Professor David Bell, University of Stirling
David Eiser, Fraser of Allander Institute at the University of Strathclyde
David Phillips, Institute for Fiscal Studies

Call for evidence: Scottish Government block grant adjustments for tax and welfare devolution

16 September 2022

Dear David Bell, David Eiser and David Phillips,

Congratulations on your appointment to prepare the independent report to evaluate the block grant adjustment funding arrangements for tax and welfare devolution against the principles agreed by the Smith Commission.

In the relation to this work, the Scottish Fiscal Commission has noted the call for evidence, which is open until 19 September.

As Scotland's official independent economic and fiscal forecaster the Commission is committed to producing forecasts under whatever fiscal arrangements are in place and takes no view on what these should be. I have, however, enclosed a selection of extracts from previous Scottish Fiscal Commission publications in which we have presented analysis on the operation of the existing fiscal framework. I hope that this factual information helps to inform your work.

I look forward to seeing the outputs from your research.

Yours sincerely,

Professor Graeme Roy

Scottish Fiscal Commission Contribution to the Call for Evidence on Scottish Government block grant adjustment for tax and welfare devolution

This submission presents extracts from Scottish Fiscal Commission publications which include analysis on the operation of the fiscal framework and may be helpful in the review. We also published an occasional paper in May 2021 outlining how the Scottish Budget is funded including the Block Grant Adjustments.[1]

The extracts on the following pages are presented in chronological order

[1] SFC (2021) Funding for the Scottish Budget (link)

Fiscal Update – September 2020

[Fiscal Update – September 2020 | Scottish Fiscal Commission]()

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Scotland Reserve

3.10 The Scotland Reserve allows the Scottish Government to save any underspends from one financial year and draw them down in another financial year. The Reserve can also be used to manage variations in tax revenues and social security spending.

3.11 A maximum of £700 million can be held in the Reserve and is split between resource and capital. The resource drawdown limit is £250 million each year, of which the Scottish Government is currently planning to draw down £149 million in 2020-21. This leaves £70 million remaining, which could all be drawn down in 2020-21. The capital drawdown limit is £100 million; applying to all capital spending including financial transactions, which are treated as a subset of capital spending. The Scottish Government is planning to drawdown £44 million capital in 2020-21, including £32 million in financial transactions, which leaves £56 million remaining against the annual limit.

3.12 There have already been three occasions when HM Treasury has agreed to flexibilities to effectively allow the Scottish Government to by-pass the limits of the Reserve.[2]

- Barnett consequentials of £148 million were received late in 2018-19. The Scottish Government agreed with HM Treasury that these would be held within UK reserves and re-allocated to the Scottish Government in 2019-20, rather than pass through the Scotland Reserve for 2018-19.
- In 2019-20, HM Treasury agreed to allow the Scottish Government to draw down a total of £181 million in capital and financial transactions, well above the £100 million capital drawdown limit. This was to address negative Barnett consequentials of £128 million that arose from a UK budget capital spending decision.
- The in-year reconciliation for the fully devolved taxes and benefits in 2019-20 was deferred until 2020-21 and included in the Scottish Budget based on the position at February 2020. This avoided a late in-year reconciliation after the UK Budget in March.

3.13 There are precedents for flexibility being allowed in respect of the Scotland Reserve.

[2] Letter from the Convener of the Finance and Constitution Committee to the Chief Secretary to the Treasury – 24 June 2020 (link)

Scotland’s Economic and Fiscal Forecasts – January 2021

Scotlands-Economic-and-Fiscal-Forecasts-January-2021-Full-Report-Revised-October-2021.pdf (fiscalcommission.scot)

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2.22 Our income tax forecast is £475 million higher than the BGA used in the Budget, compared with our latest forecast for 2020-21 where we forecast Scottish income tax revenues will be £173 million higher than the BGA. Differences between the BGA and revenue could reflect differential performance of the respective economies and also policy differences. However, there have been no policy changes in either the UK or Scotland that would affect 2021-22 revenues, nor do we forecast a significant divergence in overall economic performance.

2.23 We believe therefore that the difference between forecast tax revenues and the BGA largely arise because of the significant uncertainty around COVID-19 and its effects on the data and judgements used in our and the OBR’s income tax modelling. The timing of the two forecasts will also have had an effect: specifically the second national lockdown happened after the OBR’s November forecasts. We discuss the reasons behind the differences in detail in Chapter 4. Our discussion here focuses on the budgetary effects of the difference.

2.24 The fiscal framework arrangements mean income tax revenues, and the income tax BGA, are fixed in the Scottish Budget until outturn data are available, although the Scottish Government could chose to use the updated BGA following the next OBR forecast in March. The data for 2021-22 will be available in summer 2023 and a reconciliation will be applied in 2024-25.

2.25 Currently the net position in 2021-22 is forecast to be around £300 million higher than the net position in 2020-21. If this proves too high and the net position returns to something like the 2020-21 level there would be a negative reconciliation of the order of £300 million in 2024-25.[3] The Scottish Government would have had £300 million of additional funding to support spending in 2021-22 and if the net position based on the current forecast proves to be too high this will be repaid three years later. Were the situation to be reversed, and the net position considered too low or negative, then the Scottish Government would face a reduction in the size of their Budget relative to what was expected.

2.26 The fiscal framework does not envisage situations where our forecasts and the BGAs are made on different basis and the differences have to be managed within the Scottish Budget. An additional provision was agreed between the Scottish and UK Government in 2019. Following the March Budget when updated OBR forecasts and an updated BGA forecast are available, the Scottish Government can choose whether to revise the Budget and use the updated BGA. We expect the Scottish Budget will need to be reviewed and revised over the course of 2021-22 as the public health and fiscal policy responses develop. The scale of those changes is likely to be significantly larger than the £300 million set out above. We recommend that

[3] This negative reconciliation would emerge because either our forecast is too high or the BGA is too low or a combination of the two. The difference between the 2021-22 and 2020-21 net position is one way to calculate the potential reconciliation. An alternative way to calculate it is the change in the forecast 2021-22 net position between February 2020 and January 2021 which would be £320 million. Both methods arrive at similar results.

careful consideration be given to reviewing the decision on which income tax BGA is used as part of the overall reassessment of the Budget position.

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Income tax reconciliations

2.29 Because the Scottish Budget is set in advance of the financial year, it is based on forecasts of revenue and spending. As one of the largest component of the Budget, income tax remains fixed for the financial year. Once outturn information on revenues become available, the forecast funding is brought in line with outturn with a reconciliation applied to the following Scottish Budget. The outturn data for income tax are only available after the deadline for Self-Assessed income tax returns and payments.

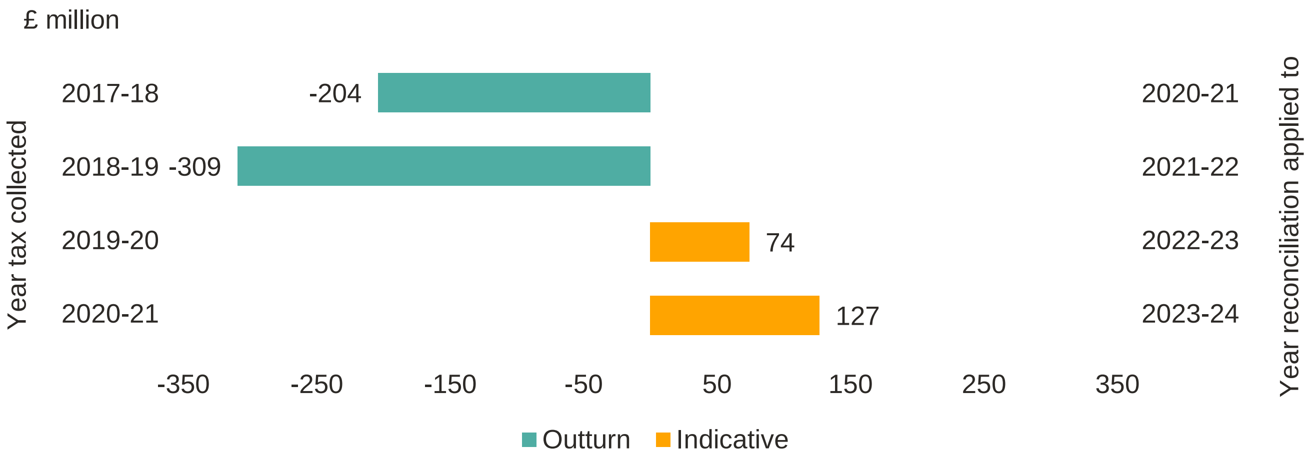
2.30 The 2017-18 income tax outturn gave rise to the first income tax reconciliation in 2020-21, and reconciliations now form an important part of the Scottish Budget each year. The 2018-19 income tax outturn shown in Figure 2.5 resulted in a reconciliation of -£309 million shown in Figure 2.4 and account for the majority of the final reconciliation of -£319 million which been applied to the 2021-22 Scottish Budget.[4]

2.31 For future years, the latest forecasts result in two positive income tax reconciliations, related to revenues collected in 2019-20 and 2020-21.

2.32 The 2019-20 expected reconciliation arises because our forecast of income tax revenues has increased by £155 million since the budget was set in in December 2018, compared to a BGA increase of £80 million. For 2020-21, both our forecast and the OBR's forecast have been revised down since February 2020, but our forecast has been revised down by £516 million, compared with a BGA reduction of £643 million, leading to a £127 million expected positive reconciliation.

[4] The -£319 million reconciliation is made up of: 2018-19 income tax revenues and BGA (-£309 million), 2019-20 Land and Buildings Transaction Tax BGA (-£6 million), 2019-20 Scottish Landfill Tax BGA (-£2 million), 2019-20 Carer's Allowance BGA (-£3 million) and 2019-20 fines forfeitures and fixed penalties (£2 million).

Figure 2.4: Indicative and outturn income tax reconciliations, by year of collection



Source: Scottish Government, Scottish Fiscal Commission.
Income tax reconciliations are applied with a three-year delay. Reconciliations from 2017-18 and 2018-19 have been applied to the 2020-21 and 2021-22 Scottish Budgets respectively.

Box 2.2: Income tax reconciliations – quantifying the uncertainty

Income tax reconciliations are adjustments to the Scottish Budget for outturn income tax data, these can be positive or negative and we expect income tax reconciliations to be volatile. The values involved can be large, of the two income tax reconciliations applied so far, the largest reduced the Scottish Budget by £309 million. As this is only the second reconciliation, it's difficult to get a sense of how big income tax reconciliations might be in the future, or how much they may vary.

Income tax reconciliations are the result of errors in our forecasts of Scottish income tax revenues and errors in the forecasts of the BGA. While we don't yet know the likely variation of reconciliations, we do have a better sense of the likely range of errors in both ours and the OBR's income tax forecasts which inform the BGA. We simulated 100,000 income tax reconciliations, based on some simple assumptions about income tax forecast errors, to provide an indication of the possible scale and variation of future income tax reconciliations. Further information on these simulations and sensitivities are provided in Annex D.

The key conclusions emerging from these simulations are as follows:

- Over time reconciliations should be positive as often as they are negative.
- We estimate that negative reconciliations exceeding £300 million – the Government's normal annual borrowing limit – could occur around three times every ten years.
- Larger negative reconciliations exceeding £600 million could occur around once every ten years.
- Positive reconciliations exceeding these thresholds should occur with similar frequency.

Based on historic data, we see that income tax forecasting errors can be persistent over time. In other words, a negative forecasting error in one year is likely to be followed by several other negative forecasting errors. A series of negative or positive reconciliations in a row are therefore more likely, and we have already seen this in 2017-18 and 2018-19. In the future, we may see a series of positive reconciliations.

2.33 All other devolved taxes and social security payments with BGAs follow a different process, where funding is updated twice: first during the financial year, then again once outturn information is available. These funding updates will apply to the 2021-22 Scottish Budget when the OBR updates its forecasts, which we would typically expect in autumn 2021. The scale will depend on the size of the revision to the OBR's forecasts.

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2.40 Late changes to funding associated with the tightening of lockdown at the start of 2021 make it likely that further underspends will emerge for 2020-21, so more funds will be paid into the Scotland Reserve. Any level of underspend, up to the £700 million total limit, can be carried in 2021-22, and the drawdown limit has been removed for the next three years.

2.41 As the aggregate limit remains in place, the balance of the Scotland Reserve must be brought sufficiently low by the end of each financial year, to ensure space for future underspends, without breaching the £700 million limit. As both the 2020-21 and 2021-22 budgets are facing significant uncertainty, underspends may be more volatile than in previous years, which increases the risk that they exceed the £700 million total limit and risk the Scottish Government losing funding which cannot be carried over.

Resource borrowing

2.42 The Scottish Government can borrow to manage tax and social security forecast errors. Under normal circumstances, borrowing is limited to £300 million per annum and £1.75 billion in total. In the case of a Scotland-specific economic shock, the annual borrowing limit is increased to £600 million for the year of the shock and the following two financial years, but the overall cap remains unchanged.

2.43 Resource borrowing is available for the combined effect of all negative forecast errors. The Scottish Government is planning to borrow £207 million in 2020-21.[5] The balance of all forecast errors in 2020-21 would allow the maximum £300 million to be borrowed, which is an additional £93 million above what is planned.[6] There is still opportunity for the Scottish Government to utilise the £93 million before the end of the financial year. Alternatively if the Scottish Government had a large underspend they may choose to borrow less than £207 million to

[5] A final reconciliation of -£207 million was applied to the 2020-21 Scottish Budget. These forecast errors allow the planned borrowing.

[6] Considering negative forecast errors only, a total of £302 million of negative forecast errors have occurred to date in 2020-21. Of these £145 million relates to our devolved tax forecasts, £90 million to our social security forecasts and £67 million in negative changes to the social security BGAs. Positive forecast revisions largely cancel out these negative revisions, but only negative revisions are counted for borrowing.

reduce that underspend and therefore reduce the amount carried forward in the Scotland Reserve.

2.44 The Scottish Government is planning to use its extended borrowing powers in 2021-22 and borrow £319 million, the value of the final reconciliations. As further forecast errors emerge in-year, the Scottish Government will be able to borrow greater amounts, up to the £600 million limit.

2.45 Our forecasts this year are subject to greater uncertainty than in a typical year, and it is likely that positive and negative forecast errors will arise in both our forecasts and the forecasts of the BGAs.

2.46 The next two income tax reconciliations are currently forecast to be positive. In future years the Scottish Government plan to use resource borrowing powers to manage negative income tax reconciliations. Analysis of the likely scale of future income tax reconciliations presented in Box 2.2 and Annex D highlight the risk that the resource borrowing limits are unlikely to be sufficient to manage income tax reconciliations. This analysis suggests around 3 in 10 years the limit of £300 million may be exceeded, and around 1 year out of 10 in which the limit of £600 million is exceeded.

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Annex D
Monte Carlo simulations of income tax reconciliations

Introduction

D.1. The reconciliation of our forecast of Scottish income tax (SIT) with the OBR's forecast of the income tax Block Grant Adjustment (BGA) can have a substantial effect on the Scottish Budget. While there have only so far been two income tax reconciliations we have had a greater number of forecasts by us and OBR of SIT and income tax BGAs respectively, so we have some understanding of the distribution of the errors in these forecasts.

D.2. Drawing on this information, we have carried out analysis to help improve understanding of the likely variation of reconciliations. This analysis is based on an approach called Monte Carlo simulations. We simulate a large number of forecasts of SIT and BGA which are then combined to generate a distribution of reconciliation figures.

D.3. The Scottish Government's borrowing powers are set out in the fiscal framework and amount to a total of £300 million for forecast errors in any fiscal year.[7] Extended borrowing powers of £600 million are available if a Scotland specific economic shock occurs. See Chapter 2 for further discussion. From our simulations we can make an estimate of how frequently a reconciliation of greater than £300 million might occur. We can also calculate how frequently reconciliations will exceed these limits.

Method

D.4. We make assumptions about the likely distributions of SIT and BGA errors, and use this to model the distribution of reconciliations. In our central case we assume that:

- SIT and BGA errors follow a normal distribution
- Based on OBR historic income tax forecast errors over the period 2010 to 2019, both SIT and BGA have an assumed average absolute forecast error of 5.7 per cent, which we take as the variance of the distribution in our central case
- There is positive correlation between SIT and BGA forecast errors – though there is limited evidence of how correlated SIT and BGA forecast errors might be in practice. We assume 50 per cent correlation in our central case
- SIT and BGA have an expected value of £12,000 million.

D.5. We simulate 100,000 SIT and BGA forecast errors based on these assumptions, and calculate the resulting reconciliations. We can then describe the distribution of reconciliations and how likely different values are to occur. We also investigate what happens if we vary the parameters of the simulation to represent different distributions of the forecast errors.

D.6. Importantly, this approach does not help us to know what to expect about any single reconciliation. Instead, by making certain assumptions about the statistical properties of forecast errors, we can learn about the possible statistical properties of reconciliations over the longer term. However, even if forecast errors are typically low, and correlation in forecast errors is typically high, large income tax reconciliations could still occur from time to time.

Results

D.7. The results of our simulations are presented in Figure D.1. The table reports the likelihood of income tax reconciliations exceeding certain threshold values. In our central case of an average 5.7 per cent forecast error and 50 per cent correlation, we estimate that a negative reconciliation exceeding £300 million will occur 27 per cent of the time, or approximately three years in ten. A negative reconciliation exceeding £600 million will occur 12 per cent of the time, or approximately one year in ten. As the distribution of reconciliations is close to symmetrical the likelihoods of the positive reconciliations are very close to the likelihoods of negative reconciliations. We might expect that only 15 per cent of income tax reconciliations are less than £100 million, positive or negative.

[7] The agreement between the Scottish Government and the United Kingdom government on the Scottish Government's fiscal framework (link)

Figure D.1: Selected results from simulated reconciliation distributions (likelihood of threshold being exceeded)

Forecast error (Per cent)	Correlation (Per cent)	Reconciliation (£ million)				
		Exceeds - 600	Exceeds - 300	Less than ± 100	Exceeds + 300	Exceeds + 600
Central Case						
5.7	50	12	27	15	27	11
Varying average absolute forecast error sensitivity						
3.7	50	3	18	24	17	3
7.7	50	19	33	11	33	19
Varying correlation sensitivity						
5.7	60	7	23	19	22	6
5.7	40	16	31	13	30	16
Varying both forecast and correlation sensitivity						
3.7	60	1	13	29	12	1
7.7	40	23	35	9	36	22

Source: Scottish Fiscal Commission
The results for reconciliations between -£100 million and -£300 million and between £100 million and £300 million are omitted.

D.8. We also carried out analysis to show how sensitive our results were to changes in the underlying assumptions. The larger the typical average absolute forecast error, the greater the variance of the distribution, and the larger we can expect reconciliations to be. We varied our assumed central forecast error of 5.7 per cent to 3.7 per cent and 7.7 per cent. Lower average absolute forecast errors would greatly reduce the probability of larger reconciliations, with nearly a quarter of all reconciliations being less than £100 million, and reconciliations exceeding £600 million would be very rare. On the other hand if average forecast errors are more like 7.7 per cent then reconciliations exceeding -£600 million would be common place, occurring nearly 20 per cent of the time.

D.9. Varying the correlation of SFC and OBR forecast errors also has an important effect on the forecast, though with the values we tested the scale of the effect is less than variation in the average absolute forecast error.

D.10. Finally, at the bottom of Figure D.1, we show the effect of combining variations in both the average absolute forecast error and correlation. With the most optimistic assumptions about forecast error at 3.7 per cent and correlation at 60 per cent, there is only a 1 per cent probability of reconciliations exceeding -£600 million, and only a 13 per cent probability of reconciliations exceeding -£300 million.

D.11. In this approach we treat each SIT and BGA forecast error as independent from previous forecast errors. However, we have previously discussed that negative and positive errors tend to be clustered over time. This is because income tax revenues come in longer cycles than a single year, but the lag in data means it takes time to catch up with a period of lower or higher revenues. In practice, if a series of negative reconciliations follow each other in a sequence, this may lead to more negative reconciliations occurring within any particular period of time, and vice versa for positive reconciliations. The probabilities described in the table above may only hold over longer periods of time.

Comparisons to analysis by the Scottish Government

D.12. As part of its January 2021 Medium Term Financial Strategy the Scottish Government has published similar analysis of the likelihood of different reconciliations occurring.[8] While our approach is similar, we have used a slightly different methodology and assumptions. Broadly, our results agree, and are well within the bounds of the uncertainty of such illustrative analysis.

D.13. Importantly, both pieces of analysis agree that income tax reconciliations are likely to exceed the Scottish Government's normal borrowing powers of £300 million on a somewhat regular basis, potentially as high as four times every ten years depending on the assumptions made. We do not consider the minor differences in our results to be of material importance.

Conclusions

D.14. The results of our simulations suggest that the normal £300 million borrowing powers of the Scottish Government could be exceeded between one and four times per decade, and negative reconciliations greater than £600 million could arise up to two times per decade.

[8] Scottish Government (2021) Scotland's Fiscal Outlook - The Scottish Government's Medium-Term Financial Strategy (link)

Scotland's Economic and Fiscal Forecasts – August 2021

Scotland's Economic and Fiscal Forecasts – August 2021 | Scottish Fiscal Commission

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2.30 In our January 2021 SEFF we presented analysis of income tax reconciliations.[9] We highlighted the risk that resource borrowing powers are unlikely to be sufficient to manage income tax reconciliations in full. Our analysis suggested around 3 in 10 years the £300 million limit will be exceeded and around 1 in 10 years the limit of £600 million will be exceeded.

2.31 Debt from resource borrowing as shown in Figure 2.4 is well below the overall £1,750 million cap. Given there is a requirement for resource borrowing to be repaid within 3 and 5 years, it would be difficult for the Scottish Government to build debt up to the level where it would reach the limit. Even if the Scottish Government chose to borrow the maximum of the annual limits (assuming forecast errors occurred to allow this), which would be £600 million for three years from 2021-22 then £300 million from 2024-25 onwards, the debt stock would reach a maximum of £1,665 million in 2023-24 then fall thereafter as the annual limits returned to normal.

[9] Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal forecasts – January 2021 (link)

Scotland's Economic and Fiscal Forecasts – December 2021

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2.34 In January 2021, we highlighted the reconciliation risk arising from income tax funding in 2021-22.[10] At the time the 2021-22 Budget was set, we could not attribute the £475 million income tax net position to economic or tax policy differences, which would suggest revenues in Scotland would be that much higher than the income tax BGA. We concluded the relatively high net position arose because of timing differences in our and the OBR's forecasts, the significant uncertainty around COVID-19, and how both of these factors affected the data and judgements used in our and the OBR's income tax modelling.

2.35 Since January 2021, both ours and the OBR's forecasts have been revised up significantly following stronger than expected earnings growth in 2021. However, the OBR forecast has been revised up by significantly more. As shown in Figure 2.6, the income tax net position in 2021-22 is now expected to be £6 million, suggesting a reconciliation of -£469 million will be applied to the 2024-25 Scottish Budget, removing the additional funding the Scottish Government received in 2021-22. The actual reconciliation in 2024-25 will depend on the outturns reported in 2023.

Figure 2.6: Changes to 2021-22 income tax net position

£ million	SFC forecast	BGA	Net position
January 2021	12,263	-11,788	475
December 2021	13,002	-12,996	6
Difference	739	-1,208	-469

Source: Scottish Fiscal Commission, based on Scottish Government information.

2.36 The fiscal framework does not envisage situations where our forecasts and the BGA are made on different bases. Any subsequent reconciliations need to be managed within the Scottish Budget. The Scottish Government has limited tools for this, and has stated it plans to use resource borrowing to manage income tax reconciliations. The Scottish Government will be able to borrow £300 million to manage the reconciliation, so only £169 million of the expected £469 million reconciliation will reduce funding in 2024-25. The rest of the reconciliation can be repaid in future years via resource borrowing. The Scotland Reserve is the other tool available to the Scottish Government, which in principle could prepare for a negative reconciliation by deliberate underspends to build up the Reserve. However, the Reserve has an overall limit and an annual drawdown limit and given the existing need for the Scottish Government to use the Reserve to achieve a balanced budget each year, the scope for it to help prepare for negative reconciliations is very limited.

2.37 Currently the Scottish Government has enhanced borrowing powers and greater flexibility to use the Scotland Reserve because our January 2021 forecasts triggered a "Scotland-specific economic shock". These flexibilities expire after 2023-24 and are therefore not

[10] Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts – January 2021 (link)

available to the Scottish Government to manage the large income tax reconciliation expected in 2024-25. As a result, one-off spending cuts may be required.

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Resource reserve

2.38 The Scottish Government is required to maintain a broadly balanced budget, matching its spending to available funding each year. As the Scottish Government cannot overspend its budget, outturn spending must come in below the allocated budget and this results in underspends, as a normal outcome of budget management. The Scottish Government can use the Scotland Reserve to transfer unspent funds from one financial year to the next. The Scotland Reserve was introduced in 2017-18 as a mechanism to allow the Scottish Government to save any underspends or surplus tax revenues, build up funds and draw them down in future years.

2.39 The Scotland Reserve has a total limit of £700 million, which includes resource and capital funds. There are no restrictions on how the reserve is split between resource and capital or on payments into the reserve, up to the £700 million limit. Under normal circumstances, a maximum of £250 million resource funding can be drawn down in one year, but when a Scotland-specific economic shock is triggered, as it was by our economy forecast in January 2021, the drawdown limit is waived for three years. The balance of the resource reserve, based on Scottish Government plans, is shown in Figure 2.7. The Scottish Government is planning to use the relaxed drawdown rules to draw down the resource reserve in full in 2021-22 and has no planned drawdown in 2022-23.

Figure 2.7: Balance of the resource reserve

£ million	2020-21	2021-22	2022-23
Opening balance	217	402	0
Drawdowns	-171	-402	0
Additions	356	0	
Closing balance	402	0	0

Source: Scottish Fiscal Commission, based on Scottish Government information.
Figures may not sum to totals because of rounding. Shaded cells refer to provisional outturn available at time of publication.

2.40 The average underspend, or addition to the Scotland Reserve, is £370 million each year, as shown in Figure 2.8. The Scottish Government must therefore reduce the balance of the Scotland Reserve on average to below £330 million before the end of each year to ensure there is space for underspends to be paid in without breaching the overall £700 million limit. As the Scottish Government is required to leave space in the Reserve to add any underspends each year, this limits the utility of the Reserve to build up funds to manage other risks, for example negative reconciliations.

Figure 2.8: Historic resource and capital additions to the Scotland Reserve

£ million	2017-18	2018-19	2019-20	2020-21	Average
Total additions (resource and capital)	464	339	256	421	370

Source: Scottish Fiscal Commission, based on Scottish Government information.
Shaded cells refer to outturn available at time of publication. Capital and resource additions are displayed separately in Figure 2.7 and Figure 2.13.

2.41 The limits of the Scotland Reserve are fixed in cash terms while the size of the Scottish Budget increases each year. The capacity of the Scotland Reserve as a tool to manage underspends is therefore reducing in real terms over time. In 2017-18, when the Scotland Reserve was created, the £700 million overall limit accounted for the equivalent of 2.1 per cent of the Scottish Budget, and in 2022-23 this reduces to 1.5 per cent. The annual drawdown limits, which will apply again from 2024-25 onwards, also now account for a smaller proportion of funding, as shown in Figure 2.9.

Figure 2.9: Limits of the Scotland Reserve as a percentage of Budget

Per cent	2017-18	2022-23
Overall limit	2.1	1.5
Resource drawdown limit	0.8	0.6
Capital drawdown limit	2.5	1.6

Source: Scottish Fiscal Commission
Percentages are calculated based on their corresponding budgets (that is, resource drawdown limit is relative to total resource funding, and capital drawdown limit is relative to total capital funding).
Resource calculations exclude the NDR distributable amount as this is managed through the Non-Domestic Rating account.

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Resource borrowing

2.42 The Scottish Government can access resource borrowing powers when tax and social security forecast errors have occurred. Under normal circumstances, borrowing is limited to £300 million per year and £1,750 million in total, up to the balance of forecast errors. As a Scotland-specific economic shock was triggered in 2021-22, the annual borrowing limit has been increased to £600 million for 2021-22 to 2023-24 inclusive. Resource borrowing is 'unlocked' when forecast errors occur, up to the annual and overall limits. The Scottish Government plans to borrow to manage income tax reconciliations.[11] Figure 2.10 sets out historic and planned borrowing, with future years based on estimated income tax reconciliations. Borrowing is shown only up to 2024-25 as future reconciliations will depend on income tax for the coming and future financial years.

[11] Scottish Government (2021) Medium Term Financial Strategy (link)

Figure 2.10: Historic and planned resource borrowing

£ million	2020-21	2021-22	2022-23	2023-24	2024-25
Borrowing – central scenario	207	319	15	97	300
Total debt	207	505	448	438	621

Source: Scottish Fiscal Commission, based on Scottish Government information.
Shaded cells refer to outturn available at time of publication.
The reconciliations applied to 2021-22 and 2022-23 are final while 2023-24 and 2024-25 are indicative, based on the latest forecasts. We currently estimate a reconciliation of -£469 million in 2024-25 but borrowing is limited to £300 million.

2.43 In January 2021 we presented an analysis of income tax reconciliations.[12] We highlighted the risk that resource borrowing powers are unlikely to be sufficient to manage income tax reconciliations in full. Our analysis suggested in around 3 in 10 years the £300 million limit will be exceeded and in around 1 in 10 years the limit of £600 million will be exceeded. This looks likely to occur in 2024-25, where the £300 million resource borrowing is not sufficient to cover the expected -£469 million reconciliation.

2.44 Debt from resource borrowing as shown in Figure 2.10 is well below the £1,750 million cap. Because of the short repayment period and limits on how much can be borrowed each year, it is not possible for the Scottish Government to reach the £1,750 million cap without both another Scotland-specific economic shock and significant forecast errors occurring.

[12] Scottish Fiscal Commission (2021) Scotland's Economic and Fiscal Forecasts (link)

Forecast Evaluation Report August 2022

Forecast Evaluation Report – August 2022 | Scottish Fiscal Commission

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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.[13]

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.

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

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

(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.

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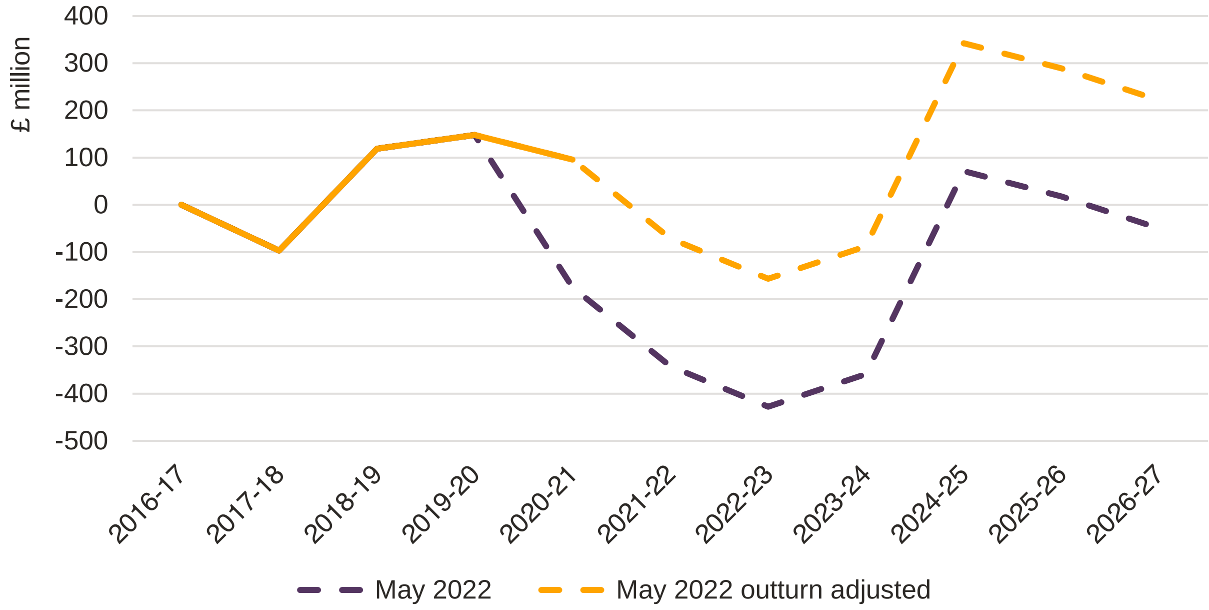
The income tax net position

4.6 Figure 4.1 shows outturn data and forecasts of the income tax net position, which compare our forecasts of Scottish income tax revenue to the income tax BGA based on forecasts by the OBR.[14,15] Our latest forecasts published in May 2022 were based on four years of outturn data from 2016-17 to 2019-20.[16] Since then, an additional year of income tax outturn data has been published.[17] The income tax net position in 2020-21 was £271 million more positive than we had estimated in May 2022.[18] We have therefore adjusted the forecast net position in future years with a £271 million upward shift. This illustrative adjusted forecast of the income tax net position is used in the following analysis. An updated forecast net position will be available once we and the OBR have produced revised forecasts later this year.

[14] Scottish Fiscal Commission (2022) Scotland's Economic and Fiscal Forecasts – May 2022 (link)
[15] OBR (2022) Economic and Fiscal Outlook – March 2022 (link)
[16] Scottish Fiscal Commission (2022) Scotland's Economic and Fiscal Forecasts – May 2022 (link)
[17] HMRC (2022) Scottish Income Tax Outturn Statistics: 2020 to 2021 (link)
[18] The income tax outturn data and subsequent updated BGA showed the net position for 2020-21 increase from the forecast negative £175 million to a positive £96 million, which is a £271 million increase. Analysis of the outturn data is provided in Scottish Fiscal Commission (2022) Forecast Evaluation Report – August 2022 (link).

Figure 4.1: Income tax net position



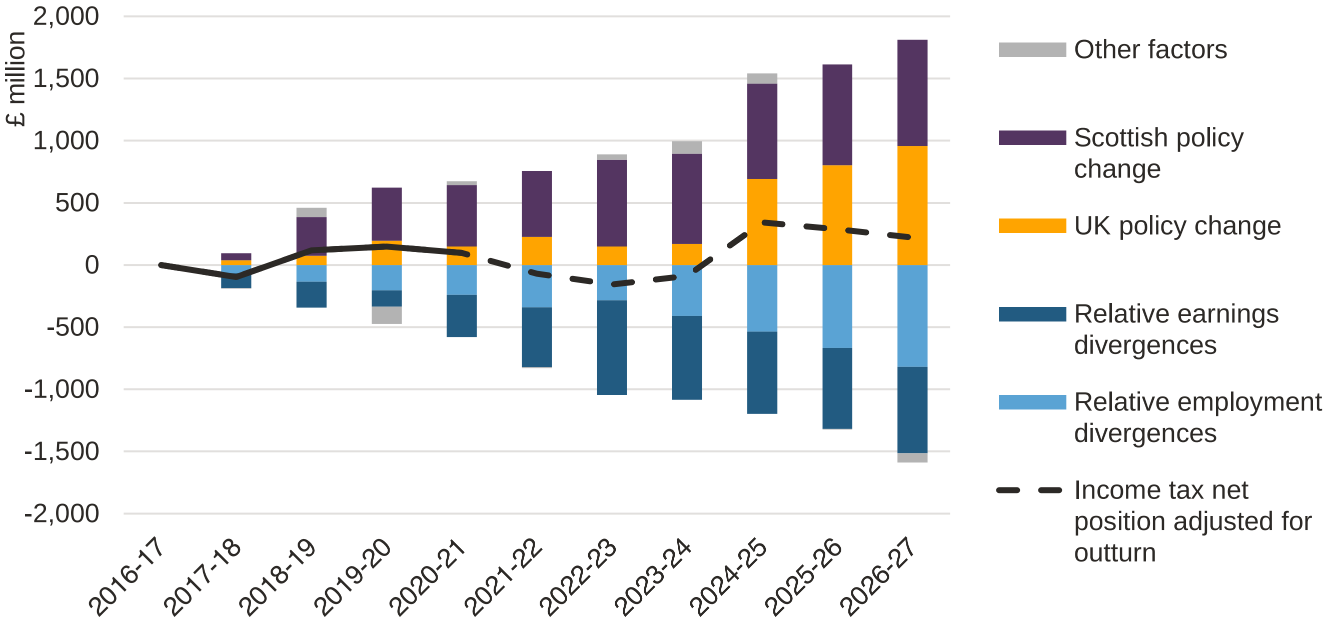
Source: Scottish Fiscal Commission, Scottish Fiscal Commission (2022) Scotland's Economic and Fiscal Forecasts – May 2022 (link), Office for Budget Responsibility (2022) Economic and fiscal outlook – March 2022 (link).

4.7 The income tax net position is influenced by the relative growth of per person income tax revenues in Scotland and the rest of the UK. If Scottish income tax revenues per head grow faster than in the rest of the UK, the net position moves in a positive direction, and there is more funding available for the Scottish Budget. Conversely, if Scottish income tax revenues per head grow more slowly than in the rest of the UK, the income tax net position moves in a negative direction, and there is less funding available for the Scottish Budget.

4.8 Growth in income tax revenues is driven by the underlying performance of the economy, in particular earnings and employment growth, and also by divergences in Scottish and UK income tax policy. The demographics projections we show in **Chapter 2** imply the size of the population most likely to be in employment in Scotland is set to decrease and to decrease more than for the UK. This implies revenues per head are likely to grow more slowly than in the rest of the UK.

4.9 In this section, we present illustrative analysis to demonstrate how changes in each of these factors relative to the UK are estimated to have contributed to the net position, both in the outturn data and the forecast. This analysis is illustrative as the exact contribution of each factor to the net position cannot be known with certainty and there may be overlaps in the contribution of different factors. We summarise our analysis in Figure 4.2.

Figure 4.2: Illustrative contributions to the income tax net position



Source: Scottish Fiscal Commission

4.10 Figure 4.2 shows slower Scottish earnings and employment growth have contributed negatively to the net position. This is offset by divergence in Scottish and UK income tax policy which has helped keep the net position positive in most years. We estimate that, in the absence of Scottish and UK income tax policy differences, the net position would have been -£1,004 million in 2022-23. By having relatively higher tax rates in Scotland and lower thresholds for higher rate taxpayers, the income tax net position shifts to an expected -£157 million in 2022-23.