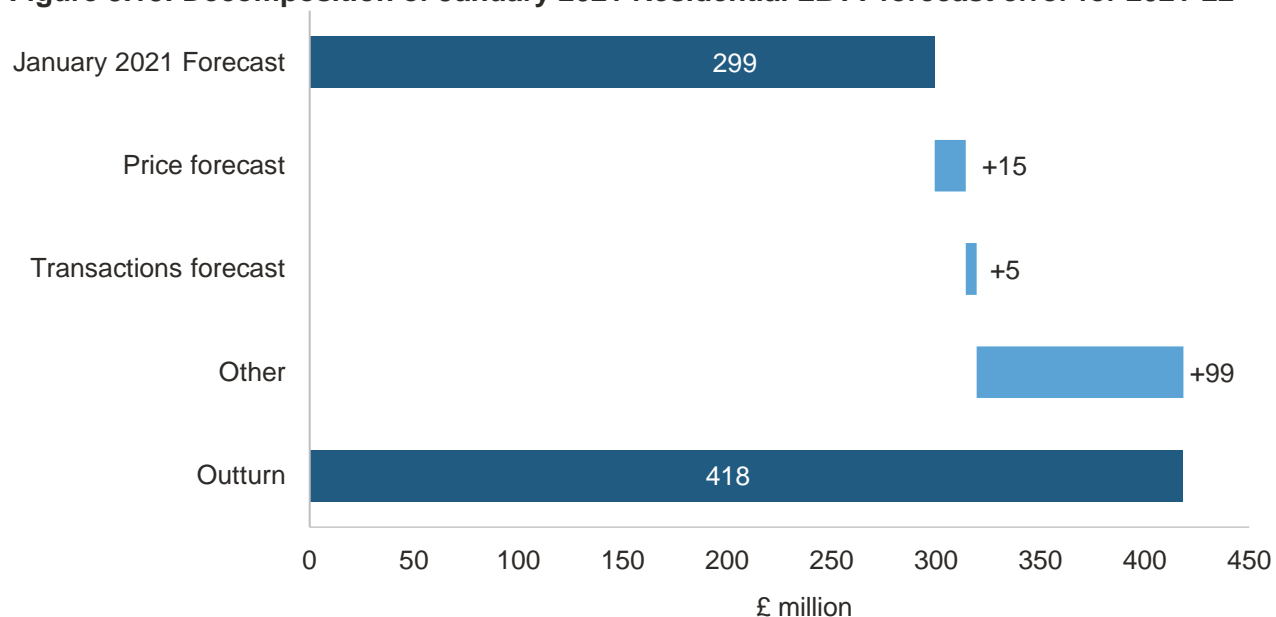
Residential LBTT

3.46 Our forecast error for residential LBTT is £119 million or 40 per cent of our residential LBTT forecast. This is significantly higher than in previous years. Figure 3.18 shows the components of our residential LBTT forecast error.

¹⁵ Scotland Act (2012) section 28: Scottish tax on transactions involving interests in land ([link](#)).

¹⁶ The LBTT outturn figures presented in this report are provisional and are subject to audit and amendment. The differences between Revenue Scotland's statistical and financial publications, particularly affecting how ADS repayments are allocated to a given month or financial year, is explained in Annex B of their Annual Summary of Trends in Devolved Taxes publication ([link](#)).

Figure 3.18: Decomposition of January 2021 Residential LBTT forecast error for 2021-22



Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Revenue Scotland (2022) Provisional outturn data ([link](#)). Figures are still provisional, pre-audit and subject to change.

3.47 Average house prices rose considerably in 2020-21 but remained higher than expected throughout 2021-22, even after the end of pandemic related restrictions. The average house price rose by four per cent while we had forecast a rise of 1.8 per cent. Higher average prices account for £15 million or 13 per cent of the error. This component accounts for only the change in average house prices. It does not include how the whole distribution of house prices has changed. This is termed distribution error and is included under other sources of error.

3.48 The housing market was slightly more active than we had expected. A higher number of transactions accounts for only £5 million or 4 per cent of the error.

3.49 A significant source of error is the distribution of property transactions by tax band. This accounts for £99 million of error, the largest component by far. Properties in the highest two tax bands (£325k and higher) were forecast to account for 10 per cent of transactions and 73 per cent of revenues. Outturn data show they accounted for approximately 14 per cent of transactions and 81 per cent of LBTT revenues. There is a disproportionate effect on revenues when there are more transactions in the top tax bands.

Figure 3.19: Distribution of residential property transactions by LBTT tax band 2021-22

Band	Tax rate within band (%)	Forecast transactions	Outturn transactions	Forecast transaction share (%)	Outturn transaction share (%)
£0-£145k	0	46,845	44,447	45	40
£145-£250k	2	36,209	37,368	35	34
£250-325k	5	10,340	12,726	10	12
£325-£750k	10	9,552	14,490	9	13
£750k+	12	679	1,142	1	1
Total		103,626	110,173		

Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts - January 2021 ([link](#)), Revenue Scotland (2022) Scottish Fiscal Commission Data Request July 2022 ([link](#)).

Figures may not sum because of rounding.

3.50 Other sources of error included higher than expected outturn that remained consistently above our forecast throughout 2021-22 as well as a small overestimation of the amount of LBTT foregone to reliefs (such as first-time buyers' relief).

Additional Dwelling Supplement (ADS)

3.51 Our forecast error for ADS was £32 million or 30 per cent of our ADS forecast. Despite sharing the same determinants as residential LBTT in our model, ADS revenues can change at a different rate to residential LBTT revenues. This is because the distribution of transactions that pay ADS is different to residential LBTT as buyers' motivations may differ (for instance, buy to let or holiday homes rather than intending to live in the new property as a main residence).

3.52 There are two components in our ADS forecast: Gross ADS and repayments. A buyer can reclaim ADS if they sell their previous main residence within 18 months. The difference between these figures gives our published net ADS forecast. Repayments are typically 25-30 per cent of gross ADS liable. ADS gross and repayments are shown in Figure 3.20.

Figure 3.20: Components of January 2021 ADS forecast error

Component	Forecast (£ million)	Outturn (£ million)	Error (£ million)	Relative Error (%)
Gross ADS	157	192	35	22
ADS repayments	49	52	3	6
Net ADS [1]	108	140	32	30

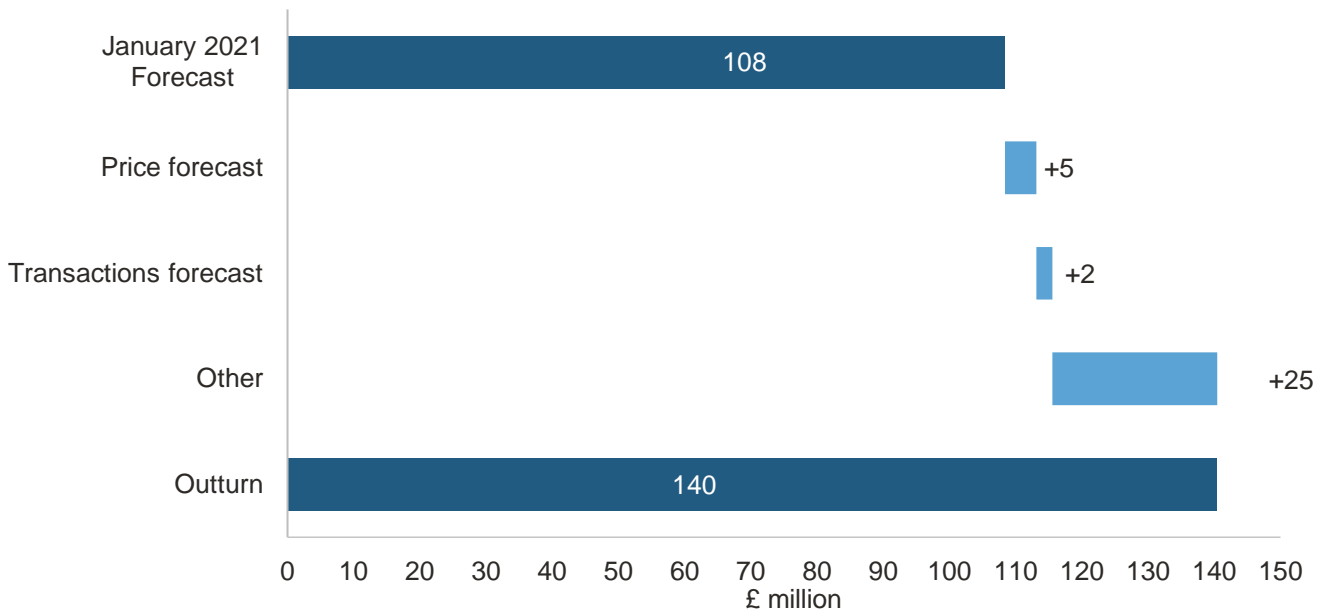
Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts - January 2021, Revenue Scotland (2022) Provisional outturn data ([link](#)). Figures are still provisional, pre-audit and subject to change.

Figures may not sum because of rounding.

[1] We costed the two policies of extending the ADS repayments window to 24 months (from 18 months) and raising the starting threshold at £12.3 million for 2021-22 in our January 2021 forecast. This report does not have scope to formally evaluate the true cost of these policies.

3.53 Underestimating the average price of transactions that pay ADS accounted for £5 million or 15 per cent of our ADS forecast error. Notably this is a lot smaller than the price effect error in residential LBTT. This likely reflects the buy to let market, which the available evidence tells us tends towards the lower and middle parts of the price distribution.

Figure 3.21: Decomposition of January 2021 ADS forecast error for 2021-22



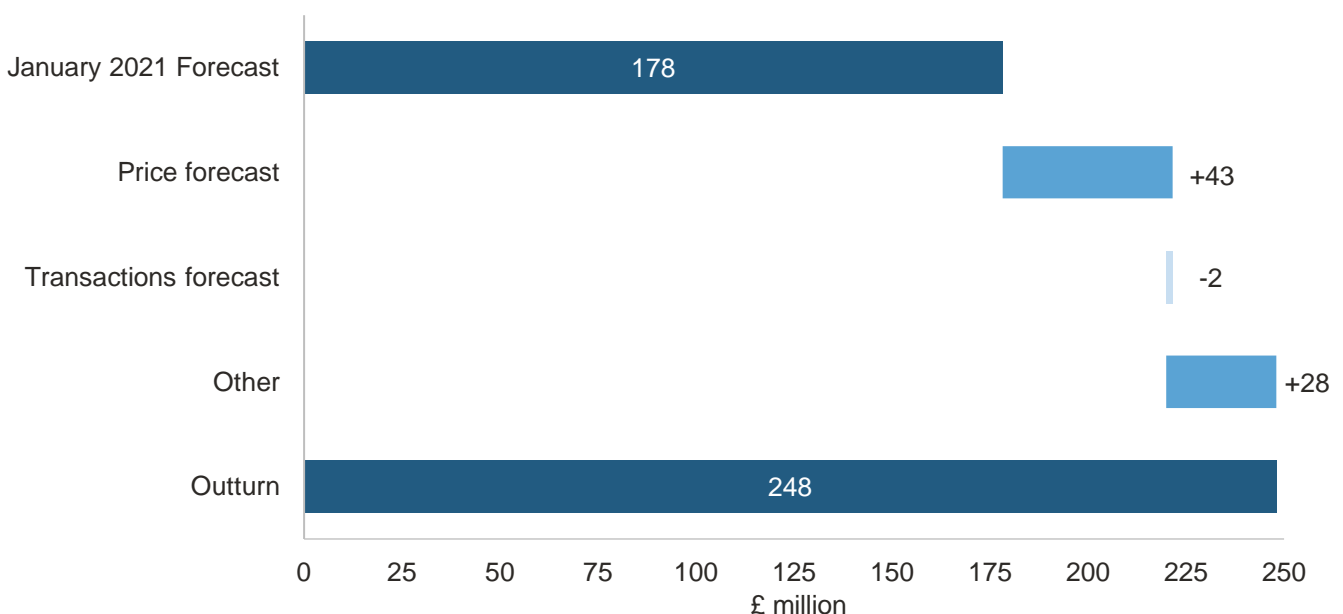
Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Revenue Scotland (2022) Provisional outturn data ([link](#)). Figures are still provisional, pre-audit and subject to change.

3.54 An underestimate of the number of transactions with ADS payable accounted for £2 million or 8 per cent of our forecast error. Other sources of error include the distribution of properties that pay ADS and residual error.

Non-Residential LBTT

3.55 Our forecast error for non-residential LBTT was £70 million or 39 per cent of our non-residential LBTT forecast. Non-residential LBTT is collected from far fewer transactions and is generally more volatile year to year compared to residential LBTT. Our previous evaluation of 2020-21 showed an error of 32 per cent in the opposite direction (the forecast was higher than outturn).¹⁷ The components of the non-residential LBTT forecast error are shown in Figure 3.22.

Figure 3.22: Decomposition of January 2021 Non-Residential LBTT forecast error for 2021-22



Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts - January 2021 ([link](#)), Revenue Scotland (2022) Provisional outturn data ([link](#)). Figures are still provisional, pre-audit and subject to change.

¹⁷ Scottish Fiscal Commission (2021) Forecast Evaluation Report – July 2021 ([link](#))

- 3.56 Price effects dominate the forecast error accounting for £43 million or 62 per cent of the non-residential forecast error. By contrast, transaction error accounted for a negligible proportion of the error (2 per cent). With the easing of pandemic-related restrictions, it is likely that this reflects a competitive commercial market.
- 3.57 Other sources of error include distribution error at £28 million and residual error. As with residential LBTT, a small number of transactions can generate a large proportion of non-residential LBTT revenues. This is especially true as the total consideration (price) of a single non-residential transaction can commonly exceed £10 million pounds or more. The sensitivity of non-residential LBTT revenues to a small number of very high value transactions and a smaller overall market make non-residential revenues more difficult to forecast than the residential market.

Conclusions

- 3.58 As noted in previous reports, there is a limited history on which to base LBTT forecasts with Scotland-specific data. There are ongoing and unpredictable reactions following the easing of restrictions from the COVID-19 pandemic and wider macroeconomic shocks. Although the relative forecast error presented here is much higher compared to our previous reports, this is likely to reflect very specific circumstances that made forecasting more difficult than usual.
- 3.59 As 2021-22 has been a record year for LBTT revenues in residential and non-residential markets, we will continue to monitor the monthly data to ascertain whether this level of market activity will continue or whether it will slow or decline in response to changing economic conditions. These include high inflation, rising interest rates, a changing relationship of house prices to average incomes and any pandemic-related effects ending.
- 3.60 One factor that has made forecasting LBTT more difficult is our approach of using 2019-20 as the base year for residential LBTT and ADS and an 'average' base year of 2018-19, 2019-20 and 2020-21 for non-residential LBTT. The market has changed significantly since then, and this is not reflected in our choice of base year. We are evaluating whether to rebase year to 2021-22 using outturn data now available to us.

Scottish Landfill Tax

3.61 Figure 3.23 compares the 2021-22 provisional outturn data for Scottish Landfill Tax (SLfT) with our January 2021 forecast for 2021-22.

Figure 3.23: Headline evaluation – January 2021 forecast of 2021-22 SLfT revenues

Forecast (£ million)	Outturn (£ million)	Error (£ million)	Relative Error (%)	OBR average absolute error (%) [1]
88	125	37	42	13

Source: Scottish Fiscal Commission (2021) Scotland’s Economic and Fiscal Forecasts – January 2021 ([link](#)), Revenue Scotland (2022) Provisional Outturn Data 2021-22 ([link](#)), OBR (2022) Historical Official forecasts database ([link](#)).

Figures may not sum because of rounding

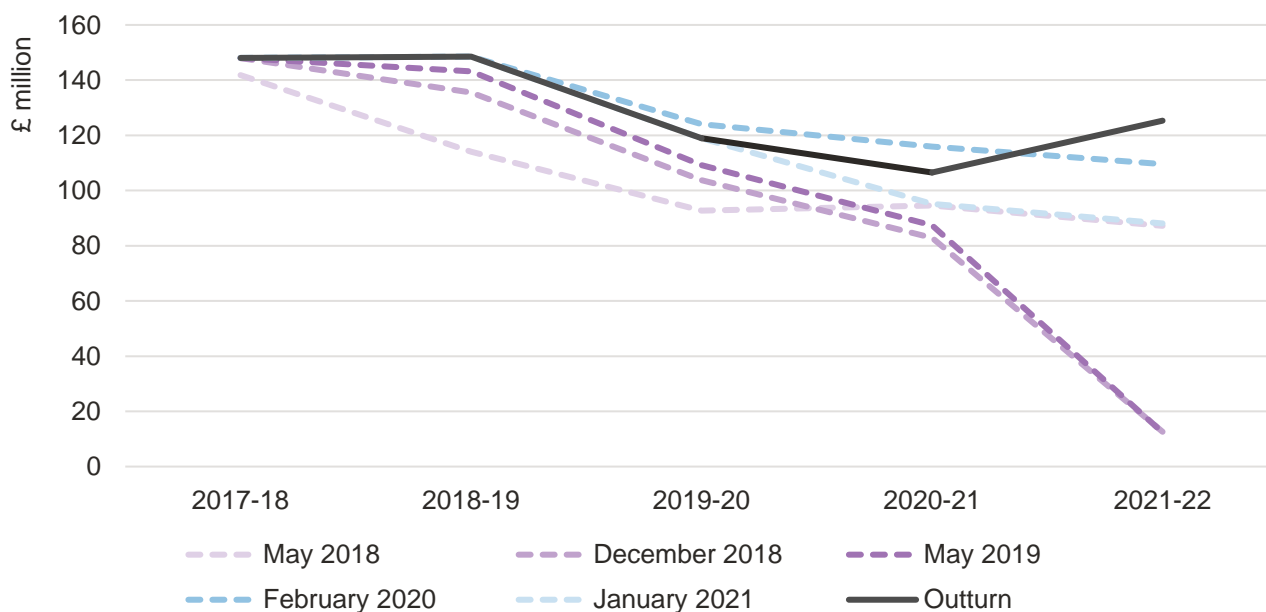
Outturn figures are provisional and still subject to audit

[1] The OBR average is based on the average one year ahead forecast error over the period 2011-12 to 2021-22

3.62 Provisional SLfT outturn data for 2021-22 was £125 million, which is 42 per cent higher than the £88 million we forecast in January 2021. Our forecast error is higher than the OBR’s average absolute one year ahead forecast error of 13 per cent for UK landfill taxes as well as our forecast error for 2020-21 revenues.

3.63 We underestimated how much waste would be produced and charged at the standard rate for SLfT.

Figure 3.24: SLfT forecast performance chart



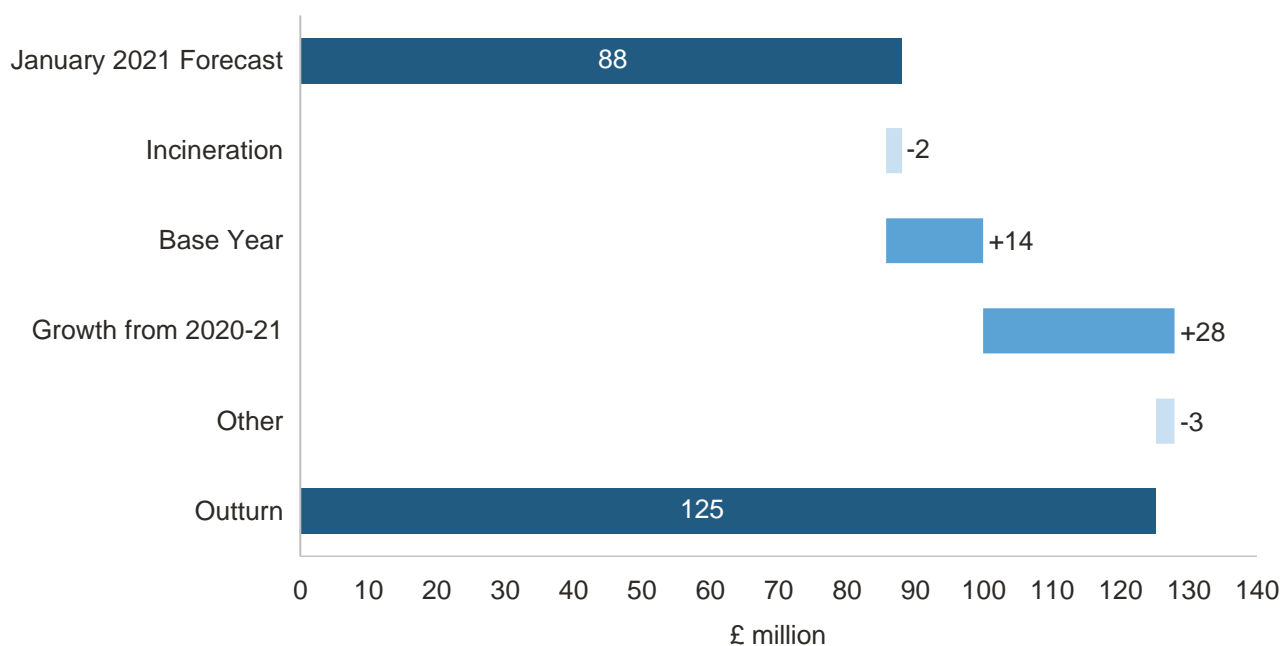
Source: Scottish Fiscal Commission, Revenue Scotland (2022) Provisional Outturn data 2021-22 ([link](#)), Revenue Scotland (2021) Annual Report and Accounts ([link](#)).

3.64 Figure 3.24 shows our January 2021 forecast alongside the previous four forecasts. Our December 2018 and the May 2019 forecasts are much lower than subsequent forecasts as we assumed that the Scottish Government’s ban on landfilling of biodegradable municipal waste (BMW) would come into force in January 2021. The Scottish Government has since announced that the ban is delayed until 2025, which significantly increased our forecasts of SLfT revenues in 2021-22 because BMW continues to be landfilled.

Understanding our forecast error

3.65 Figure 3.25 shows the main sources of error in our January 2021 forecast of SLfT revenue for 2021-22.

Figure 3.25: Decomposition of the January 2021 SLfT forecast error for 2021-22



Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Revenue Scotland (2022) Provisional Outturn Data 2021-22 ([link](#))

3.66 The largest single source of error was our assumption on the annual growth in the tonnage of waste. This is an annual percentage change prediction from base year and we calculate it using our household consumption and GDP forecast, and Scottish Environmental Protection Agency (SEPA) waste data. The error is mostly attributable to the conversion rate used from these determinants to total tonnage of waste produced being too low. These calculations included an assumption that there would be an annual decline in the conversion rate based on previous years' average decline.

3.67 We do not have outturn data on waste generation for 2021-22 but we can estimate it based on Revenue Scotland data for waste landfilled and our estimate of the latest incineration figures. This shows that the amount of waste charged at the standard rate increased when we forecast a slight decrease from our 2020-21 baseline. The increase was particularly high in the first three quarters of 2021-22. This increase could be because of unique factors operating in these quarters of 2021-22 or could represent a longer term change in how waste is produced and managed in Scotland.

3.68 This error was also partly caused by our forecast for household consumption and GDP being too low as mentioned in Chapter 2.

3.69 Our 2020-21 base year also contributed to the forecast error. In January 2021 we only had outturn data for the first two quarters of 2020-21 and we assumed that seasonal effects would result in lower revenues in the final two quarters. This is an approach we have taken in previous forecast but in 2020-21 this did not happen. This can partly be explained by COVID-19 restrictions that among other things reduced recycling capacity and distorted the usual quarterly breakdown for SLfT. This meant we underestimated of the baseline and explains £14 million of our forecast error.

3.70 We underestimated how much waste would be incinerated in 2021-22. Our incineration capacity forecasts are vulnerable to error, as it is difficult to predict when new facilities will begin operating

and whether Energy from Waste sites will be able to run at full capacity throughout the year. While we also underestimated total incineration capacity in last year's FER the error in both cases has been smaller than in previous years.

Conclusions

- 3.71 Our January 2021 forecast error is mainly a result of underestimating how much waste would be produced and charged at the standard rate. The amount of waste produced was higher than anticipated in 2020-21 meaning the baseline was too low. Our growth forecast was also too low. This was in part because of the low figures we used for Household Consumption and GDP but mostly the way we calculated the relationship between GDP and Household Consumption to total tonnage landfilled.
- 3.72 Our forecast error for incineration capacity is similar to last year's. Both years errors are smaller than in previous forecasts. While incineration capacity is difficult to predict it is also vital for our ability to predict SLfT revenue especially as new facilities come on stream. Encouragingly we have now had two consecutive years with small errors.

Chapter 4

Social Security

Introduction

- 4.1 This is the fourth time we have evaluated our social security forecasts. This time we are comparing spending in 2021-22 against the forecasts and costings that informed the 2021-22 Scottish Budget.
- 4.2 Our forecasts cover ‘devolved social security expenditure’, as defined in the Scottish Fiscal Commission Act.¹⁸ This includes nearly all of the payments run by Social Security Scotland or administered on their behalf by the Department for Work and Pensions (DWP), funding provided by the Scottish Government for some payments made by local authorities, and spending on the Fair Start Scotland employability service.
- 4.3 We do not forecast Young Carer Grant, which falls below our materiality threshold, or Job Start Payment, which is outside the definition of ‘devolved social security’ set out in legislation.
- 4.4 Our forecasts do include Discretionary Housing Payments, the Scottish Welfare Fund, and Self-Isolation Support Grants. These are all administered by local authorities, but our forecasts only include spending by the Scottish Government to fund these payments. We do not include funding for administration, or additional spending on these payments by councils over and above what they receive from the Scottish Government.
- 4.5 We do not include the Bridging Payments currently paid by local authorities to some families who are eligible for free school meals and have children over the age of six.
- 4.6 The social security outturn figures quoted in this report are consistent with the Scottish Government’s June 2022 provisional outturn statement. They have not been fully audited and may change once Social Security Scotland publish their audited Annual Report and Accounts.¹⁹
- 4.7 Total spending on devolved social security in 2021-22 was £3,754 million. This is 4 per cent higher than our forecast of £3,618 million. This is similar to last year, when we reported an error of 3 per cent for our February 2020 forecasts of spending in 2020-21.²⁰ The reasons for the error are also similar to last year, with around half associated with the COVID-19 pandemic.
- 4.8 Personal Independence Payment (PIP) again had the largest single error, with spending £115 million higher than our forecast. This is partly because it is by far the largest devolved benefit, but the relative error of 7 per cent is also large.

¹⁸ Scottish Fiscal Commission Act 2016 ([link](#)) Note that the current definition is a 2018 amendment to the 2016 Act

¹⁹ Scottish Government (2022) Provisional outturn 2021 to 2022: Ministerial Statement ([link](#))

²⁰ Scottish Fiscal Commission (2021) Forecast Evaluation Report July - 2021 ([link](#))

4.9 Figure 4.1 shows the forecast, outturn and error for each of the devolved social security payments that we cover, with three sub-totals covering:

- The benefits funded through Block Grant Adjustments, which were still mainly administered by the Department for Work and Pensions, where spending was £86 million (3 per cent) higher than forecast.
- The other payments administered by Social Security Scotland, where spending was £6 million (4 per cent) higher than forecast, with the decision to double the December 2021 payment of Carer's Allowance Supplement offset by lower spending on Scottish Child Payment.
- Other devolved social security spending, mainly administered by local authorities, where spending was £44 million (28 per cent) higher than forecast, mainly because the spread of the Omicron variant led to much higher spending on the Self-Isolation Support Grant (SISG).

4.10 Most of these differences are either temporary COVID-19 pandemic effects or have already been accounted for in our more recent forecasts, but our May 2022 forecast for Personal Independence Payment did still fall around 2 per cent short of the outturn so it is likely that we will need to make a further increase in our next forecast.

4.11 The new Child Disability Payment was launched in late 2021. During 2021-22 only £5 million was spent on the new payment and limited data are currently available, so we are not yet able to evaluate our costing. Our Statement of Data Needs, published alongside this report, sets out the data that we need to inform our forecasts and evaluations.²¹

²¹ Scottish Fiscal Commission (2022) Statement of Data Needs - August 2022 ([link](#))

Figure 4.1: Summary of January 2021 social security forecast errors for 2021-22

Benefit	Forecast (£ million)	Outturn (£ million)	Error (£ million)	Relative Error (%)
Personal Independence Payment [1]	1,669	1,784	115	7
Disability Living Allowance [2]	696	702	6	1
Attendance Allowance	550	524	-25	-5
Carer's Allowance	306	295	-11	-3
Industrial Injuries Disablement Scheme	80	81	1	1
Severe Disablement Allowance	7	7	0	-3
Scottish Child Payment	68	58	-10	-15
Best Start Foods	12	14	2	15
Best Start Grant	19	16	-3	-17
Funeral Support Payment	11	11	0	-1
Carer's Allowance Supplement	42	58	16	40
Child Winter Heating Assistance	3	5	2	57
Discretionary Housing Payments	82	76	-6	-7
Scottish Welfare Fund	36	36	0	0
Fair Start Scotland	27	26	-1	-4
Self-Isolation Support Grant [3]	11	62	51	475
Total Social Security	3,618	3,754	136	4
Payments funded by Block Grant Adjustment	3,308	3,394	86	3
Other Social Security Scotland payments	155	161	6	4
Other devolved social security	155	199	44	28

Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Scottish Fiscal Commission (2021) Supplementary Costings – Non-Domestic Rates Measures and Self-Isolation Support Grant – March 2021 ([link](#)), Scottish Government, Social Security Scotland.

Outturn figures are provisional and may change when Social Security Scotland publish their audited accounts.

[1] Personal Independence Payment includes spending on the Adult Disability Payment pilot.

[2] Disability Living Allowance includes both adults and children, and £5 million paid through the new Child Disability Payment.

[3] The forecast figure for Self-Isolation Support Grant includes our March 2021 supplementary costing of the eligibility changes announced in February 2021.

Understanding our forecast error

What did we know and assume in January 2021?

- 4.12 When we finalised our January 2021 forecasts, we had monthly financial data for most payments running up to October 2020. Statistical data were available for Social Security Scotland payments and Personal Independence Payment up to late 2020, but only to spring of 2020 for the other disability and carer's payments administered by the Department for Work and Pensions.
- 4.13 The new Scottish Child Payment did not launch until February 2021, but Social Security Scotland had started to take applications in advance and we had some data on these.
- 4.14 We knew the benefit payment rates that would apply for 2021-22, which were mainly based on uprating in line with the September 2020 CPI inflation figure of 0.5 per cent. Our forecast also included the Scottish Government decision to uprate some payments by 1 per cent.²²
- 4.15 Tighter lockdown measures had just been reintroduced in Scotland from early January in response to the spread of the Alpha variant. We assumed that vaccines would be rolled out and take effect during 2021 so that by the fourth quarter strict health control measures would no longer be required and COVID-19 would be managed like a normal virus.
- 4.16 We assumed, in line with UK Government policy at the time, that furlough support and the £20 uplift of Universal Credit would be removed at the end of April 2021. We forecast that unemployment would rise to a peak of 7.6 per cent in the second quarter of 2021. We expected that this would lead to higher eligibility and take-up of payments like Best Start Grant and Scottish Child Payment.
- 4.17 Shortly after we published our January 2021 forecasts, the Scottish Government announced an expansion of eligibility for Self-Isolation Support Grant.²³ We published a supplementary costing for this change in March 2021, during the passage of the 2021-22 Scottish Budget.²⁴

How did policy, the economy and the pandemic differ from our assumptions?

Scottish Government policy changes

- 4.18 There were several changes to social security policy that were announced after our forecasts and added an estimated £22 million to spending in 2021-22.
- 4.19 In June 2021 the Scottish Government announced that the value of the Carer's Allowance Supplement payments due to be issued in December 2021 would be doubled.²⁵ We estimate that this cost around £20 million.
- 4.20 In August 2021 the weekly payment rate for Best Start Foods was increased from £4.25 to £4.50. We did not publish a supplementary costing for this as the additional spending was not material. We estimate that this cost £0.5 million.

²² Best Start Grant, Child Winter Heating Assistance and the fixed rate elements of Funeral Support Payment.

²³ Scottish Government (2021) More people supported to self isolate ([link](#))

²⁴ Scottish Fiscal Commission (2021) Scottish Fiscal Commission 2021 Supplementary Costings – Non-Domestic Rates Measures and Self-Isolation Support Grant – March 2021 ([link](#))

²⁵ Scottish Government (2021) Double payment for unpaid carers ([link](#))

- 4.21 In September 2021 the Scottish Government announced an extension of eligibility for Child Winter Heating Assistance to include some young people in receipt of Personal Independence Payment.²⁶ We estimate that this cost around £2 million, including backdated payments for the previous winter.
- 4.22 During 2021-22 the Scottish Government made several further changes to the eligibility criteria for SISG. Eligibility for vaccinated contacts was restricted from October 2021, but temporarily widened from December 2021 in response to the spread of the Omicron variant. The October changes will have significantly reduced the number of people eligible for SISG, but were introduced when infection rates were already much higher than we had assumed in our January forecast.

UK Government policy changes

- 4.23 The UK Government extended furlough support and the £20 uplift of Universal Credit through to the end of September 2021. The number of families with young children receiving Universal Credit dropped slightly in October 2021, so we think it is likely that the net effect of keeping this support in place was to slightly increase the number of families eligible for Scottish Child Payment and Best Start Grant, but we cannot be sure of what would have happened to unemployment in a counterfactual where furlough support was removed earlier.
- 4.24 In November 2021 eligibility for in-work Universal Credit was widened through changes to the taper rate and work allowances, announced in the UK Government's Autumn Budget. These changes were included in our December 2021 forecast. The effect on Scottish social security spending in 2021-22 is not likely to have been material as the changes were in place for less than four months and we expect the effect to build up gradually.

The economy and labour market

- 4.25 In our economy forecast the unemployment rate was expected to increase to 7.6 per cent in 2021 Q2 following the assumed removal of furlough support in April 2021. In reality the unemployment rate stayed around 4 per cent and did not increase when furlough support was eventually removed in September. This may have led to slightly lower eligibility for low-income payments administered by Social Security Scotland.

The COVID-19 pandemic

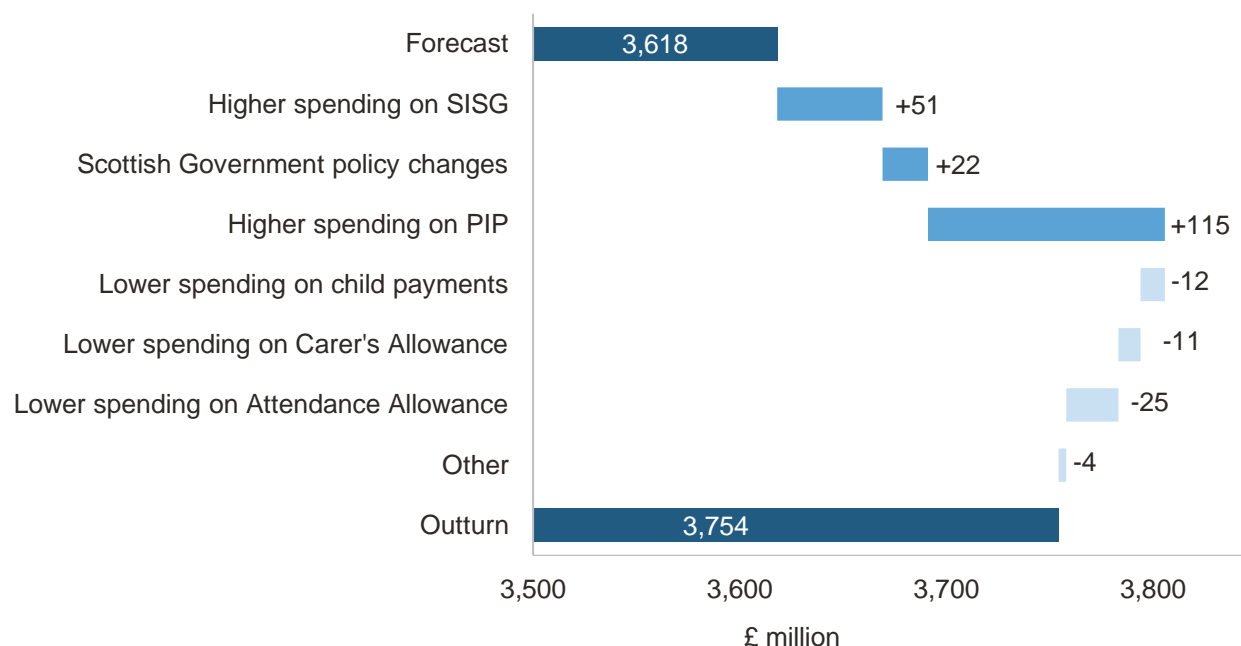
- 4.26 Our forecast assumptions did not allow for the large number of COVID-19 infections during summer 2021 or for the rapid spread of the Omicron variant in the winter. This led to much higher spending on Self-Isolation Support Grant than we had forecast.
- 4.27 The number of deaths in Scotland during 2021-22 was also higher than we had assumed, and this is likely to have been largely driven by the pandemic and to have contributed to lower spending on Attendance Allowance, and upward pressure on spending on Funeral Support Payment.

²⁶ Scottish Government (2021) Child Winter Heating Assistance eligibility extended ([link](#))

Breakdown of the resulting forecast error

4.28 Figure 4.2 shows the major sources contributing to the total error of £136 million in our forecast of 2021-22 social security spending.

Figure 4.2 Decomposition of social security forecast error for 2021-22



Source: Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 ([link](#)), Scottish Government, Social Security Scotland.

Progress of the pandemic, and Scottish Government policy changes

4.29 Spending on Self-Isolation Support Grant was £51 million higher than our forecast as COVID-19 infections were far more widespread than we had assumed in January, with large waves of infection in the summer, and in the winter through the Omicron variant.

4.30 Scottish Government policy changes during the year, excluding changes to SISG, add £22 million, mainly through the December 2021 double payment of Carer's Allowance Supplement. This payment was made in recognition of additional pressures faced by carers because of the ongoing pandemic. Together with the higher spending on SISG, the progress of the pandemic and the Scottish Government's policy response account for roughly half of the total forecast error.

Higher spending on Personal Independence Payment

4.31 Spending on Personal Independence Payment was £115 million (7 per cent) higher than our forecast.

4.32 Both the caseload and the average weekly payment were higher than forecast, accounting for £32 million and £22 million respectively, and together accounting for around half of the total error in our PIP forecast. The higher caseload was partly because of inconsistencies between the data on exits from Disability Living Allowance (DLA) and on reassessed inflows to PIP, and partly because there were more pensioners receiving PIP than we had expected. We discussed these issues in our May 2022 forecast publication and our latest forecasts have consistent treatment of transfers from DLA to PIP, improved modelling of the pensioner caseload and a stronger upward trend in the average weekly amount.

- 4.33 The remainder of the PIP forecast error is mainly because the gap between statistical and financial data has widened. For some benefits the outturn financial data that is reported in Social Security Scotland's accounts is higher than the amount that is implied by statistical data on caseloads and average payment amounts. This can happen for various reasons, for example new recipients may not appear in the caseload statistics until their application has been decided, but may receive backdated payments relating to the period when the application was being processed. When we produced our January 2021 forecasts of PIP we assumed that this gap would remain at the 2019-20 level of 3.5 per cent, but comparison of financial and statistical data for 2021-22 shows that spending in 2021-22 was 8 per cent higher than is suggested by the statistical data alone. Most of this increase is already captured in our latest forecasts, but spending was still around 2 per cent higher than our May 2022 forecast, and the gap between financial and statistical data now appears to be wider in Scotland than in the rest of the UK.
- 4.34 It is likely that accounting for this will mean a further increase to our PIP forecast, but further analysis is needed to determine whether this is an increase in the level or the trend, and whether higher spending on PIP may be offset by lower spending on other disability benefits or by a lower additional cost for the introduction of Adult Disability Payment.

Lower spending on Attendance Allowance and Carer's Allowance

- 4.35 Carer's Allowance and Attendance Allowance spending were both several per cent lower than our forecast. For Attendance Allowance, average weekly amounts were lower than expected and we now think that the removal of free TV licences for people over 75 did not lead to additional claims to the extent that we had assumed. The higher number of deaths during the year will also have contributed to the error.
- 4.36 For Carer's Allowance we assumed that the caseload would continue to increase from the level observed in quarterly DWP statistics for May 2020, but subsequent statistical releases suggest that the number of recipients may have temporarily peaked in summer 2020 and then fallen during 2021-22. Our latest forecasts do have slower caseload growth, but we continue to assume that the caseload will rise in the medium term, despite the recent apparent fall. Our current view is that the fall observed in the recent statistics is primarily because pandemic easements temporarily increased the caseload above its underlying trend in summer 2020, and that the wider gap seen between statistical and financial data suggests that the downward trend in the statistics may be exaggerated. We will review this for our next forecast, and consider whether other factors like the ongoing rollout of Universal Credit may be leading to fewer people claiming Carer's Allowance.

Lower spending on payments for children

- 4.37 Spending on Scottish Child Payment, Best Start Grant and Best Start Foods was £12 million lower than our forecast. We attribute this mainly to a lower proportion of children being eligible for Scottish Child Payment than we had assumed in January 2021.
- 4.38 This is partly because our assumptions about unemployment and the effect of the January 2021 lockdown were too pessimistic, but is mainly because we now think our estimates of the number of children eligible for Scottish Child Payment were too high. Our January 2021 forecast used a survey-based micro-simulation approach, which estimated around half of children met the eligibility criteria, before accounting for the expected rise in unemployment. Our more recent forecasts have used eligibility estimates based on Tax Credit statistics and Universal Credit management information and our current view is that closer to 40 per cent of children were eligible.

Comparison against OBR forecasts

- 4.39 Based on the outturn figures presented in the Accountability Report section of DWP’s Annual Report and Accounts, we estimate that spending in the rest of the UK for the benefits funded by Block Grant Adjustments was around 2 per cent higher than in the OBR’s November 2020 forecasts.
- 4.40 This is a slightly smaller relative error than the 3 per cent for our January 2021 forecasts of the same payments. The forecast errors are qualitatively similar, with PIP significantly higher than forecast, and lower spending on Attendance Allowance and Carer’s Allowance.

Performance of our later forecasts

- 4.41 Since the 2021-22 Scottish Budget was set in March 2021 we have produced three further rounds of forecasts in August 2021, December 2021 and May 2022. At each of these we have had more data and policy information, and each successive forecast was closer to the outturn.
- 4.42 The recent May 2022 forecast was within 1 per cent, with the bulk of the error being because of the larger than expected gap between financial and statistical data for Personal Independence Payment.

Figure 4.3: Performance of later social security forecasts

Forecast	Forecast (£ million)	Error (£ million)	Relative Error (%)
January 2021 [1]	3,618	136	4
August 2021	3,672	82	2
December 2021	3,679	75	2
May 2022	3,720	34	1

Source: Scottish Fiscal Commission (2021) Scotland’s Economic and Fiscal Forecasts - January 2021 ([link](#)), Scottish Fiscal Commission (2021) Scotland’s Economic and Fiscal Forecasts - August 2021 ([link](#)), Scottish Fiscal Commission (2021) Scotland’s Economic and Fiscal Forecasts - December 2021 ([link](#)), Scottish Fiscal Commission (2022) Scotland’s Economic and Fiscal Forecasts – May 2022 ([link](#)).

[1] ‘January 2021’ forecast includes March 2021 costing of SISG eligibility changes.

Performance of our supplementary costings

- 4.43 We produced one relevant supplementary costing during 2021-22, estimating that the double payment of Carer’s Allowance Supplement would cost £21 million. We now estimate that the cost was slightly lower at £20 million, mainly because the Carer’s Allowance caseload was lower than we had forecast.
- 4.44 The forecast we are evaluating in this chapter includes our March 2021 supplementary costing of the February 2021 widening of SISG eligibility. At the time we estimated this would cost only £4 million under our January 2021 assumptions on the course of the pandemic. As shown in Annex B of our May 2022 publication, we now think that in light of the summer 2021 and Omicron waves of the pandemic this change added £34 million to SISG spending. This extra spending was partly offset by tightening of eligibility for vaccinated contacts that was introduced in October.

Conclusions

- 4.45 Around half of the total forecast error can be attributed to one-off policy changes and pandemic developments. We cannot pre-judge policy changes and currently expect the Self-Isolation Support Grant to finish by October 2022, so there are no direct lessons that we draw on from these errors.
- 4.46 Our May 2022 forecasts already include responses to most of the other significant forecast errors seen in this chapter, in particular we made large increases to our PIP forecast in May to fully account for inflows from former DLA recipients, a higher pensioner caseload, and to allow for ongoing growth in the average weekly amount.
- 4.47 We will need to conduct further analysis to decide how to respond to the factors that were not captured in our May forecast, particularly the further increase in PIP spending over and above what would be implied by the increase shown in the statistical data.
- 4.48 We have not yet been able to draw lessons for our forecast of the new Child Disability Payment which was launched nationally in November 2021. This is partly because the new payment was launched nationally in late 2021 and only replaced a small percentage of spending on Disability Living Allowance, and partly because the statistics that have been published don't yet allow us to fully evaluate our costings. Our Statement of Data needs, published alongside this report, covers this in more detail.

Additional information

Abbreviations

ADS	Additional Dwelling Supplement
BGA	Block Grant Adjustment
BMW	Biodegradable Municipal Waste
CA	Carer's Allowance
CAS	Carer's Allowance Supplement
CJRS	Coronavirus Job Retention Scheme
COE	Compensation of Employees
CPI	Consumer Price Index
CWHA	Child Winter Heating Assistance
DHP	Discretionary Housing Payment
DLA	Disability Living Allowance
DWP	Department for Work and Pensions
FSP	Funeral Support Payment
GDP	Gross Domestic Product
HMRC	Her Majesty's Revenue and Customs
IIDS	Industrial Injuries Disablement Scheme
LBTT	Land and Buildings Transaction Tax
LFS	Labour Force Survey
NDR	Non-Domestic Rates
NSND	Non-Savings and Non-Dividends
OBR	Office for Budget Responsibility
ONS	Office for National Statistics
PAYE	Pay As You Earn
PIP	Personal Independence Payment
RHLA	Retail, Hospitality, Leisure and Aviation relief
RTI	Real Time Information
SDLT	Stamp Duty Land Tax
SEFF	Scotland's Economic and Fiscal Forecasts
SEISS	Self-Employment Income Support Scheme
SEPA	Scottish Environmental Protection Agency
SFC	Scottish Fiscal Commission
SIT	Scottish Income Tax
SG	The Scottish Government
SLfT	Scottish Landfill Tax
SISG	Self-Isolation Support Grant

A full glossary of terms is available on our website:

<https://www.fiscalcommission.scot/explainers/glossary/>

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Correspondence and enquiries

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All charts and tables in this publication have also been made available in spreadsheet form on our website. For technical enquiries about the analysis and data presented in this paper please contact the responsible analyst:

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²⁷ OECD (2014) Recommendation on Principles for Independent Fiscal Institutions ([link](#))

²⁸ Scottish Fiscal Commission (2018) Compliance with the Code of Practice for Official Statistics ([link](#))

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ISBN: 978-1-911637-47-9

Published by the Scottish Fiscal Commission, August 2022