Scottish Fiscal Commission

Scotland's Economic and Fiscal Forecasts May 2018

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Foreword

The Scottish Fiscal Commission is the independent fiscal institution for Scotland. Today, we present updated independent and official forecasts of Scottish GDP, devolved tax receipts and devolved social security expenditure.

These forecasts are a key element of the Scottish Budget process. They represent the collective view of the Scottish Fiscal Commission, comprising the three Commissioners. We take full responsibility for the judgements that underpin them and for the conclusions we have reached.

The latest outlook for the Scottish economy remains subdued, with growth remaining under 1.0 per cent for the period of the forecast. Real wage growth has been weak over the last few years: real wages are lower today than they were a decade ago. We provide a detailed assessment of Scotland's recent wage growth in the report, and have concluded that the outlook is weaker than was expected in December. This is the main evolution in our judgement since our previous forecast, and has consequences for our forecasts of income tax, which are also lower.

In producing our forecasts we have put into practice the new Protocol agreed with the Scottish Government in March. This took on board the lessons learned during the production of the forecasts that feed into the Scottish Budget 2018-19. This new Protocol is described in the introduction to the report. Our relationship with the Scottish Government has evolved further as we prepared the forecasts, and we will continue to learn from what works well and what could be improved.

We would like to thank the hard-working and rigorous staff of the Commission for their support in the production of our forecasts and underpinning analysis. We would also like to thank officials from across the public sector for their work challenging us on our judgements and ensuring that we considered all the available evidence. This includes the Scottish Government, Revenue Scotland, the OBR, and HMRC.

We would also like to thank our key data providers in ensuring that we had the data required in good time. In particular, the teams in HMRC for their flexibility in accelerating their analysis and data provision to support our income tax forecast.



Dame Susan Rice DBE Professor Alasdair Smith David Wilson

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Economy	2017	2018	2019	2023	% growth
GDP	0.8%	0.7%	0.8%	0.9%	Growth remains subdued and below 1.0 per cent for the forecast horizon
Trend Productivity	0.0%	0.2%	0.5%	1.1%	Productivity picks up after two years of weak performance in 2016 and 2017
Nominal Wages	1.1%	1.6%	1.8%	3.2%	Weaker wages profile over the early years of the forecast feeds through to income tax
Real Wages	-1.0%	-0.5%	0.0%	1.2%	Real wage growth continues to be negative in 2018, before levelling off in 2019 and starting to grow slowly from 2020 onwards
Employment	1.2%	0.4%	0.0%	0.1%	Employment growth slows down, reflecting a falling 16-64 population and employment rates close to historic highs

Tax	2016-17	2017-18	2018-19	2023-24	£ million
Income Tax	11,267	11,467	11,969	14,547	In 2018-19, income tax revenue is expected to be £209 million lower compared our February 2018 forecast.
Non-Domestic Rates	2,731	2,774	2,788	3,339	NDR income collected in 2018-19 is expected to be £24 million lower compared to our December 2017 forecast.
LBTT	484	550	614	827	Residential and non-residential LBTT forecasts have been revised up due to higher prices from 2018-19 onwards
Scottish Landfill Tax	148	142	114	88	Reductions in the amount of waste landfilled and subsequent tax receipts are expected over the forecast horizon.

Social security	2016-17	2017-18	2018-19	2023-24	£ million
Carer's Allowance (inc. Supplement)	234	248	302	395	The Carer's Allowance Supplement is introduced in 2018-19. Uprating and an increase in claimants also increases spend.
Discretionary Housing Payments	50	60	61	69	The costs of mitigating the Removal of the Spare Room Subsidy increase over the period.
Scottish Welfare Fund	33	33	33	33	The Scottish Welfare Fund is assumed to remain constant over the forecast period, based on SG policy.
Employability	0	11	20	0	Two interim services ran in 2017-18. Fair Start Scotland then started in April 2018, with peak spending forecast for 2020-21.

Policy Announcements - Tax	2018-19	2023-24	£ million
Non-Domestic Rates	+0.1	+0.4	New Start relief is removed.

Policy Announcements - Spend			£ million
Carer's Allowance Supplement	0.0	+9.3	The Supplement will now be increased each year in line with inflation.

Change in Forecasts	2016-17	2017-18	2018-19	2022-23	£ million
Income Tax	+53	-118	-209	-437	Income tax receipts have been revised down over the forecast period due to weaker wage profile

Summary

Introduction

1 In April 2017 the Scottish Fiscal Commission became responsible for producing independent economic and fiscal forecasts to inform the Scottish Budget.

2 The Commission produces five-year forecasts of:

- Revenue from fully devolved taxes
- Non-savings non-dividend income tax receipts
- Devolved social security expenditure

3 We also forecast onshore GDP in Scotland for the next five years, which feeds into our fiscal forecasts.

4 The reasonableness of the Scottish Government's borrowing projections are assessed by the Commission. In addition, we determine whether the condition (a 'Scotland-specific economic shock') that triggers additional borrowing powers for the Scottish Government is met.

Economy

5 We published our first forecasts of the Scottish economy in December 2017. At the time, we described the outlook for growth as subdued. Our view of the overall outlook is broadly unchanged. The economy is growing, but the rate of economic growth has been slower over the last decade than historic average rates. Our view remains that this pattern of slower growth is likely to

persist over the next five years. Our headline economy forecasts are shown in Table 1, with comparisons to our forecasts published in December.

Table 1: Headline economy forecasts, calendar year basis (% growth)

	2016	2017	2018	2019	2020	2021	2022	2023
GDP								
December 2017	0.4	0.7	0.7	0.9	0.6	0.9	1.1	
May 2018	0.2	0.8	0.7	0.8	0.9	0.9	0.9	0.9
Trend productivity								
December 2017	0.2	0.2	0.5	0.6	0.7	0.8	1.0	
May 2018	0.0	0.0	0.2	0.5	0.8	0.9	1.0	1.1
Nominal wage								
December 2017	3.3	2.0	2.3	2.4	2.6	2.8	3.1	
May 2018	3.4	1.1	1.6	1.8	2.2	2.6	2.9	3.2
Real wage								
December 2017	2.1	-0.3	0.1	0.5	0.6	0.8	1.1	
May 2018	2.0	-1.0	-0.5	0.0	0.2	0.6	0.9	1.2
Employment								
December 2017	-0.6	1.3	0.6	0.0	0.1	0.2	0.1	
May 2018	-0.6	1.2	0.4	0.0	0.1	0.2	0.1	0.1

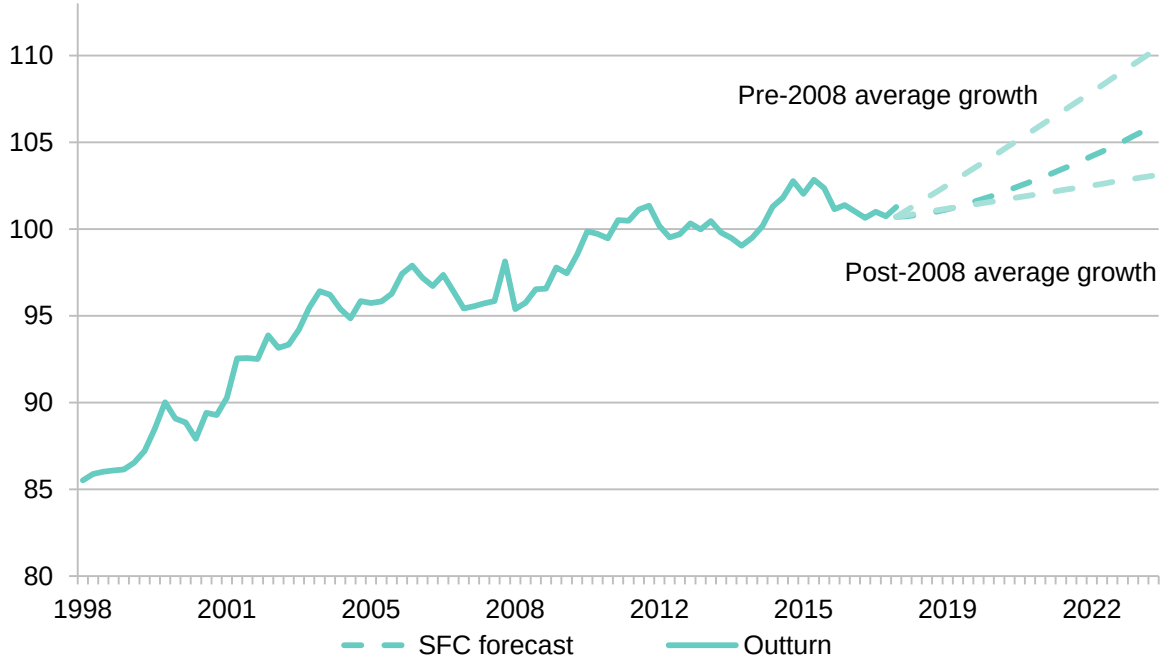
Source: Scottish Fiscal Commission

Note: shading shows outturn as available at time of publication

6 Since our previous forecasts, we have done further analysis of wage growth in Scotland. Real wage growth has been weak over recent years, with real wages lower now than they were a decade ago. As a result of this new analysis, we have revised down our outlook for real wage growth in Scotland. Real wages are now anticipated to fall by 0.5 per cent during 2018, before gradually levelling off in 2019 and starting to grow slowly from 2020 onwards. In line with this revision to the outlook for wages our income tax forecast has also been revised down.

7 As we outlined in December, one of the main factors underlying subdued GDP growth is slow growth in productivity or output per hour worked. The underlying reasons for this are not yet fully understood and are not unique to Scotland. Our forecast for productivity is shown in Figure 1 below, alongside the historic data and pre- and post-financial crisis averages. Since December 2017, following the publication of further weak productivity statistics, we have revised down expectations of productivity growth in 2018 from 0.5 per cent to 0.2 per cent.

Figure 1: Historic productivity and forecast, constant prices (2014 = 100)



Source: Scottish Fiscal Commission

8 In isolation, weak economic growth observed in recent years would suggest a lower forecast for the next five years than pre-2008 historic averages. Scotland faces additional challenges which mean the period of slower growth is unlikely to end in the near future.

9 Future downside risks include the UK's changing relationship with the EU, a weakening outlook for global trade, Scotland's industrial and demographic structure and weak onshore demand linked to activity in the oil and gas industry.

UK-EU relationship

10 The Commission must make assumptions about the impact of Brexit on Scotland. At the time of preparation of our forecasts, the outcome of the negotiations remains unclear, and it is therefore difficult to forecast the impact on the economy.

11 Since our previous forecasts there have been a number of developments on Brexit, including the UK-EU agreement over the terms of a 'transition period' scheduled to last until 31 December 2020; the British Prime Minister's landmark speech on the future economic partnership with the European

Union; and, the approval by EU leaders of guidelines setting out the EU's trade negotiating position. The agreement on the transition period is in principle and subject to conclusion and agreement on the terms of the overall Withdrawal Agreement/Treaty in full. While more information has become available, the extent of uncertainty on the outcome and implications of the withdrawal process has not changed since December 2017, as no agreement has yet been reached on the permanent trade and migration arrangements between the UK and the EU after Brexit.

12 With negotiations still taking place, there continue to be rapid political developments by the UK and EU authorities. It is likely that further headway in the Brexit discussions will be made after the publication of our forecasts, particularly following the next European Council meetings of 28-29 June and 18-19 October, with more clarity expected by December 2018.

13 There is also a possibility that an EU exit agreement will be reached in October. In response to a request by the Treasury Select Committee, the OBR has confirmed that it could incorporate a prospective October EU exit agreement in a December Budget forecast to inform the Parliament's vote on the agreement, moving beyond its current Brexit assumptions as necessary.[1] The OBR have said they will consider the scope and robustness of the additional analysis involved and will assess whether this timetable can be delivered. In the same way, we will continue to monitor progress in the withdrawal negotiations and to keep our Brexit assumptions under review for future forecasts.

14 At present, the Commission broadly expects both the uncertainty created by the UK-EU negotiation and the final settlement to impact negatively on the Scottish economy over the next five years.

15 While the 'transition period' means that there would be very little change in the UK's relationship with the EU prior to 31 December 2020, the negative effects of this on-going uncertainty can expected to be felt also over the shorter-term.

16 In preparing this forecast, we continue to follow the same approach as the OBR. We use broad-brush assumptions including:

- The UK leaves the EU in March 2019
- New trading arrangements with the EU and others slows the pace of import and export growth
- The UK adopts a tighter immigration regime than currently in place

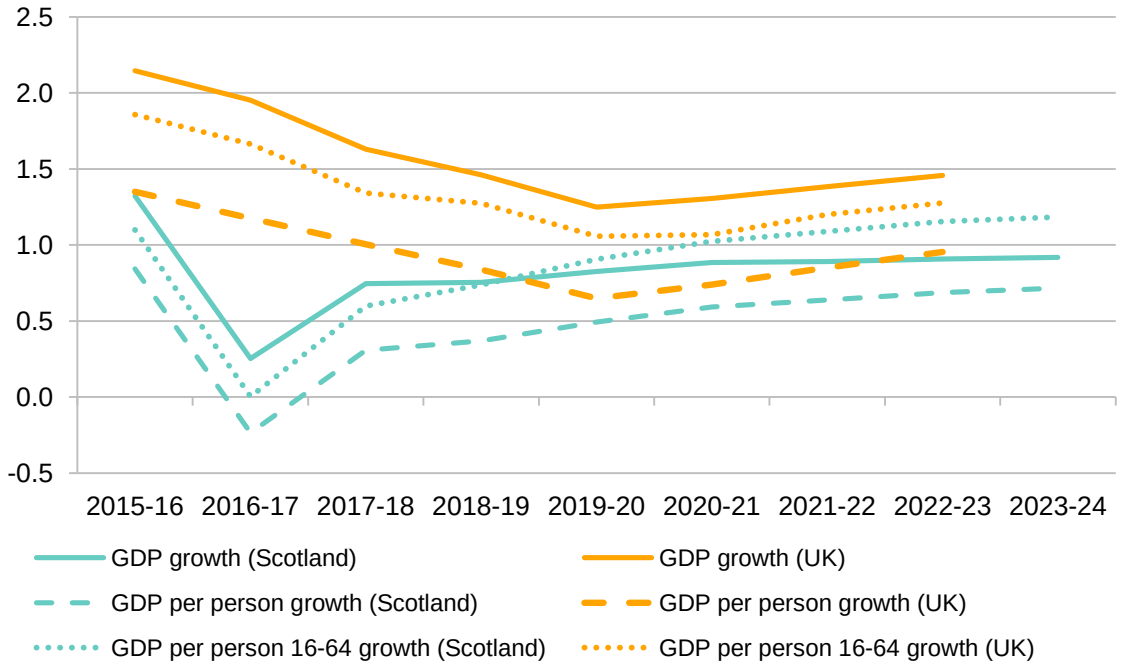
[1] Letter from Chairman of the OBR to Chairman of the Treasury Select Committee 23 April 2018 (link)

17 As in our December 2017 forecast, we use the 50 per cent net EU migration variant of the ONS 2016-based population projections for Scotland, whereas the OBR has continued to use the principal projection for the UK.[2]

Population and demographic factors

18 As we set out in December, although the Scottish population has been growing in recent years, it has not been growing as fast as the rest of the UK (mainly England) and this difference is projected to continue. Figure 2 shows comparisons between Scottish and UK GDP growth, GDP growth per person and GDP growth per person aged 16 to 64.

Figure 2: Forecast growth in GDP and GDP per person, Scotland as forecast by the SFC and UK as forecast by the OBR



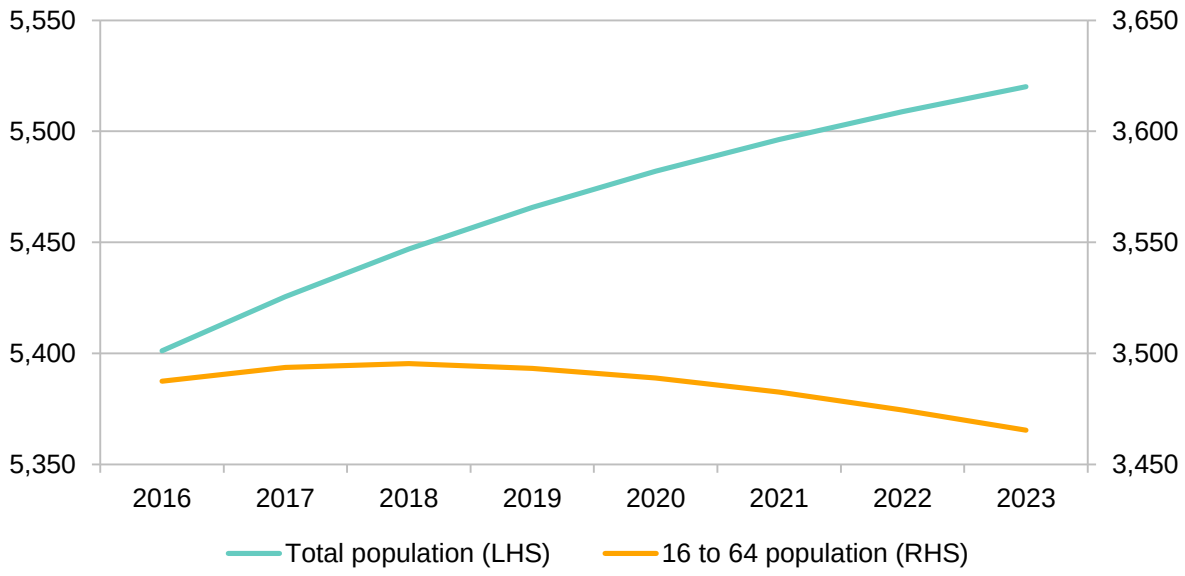
Source: Scottish Fiscal Commission, OBR (2018) Economic and Fiscal Outlook March 2018 (link), Scottish Government (2018) Quarterly National Accounts Scotland Quarter 3 2017 (link), ONS (2017) 2016-based Population Projections, principal population projections UK (link). Note: the OBR does not publish a figure for GDP per person aged 16 to 64. The figure we provide takes the OBR series for real GDP and divides this by the ONS principal projections for 16-64 population

19 Scottish GDP growth will be slower than UK GDP growth over the forecast period. However, when the effects of population growth are stripped out, Scottish growth is much closer to UK growth. This effect is even more pronounced when GDP per person aged 16 to 64 is examined: the growth rates on this basis are very similar from 2019-20 onwards.

[2] ONS (2017) 2016-based Population Projections, 50 per cent EU Migration Variant Population projections Scotland (link)

20 The size of the population aged 16 to 64, which makes up most of the working-age population, is important for the economy and the public finances. These individuals are more likely to be working and will be generating the highest tax receipts, for example, in income tax. While the total population is expected to grow, Figure 3 demonstrates that the population aged 16 to 64 is expected to start to shrink from 2018 onwards. This is in contrast to a growing 16 to 64 population in the UK and places a particular drag on growth in GDP in Scotland.

Figure 3: Forecast Scottish total population and population aged 16 to 64, thousands

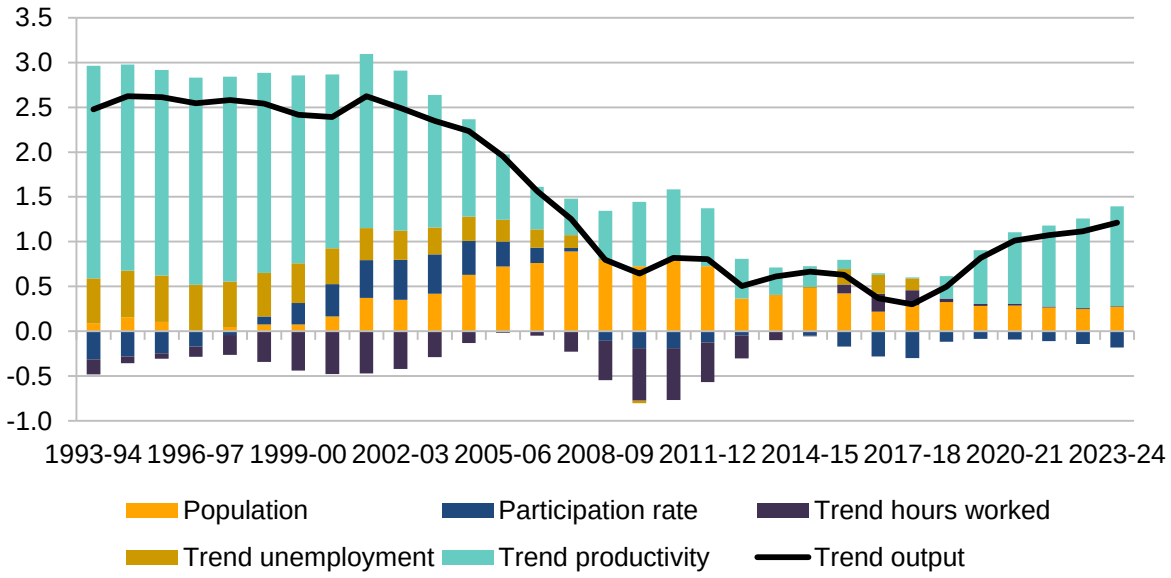


Source: Scottish Fiscal Commission, ONS (2017) 2016-based Population Projections, 50 per cent EU Migration Variant Population projections Scotland (link)

Potential output

21 The judgements the Commission has made on the future path for productivity, the labour market and population growth drive the potential output of the Scottish economy as shown in Figure 4. Slow growth in the potential size of the economy will act as a limit to GDP growth.

Figure 4: Growth in Scottish potential output by component



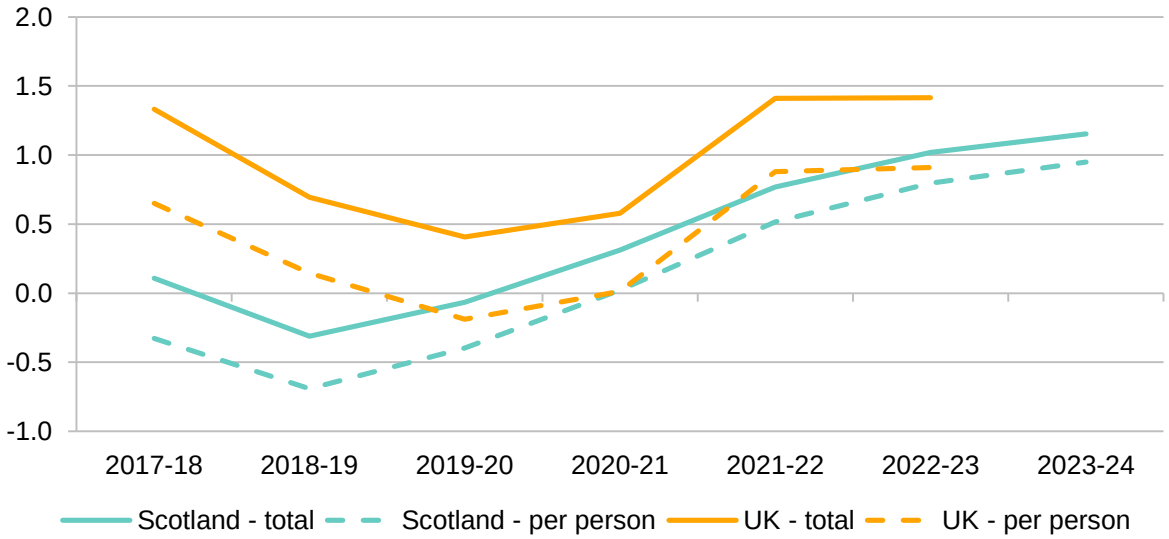
Source: Scottish Fiscal Commission

Earnings

22 Trend productivity growth in Scotland has been slow since 2010. Growth in real wages has been slower still than growth in productivity would suggest. The Commission has further developed its analysis of wage growth, looking in particular at the disconnect between productivity growth and real wage growth since 2010. As a result, our forecasts of real wage growth are therefore now lower than they were previously. Following near zero or negative real wage growth since 2010, real wages are expected to fall by 0.5 per cent in 2018-19, before gradually starting to grow from 2019-20 onwards.

23 Real household disposable income is not expected to see positive growth until 2020-21 because of a combination of slow wage growth, limited employment growth and inflation. Growth in real household incomes will start to strengthen gradually from 2020 onwards as the rate of real wage growth starts to rise.

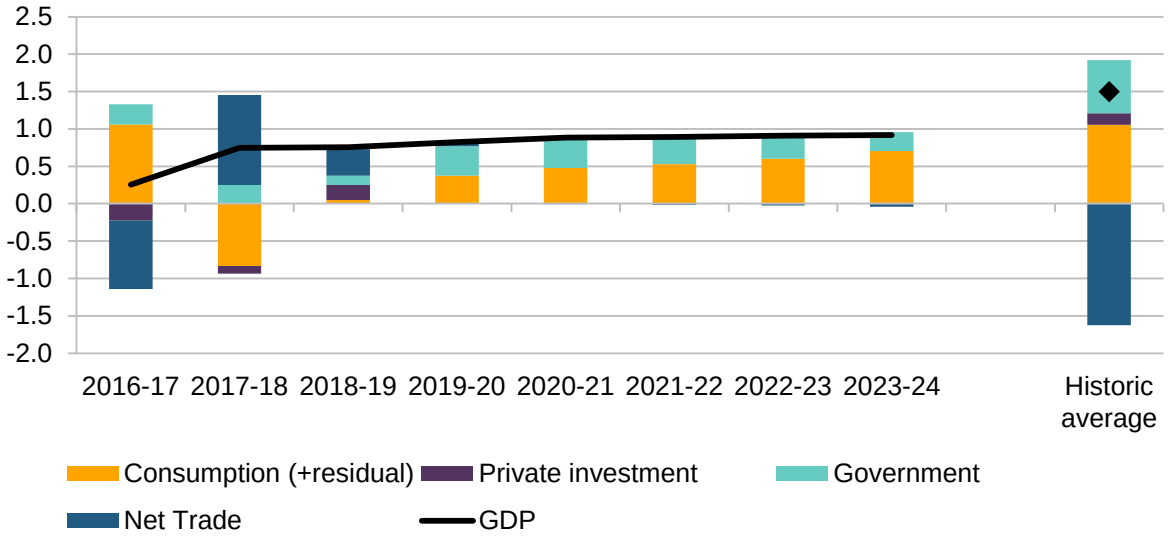
Figure 5: Growth rate of Real Household Disposable Income, total and per person, Scotland compared to OBR UK forecasts



Source: Scottish Fiscal Commission, OBR (2018) Economic and Fiscal Outlook March 2018 (link), Scottish Government (2018) Quarterly National Accounts Scotland Quarter 3 2017 (link)

24 The outlook for real household disposable income, combined with an already low savings ratio, limits growth in consumption in the early years of the forecast. As Figure 6 shows, the economic growth achieved in 2018-19 will be driven by net trade and expanding investment, though these factors are not expected to persist in future years. From 2019-20, growth will be driven by the gradually increasing consumption and spending by the public sector.

Figure 6: Contributions by component of expenditure to growth in GDP (%)



Source: Scottish Fiscal Commission. Note: Historic average is based on growth from 1998 to 2017

Tax

25 The Commission's fiscal forecasts directly inform the Scottish Government's Budget. Table 2 shows a summary of the tax forecasts produced.

Table 2: Summary of tax forecasts 2016-17 to 2023-24

£ million	2016-17 Outturn*	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Income Tax (NSND)	11,267	11,467	11,969	12,345	12,805	13,335	13,936	14,547
Non-Domestic Rates	2,731	2,774	2,788	2,859	2,931	3,110	3,307	3,339
Land & Buildings Transaction Tax	484	550	614	656	697	738	781	827
of which, Residential	214	259	312	342	373	405	438	473
ADS	93	91	97	100	104	108	112	116
Non-Residential	177	201	206	214	220	226	231	238
Air Passenger Duty	257	277	285	292	301	311	322	335
Scottish Landfill Tax	148	142	114	93	95	87	87	88
Total Tax	**14,887**	**15,209**	**15,770**	**16,244**	**16,829**	**17,581**	**18,432**	**19,137**

Source: Scottish Fiscal Commission. Figures may not sum to totals because of rounding * Figure for Income Tax is forecast not outturn data, as liabilities data in 2016-17 are not yet available. See the income tax section for further detail.

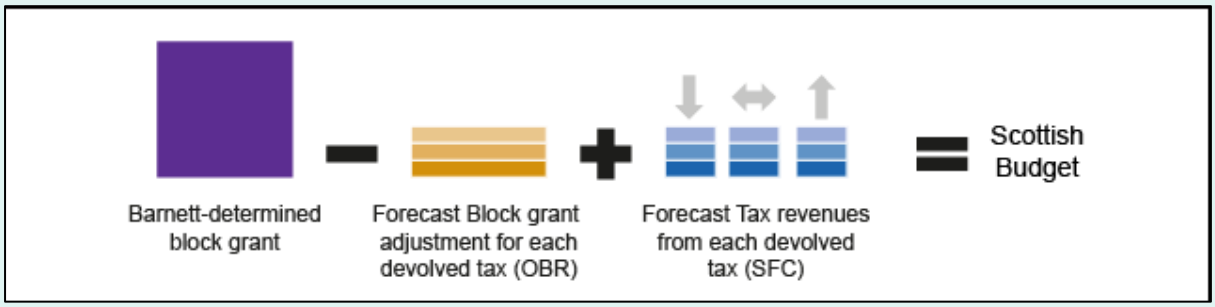
26 Box 1 explains how the Scottish Budget is determined both by our forecasts and by the OBR forecasts of corresponding UK Government tax receipts.

Box 1: Commission Forecasts and the Fiscal Framework

The Scottish Fiscal Commission's forecasts are an important component in determining the total budget that is available to the Scottish Government to spend in each fiscal year. However, they are not the only relevant forecasts.

The diagram below presents a stylised representation of the way the Scottish Budget is determined. The forecast block grant adjustments are based on OBR forecasts of UK Government receipts of corresponding taxes, they do not relate to the OBR's forecasts of Scottish taxes. These forecasts of UK Government receipts are then used by the UK and Scottish Governments to calculate the block grant adjustments, in which process the OBR and the Commission have no involvement.

Figure 7: How is the Scottish Budget Determined?



Source: SPICe Briefing (2017) UK Autumn Budget 2017 – impact on Scotland (link)

Taxes which were devolved before the Scotland Acts 2012 and 2016, such as Council Tax and Non-Domestic Rates (NDR), are outwith the Fiscal Framework and so have no impact on the Block Grant. This means there is no indexation mechanism with equivalent UK Government taxes. The Commission has been tasked with producing a forecast of NDR, but is not responsible for forecasting Council Tax.

Only some social security benefits will have corresponding BGAs, smaller benefits, including all those already devolved, will result in additions to the block grant which are indexed using the Barnett formula and do not directly correspond to UK Government expenditure on the same benefit.

Income tax

27 The outlook for income tax is driven by the outlook for earnings and employment. Continued slow growth in the economy, and in turn wages, means slow growth in income tax revenues. As a result, the Commission is forecasting lower revenue from income tax than previously forecast in February.

Table 3: Comparison with previous February 2018 forecast

£ million	2015-16 Outturn*	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
February 2018	**10,932**	**11,214**	**11,584**	**12,177**	**12,647**	**13,152**	**13,733**	**14,372**
2016-17 outturn data	0	30	53	78	80	84	87	92
Economy forecast	0	6	-198	-317	-405	-474	-545	-614
2015-16 SPI data	15	-5	-21	5	7	25	66	96
Tax-Motivated Incorporations	0	21	43	26	31	35	10	13
Other[3]	1	0	7	8	-1	0	1	-3
2017-18 policy recosting	0	0	-2	-2	-7	-7	-7	-8
2018-19 policy recosting	0	0	0	-6	-8	-9	-11	-12
May 2018	**10,948**	**11,267**	**11,467**	**11,969**	**12,345**	**12,805**	**13,335**	**13,936**
Change from February 2018	16	53	-118	-209	-302	-347	-398	-437

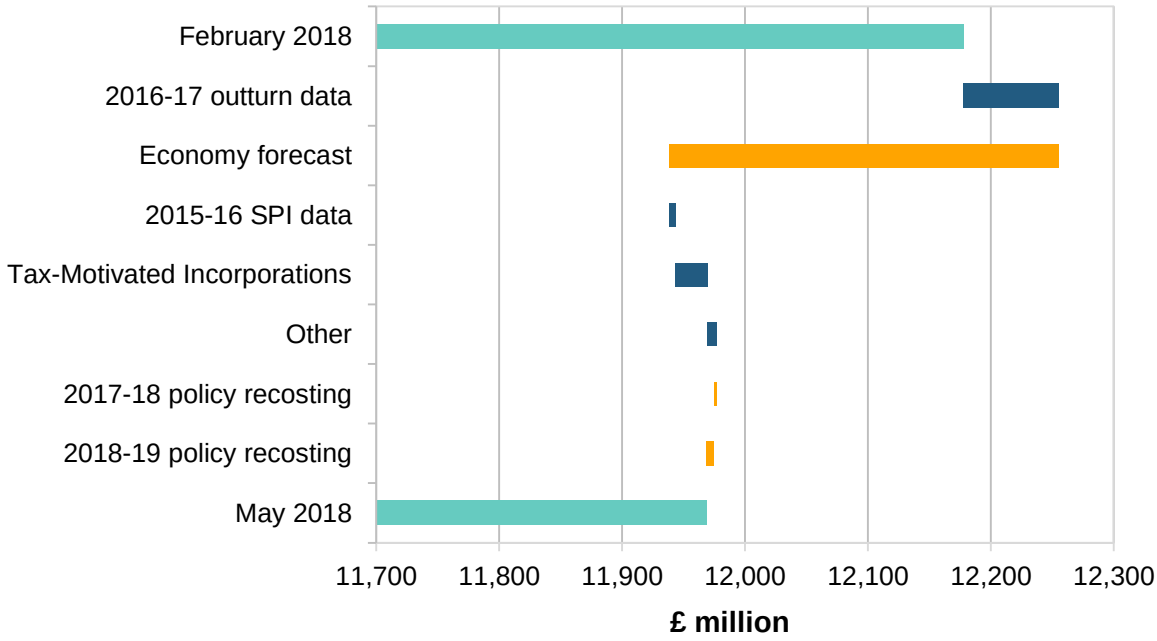
Source: Scottish Fiscal Commission (February 2018) Scotland's Economic and Fiscal Forecasts Supplementary Publication Updated Income Tax Forecasts (link), Scottish Fiscal Commission
*Outturn in this context for income tax refers to our analysis of the 2015-16 Survey of Personal Incomes (SPI) data

28 Table 3 shows a range of factors and developments since our forecast in February 2018 that have led to a small upward revisions in 2015-16 and 2016-17 tax years, with downwards revision for subsequent years. The latest economy forecasts have reduced future tax liabilities, but other factors such as strong employment outturn data in 2016-17 have had some impact on the forecast.

[3] Includes revisions to OBR triple lock and CPI forecasts, HMRC Gift Aid estimates, inclusion of 2017 mid-year population estimates and model developments.

29 Figure 8 presents the relative scale of these factors for 2018-19. Changes since February have led to a downwards revision for 2018-19 of £209 million.

Figure 8: February 2018 compared to May 2018 forecast by factor, 2018-19



Source: Scottish Fiscal Commission (February 2018) Scotland's Economic and Fiscal Forecasts Supplementary Publication Updated Income Tax Forecasts (link), Scottish Fiscal Commission

30 Changes to the economy forecast in isolation have reduced our forecast of income tax liabilities in 2018-19 by £317 million. The developments to the economy forecasts are discussed in Chapter 2. The main reasons for these changes are:

- New analysis by the Commission on wage growth in Scotland has led the Commission to revise down its outlook for wages
- One-off factors such as adjustments in the oil and gas supply chain to lower oil prices and declines in the construction industry leading to weaker than expected wage growth in 2017 and 2018
- A downwards revision to productivity growth in 2018-19, following a weaker than expected performance over the last two years, has also marginally reduced the outlook for earnings

31 In summer 2018, HMRC will publish its first full estimates of outturn income tax liabilities in Scotland in their annual report, covering the year 2016-17. For the first time, this will be based on full administrative data using Scottish taxpayer codes. Once available, this will be the primary measure of income tax liabilities in Scotland. At present there remains significant uncertainty

over the measurement of the Scottish income tax base and the publication of this outturn data will provide important new information for our modelling. The outturn information may lead to some further revisions in our income tax forecasts.

32 When the new data are published, the Commission will make appropriate adjustments to our forecasting approach for future forecasts and publications. We expect to be able to provide analysis of this issue in our September 2018 Forecast Evaluation Report.

Non-Domestic Rates (NDR)

33 Our forecast of NDR for 2018-19 is £2,788 million; £24 million lower than forecast in December 2017. The downward revision reflects higher than expected appeals losses from the 2010 revaluation cycle. Furthermore, we now anticipate weaker growth in the tax base than previously forecast.

34 The Government announced a number of policy measures in December 2017, some of which were introduced in response to the Barclay Review.[4] Due to availability of new data, we have revised our estimates of the cost of several of these policies. Overall, this reduces the cost of these policies by £1 million.

35 The Commission forecasts what is known as the contributable amount of NDR. This can be thought of as the amount collected by local authorities through the course of the year which flows to the Scottish Government. The amount available to local authorities to spend – the distributable amount – is set by the Scottish Government prior to the start of the year.

36 Differences between the amount distributed by the Scottish Government and amounts collected by local authorities are shown after year end in the audited publication of the NDR Rating Account. While in recent years a cumulative deficit has been carried forward, the distributable amount was set at Draft Budget 2018-19 using our forecast with the aim of bringing the account to balance by the end of 2018-19.

37 Given the revisions to our forecast, we now project a £59 million deficit in the NDR Rating Account at the end of 2018-19. The audited balance of the account will in practice depend on data returns submitted to the Scottish Government by local authorities throughout the year. As the distributable amount is already set for 2018-19, this projected deficit cannot be dealt with

[4] Report of the Barclay Review of Non-Domestic Rates 2017 (link)

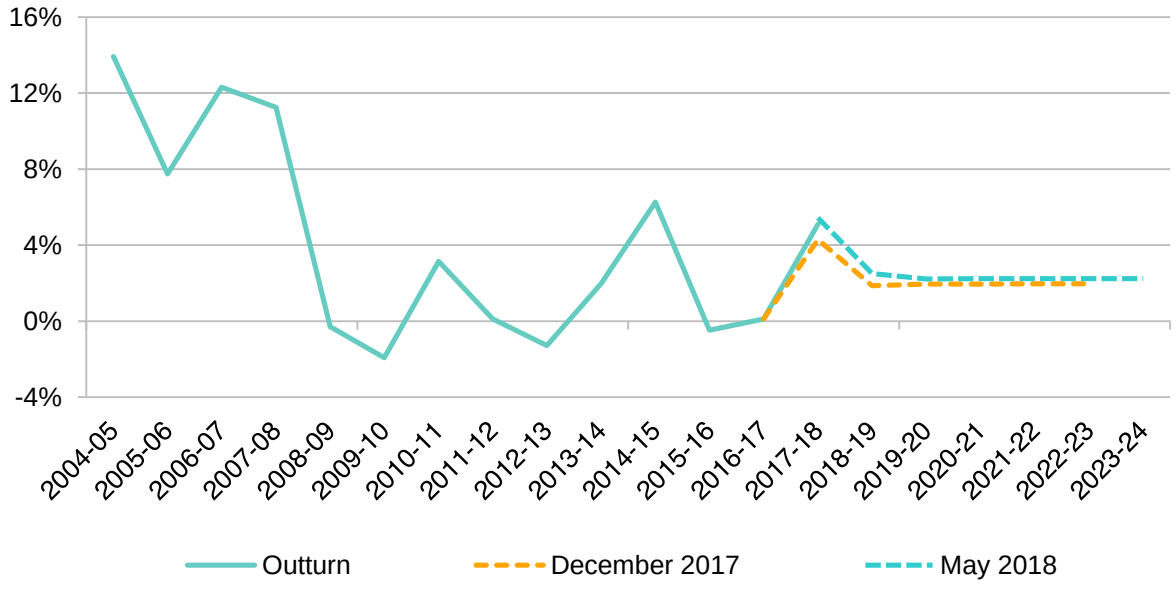
in-year, and so may be carried forward into the calculation of the amount to be distributed in the Scottish Budget 2019-20.

Land and Buildings Transaction Tax (LBTT)

38 Having shown signs of recovery in the first half of 2017-18, Scotland's housing market had an uneven end to the year. There was considerable growth in prices, higher than we forecast in December 2017, but a fall in the total number of market transactions in contrast to our expectations of a rise.

39 Over the five-year forecast horizon, we expect house price growth to return to around 2.2 per cent a year, the average rate seen in Scotland since the financial crisis.

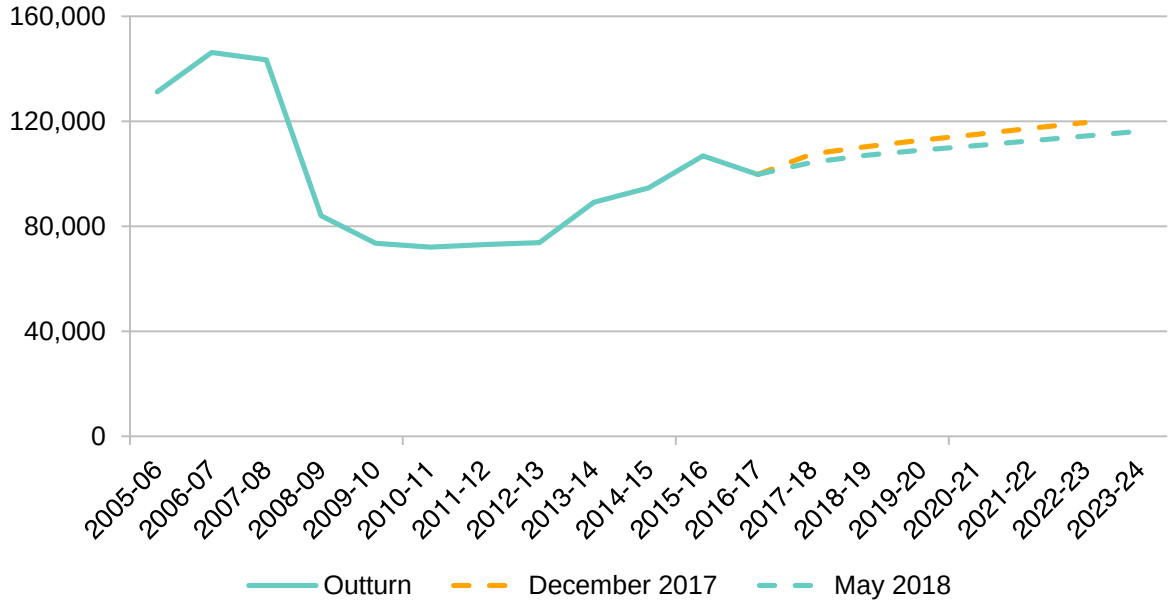
Figure 9: Scotland average house prices (annual per cent change)



Source: Scottish Fiscal Commission, Registers of Scotland (link)
Note. Registers of Scotland transaction statistics cover properties between £20,000 and £1,000,000. Registers of Scotland growth rates are based on date of registration while Commission's forecast is on effective date basis.

40 We expect the drop in the number of transactions in the second half of 2017-18 to be temporary. It has, however, led us to slightly revise down our December 2017 forecast.

Figure 10: Scotland residential property transactions



Source: Scottish Fiscal Commission, Revenue Scotland effective date basis data from 2015-16, HMRC Monthly Property Transactions Statistics for data before 2015-16 (link)

41 The Scottish Government has introduced legislation for a relief for First Time Buyers (FTBs), as announced at the Draft Budget 2018-19. It raises the zero rate tax threshold for FTBs from £145,000 to £175,000. Our costing has been updated slightly to reflect revisions to our price and transactions forecasts and to capture the fact that the relief will apply from 30 June 2018 rather than 1 June 2018 as assumed in our December 2017 forecast.

42 Non-residential receipts are expected to increase over the five-year forecast horizon. We have revised up our December 2017 forecast as a result of a higher price growth forecast and the introduction of a new forecasting approach, moving us fully to Scotland-specific data and forecasts. In the medium-term, prices and transactions grow in line with the Commission's economy forecast.

43 The Scottish Government has brought forward secondary legislation to allow for Group Relief to be available when there is a transfer of properties within a corporate group structure and there is an existing 'Share Pledge' relating to the buyer. We estimate that the change could reduce LBTT revenue by £0.6 million per year. We attach a high degree of uncertainty to the point estimate for this costing. The Scottish Government is considering whether the change could be applied retrospectively. We will continue to monitor developments and revisit our forecast as appropriate.

Air Passenger Duty

44 Air Passenger Duty (APD) is paid by passengers departing from UK airports. The Scottish Government had legislated to replace APD with Air Departure Tax (ADT) from April 2018. In November 2017, the Scottish Government agreed with the UK Government to defer the devolution of APD.[5] The Commission has developed a forecast for Scottish APD receipts; we will continue to publish these forecasts to inform the future plans for devolution of APD.

45 Our forecast of Scottish APD receipts shows revenues increasing over the forecast horizon. Scottish passenger numbers have grown strongly in the last four years at a time when Scottish GDP growth has been relatively subdued.

46 The forecast of Scottish APD has changed since December 2017 with downwards revisions to each year. The reasons for change include an updated estimate of the reduced revenue due to child exemptions. This reflects recently published data from HMRC. This information was not available in December 2017 and the new estimate revised up the cost of the exemption from two per cent of APD revenues to five per cent. Despite these downward revisions in the tax base, we forecast similar growth to the OBR over the forecast horizon with revenues increasing by approximately 25 per cent between 2016-17 and 2022-23.

Scottish Landfill Tax

47 Landfill tax is an environmental tax which is intended to help reduce the amount of waste landfilled. While this trend appears to have levelled off in Scotland in recent years, the Commission is forecasting significant reductions in the amount of waste landfilled together with subsequent tax receipts over the next five years.

48 The forecast is largely driven by the projected increase in incineration capacity over the forecast period. The build-up in capacity is in part a reaction to the increasing cost of the tax on disposal via landfill. It is also a sign that local authorities and waste management companies are beginning to plan ahead to meet their obligations in anticipation of the ban on the landfill of biodegradable municipal waste from 2021. The full impact of the

[5] Letter from the Cabinet Secretary for Finance and Constitution to the Convener of the Finance and Constitution Committee 22 November 2017 (link)

ban is still being assessed and may result in tax receipts being significantly lower in the later years of our current forecast.

49 There have been small upward revisions to the forecast across the forecast horizon since December 2017. These are predominantly a result of the inclusion of the most recent published data from Revenue Scotland, suggesting that receipts have not fallen quite as fast as we expected. Notification of a delay to the full rate operation of the first site to increase incineration capacity has resulted in further increases to revenue in 2017-18 and 2018-19.

Social security expenditure

50 As part of the devolution of social security powers to the Scottish Parliament, the Commission is required to produce independent official forecasts of devolved social security expenditure in Scotland.

51 The devolution of social security benefits is phased and the forecasts reflect either Scottish or UK Government policy, depending on the status of each benefit. The benefits already devolved are Discretionary Housing Payments, the Scottish Welfare Fund and Employability Services. Our forecasts of expenditure on these areas reflect current Scottish Government policy.

52 Until Carer's Allowance (CA) is devolved, CA will continue to be administered by DWP at the rate set by the UK Government. We forecast expenditure in line with the UK Government's policy until further plans for devolution are announced.

53 The Scottish Government has committed to increasing the level of Carer's Allowance to that of Jobseeker's Allowance. This increase will be paid by the Scottish Government via the Carer's Allowance Supplement.

54 We forecast expenditure for a number of benefits which are currently reserved but where the Scottish Government has announced plans for devolution. As we have not received specific policy details, or dates for devolution, we forecast these benefits based on existing UK Government policy. These benefits are Funeral Payments, Healthy Start Vouchers and Sure Start Maternity Grant.[6]

55 As the Scottish Government announces plans for the devolution of further benefits we will include them in our future forecasts.

[6] The Scottish Government have announced that Funeral Expense Assistance will replace Funeral Expenses Payments, Best Start Grant will replace Sure Start Maternity Grant and Best Start Foods will replace Healthy Start Vouchers by summer 2019.

Table 4: Summary of social security forecasts 2016-17 to 2023-24

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Carer's Allowance (CA)	234	248	267	285	303	318	334	349
CA Supplement			35	37	40	42	44	46
Discretionary Housing Payments	50	60	61	63	65	66	67	69
Scottish Welfare Fund	33	33	33	33	33	33	33	33
Employability Services		11	20	19	28	22	9	0
Fair Start Scotland		*0*	*16*	*19*	*28*	*22*	*9*	*0*
Work Able Scotland		*3*	*0*	*0*	*0*	*0*	*0*	*0*
Work First Scotland		*9*	*4*	*0*	*0*	*0*	*0*	*0*
Funeral Expenses Payments	5	5	5	5	5	5	5	5
Healthy Start Vouchers	5	4	4	4	4	4	4	3
Sure Start Maternity Grant	3	3	3	3	3	3	3	3
Total social security	**330**	**364**	**428**	**450**	**480**	**493**	**498**	**508**

Source: Scottish Fiscal Commission, DWP Benefit Expenditure by Country and Region 2016-17 (link), Scottish Government Discretionary Housing Payments Statistics (link), Scottish Government Scottish Welfare Fund Statistics (link), DWP unpublished data, Department of Health unpublished management information

56 Other than for the interim Carer's Allowance Supplement which is set out in the Social Security (Scotland) Bill, the Scottish Government's intention is to set out all detailed rules relating to eligibility criteria and rates of devolved benefits in secondary legislation. To support the Scottish Parliament and the public in understanding and scrutinising the Scottish Government's policy proposals, the Commission will produce forecasts of expenditure to accompany secondary legislation relating to any areas in our remit.

Carer's Allowance

57 Carer's Allowance (CA) is paid to help individuals who care for someone who is disabled with substantial caring needs. Expenditure on CA is forecast to increase over the forecast horizon from £248 million in 2017-18 to £349 million in 2023-24. The increase is because more people are expected to receive CA payments and because the weekly payment will be uprated in line with CPI inflation.

58 The Scottish Government is introducing a CA Supplement to increase CA to match the rate of Jobseekers Allowance (JSA). The CA Supplement will be paid as two lump sums per financial year, each worth six months (26 weeks) of the difference between CA and the higher of: Jobseeker's Allowance (JSA) or the amount JSA would be if it were adjusted for inflation. The Social Security (Scotland) Bill provides a mechanism to pay the Carer's Allowance Supplement at the earliest opportunity, from summer 2018.[7] The qualifying dates and payment dates have not yet been set by the Scottish Government and therefore in the absence of this information our forecast is illustrative.

59 Expenditure on the CA Supplement increases from £35 million in the year it is introduced (2018-19) to £46 million by the end of the forecast period (2023-24). The Social Security (Scotland) Bill was amended at Stage 3 to place a duty on ministers to uprate the CA Supplement each year in line with inflation and this is the key driver of the increase in expenditure over the forecast period. The cost of the new uprating policy is £9 million by 2023-24.

Discretionary Housing Payments

60 Discretionary Housing Payments (DHPs) are grants awarded by local authorities to people in need of extra financial assistance with housing costs. The Scottish Government has committed to using DHPs to mitigate the removal of the spare room subsidy (RSRS), commonly known as the 'Bedroom Tax'. Our forecasts show the cost of mitigating the RSRS increases over the forecast horizon, from £51 million in 2018-19 to £58 million in 2023-24. Based on Scottish Government policy, we assume other expenditure on DHPs remains constant at £10.9 million a year over the forecast horizon.

[7] Social Security (Scotland) Bill (2018) [as passed] (link)

Scottish Welfare Fund

61 The Scottish Welfare Fund (SWF) was set up in April 2013 and provides grants for people on low incomes. Expenditure on the SWF has been constant at £33 million since 2013. Based on Scottish Government policy, our forecast assumes this remains fixed.

Employability Services

62 The Scottish Government has introduced new voluntary services to provide employability support to help the long-term unemployed and people with disabilities to find sustainable employment. The Scottish Government has contracted external providers to deliver the service. Eligible individuals are referred mainly by Jobcentre Plus to an employability service provider.

63 Two interim services were operational in 2017-18; Work First Scotland and Work Able Scotland. The Fair Start Scotland (FSS) service started in April 2018 and will accept referrals for three years, but contracts with, and payments to, providers run for five years, from April 2018 to November 2023 with final outcome payments made up to 29 February 2024.

64 Forecast expenditure is based on the service design, the estimated number of individuals supported and the probabilities of those individuals entering into and sustaining employment. The overall forecast annual expenditure on Employability Services is £20 million in 2018-19 and rises to £28 million in 2020-21 before declining over the rest of the forecast horizon.

65 FSS has seen downward revisions to forecast spending in the first two years of the service, with an equal total upward revision to spending in the last three. Peak spending on FSS (£27.7 million) is forecast for 2020-21.

66 The May 2018 forecast contains an important update to the methodology. Service providers have now given the Scottish Government their monthly forecasts both of how many service starts and sustained employment outcomes they expect and when they expect these milestones to be achieved. Previously, service providers gave forecasts only for the total number of job outcomes they expected to realise over the full life of the service. This change results in revisions to the expected expenditure for FSS within each year of the forecast.

Other benefits

67 The Scottish Government has announced plans for the devolution of Funeral Expenses Payment, Healthy Start Vouchers and the Sure Start Maternity Grant. Currently there is insufficient detail for us to produce forecasts based on the Scottish Government's policy. We have therefore produced forecasts of expenditure based on current UK Government policy. Since our last publication there have been only minor revisions to these forecasts to allow for model refinements and data updates.

68 Universal Credit (UC) is reserved to the UK Government and we do not forecast expenditure. UC is a qualifying benefit for several of the benefits we forecast so any delays or changes to the rollout could impact on our forecasts.

Borrowing

Capital borrowing

69 The Scottish Government has given us projections of its capital borrowing requirements up to 2019-20. We judge that these projections are within the limits set out in the Fiscal Framework, and are therefore reasonable.

70 The Scottish Government borrowed the annual maximum in 2017-18 and plans to do the same in 2018-19 and 2019-20, with borrowing to be repaid over a 25 year time horizon. This will result in a projected debt stock of £1.87 billion by the end of 2019-20 which is 62 per cent of the total statutory limit of £3 billion.

71 It will only be possible for the Government to continue to borrow the maximum amount per year, with a 25 year repayment schedule until 2022-23. Beyond this point the statutory borrowing cap would limit the annual amount available to borrow.

Resource borrowing

72 The Scottish Government have confirmed that they have not used resource borrowing powers to date and that there are no current plans for resource borrowing over the period of the Medium Term Financial Strategy.

73 We have assessed whether we are forecasting a Scotland-specific economic shock, which would trigger access to additional resource borrowing powers. Given our forecasts, and the most recent OBR forecasts, the conditions for this are not currently met.

The Scotland Reserve

74 The Scottish Government has provided information on the balance of the Scotland Reserve and projected drawdowns in 2018-19. The reserve had a provisional aggregate balance of £451 million at the end of 2017-18. The Scottish Government have projected they will drawdown £68 million from the capital reserve and £238 million from the resource reserve during 2018-19. We have assessed that these projections are within the limits set by the Fiscal Framework, and are therefore reasonable.

VAT

75 Regulations have been introduced in the Scottish Parliament to expand the remit of the Commission to include VAT forecasting to support VAT assignment. We are currently developing our forecast methodology. Our first full VAT forecast will be published in December 2018.

Chapter 1 Introduction

What is in this report?

1.1 This report presents economic and fiscal forecasts to inform the Scottish Government's Medium Term Financial Strategy published on 31 May 2018. This is the second set of official, independent forecasts produced by the Scottish Fiscal Commission. Our first forecasts were produced in December 2017 to inform the Scottish Draft Budget 2018-19.[8] We produced a supplementary income tax forecast in February based on changes announced by the Scottish Government to the Budget Bill 2018-19.[9] The Commission is required to produce at least two sets of forecasts a year, as set out in the Scottish Fiscal Commission Act 2016.

1.2 Alongside our forecasts, the report provides a full explanation of all assumptions and judgements made as part of the forecasting process. We also set out what has changed since the last set of forecasts we produced in December 2017.

1.3 The report is divided into the following sections:

- Summary – a standalone, non-technical, high-level summary of the forecasts produced by the Commission, and the main assumptions and judgements that underpin them.
- Economy Chapter – a chapter which sets out the Commission's five-year forecasts for the Scottish economy, including the underlying judgements and sensitivity analysis where appropriate. This includes an assessment of whether the Commission has forecast a 'Scotland-specific economic shock' which would mean that that the Scottish Government would be

[8] Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

[9] Scottish Fiscal Commission (February 2018) Scotland's Economic and Fiscal Forecasts Supplementary Publication Updated Income Tax Forecasts (link)

able to access additional borrowing under the terms of the Fiscal Framework.

- Tax Chapter – a chapter presenting the Commission's forecasts of receipts from the fully and partially devolved taxes within our remit, covering:
    - Non-Savings Non-Dividend Income Tax
    - Non-Domestic Rates
    - Land and Buildings Transaction Tax
    - Scottish Landfill Tax
    - Scottish share of Air Passenger Duty
- Social Security Chapter – a chapter presenting the Commission's forecasts for devolved social security expenditure:
    - Carer's Allowance and the Carer's Allowance Supplement
    - Discretionary Housing Payments
    - Scottish Welfare Fund
    - Employability Services
    - Funeral Payments
    - Healthy Start Vouchers
    - Sure Start Maternity Grant
- Borrowing Chapter – A chapter which fulfils the Commission's duty to assess whether the Scottish Government's projections of borrowing are reasonable. The Government's capital and resource borrowing plans are assessed against the limits set out under Scotland Act 2016 and the associated Fiscal Framework. The position of the Scotland Reserve is also considered.
- Annex A: Policy Costings – An Annex containing detail for all the policy costings the Commission has produced for this set of forecasts. This shows how much any individual policy will cost or raise, and how the Commission has arrived at that estimate.
- Annex B: Policy Re-Costings – An Annex containing revised estimates of costings for policies previously costed. Re-costings may be required because of new outturn data or revisions to key assumptions and judgements
- Annex C: Developing our approach to forecasting VAT – An Annex setting out how we propose to forecast VAT receipts and the planned development work ahead of the publication of our first VAT forecasts in December 2018.

Limitations of forecasting

1.4 The past is an imperfect guide to the future in a rapidly changing global economic, social, political and technological environment. Analytical models, based on historic data and theory, can help provide some insight into how the economy and public sector finances may change over time, but all have limitations. Forecasts cannot perfectly predict the future – the Commission's forecasts aim to present a balanced pathway through a broad range of possible outcomes.

1.5 There will exist a range of valid approaches on each of these issues and so the Commission is required to make judgments where appropriate. Our forecasts will evolve over time. In each section we have set out how our forecasts have changed since the last forecasts in December 2017 and explained the reasons driving those changes.

1.6 Forecasting is an on-going process of intelligence gathering, learning from previous forecasts, reflection and refinement. Judgements will be made on the basis of the best evidence and intelligence available at the time of publication, but may change from one forecast to the next as the economy evolves and our understanding develops along with it.

Box 1.1: OBR Forecasting – uncertainties and challenges

The Office for Budget Responsibility (OBR) is the UK Independent Fiscal Institution (IFI) which was established in 2010. Twice a year they provide a detailed central forecast for the economy and the public finances. These forecasts are designed to provide a transparent benchmark against which to judge the significance of new economic and fiscal data, and against which to estimate and explain the likely impact of policy decisions.

The OBR emphasises in every Economic and Fiscal Outlook[10] that since the future can never be known with precision, all such forecasts are necessarily surrounded by uncertainty. Like many IFIs, the Commission is required to evaluate its forecasts. Similarly the OBR produces an evaluation of their forecasts once a year in their Forecast Evaluation Report (FER) and highlights how "the likelihood that any given forecast will turn out to be accurate in all respects is essentially negligible".[11]

The OBR seeks to present this uncertainty at each fiscal event.[12] In common with

[10] OBR (2018) Economic and Fiscal Outlook, March 2018 (link)

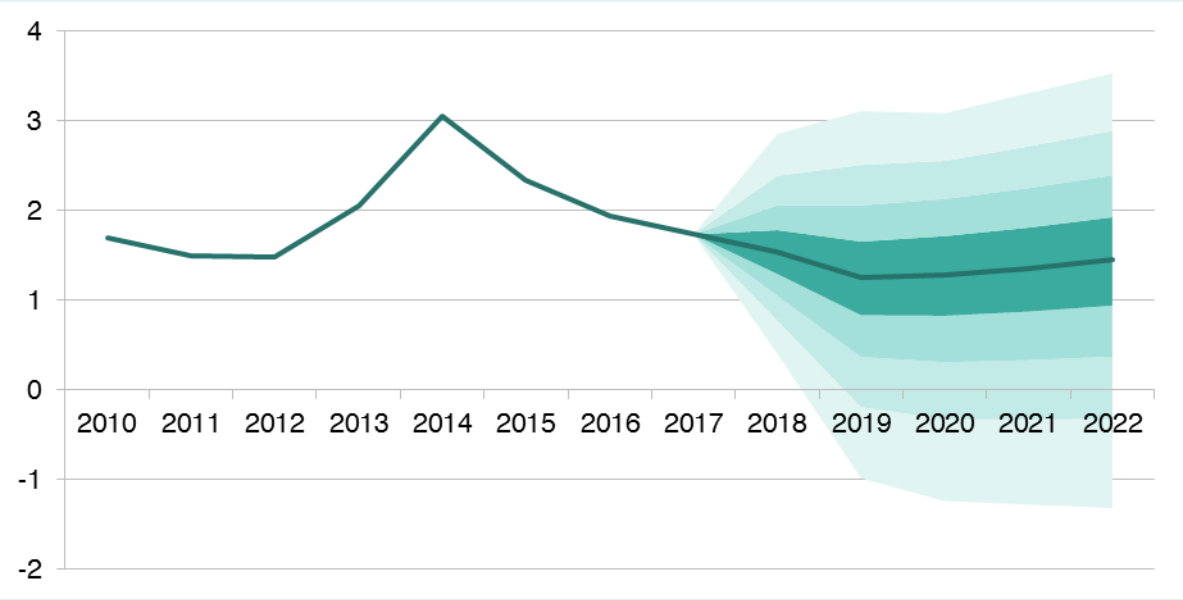
[11] OBR (2017) Forecast Evaluation Report, October 2017 (link)

[12] OBR (2012) Briefing Paper 4: How we present uncertainty, June 2012 (link)

many forecasters the OBR publishes a 'fan chart' such as Figure 1.1 that illustrates the uncertainty in their economy forecast. These charts are usually drawn using information on historical forecast errors. As these are only the Commission's second forecasts we are not in a position to provide similar charts.

However, the Commission will follow the OBR and many other forecasters in giving an insight to forecast uncertainty by discussing the sensitivity of our forecasts to alternative assumptions and the risk factors for our forecasts.

Figure 1.1: OBR's GDP growth forecast



Source: OBR (2018) Economic and Fiscal Outlook, March 2018 (link)

Background to the Commission

1.7 In April 2017 the Scottish Fiscal Commission became responsible for producing independent economic and fiscal forecasts to inform the Scottish Budget.

1.8 The Commission produces independent forecasts of:

- Revenue from fully devolved taxes
- Non-savings non-dividend income tax receipts
- Onshore Gross Domestic Product (GDP) in Scotland
- Devolved social security expenditure[13]

[13] The Commission's specific role in social security forecasting is defined in the Scottish Fiscal Commission (Modification of Functions) Regulations 2017 (link)

1.9 Regulations to amend our functions to include VAT forecasting are currently being considered by the Scottish Parliament.

1.10 The Commission will produce forecasts at least twice a year. We will also produce annual Forecast Evaluation Reports, and will from time to time publish working papers on related subjects.

1.11 The Scottish Fiscal Commission is structurally and operationally independent of the Scottish Government. More details about the remit and history of the Commission, including previous publications, can be found on our website: www.fiscalcommission.scot.

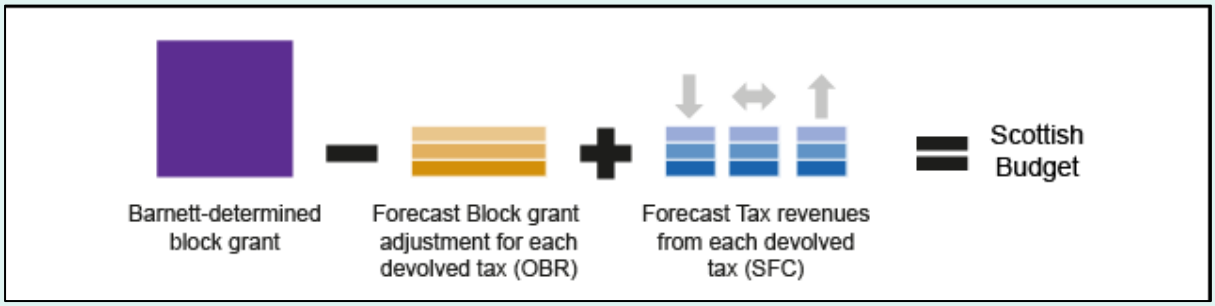
1.12 The Commission was previously a non-statutory body, established in 2014 to scrutinise Scottish Government forecasts of devolved taxes following the Scotland Act 2012. In December 2016, the Commission found the Scottish Government's forecasts of non-savings non-dividend Income Tax, Land and Buildings Transaction Tax and Scottish Landfill Tax to be reasonable. We also had a role in scrutinising the buoyancy and inflation elements of the Non-Domestic Rates forecast, which we also found to be reasonable.[14]

Box 1.2: Commission Forecasts and the Fiscal Framework

The Scottish Fiscal Commission's forecasts are an important component in determining the total budget that is available to the Scottish Government to spend in each fiscal year. However, they are not the only relevant forecasts.

The diagram below is a stylised representation of the way the Scottish Budget is determined. The forecast block grant adjustments (BGAs) are based on OBR forecasts of UK Government receipts of corresponding taxes, they do not relate to the OBR's forecasts of Scottish taxes. These UK Government receipts forecasts are then used by the UK and Scottish Governments to calculate the BGAs, in which process the OBR and the Commission have no involvement.

Figure 1.2 How is the Scottish Budget Determined?



Source: SPICe Briefing (2017) UK Autumn Budget 2017 – impact on Scotland (link)

[14] Scottish Fiscal Commission (2016) non-statutory Report of Draft Budget 2017-18 (link)

The Scottish Government has published estimates of the Block Grant Adjustments in the Medium Term Financial Strategy. Table 1.1 shows a comparison of our forecasts to the most up to date BGA estimates for income tax, LBTT and Scottish Landfill Tax. The 2016-17 income tax baseline and subsequent BGA figures will all be updated once the outturn data for 2016-17 are published in Summer 2018.

Table 1.1: Comparison of forecasts to Scottish Government BGA estimates

£ million		2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Income Tax	SFC Forecast	11,467	11,969	12,345	12,805	13,335	13,936
	BGA*	11,626	11,930	12,215	12,612	13,015	13,531
LBTT	SFC Forecast	550	614	656	697	738	781
	BGA*	586	588	606	630	656	689
Scottish Landfill Tax	SFC Forecast	142	114	93	95	87	87
	BGA*	104	106	91	81	77	71

Source: Scottish Fiscal Commission, Scottish Government Medium -Term Financial Strategy, Table 6.2
*Estimates are based on Indexed Per Capita methodology

Taxes which were devolved before the Scotland Acts 2012 and 2016, such as Council Tax and Non-Domestic Rates (NDR), are outwith the Fiscal Framework and so have no impact on the Block Grant. This means there is no indexation mechanism with equivalent UK Government taxes. The Commission has been tasked with producing a forecast of NDR, but is not responsible for forecasting Council Tax.

Only some social security benefits will have corresponding BGAs. Smaller benefits, including all those already devolved, will result in additions to the block grant which are indexed using the Barnett formula and do not directly correspond to UK Government expenditure on the same benefit. As further taxes and social security benefits are devolved, and corresponding block grant adjustments agreed we will include detail on these in our future publications.

Medium Term Financial Strategy Process

1.13 In developing these forecasts, the Commission has engaged with the Scottish Government by following the process set out in the agreed and published Protocol between the organisations.[15] This Protocol has been revised to reflect our experiences in our first year of statutory operation and the changes to the budget process which have since been agreed.

1.14 We have also added arrangements for the publication of forecasts to accompany primary or secondary legislation which affects revenue raised from a tax or expenditure on social security payments within the Commission's remit. Our first forecasts to accompany secondary legislation were published on 17 May to accompany the introduction of the Scottish Government's secondary legislation on Group Relief.

1.15 Since formal notification of the date of the Medium Term Financial Strategy in March, the Commission has had several rounds of meetings to discuss our pre-measures forecasts. These have included discussions with the Scottish Government, Revenue Scotland, the Office for Budget Responsibility and HM Revenue and Customs (HMRC).

1.16 Headline dates of interest are:

- 8 May: The Scottish Government presented the Commission with all finalised policy measures and economy moving measures.
- 16 May: The Commission presented the Scottish Government with final forecasts to allow the finalisation of the Medium Term Financial Strategy.
- 24 May: The Commission's near-final report was shared with the Cabinet Secretary for Finance and Constitution.
- 30 May: Phone call between Dame Susan Rice, Chair of the Commission and Cabinet Secretary for Finance and the Constitution.
- 30 May: A pre-release version of the Commission's report was shared with the Cabinet Secretary for Finance and Constitution.
- 31 May: Commission report published.

1.17 In accordance with the Protocol, more detail of timings and attendees at different rounds of meetings is published on our website.[16]

1.18 The Commission's final forecasts were provided to the Scottish Government on the 16 May. The economy forecasts were finalised on the 11 May to allow

[15] Protocol for engagement between the Scottish Fiscal Commission and the Scottish Government Version 2.0 published March 2018 (link)

[16] Scottish Fiscal Commission (2018) Scottish Economic and Fiscal Forecasts May 2018 (link)

inclusion into the fiscal forecasts. To produce all our forecasts new data and information published after a certain date are not included in our forecasts. Box 1.3 provides further information on the inclusion of data releases in our forecasts.

Box 1.3: Data inclusion in our forecasts

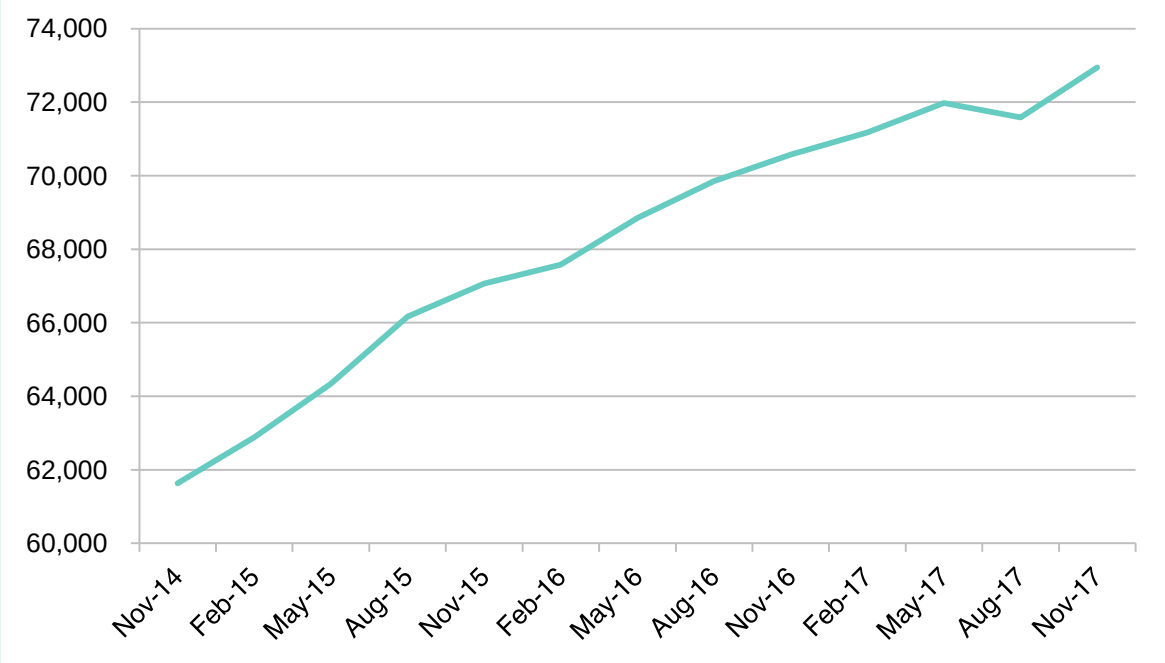
The Commission develops its forecasts over a number of months in the run up the date of publication. Over this period, new data will be published and historic values revised. The Commission will do its best to include all new data and revisions in its forecasts. However, there will be a series of data cut-off points for the inclusion of new data prior to publication. The cut-off points need to weigh in the balance the importance of a particular data publication and its potential impact on the forecast against allowing sufficient time for forecasts, analysis and documents to be finalised.

In some instances where there is insufficient time to include new data, we may still consider more broadly what the new data are telling us and adjust our judgements accordingly.

For May 2018, our core economy forecasting model was updated to include GDP and Quarterly National Accounts Scotland (QNAS) published for 2017 Q3 in February. We adjusted our forecast to account for GDP published for 2017 Q4, but the historic revisions published alongside 2017 Q4 were not included due to time constraints. This creates some slight inconsistencies between the latest available published data and some of our values. In the body of our report, outturn is as the latest available data including revisions. In our supplementary tables, the values are drawn directly from our core forecasting model, including the historic series, and this may introduce some slight presentational inconsistencies in the historic data. This issue only applies to revised historic data and does not affect the Commissions forecasts.

Our Carer's Allowance forecasts were finalised on the 14 May, a day before the Department for Work and Pensions (DWP) released new caseload data for November 2017. This data point was therefore not included in our forecasts. The Commission also decided not to include an earlier data point for August 2017 in our forecasts. This quarter of data showed a fall in the number of individuals in receipt of Carer's Allowance. This did not tally with our expectation or understanding of the likely changes in the number of individuals receiving Carer's Allowance payments. In the absence of information explaining the fall, we chose not to include it. The subsequent release on the 15 May showed an increase in claimants and a return to the previous trend. The Commission will continue to monitor data as they become available and we will review our judgements in future forecasts.

Figure 1.3: Carer's Allowance Caseload, Scotland



Source: DWP's StatXplore (link)
Note: Caseload refers to caseload in payment.

Professional Standards

1.19 The Commission is committed to fulfilling our role as an Independent Fiscal Institution (IFI), in line with the principles set out by the Organisation for Economic Cooperation and Development (OECD) for these institutions.[17]

1.20 The Commission also seeks to adhere to the highest standards for analysis possible. While we do not produce official statistics (as we produce forecasts), the Commission and our work voluntarily complies as much as possible with the principles of the Code of Practice for Official Statistics.

1.21 The Commission has published a statement on our compliance with the Code of Practice for Official Statistics on our website.[18] This sets out how the Commission demonstrates voluntary compliance with as many parts of the code as possible.

[17] OCED Recommendation on Principles for Independent Fiscal Institutions (link)

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

Comments & Contact

1.22 This is the second set of forecasts produced by the Commission. We welcome comments from users about the content and format of our publications. In particular, if there are particular analyses, or disaggregations of data which users would find useful as part of future forecast reports, please let us know.

1.23 All charts and tables in this publication have also been made available in spreadsheet form on our website.[19] If you have any feedback, or would like to request further information about any of our analysis, please email info@fiscalcommission.scot.

[19] Scottish Fiscal Commission (2018) Scotland's Economic and Fiscal Forecasts May 2018 (link)

Chapter 2
Economy

Introduction

2.1 This chapter outlines the Commission's economy forecasts, set within the wider economic context for Scotland.

2.2 The economy forecasts are created for two reasons:

- To fulfil the Commission's remit of providing quarterly onshore Gross Domestic Product (GDP) growth forecasts for the next two years and annual growth forecasts for the subsequent four financial years; [20] and,
- To provide the economic variables that feed into the Commission's fiscal forecasts, for example: wages, employment and hours worked that are used in the income tax forecast.

2.3 In constructing our forecast the Commission has considered the long-run evolution of the economy, particularly productivity and potential output; the short-run forecasts based on recent outturn and survey data; and, how the short and long-run forecasts are brought together in the medium-run through the relationship between output and the output gap. The chapter proceeds as follows:

- Forecast context and summary
- Key judgements
- Developments in the Scottish economy

[20] Onshore GDP is used as shorthand in referring to Scotland's GDP excluding the value of oil, gas and other hydrocarbons produced in the Scottish sector of the UK continental shelf as defined in the Scottish Fiscal Commission Act 2016 (link). This is the same basis as the headline GDP figures published by the Scottish Government (link).

- The long-run: productivity and potential output
- Short-run forecasts
- The medium-term outlook and the output gap
- Second-round effects
- Forecast sensitivities
- Comparison to previous forecasts
- Comparison to OBR UK forecasts

2.4 The methodology behind the Commission's economy forecasts has been discussed in two Occasional Papers published over the last year.[21] The Commission will continue to publish papers to help users better understand our approach to forecasting and keep users up to date on developments in the methodology.

2.5 The economy forecasts were finalised on 11 May 2018, with no published data being accepted after 1 May 2018. This cut-off is to allow for a stable forecast against which the Government can finalise its Medium Term Financial Strategy. See Box 1.3 in the introductory chapter for further information.

Forecast context and summary

2.6 This section:

- summarises developments since our previous forecasts
- puts our forecasts in the context of recent economic performance
- provides an overview of our economy forecasts
- provides headline forecast numbers and an assessment of whether or not access to additional borrowing powers will be triggered by a Scotland-specific economic shock

2.7 In December 2017 we published our first set of economic forecasts.[22] At the time, we described our outlook for economic growth as subdued. We expected growth in GDP to average 0.9 per cent over the five-year forecast period, well below historic norms. Developments and new data published since December have done little to change our outlook, with growth remaining broadly in line with our subdued expectations.

[21] Scottish Fiscal Commission (2017) Current Approach to Forecasting (link) and Scottish Fiscal Commission (2018) Forecasting the long-run potential of the Scottish economy March 2018 (link)

[22] Scottish Fiscal Commission (2017) Scotland's Economic & Fiscal Forecasts December 2017 (link)

2.8 Real wage growth has been weak over the last decade, with real wages lower today than they were in 2010. Since our previous forecasts, we have undertaken new analysis of wage growth in Scotland. As a result, we have revised down our forecast for changes in real wages over the next six years. Real wages are expected to continue to fall in 2018-19, before gradually starting to grow from 2019-20 onwards. Following this revision to the outlook for wages, the income tax forecast has also been revised down. This new analysis is discussed in the section 'Developments in the Scottish Economy'.

2.9 In addition to slow growth in real wages over the last decade, wage growth appears to have been particularly weak in 2016 and 2017. This is part of a broader issue of falling productivity and weak real wage growth over the last two years. The labour market, and in particular total hours worked, have continued to diverge from GDP. With subdued growth in GDP and total income, stronger growth in employment and hours worked have led to falling real wages and productivity. While this divergence was already a puzzle for trying to understand the Scottish economy in December 2017, the divergence has continued to grow in scale.

2.10 We believe that falling productivity over the last two years is because of temporary issues including declines in oil and gas supply chain activity; contracting construction activity; and, buoyancy in the labour market. We judge trend productivity growth to have been 0.0 per cent in Scotland over the last two years, and expect productivity growth to increase to 0.25 per cent in 2018-19. For further detail, please see our 'Developments in the Scottish Economy' section.

2.11 In our previous report, we set out a number of temporary factors which supported GDP growth since 2010 and to some extent had masked weaker underlying growth in the economy. For example, we highlighted the boost to growth from the oil and gas onshore supply chain from 2010 to 2014, how household consumption had been supported by a declining savings ratio, and the exceptional growth in construction industry output in 2015.

2.12 Our view on this is largely unchanged since December. The discussion provided in our December 2017 report in the section "Underlying trends in the Scottish economy" stands as a statement of the Commission's view on the underlying performance of the Scottish economy since 2010.

2.13 The general slowdown in economic growth observed in recent years would, on its own, be sufficient to warrant a forecast lower in the near term than historic norms. We further adjust our forecasts to consider Scotland's specific circumstances, looking at both the upside and downside uncertainties facing the economy. On balance, we judge that the downsides outweigh the upsides.

In the Commission's view, the period of slower growth is unlikely to come to an end in the near future. These downsides include the UK's changing relationship with the EU, weak demand from activity in the UK Continental Shelf (UKCS), and Scotland's industrial and demographic structure.

2.14 With population growth in Scotland expected to slow in the coming years, and the labour market already at historic highs, there is limited room for population growth or labour market participation to contribute further to economic growth. Therefore, GDP growth will now have to be driven by productivity growth. Productivity growth has been slowing in Scotland since 2004. The Commission's judgement is that this slow growth in productivity will continue in the near term, before gradually starting to increase towards historic levels towards the end of the five-year forecast. As a result, the Commission expects growth in GDP to average 0.9 per cent over the five-year forecast.

2.15 An outlook of subdued growth is based on analysis of historic trends and a judgement that these trends continue in the near future. As with all forecasts, there is a significant degree of uncertainty, and the Scottish economy could surprise in either direction if the underlying trends change, or the outcome of certain contingencies is different than expected. The final section of this chapter explores some of the key sensitivities around the core forecast.

2.16 In general, we present our economic forecasts on a financial year basis, as this is required to fulfil our statutory duty and for our fiscal forecasts.[23] To aid comparisons with other forecasters we also provide calendar year forecasts for the headline economy forecasts. Table 2.1 presents our headline forecasts on a calendar year basis compared to our December 2017 forecast.

[23] Financial year basis is the four quarter period Q2 – Q1. For example, financial year 2018-19 is the period from 2018 Q2 to 2019 Q1.

Table 2.1: Headline economy forecasts, May 2018 and December 2017, calendar year (% growth)

	2016	2017	2018	2019	2020	2021	2022	2023
GDP								
December 2017	0.4	0.7	0.7	0.9	0.6	0.9	1.1	
May 2018	0.2	0.8	0.7	0.8	0.9	0.9	0.9	0.9
Trend productivity								
December 2017	0.2	0.2	0.5	0.6	0.7	0.8	1.0	
May 2018	0.0	0.0	0.2	0.5	0.8	0.9	1.0	1.1
Nominal wage								
December 2017	3.3	2.0	2.3	2.4	2.6	2.8	3.1	
May 2018	3.4	1.1	1.6	1.8	2.2	2.6	2.9	3.2
Real wage								
December 2017	2.1	-0.3	0.1	0.5	0.6	0.8	1.1	
May 2018	2.0	-1.0	-0.5	0.0	0.2	0.6	0.9	1.2
Employment								
December 2017	-0.6	1.3	0.6	0.0	0.1	0.2	0.1	
May 2018	-0.6	1.2	0.4	0.0	0.1	0.2	0.1	0.1

Source: Scottish Fiscal Commission
Note: shading shows outturn as available at time of publication

2.17 The supplementary economy tables published alongside this document provide the main economy forecasts at calendar year, financial year and quarterly frequency.[24] In the rest of this chapter, we use the financial year basis. Another summary table is provided alongside this report containing the determinants from the economy forecasts that are fed in to the Commission's fiscal forecasts.

2.18 Table 2.2 presents on a financial year basis the Commission's headline economy forecasts including GDP, the labour market and earnings.

[24] See Scottish Fiscal Commission (2018) Scotland's Economic and Fiscal Forecasts May 2018 Supplementary Economy Tables S2.7 (link)

Table 2.2: Headline economy forecasts, constant prices, financial year (% change on previous financial year unless otherwise stated)

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Headline							
GDP	0.7	0.8	0.8	0.9	0.9	0.9	0.9
Output Gap (% of potential GDP)	0.7	0.9	0.9	0.8	0.6	0.4	0.1
Components of GDP							
Domestic Demand	-0.6	0.3	0.7	0.8	0.8	0.9	0.9
Household Consumption (1)	-1.4	0.1	0.6	0.8	0.9	1.0	1.2
Government Consumption	-1.4	0.5	0.8	0.8	1.1	1.1	0.9
Government Investment	9.1	0.0	2.8	2.8	1.3	0.6	0.2
Private investment (2)	-0.7	1.5	0.0	0.0	0.0	0.0	0.0
Exports	3.4	1.1	0.9	0.8	0.8	0.9	0.9
Imports	0.4	0.4	0.7	0.7	0.7	0.8	0.9
Net Trade (% of GDP)	-7.3	-6.8	-6.7	-6.7	-6.6	-6.6	-6.6
Labour market							
Nominal wages (3)	1.0	1.7	1.9	2.3	2.7	3.0	3.2
Real wages	-0.9	-0.5	0.1	0.3	0.7	0.9	1.2
Average earnings (4)	0.8	1.8	2.0	2.3	2.7	3.0	3.3
Total Population (thousands)	5,431	5,452	5,470	5,486	5,500	5,512	5,523
Population aged 16 to 64 (thousands)	3,494	3,495	3,492	3,488	3,481	3,472	3,463
Employment (thousands)	2,649	2,650	2,650	2,654	2,658	2,661	2,663
Unemployment (%)	4.1	4.3	4.5	4.5	4.5	4.5	4.5

Source: Scottish Fiscal Commission

1. Includes a statistical residual from deflating GDP(E) current prices data
2. Gross capital formation in the private sector
3. Nominal wages is hourly pay, estimated as compensation of employees divided by total hours worked
4. Earnings is average annual earnings from employment, specifically the product of hourly pay and average annual hours worked

2.19 The Fiscal Framework provides additional borrowing powers for Scotland in the event of a Scotland-specific economic shock.[25] The Fiscal Framework defines an economic shock as rolling quarterly 4Q-on-4Q GDP growth of below one per cent and GDP growth in Scotland one percentage point below GDP growth in the UK.

2.20 The Commission is required to present quarterly GDP growth figures for the first two years of the forecast and an assessment of whether or not a Scotland-specific economic shock, as defined by the Fiscal Framework, is expected to occur. Table 2.3 presents the Commission's forecasts of quarterly

[25] The Agreement Between the Scottish Government and the United Kingdom Government on the Scottish Government's fiscal framework (2016) (link)

GDP growth and provides analysis of whether this would be considered a Scotland-specific economic shock.

- Criterion 1: 4Q-on-4Q growth in Scotland is below 1.0 per cent
- Criterion 2: 4Q-on-4Q growth in Scotland is 1.0 percentage point below the UK

Table 2.3: Assessment of Scotland-specific economic shock

4 Quarter Growth Periods		4Q on 4Q growth in GDP (%)		Criteria		Shock
4 quarter period	Compared to	SFC May 2018 Scotland	OBR Mar 2018 UK	1	2	
2017Q2 - 2018Q1	2016Q2 - 2017Q1	0.7	1.6	Y	N	N
2017Q3 - 2018Q2	2016Q3 - 2017Q2	0.8	1.6	Y	N	N
2017Q4 - 2018Q3	2016Q4 - 2017Q3	0.9	1.5	Y	N	N
2018Q1 - 2018Q4	2017Q1 - 2017Q4	0.7	1.5	Y	N	N
2018Q2 - 2019Q1	2017Q2 - 2018Q1	0.8	1.5	Y	N	N
2018Q3 - 2019Q2	2017Q3 - 2018Q2	0.7	1.4	Y	N	N
2018Q4 - 2019Q3	2017Q4 - 2018Q3	0.8	1.3	Y	N	N
2019Q1 - 2019Q4	2018Q1 - 2018Q4	0.8	1.3	Y	N	N
2019Q2 - 2020Q1	2018Q2 - 2019Q1	0.8	1.2	Y	N	N

Source: Scottish Fiscal Commission, OBR (2018) Economic and Fiscal Outlook March 2018 (link)

2.21 The Commission's assessment is that a Scotland-specific economic shock, as defined by the Fiscal Framework, is not expected to occur. While the Commission forecasts growth in Scotland to be below one per cent, the difference between the Commission's Scottish and the OBR's UK GDP forecast is less than one percentage point.

Key judgements

2.22 Table 2.4 summarises the main judgements we make about the Scottish economy over the next five years and shows how these have changed since our previous forecast.

Table 2.4: Key economy forecast judgements

Issue	Judgement March 2018	Change since December 2017
1. The output gap	The economy is broadly on trend but operating slightly above capacity. That is, actual output is judged to be above potential output, with a small positive output gap of 0.7 per cent in 2017-18	Slight upward revision from +0.4 per cent in 2017-18
2. Trend productivity	Trend productivity growth of 0.0 per cent in 2016-17 and 2017-18. Annual growth of 0.25 per cent in 2018-19, increasing to 1.1 per cent by 2023-24	Annual growth in 2018-19 has been lowered from 0.5 to 0.25 per cent, in line with a broadly flat productivity trend observed in 2017. The previous pathway has been extended to 2023-24, with productivity growth of 1.1 per cent
3. Trend unemployment rate	4.5 per cent over the whole forecast period	No change
4. Population projections	ONS 2016-based population projections 50 per cent EU migration variant	No change
5. Forecasts of the UK	OBR UK Spring Statement March 2018 forecasts	Updated from OBR UK Autumn Budget November 2017 forecasts
6. Changing UK-EU relationship	Similar to the OBR: • The UK leaves the EU in March 2019 • New trading arrangements with the EU and others slow the pace of import and export growth • The UK adopts a tighter migration regime than that currently in place • Slower productivity growth	No change
7. Impact of UK Continental Shelf Oil & Gas activity on the onshore economy	Limited growth in capital and operational expenditure in the UKCS will mean that less demand will be generated in the onshore Scottish economy by offshore activities than in the period 2010 to 2014	No significant change
8. Savings ratio	Broadly flat over the forecast	No change
9. Second-round effects	No second round effects are quantified in the economy forecasts	No change

Source: Scottish Fiscal Commission

Developments in the Scottish economy

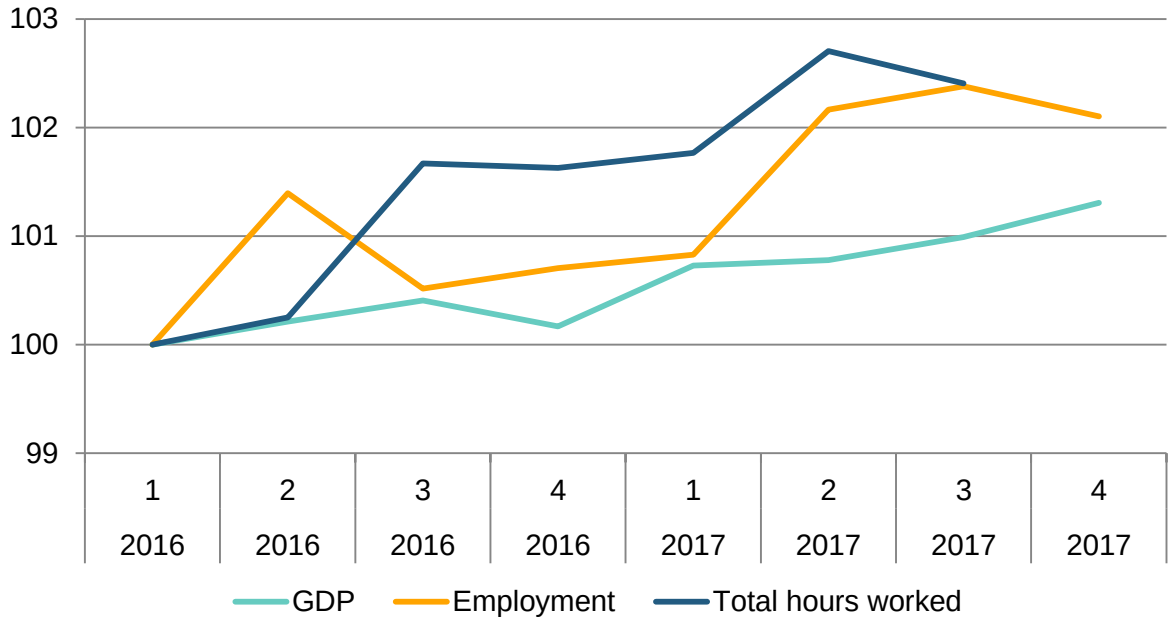
2.23 This section provides further information on the Commission's view of the main current issues in the Scottish economy:

- **The labour market, wages and productivity in 2016 and 2017:** looking at the apparent divergence in performance between the labour market and the rest of the Scottish economy
- **The outlook for wages:** taking a broader look at historic real wage growth and how this has affected our longer-term outlook for wage growth
- **Rising oil prices and oil & gas activity**
- **Impact of the UK's changing relationship with the EU**

The labour market, wages and productivity in 2016 and 2017

2.24 Despite subdued growth in the economy over the last two years, the labour market has been robust. As shown in Figure 2.1, between the start of 2016 and 2017 Q3, the last quarter for which comparable data are available, the economy has grown by 1.0 per cent, while employment and hours worked have grown by 2.4 per cent. Usually, with increasing productivity over time, one would expect to see the economy growing faster than employment or hours worked. There is an apparent disconnect between growth in output and incomes on the one hand, and growth in employment and hours worked on the other.

Figure 2.1: GDP, employment and total hours worked index, 2016 Q1 = 100



Source: Scottish Government (2018) Scotland's Gross Domestic Product Quarter 4 2017 (link), ONS (2018) Regional labour market statistics in the UK: May 2018, HI11 (link)

2.25 In itself labour market growth is a positive for Scotland. However, the disconnect between the labour market and growth in the broader economy is a puzzle. These data have two related implications. Firstly, that productivity has fallen, and secondly, that average hourly wage growth has also been weak or even negative. While this was broadly the case when we published our previous forecasts in December 2017, the latest data have led to a further reduction in estimates of productivity and wage growth, and sharpened the question about the forces underlying these changes.

2.26 The Commission models both productivity and hourly wages by taking aggregate output or earnings data and dividing it by total hours worked. In the case of productivity, we divide GDP by total hours worked, and in the case of hourly wages, we divide Compensation of Employees (COE) by total hours worked. In both cases, a sharp increase in total hours worked has reduced our estimated values for these series in 2016 and 2017. The rest of this section looks in more depth at the available data and evidence and describes the judgements we have made in our forecasts.

Productivity

2.27 Data published by the Scottish Government shows productivity has fallen between 2015 and 2017 by around 3.3 per cent.[26] The Commission's judgement is that this period of declining average productivity is due to temporary issues rather than part of a new trend. The reasons for this are:

- **Buoyancy in the labour market and above trend average hours worked.** Data on average hours worked are volatile and are currently above the Commission's estimated trend. We expect average hours worked to decline back to trend in the coming quarters. This should lead to some upwards adjustment in measured productivity. Figure 2.1 suggests this is already beginning to occur.

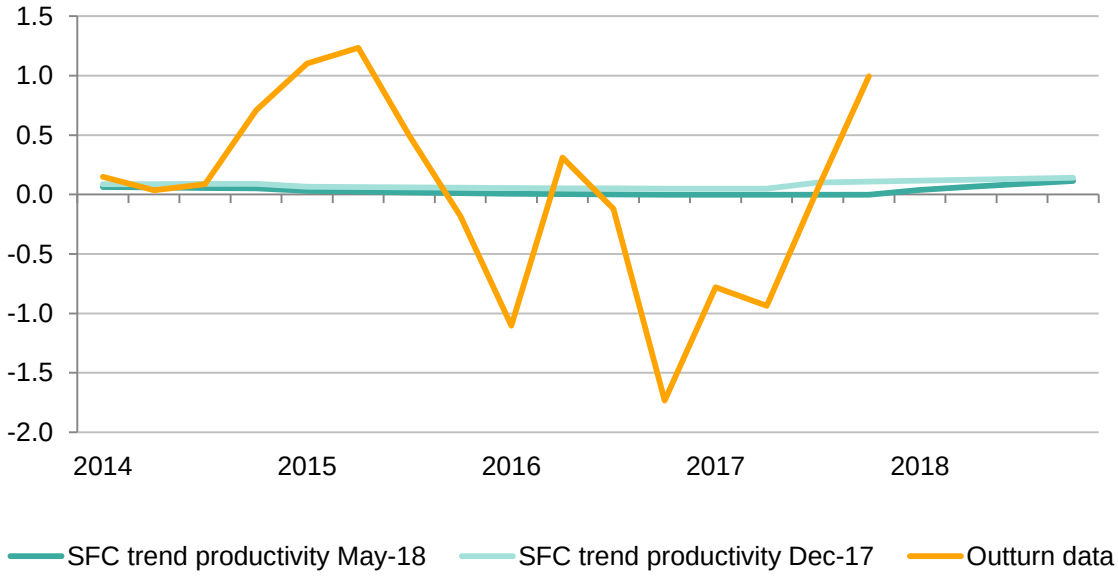
- **Falling construction industry activity in 2016 and 2017.** Output in the construction industry has fallen by 9.3 per cent over the last two years, following strong increases in output in 2015. We did not view the strong increases in construction sector output in 2015 as part of an underlying trend in the economy. We similarly view the decline in construction sector output in 2016 and 2017 as cyclical. Therefore, we exclude these particular movements from our analysis when interpreting longer term trends.

- **Weak onshore demand from UK Continental Shelf (UKCS) oil and gas activity.** Cyclical weakness over the last two years because of developments in the onshore oil and gas support industries have suppressed GDP growth but are not expected to have a persistent effect on the growth rate.

2.28 In the Commission's view, falling productivity over the last two years is because of temporary factors in the labour market and certain industries. Given the latest data, we think that underlying productivity growth will be weaker than we allowed for in our December 2017 forecasts, but not as weak as the last two years might suggest. Figure 2.2 shows our assumption for trend productivity growth relative to the outturn data.

[26] Scottish Government (2018) Labour Productivity 2017 Quarter 4 (link)

Figure 2.2: Outturn and trend productivity, percentage growth



Source: Scottish Fiscal Commission, Scottish Government (2018) Labour Productivity Statistics, 2017 Quarter 4 (link)

2.29 We have slightly revised down our estimated historic and forecast trend productivity growth during 2016 and 2017. However, because we see the reasons for recent negative productivity growth as primarily short-term and non-persistent, our outlook is still for increasing productivity growth from 2018-19 onwards. The Commission judges trend productivity growth to have been 0.0 per cent in 2016 and 2017. We expect actual and trend productivity growth to return to more positive values in the coming quarters.

Wages

2.30 To model and forecast hourly wages, we need to take a different approach from the one we take for modelling productivity. On productivity, we are primarily concerned with longer-term underlying trends, and we attempt to control for shorter-term cyclical movements in actual measured productivity. For wages, the Commission needs to model and forecast the movement of actual wages and earnings from year to year.

2.31 The availability of wages data for Scotland is more limited than for the UK, and there are issues with how timely and robust the data are.[27]

[27] The Commission highlighted this in our response to a call for views on Economic data sent to the Economy, Jobs and Fair Work Committee in September 2017 (link)

2.32 Table 2.5 provides a summary of the available wages data in Scotland. These sources provide coverage of different time periods and populations, and measure earnings on different bases, meaning the figures are not always directly comparable. Even allowing for the varying comparability of each source, the available data appear to be showing a mixed picture on wage growth in Scotland in 2017.

2.33 The Annual Survey of Hours and Earnings (ASHE), one of the largest surveys of earnings in Scotland, is currently only available up to April 2017, but does show a strengthening of gross hourly pay growth from 2016 in to 2017. HMRC has started publishing Real Time Information (RTI) data from its PAYE income tax database, covering up to 2017 Q3. This also shows a slight strengthening of earnings growth, but only provides information on average annual earnings reported through PAYE, and so is limited as a source of information about hourly wage growth. Another measure of earnings in Scotland comes from the Labour Force Survey (LFS). This shows gross weekly earnings falling in Scotland towards the end of 2017 on an annual quarter-on-quarter comparison. Finally, the Commission's primary measure of wages, which divides growth in Compensation of Employees (COE) from quarterly national accounts by total hours worked to get a measure of hourly wages, also shows a significant slowing of wage growth in 2017.

Table 2.5: Sources of earnings information for Scotland, comparable annual growth rate (%)

Source	Variable	Time period	2016	2017
ASHE	Gross hourly pay	Year to April of reference year	2.6	3.2
RTI: PAYE	Average annual earnings	4Q on 4Q growth up to 2017 Q3	1.7	2.0
LFS: GWE	Gross weekly earnings, FT only	4Q on 4Q growth up to 2017 Q4	4.0	-1.5
QNAS: COE based measure	Total COE divided by total hours worked	4Q on 4Q growth up to 2017 Q3	3.6	0.8

Source: ONS (2017) ASHE access via nomisweb (link), HMRC (2018) UK Real Time Information (link) ONS (2018) Labour Force Survey Gross weekly earnings of full-time employees by region (link), Scottish Fiscal Commission

2.34 Table 2.5 shows there is not a clear picture on earnings in Scotland, with two sources showing a strengthening in earnings in 2017 and two sources suggesting a slowing.

2.35 As with productivity, buoyancy in the hours worked data will form at least part of the explanation leading to slowing growth in the Commission's COE based measure of nominal wages in 2017. However, the LFS survey of earnings is independent of the measurement of hours worked, lending weight to a view of slowing wage growth in 2017.

2.36 This evidence from COE and LFS of slowing nominal wage growth in 2017 must be balanced against the two other sources of earnings information which paint a more positive picture of strengthening earnings growth in 2017.

2.37 On balance, the Commission expects nominal hourly wage growth to have been around 1.0 per cent in 2017-18. This is below historic norms and is a notable downward revision to our forecast in December 2017 when we estimated 2017-18 nominal wage growth to be 2.0 per cent. With inflation of 2.0 per cent in 2017-18, we expect that real wages fell by -0.9 per cent.

2.38 The Commission is primarily concerned with the pathway of total annual earnings in Scotland. To an extent, slow growth in hourly wages in recent quarters has been offset by strong growth in hours worked, leaving total earnings less affected.

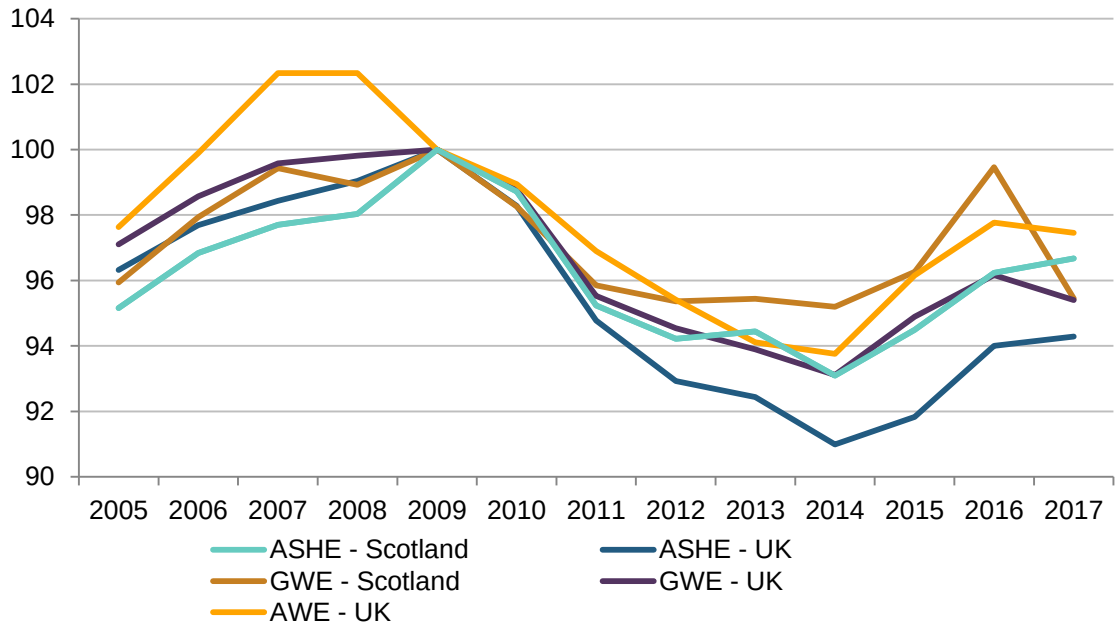
The outlook for wages

2.39 The previous section looked specifically at what the data are signalling for wage growth in 2016-17 and 2017-18, which has led us to revise down wage growth in 2017-18 in our modelling. This section looks more broadly at real wage growth, discussing longer term historic trends and the implication of this for the outlook for real wage growth.

2.40 For this forecast the Commission has looked in more depth at wage growth in Scotland over the last ten years. Further developments in the Commission's analysis, as well as consideration of the latest data, have led us to also revise down our longer term outlook for wage growth in Scotland relative to our December 2017 forecasts.

2.41 The Commission's judgement of 1.0 per cent nominal wage growth in 2017-18 is part of an on-going trend of weak nominal and real wage growth. We look across a range of evidence in building up a fuller picture. Figure 2.3 shows real wage growth in Scotland and the UK as measured by ASHE, gross weekly earnings (GWE) and average weekly earnings (AWE).

Figure 2.3: Real wages, Scotland and UK, 2009 = 100



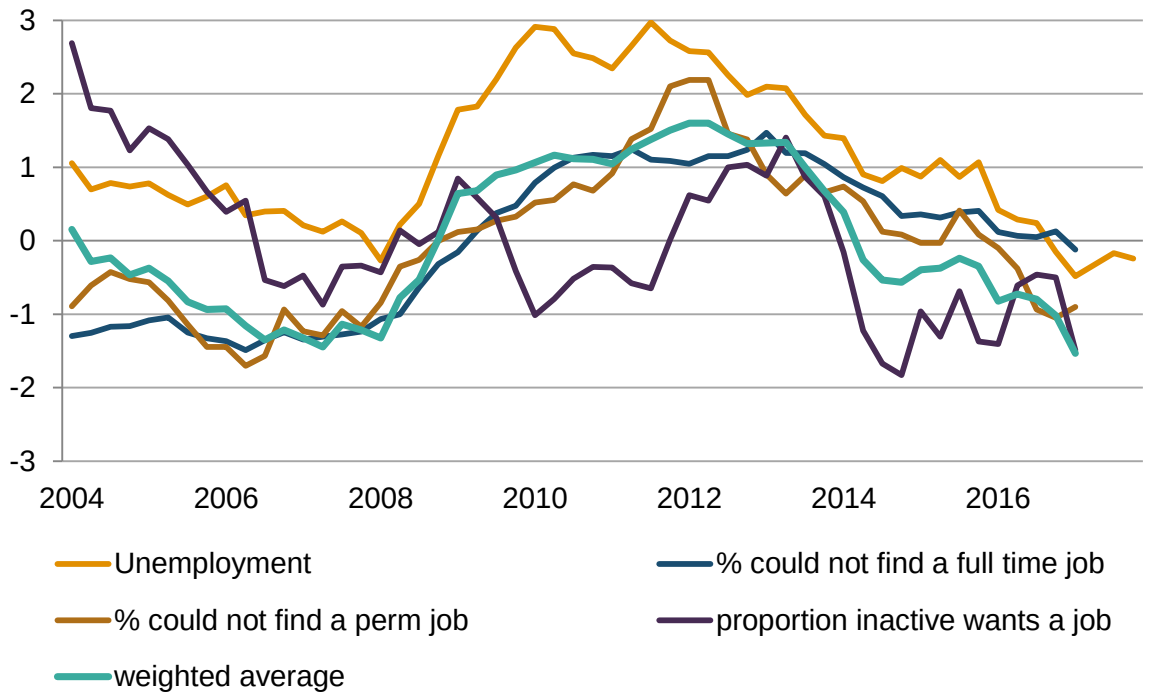
Source: Scottish Fiscal Commission
Notes: ASHE is gross mean hourly pay of all employees (link). GWE is gross weekly earnings of full-time employees only (link). AWE is whole economy annual average weekly earnings total pay (Scottish values not available) (link). Each series has been deflated using the CPI all items index (link).

2.42 As Figure 2.3 shows, real wage growth has been weak over the last decade in both Scotland and the UK. Across these indicators, real wages were lower in 2017 than in 2009, and are broadly similar to levels in 2005. For real wages to be lower than ten years earlier is exceptional. Understanding the factors leading to this period of weak wage growth is key to making a judgement for the likely outlook for wages.

2.43 Wage growth is affected by a number of factors. In the long-run, real wages are expected to grow in line with productivity. In the shorter-term, real wages can be affected by availability of labour, inflation, business profitability, uncertainty and some underlying structural factors.

2.44 The availability of labour is expected to have an impact on wages. When labour is in short supply, for example due to low unemployment, businesses have to compete to hire from a shrinking pool of potential employees, and may choose to increase wages to attract talent. To illustrate this issue, the Commission has created a composite indicator of labour market slack. This is shown in Figure 2.4 below.

Figure 2.4: Indicators of labour market slack and composite indicator

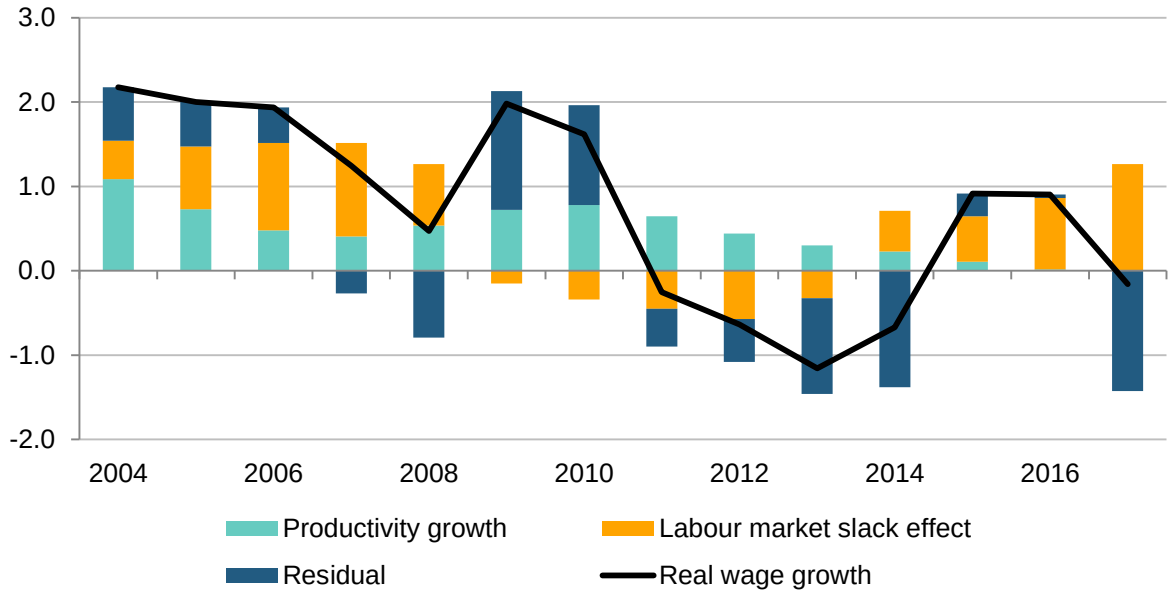


Source: Scottish Fiscal Commission
Notes: Labour market data taken from ONS (2018) Regional labour market statistics in the UK: May 2018, HI11 (link)

2.45 The Commission is using six different indicators of labour market slack from three different surveys. This includes the headline unemployment rate from the LFS, data from the Annual Population Survey (APS) on individuals who are not in permanent, full-time work but have indicated they wish to work more hours, and data from the CBI (Confederation of British Industry) industrial trends survey on recruitment difficulties. Our indicator is shown in Figure 2.4. Positive values indicate labour market slack, and negative values indicate tightness.

2.46 Figure 2.4 shows that the labour market has tightened over the last five to eight years. Not only is unemployment at historic lows, but the number of individuals who are in part-time employment, temporary employment or economically inactive and say they would like to work more hours, is also near a historic low. Normally, such a degree of labour market tightness might be expected to lead to higher earnings growth, but this does not appear to be happening.

Figure 2.5: Contributions to real wage growth (%)



Source: Scottish Fiscal Commission
Note: Real wage growth has been smoothed to aid interpretation and the figures may be slightly different to actual data.

2.47 Figure 2.5 illustrates the Commission's estimates of how productivity and labour market slack have contributed to real wage growth in Scotland since 2004. Real wage growth has been largely negative since 2010. There are more factors that affect wage growth than just productivity and labour market slack, and these are captured in the residual category.

2.48 Real wage growth has been significantly weaker than we would have expected from just looking at changes in productivity and labour market tightness since 2010. This suggests that there is an important role for one or more of the factors captured by our residual category.

2.49 This holds apart from a short period in 2015 and 2016 where real wage growth in Scotland was positive and broadly in line with productivity and labour market slack. While nominal wage growth stayed broadly the same as in previous years, inflation dropped to near zero and was very low until mid-2016, meaning positive real wage growth. As inflation picked up again towards the end of 2016, nominal wage growth remained low and stable, leading to another period of declining real wages. A slow response of nominal wages to inflation is known as wage stickiness. The disappearance of the negative wage residual in 2015 and 2016 seems therefore to have been a transient result of nominal wage stickiness rather than a longer-term change.

2.50 Taking a view of the period 2010 to 2017, real wage growth has been weak, and weaker than would have been expected given movements in productivity and labour market slack. This has important implications for the Commission's forecast. Previously we might have expected a tightening labour market to contribute to higher real wage growth in the forecast, but the recent evidence suggests there are other factors playing a significant role in wage growth in Scotland at present. These factors may continue to restrict wage growth irrespective of the degree of labour market tightness.

2.51 We think the factors acting as an additional drag on real wage growth between 2011 and 2017 included:

- Particularly in the early part of the period, the on-going impact of the financial crisis on business confidence; increasing uncertainty; and reducing profitability. Uncertainty and low profits will have resulted in more limited wage settlements.

- Other more recent factors affecting business confidence and certainty such as the changing UK-EU relationship.

- Rising non-wage labour costs further reducing the scope for higher pay awards within tight budgets, including pensions auto-enrolment and the apprenticeship levy.

- A restructuring of the Scottish economy with the loss of high-skill high-pay jobs, particularly in the oil and gas supply chain and related industries following the fall in oil prices from 2014 and declining UKCS expenditure.

- The increasing role of automation and artificial intelligence technologies in business processes. To some extent, this will have allowed businesses to avoid higher non-wage labour costs and recruitment difficulties by switching some functions towards more automated capital based processes, thus avoiding the need to offer higher pay awards in the face of a tight labour market. Such increasing automation may mean higher productivity and GDP in the long-run, but this may be reflected more in higher profits and return on capital rather than in the form of higher wages and compensation of employees.

- At the same time as a loss of medium and high-skill employment, an increase in more insecure and lower pay forms of employment, often described as an increase in the 'gig-economy'.

- From 2016 onwards, sharp declines in construction sector output and activity, which is also relatively highly paid and highly skilled.

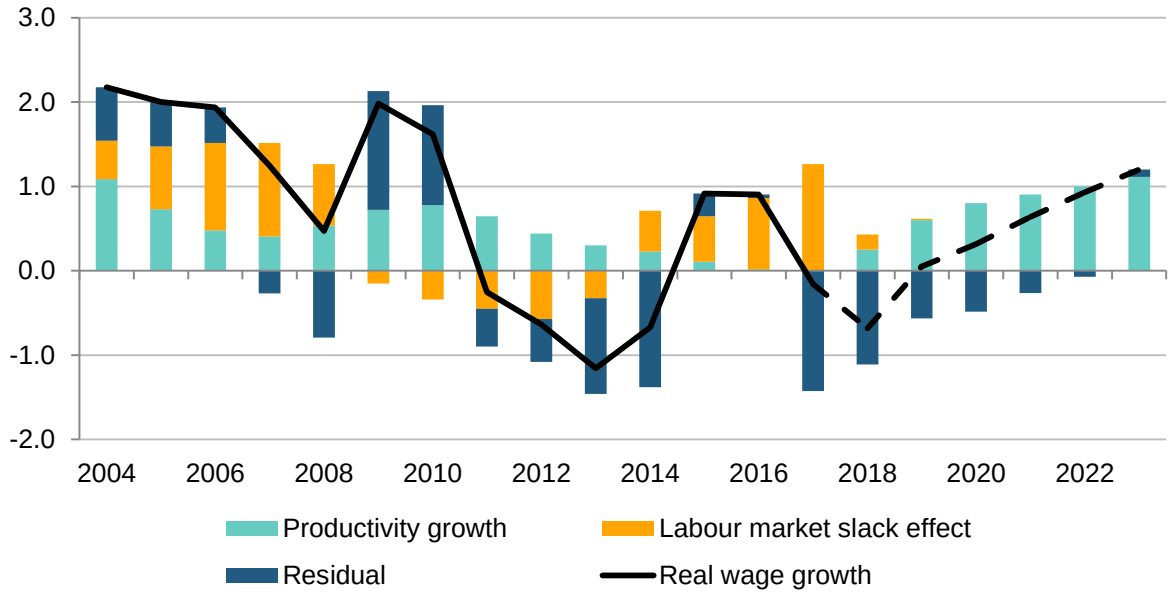
2.52 The outlook for real wage growth in Scotland depends on balancing the Commission's judgement on increasing productivity growth against the role of labour market slack and the impact of the factors discussed above. We expect real wage growth to be higher over the next five years than over the last five years, with real wage growth increasing from 2018-19 onwards. Our reasoning for this includes:

- Increasing levels of productivity over the next six years should start to feed through to real wage growth.
- The link between labour market tightness and real wage growth may appear to be weak, but we do expect on-going shortages of skilled labour to start to lead to some higher wage growth for higher earners whose skills are in demand.
- For some lower earners, growth in the national living wage will have a significant effect on pay.
- Higher public sector pay awards will lead directly to higher wage growth for those in the public sector. This may also spur higher wage growth in parts of the private sector where there is direct competition for labour.
- Confidence and activity is starting to return to the oil and gas supply chain as prices have risen. We do not think this is of sufficient magnitude to significantly alter the aggregate economic picture, but should lead to some pay growth in the sector.

2.53 These factors are expected to lead to modest increases in real wage growth in the coming years, but they will continue to be tempered by the drag factors listed above.

2.54 Figure 2.6 shows the Commission's forecast of real wages. In 2018-19, rising inflation, low productivity growth and the factors which have reduced wage growth since 2010 are expected to lead to real wage growth remaining negative. From 2019-20 onwards, real wage growth is expected to start to increase because of the factors listed above.

Figure 2.6: Contributions to real wage growth, forecast (%)



Source: Scottish Fiscal Commission
Note: Real wage growth has been smoothed to aid interpretation and the figures may be slightly different to actual data.

2.55 Real wage growth has lagged trend productivity growth since 2010. As highlighted above we think this is partly explained by capital deepening and businesses switching to greater automation. On-going tightness in the labour market may only spur this process on. There are potentially significant implications for the way future economic growth is distributed between employees via wages and business owners via profits and dividends. An overall shift in the distribution of income from labour earnings to dividends, for a given rate of economic growth, could act as a drag on future growth in Scottish Non-Savings Non-Dividend (NSND) income tax liabilities. We note this as a downside risk to the outlook for real earnings and Scottish NSND income tax liabilities.

Rising oil prices and oil & gas activity

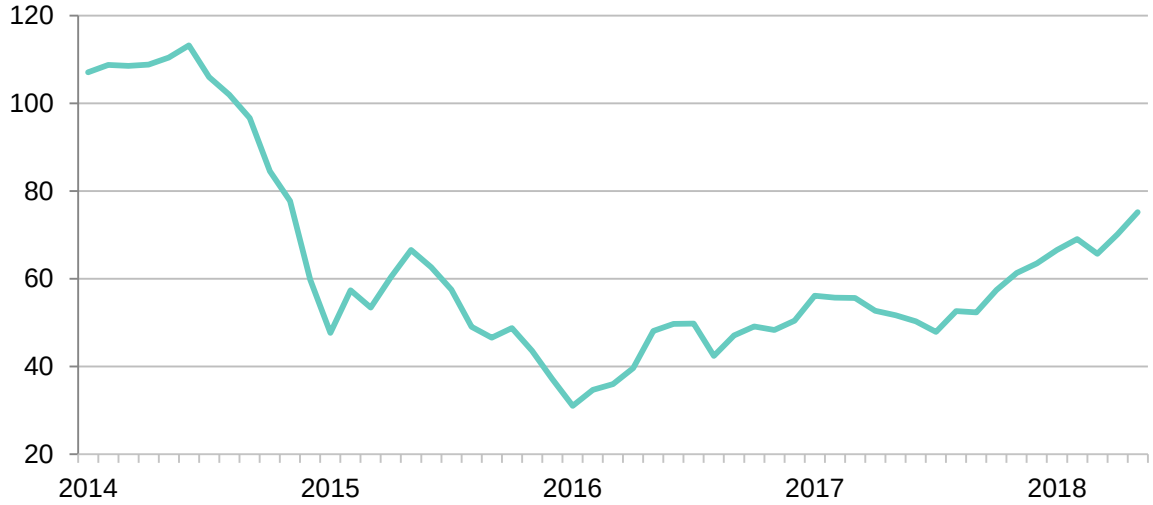
2.56 In our December 2017 report we discussed the outlook for the oil and gas supply chain industries in Scotland. Since our previous report, oil prices have increased. However, prices are only one factor affecting the oil and gas supply chain. Our broad views on the outlook for this industry are unchanged. Our belief is that over the short to medium-term the effect of UK Continental Shelf (UKCS) activity on the Scottish economy will largely be neutral, with potential downside risk if the levels of activity and investment remain low. However, given the increases in the oil price, the downside risk to the Scottish economy

from oil and gas supply chain weakness is materially lower than at the time of our December report.

2.57 As discussed in Box 2.1 of our previous report, prices, production, profits and tax revenues arising from UKCS activity do not directly affect onshore Scottish GDP. Instead, it is the demand generated by UKCS activity in the onshore oil and gas supply chain, particularly via capital and operational expenditure, that enters our forecasts.

2.58 Although the outlook for oil prices remains uncertain, oil prices have been on an upward trend since 2016, with Brent crude reaching about $75 per barrel in 2018 Q2, as shown in Figure 2.7.

Figure 2.7: Monthly Europe (ICE) Brent prices, $/barrel



Source: Intercontinental Exchange (2018) Brent Index (link)

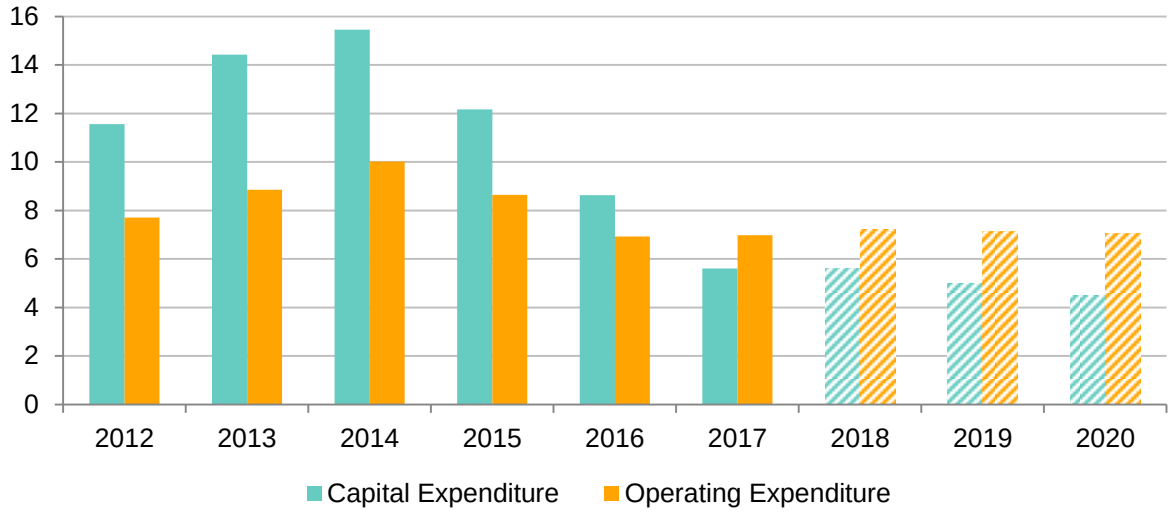
2.59 The price increase may not have an immediate effect on revenues and expenditure, but it is raising confidence within the industry. The upward trend in prices over the past two years could help ease concerns over price uncertainty. These factors could help open up new investment in the UKCS and stabilise capital spending levels, though investment can take three to five years to be commissioned and executed.

2.60 Figure 2.8 shows that total expenditure in the UKCS is expected to continue to decline, based on analysis by the Oil & Gas Authority (OGA). Following intense cost reduction since 2014, operating expenditure stabilised in 2017. Operating costs increased marginally, from £6.93 billion in 2016 to £6.98 billion in 2017 and average unit operating cost rose to £11.7/boe from £11.6/boe in 2016.[28] Operating expenditure is forecast to remain relatively

[28] boe is barrels of oil equivalent, a standardised measure of oil and gas quantities

stable, around £7 billion (£12/boe average unit operating cost), over the forecast horizon.

Figure 2.8: UKCS capital and operating expenditure, £ billion, 2017 prices



Source: Oil & Gas Authority (2018) Projections of UK Oil and Gas Production and Expenditure (link)

2.61 Capital expenditure continues to decline as major projects are close to coming on stream and the capital expenditure phase of these projects finishes. Capital expenditure was estimated at £5.6 billion in 2017, down from £8.6 billion in 2016 and a high of £15.45 billion in 2014. The fall in capital expenditures is being driven by low levels of new investment approvals as well as efficiency gains implying less capital is required. The growing confidence in the sector and upward trending prices should help unlock new investment in the short to medium-term, slowing down the decline in capital expenditures.

2.62 Our overall assessment is that the period of rapidly declining capital expenditure is coming to an end. Recent increases in confidence will help capital expenditure to start to level out over the next few years, but we do not expect it to return to the high levels seen during 2010 to 2014.

2.63 Decommissioning activity has been growing in the last few years, and continued in 2017, with expenditure rising to £1.8 billion from £1.2 billion in 2016. Decommissioning expenditure is forecast to remain consistent around £2 billion per year over the next three to five years. Efficiency improvements are extending the life of existing assets and hence mitigating the rush to decommission.

2.64 Notwithstanding the challenges with new investment as well as closure of the Forties Pipeline System late in December, the UKCS was able to maintain

production of petroleum and other liquid fuels at the same levels as in 2016, producing 1.63 million boe/day. Production increases continue to be driven by the improved efficiency of existing assets rather than the exploitation of new assets. The short-run outlook for production remains positive through effective management and efficiency improvements on existing assets. However, medium-term supply is heavily dependent on new fields coming on-stream.

2.65 Despite the trend in prices since 2016, as well as sustained high levels of off-shore production, the onshore supply chain is yet to benefit and is still dealing with the consequences of the downturn. Turnover fell by 15.5 per cent in 2016 and 2017 data indicate on-going declines in turnover across the supply chain.[29] Additionally, the number of jobs supported by the industry fell in 2017, though at the slowest pace since 2014.

2.66 The Commission's view on the UKCS and its impact on the Scottish onshore economy is largely unchanged from our previous forecasts. While acknowledging the trends in oil prices, resilience of production in UKCS and the gradual build-up of confidence in the oil and gas industry, the Commission also notes that uncertainty on the future of oil prices remains high and continues to hold back investment. Additionally, movements in Sterling-US dollar exchange rates have worked to offset some of the potential benefits of the price rise. Notably, there is limited impact on activity in the supply chain, which currently remains very low.

2.67 In December 2017 we noted the oil and gas sector as a downside risk to our economic forecast. As a result of the increases in the oil price and recent developments in the oil and gas sector, we now consider the downside risk to our forecast from the oil and gas industry to be smaller. Our view is that over the next five years, the oil and gas industry will have a limited impact on onshore growth.

2.68 Another aspect of rising oil prices is its broader impact on prices and inflation. We use the OBR's forecasts of UK inflation as a basis for its forecast. Since the OBR published their last forecasts in March, oil prices have risen by approximately 10$/barrel. This is likely to feed through to higher fuel costs and higher prices for goods and services. Higher than expected inflation as a result of increasing oil prices may also lead to an earlier and relatively sharper increase in interest rates. Recent history suggests that nominal wages have been slow in responding to changes in inflation. Rising prices are likely to be reflected in lower real wages rather than increasing nominal wages. On balance, rising oil prices and higher inflation than forecast by the OBR in

[29] Preliminary reports based on the first 9 months of 2017. For example, see EY (2018) Review of the UK oilfield services industry January 2018 (link)

March may have a negative impact on the Scottish economy. As this is not explicitly factored in to our forecast due to the use of OBR inflation forecasts, the Commission views rising oil prices as an overall downside risk to the forecasts.

Impact of the UK's changing relationship with the EU

2.69 On 23 June 2016 the UK electorate voted to leave the EU. On 29 March 2017, the British Government invoked Article 50, triggering the process for the UK to leave the EU by March 2019. At the time of preparation of our forecasts, the outcome of the negotiations remains unknown.

2.70 Since our previous forecasts, there have been a number of developments on Brexit, including the UK-EU agreement over the terms of a 'transition period'; the British Prime Minister's landmark speech on the future economic partnership with the European Union; and the approval of guidelines setting out the EU's trade negotiating position. These are discussed below in more detail. However the extent of uncertainty on the outcome and implications of the withdrawal process has not changed since December, as no agreement has yet been reached on the permanent trade, migration and other policy arrangements between the UK and the EU after Brexit.

2.71 With negotiations still taking place, there continue to be rapid political developments by the UK and EU authorities. It is likely that further headway in the Brexit discussions will be made after the publication of our forecasts, particularly following the next European Council meetings of 28-29 June and 18-19 October, with more clarity expected by December.

2.72 There is also a possibility that an EU exit agreement will be reached in October. In response to a request by the Treasury Select Committee, the OBR has confirmed that it could incorporate a prospective October EU exit agreement in its December Budget forecast to inform the Parliament's vote on the agreement, moving beyond its current Brexit assumptions as necessary.[30] The OBR have said they will consider the scope and robustness of the additional analysis involved and will assess whether this timetable can be delivered. In the same way, we will continue to monitor progress in the withdrawal negotiations and to keep our Brexit assumptions under review for future forecasts.

[30] Letter from Chairman of the OBR to Chairman of the Treasury Select Committee 23 April 2018 (link)

2.73 One of the developments since December has been the agreement of the UK Government and the European Union over the terms of a 'transition period', scheduled to last from 30 March 2019 until 31 December 2020, during which the UK would remain part of the single market and the customs union. However this will only come into effect if an overall withdrawal agreement is signed and ratified by March 2019.

2.74 The transition period would mean that there would be very little change in the UK's relationship with the EU before December 2020. Trade between the UK and the EU is expected to continue on current terms during this period. The UK will also be able, in principle, to strike future trade deals with other non-EU countries on the basis that these do not come into force until 1 January 2021. Freedom of movement will also be maintained. EU citizens and their families arriving during the transition period will be allowed to live, work and study in the UK on the same conditions as those who arrived before the referendum, but will need to register if they choose to remain for longer than three months. As under existing rules, they can apply to stay indefinitely by acquiring 'settled status' once they have been in the UK for five years.

2.75 Currently there are no firm plans about the UK's future immigration system and the new rules to control the number of EU migrants coming to the UK after the end of the transition period. Discussions about the Irish border imply that EU citizens will continue to enjoy visa-free travel to the UK, and any controls on employment will primarily be operated in the workplace rather than at the border. The outcome for EU citizens will depend on further policy development by the UK authorities and on the continuing negotiations with the EU.

2.76 There is also on-going uncertainty over the future UK-EU economic partnership. While more information has become available since our last forecast about the respective trade negotiating positions, the outlook is unclear. The British Prime Minister remains committed to leaving the single market and the custom union, and has put forward proposals for a new kind of trade agreement which is different from existing trade models between the EU and other countries.[31] The aim of this bespoke agreement is to maintain the freest possible access to the single market for services and to avoid the creation of regulatory barriers, while allowing the UK to set up its own trade deals around the world. On the other hand, the EU guidelines approved by the European Council of 23 March 2018 offered a close future relationship based on a classic free trade agreement, which would maintain zero tariffs and quotas on goods but covering limited services and with controls for rules of

[31] UK government (2018) Prime Minister's Speech on the future economic partnership with the European Union, 2 March 2018 (link)

origin likely to apply. Discussions on a number of key issues such as agricultural policy and regulatory co-operation are still underway. In addition, there are important unresolved issues concerning the Irish border and the inclusion of the financial services sector in the future Brexit deal. It therefore remains unclear what the new trade and regulatory arrangements will be after Brexit and how the economic ties between the UK and the EU will be affected.

2.77 At present, there is no meaningful basis for predicting any particular end-point of this process on which to base our economy forecast. Even given a particular end-point of the negotiation process, the economic and fiscal implications would remain highly uncertain.

2.78 In response to this uncertainty, the OBR uses broad-brush assumptions about the outcome of the negotiation process and the impact on the UK economy. These assumptions are that:

- the UK leaves the EU in March 2019
- new trading arrangements with the EU and others slows the pace of import and export growth
- the UK adopts a tighter migration regime than that currently in place

2.79 For our December 2017 forecasts, we adopted a similar set of assumptions about both the potential outcome of the negotiation process and the resultant impact on the economy. These reflect a range of potential outcomes and impacts. We are not attempting to pinpoint the exact impact of UK-EU exit on the Scottish economy. Nor do we consider a counter-factual case of no UK-EU exit. Our focus is the impact on the economy over the forecast horizon of five years. The full impacts of the UK-EU exit, both positive and negative, are likely to play out over a much longer time horizon.

2.80 The Commission's judgement is that the OBR's broad-brush assumptions continue to provide a suitable starting point for capturing the potential impacts on Scotland. We have therefore retained the same basic assumptions about the possible impact of Brexit that we made in our December 2017 forecasts.

2.81 Following the existing basic assumptions, the Commission captures the impact through three channels:

1. Impact on migration – we use the ONS 50 per cent EU migration variant, with projected lower EU migration than in the principal projection. This is slightly different to the principal population projection used by the OBR for the UK.

2. Impact on productivity – we are forecasting slow growth in productivity, in part due to UK-EU exit
3. Impact on trade – Using OBR assumptions, we forecast slower growth in Scottish international trade

2.82 These are discussed in more depth in the next sections. Our judgement on the UK-EU negotiations was formed based on information available up to the time of the economy forecasts closing on 11 May 2018. New information arising since this date and before publication of this report would not significantly alter the Commission's view.

The long-run, productivity and potential output

2.83 Our outlook for long-run trend growth in Scotland is summarised in our assessment of the potential output of the economy.

2.84 Potential output describes the maximum amount of output the economy can sustainably produce. While the economy may vary above or below potential output from one year to the next, potential output acts as the anchor for our forecasts over the longer-term.

2.85 To build a picture of potential output, we separately forecast population, the labour market and productivity. We set out our approach to modelling and forecasting potential output in March 2018.[32] The approach used in these forecasts is largely unchanged since our March paper and our forecasts published in December 2018.

2.86 This section presents:

- an update on the Commission's outlook for productivity
- the Commission's judgement on long-term potential output

Productivity

2.87 The growth rate of productivity appears to have been slowing since 2004, with the financial crisis exacerbating this trend. The Commission estimates that trend productivity in Scotland has grown at an average of 0.4 per cent per year since 2008, compared to an average growth rate of 1.5 per cent per year prior to 2008. Our judgement on productivity is a balance between the more recent observations and the longer-term trend, as shown in Figure 2.9.

[32] Scottish Fiscal Commission (2018) Forecasting the long-run potential of the Scottish economy March 2018 (link)

2.88 We have reduced our assumption for trend productivity growth in 2018-19 from 0.5 per cent to 0.25 per cent. This is due to both new data released since our previous forecasts in December 2017 and further reflection on the overall pathway of productivity. As discussed in the section 'Developments in the Scottish Economy', productivity fell over 2016 and 2017. We view this as temporary. Our estimate of trend productivity growth over 2016 and 2017 is 0.0 per cent.

2.89 We expect the growth rate of productivity to gradually increase in the coming years from its current low level. Our reasoning for this includes:

- The available historic data show productivity in Scotland and the UK growing steadily at around 2 per cent for several decades up to around 2008. We place some weight on this longer history of productivity growth. Over time, we expect the growth of productivity to at least partially return to these historic rates.

- One way in which productivity increases over time is through improving technology and innovation. Productivity growth has been slow over the last decade, and this appears out of step with rapid improvements in technology in some areas. These include greater machine automation, artificial intelligence and machine learning, improving connectivity and the bedding in of the digital economy. Over time, these technologies should support higher productivity growth.

- Some of the weakness in trend productivity will be related to the 2008 financial crisis. Over time, we would expect the impact of this on the economy to lessen.

- The labour market is now very tight, with firms struggling to recruit. Firms looking to expand will struggle to do so via hiring more labour. Instead, firms wanting to expand will have to do so by either improving the skills of their existing workforce, or by investing in capital to expand production. Either way, labour productivity would improve.

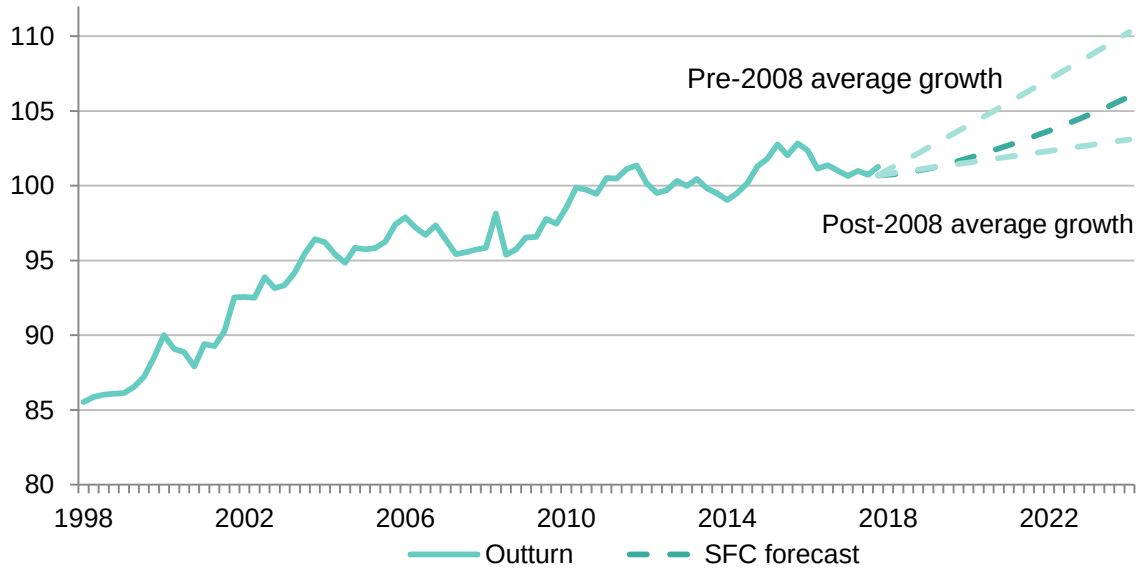
2.90 The Commission judges that the changing relationship between the UK and the EU will weigh on productivity growth. An open and trading economy, with strong flows of foreign labour and investment, is generally believed to provide for higher growth in productivity – all else being equal. Lower levels of trade and migration, and a lower level of economic openness more generally, adds to the judgement that productivity in Scotland will grow at a slower rate than may otherwise have been the case over the next five years.

2.91 Our core judgement on productivity is that the growth rate will remain at low levels in the near future before gradually returning towards historic levels. This would have been the case even without the additional impact of UK-EU exit. The likely impacts of UK-EU exit reinforce our expectation of low productivity growth over the next five years.

2.92 Productivity growth has been slowing in Scotland since 2004, and the Commission expects trend productivity growth to have slowed to zero over the last two years. The factors leading to this period of exceptionally slow growth are expected to continue to suppress productivity growth in the short term. However, the Commission does expect productivity growth to start to gradually recover from 2018-19 onwards.

2.93 From growth of 0.25 per cent in 2018-19, we assume trend productivity growth reaches 1.1 per cent per year by the end of the forecast horizon. This is below the pre-2008 average of 1.5 per cent per year. Growth in trend productivity is a key uncertainty in our forecasts and we present sensitivity analysis in the section 'Forecast sensitivities'.

Figure 2.9: Historic productivity and forecast, constant prices (2014 = 100)

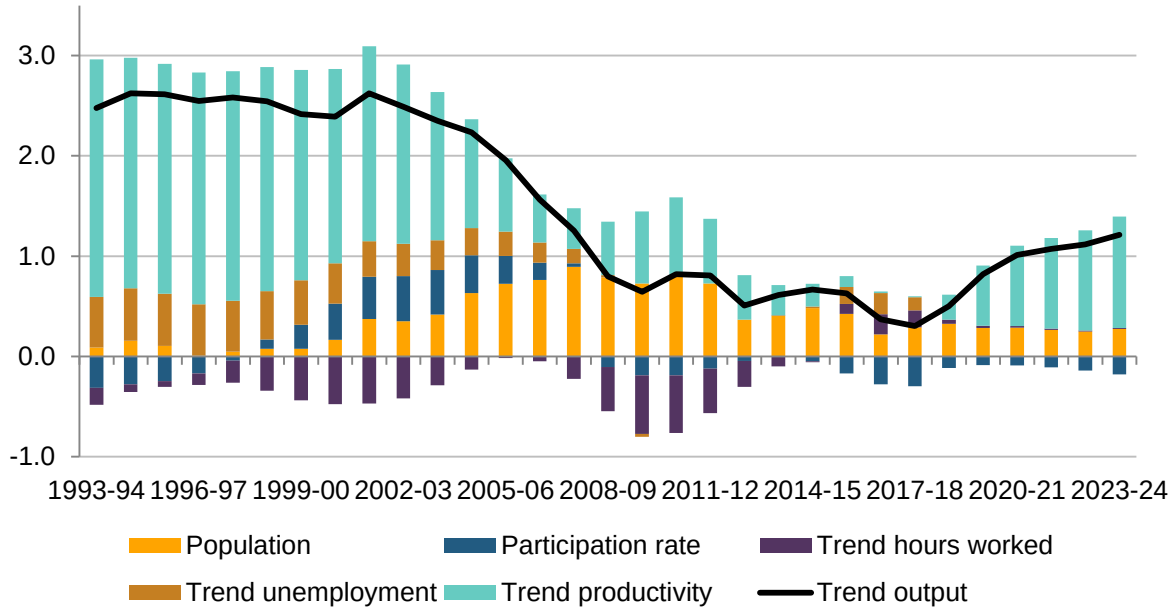


Source: Scottish Fiscal Commission

Forecast of potential output

2.94 Our forecast of potential output is shown in Figure 2.10 and Table 2.6, which includes the contribution of each component.

Figure 2.10: Potential output and contribution of components, financial year per cent growth



Source: Scottish Fiscal Commission

Table 2.6: Growth of potential output and contribution of components

		Contribution of component of potential output (%)				
	Potential output growth (%)	16+ population	16+ participation rate	Trend unemployment rate	Trend average hours worked	Trend productivity
2016-17	0.4	0.2	-0.3	0.2	0.2	0.0
2017-18	0.3	0.3	-0.3	0.1	0.2	0.0
2018-19	0.5	0.3	-0.1	0.0	0.0	0.3
2019-20	0.8	0.3	-0.1	0.0	0.0	0.6
2020-21	1.0	0.3	-0.1	0.0	0.0	0.8
2021-22	1.1	0.3	-0.1	0.0	0.0	0.9
2022-23	1.1	0.2	-0.1	0.0	0.0	1.0
2023-24	1.2	0.3	-0.2	0.0	0.0	1.1

Source: Scottish Fiscal Commission

Short-run forecasts

2.95 This section sets out our analysis on what is happening in the Scottish economy today and our forecasts for 2018 Q1 and Q2. It is important to take

caution when analysing short-run economic performance as it is often significantly influenced by one-off events in sectors that experience high short-run volatility in output.

2.96 Recent data releases indicate that the economy continues to grow below historic trends. Over the year, 2017 saw subdued economic performance with GDP growth of 0.8 per cent - which compares to our estimate of 0.7 per cent published in our last forecasts. This follows weak performance in 2016 when the economy grew by 0.2 per cent. The major drag to economic growth in 2017 has been construction, which fell by 3.7 per cent compared to 2016.

2.97 On a quarterly basis, the economy picked up modestly in the final quarter of the year, growing by 0.3 per cent in 2017 Q4 after registering 0.2 per cent growth in 2017 Q3. The quarterly outturn data compares to our previous forecasts of 0.1 per cent and 0.2 per cent for Q3 and Q4 respectively. Following the performance in 2017, our expectations for Scottish economic growth remain modest for 2018.

2.98 In spite of the subdued aggregate economic performance, the Scottish labour market performed robustly in 2017 and going into 2018. However, on a quarterly basis, it was slightly weaker in Q4 compared to Q3; the employment rate fell by 0.3 percentage points in Q4 while the unemployment rate rose by 0.2 percentage points. Over the year, the employment rate in Scotland averaged 74.7 per cent in 2017, compared to 73.7 per cent in 2016. The unemployment rate remains very low averaging 4.2 per cent in 2017. The increase in the employment rate has mainly been driven by a fall in economic inactivity.

2.99 The headline CPI inflation rate in the UK increased rapidly over the last year. Annual inflation averaged 2.7 per cent in 2017 compared to 0.7 per cent in 2016. In the last quarter of 2017 inflation peaked at 3 per cent. Depreciation of Sterling was the primary cause of the rapid rise in inflation. The value of Sterling seemed to stabilise in 2017 Q4 and the beginning of 2018. As a result the impact on inflation of the depreciation will fade. Inflation has started to fall at the beginning of 2018, with recent releases showing annual inflation of 2.5 per cent in the year to March 2018, the lowest in a year. The Commission's view is that inflation will continue to move towards the Bank of England's inflation target in 2018.

2.100 As discussed in the section 'Developments in the Scottish Economy' there have been mixed signals on wage growth in 2017 from different data sources. The Commission expects nominal wage growth to have been 1.0 per cent in 2017, weaker than the 3.0 per cent nominal wage growth in 2016. Despite

tightness in the labour market, nominal wage growth is expected to only gradually increase in the coming year as real wages gradually rise.

2.101 While the fall in the value of Sterling has increased inflation, it has provided some support to net trade in the last year. In 2017, Scotland saw stronger growth in global exports compared to growth in global imports. This has been supported by growth recorded in international export markets. While most of Scotland's trade is with the rest of the UK, and net trade has been on average detracting from GDP growth since 2010, we expect net trade to make a positive contribution to growth in 2018-19 on the back of the Sterling depreciation and global export market growth.

2.102 Looking at 2018, severe weather in early March will affect economic data for 2018 Q1. Heavy snowfall meant travel was severely restricted, affecting operations of a large number of businesses and organisations. Sectors such as construction and retail would have been particularly hard hit. Offsetting some of the negative impacts, a large number of people worked from home, and some lost spending and activity will have been shifted to later in the quarter or into the next quarter. Despite a slight pick-up in growth towards the end of 2017, we forecast quarter on quarter growth of 0.1 per cent for 2018 Q1, with the growth rate picking up in later quarters.

2.103 The impact of the severe weather events aside, unofficial Scottish economic indicators showed a mixed but slightly more positive picture of business sentiment at the beginning of 2018 when compared to 2017, particularly in the services sector. The Bank of Scotland headline Purchasing Managers Index (PMI) indicates a marginal increase in the first three months of 2018. After a slight contraction in February, it indicated that output began to grow again in March, driven largely by expansion in the service sector. The Scottish Chambers of Commerce (SCC) Quarterly Economic Indicator survey for 2018 Q1 reported strong business investment growth over the quarter and increased optimism across most sectors, with a positive outlook for sales, investment and job creation. However, the survey warned that construction activity will remain fragile and recruitment difficulties will persist. In 2018 Q1 the retail sales index for Scotland showed that both retail sales volumes and sales values grew by 0.5 per cent.

2.104 Surveys of the production industries were less positive than for the service industries. The latest CBI Industrial Trends Survey of Scottish manufacturing firms signalled contraction in output, total new orders and employment in the first quarter of 2018. The Scottish Engineering Quarterly Review signalled increasing optimism in the Engineering and Manufacturing sector, with domestic and overseas orders, output and staffing levels all increasing in 2018 Q1.

2.105 For households in 2018 Q1, the Scottish Consumer Sentiment Indicator was on a negative balance of -1.8. The indicator rose by 2.4 points compared to the previous quarter, implying weak but improving sentiment among households.

2.106 Table 2.7 presents the Commission's short-run quarterly economic forecasts. Overall, including our short-run forecasts, we estimate GDP growth to be 0.8 per cent in 2018-19.

Table 2.7: Quarter on quarter growth rates, outturn and forecast, (%)

Quarter	GDP	Employment	Nominal wages
2017 Q1	0.6	0.1	0.4
2017 Q2	0.1	1.3	0.5
2017 Q3	0.2	0.2	-0.0
2017 Q4	0.3	-0.3	0.4
2018 Q1	0.1	0.1	0.4
2018 Q2	0.2	0.0	0.5

Source: Scottish Fiscal Commission, Scottish Government (2018) Quarterly National Accounts Scotland Quarter 4 2017 (link), ONS (2018) Labour Force Survey April 2018 (link)
Note: Shaded cells are outturn

The medium-term outlook and the output gap

2.107 This section presents further detail on forecasts of:

- The current output gap
- The labour market
- Wages, earnings and household incomes
- GDP and the components of expenditure
- Pathway of the output gap over the forecast horizon

The current output gap

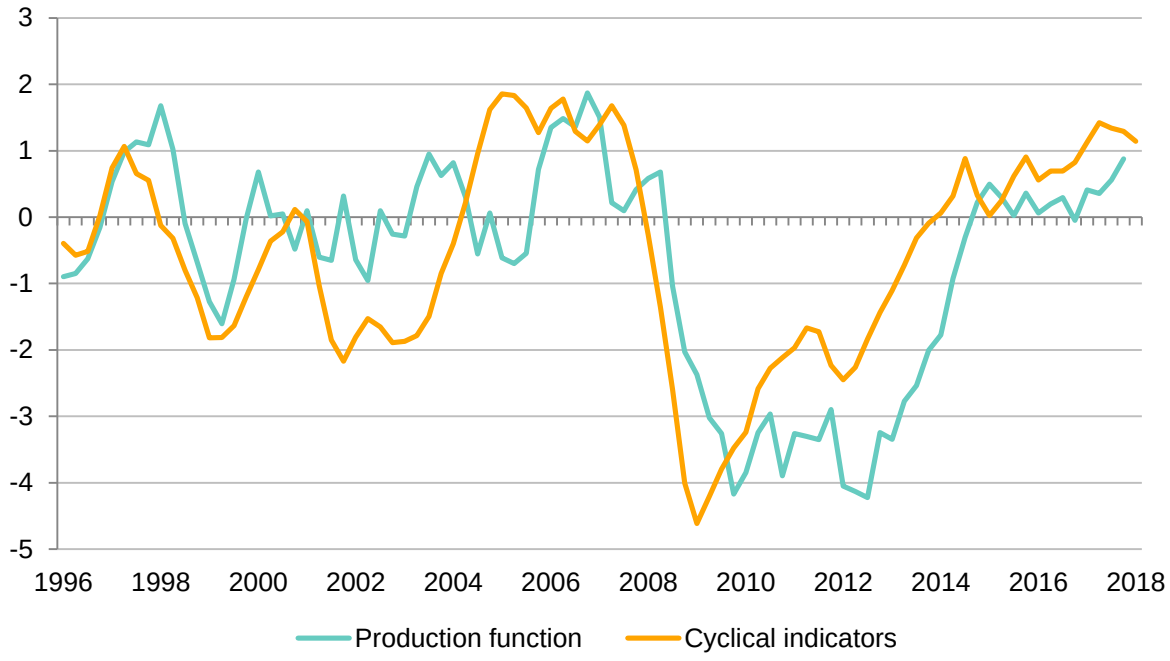
2.108 Potential output is the maximum amount of goods and services the economy can sustainably produce given sufficient demand. We estimate potential output directly by considering trends in the population, the labour market and productivity.

2.109 The difference between the Commission's estimates of potential and actual output determines the output gap in the economy. Our forecasts assume that the output gap will narrow over the forecast horizon, broadly returning actual GDP to its estimated long-run trend.

2.110 As highlighted in our December 2017 forecast, the low unemployment rate, the low savings ratio, the temporary boom in the construction industry and slow productivity growth are all factors supporting our view that the economy is operating above capacity. Our modelling of recent trends, which we call our production function approach, suggests a positive output gap in 2017-18 of 0.7 per cent. This is a slight upward revision from 0.4 per cent in our previous forecast, and reflects weaker-than-expected trend productivity and lower potential output in 2017-18.

2.111 We compare this implied output gap against market intelligence and the surveys of spare capacity in the economy. At present, surveys of businesses in Scotland suggest they are operating above capacity. We aggregate the results of these surveys together as an alternative indicator of the output gap in Scotland. We refer to this as the cyclical indicators approach. Both of our approaches to estimating the output gap in Scotland suggest a positive output gap today as shown in Figure 2.11.

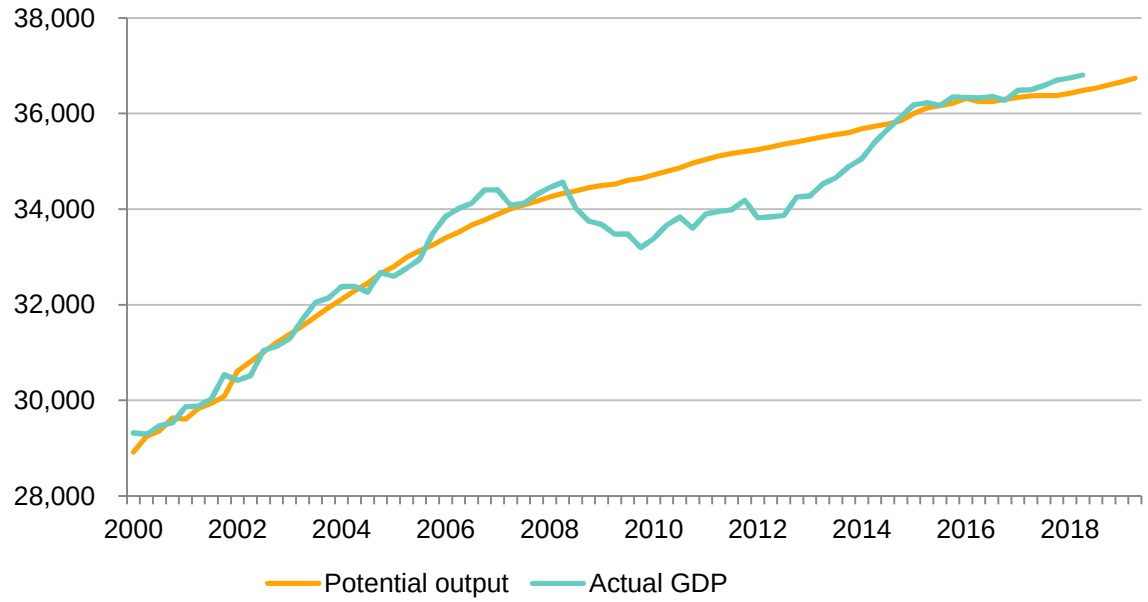
Figure 2.11: Scottish output gap comparison, % of trend GDP



Source: Scottish Fiscal Commission

2.112 While the production function provides our primary estimate of the output gap, analysis of cyclical indicators gives us additional confidence in our judgement. Figure 2.12 shows actual output and our estimates of potential output.

Figure 2.12: Actual GDP and potential output, quarterly £ million 2015 constant prices



Source: Scottish Fiscal Commission, Scottish Government (2018) Quarterly National Accounts Scotland Quarter 3 2017 (link)
Notes: Actual GDP series includes Scottish Fiscal Commission short-run GDP forecast.

2.113 Our judgement is that the economy, after a period below potential, is now operating close to capacity, with a small but positive output gap. That is, the economy is understood to currently be operating slightly above its potential. The scale of the output gap is significantly less than that seen just before the financial crisis.

2.114 Growth of potential output and the size of the output gap today are both critical judgements for the five year forecast. For the positive output gap to close over the forecast horizon, the growth rate of actual GDP must, on average, be below the growth rate of potential GDP. This is reflected in our current forecasts.

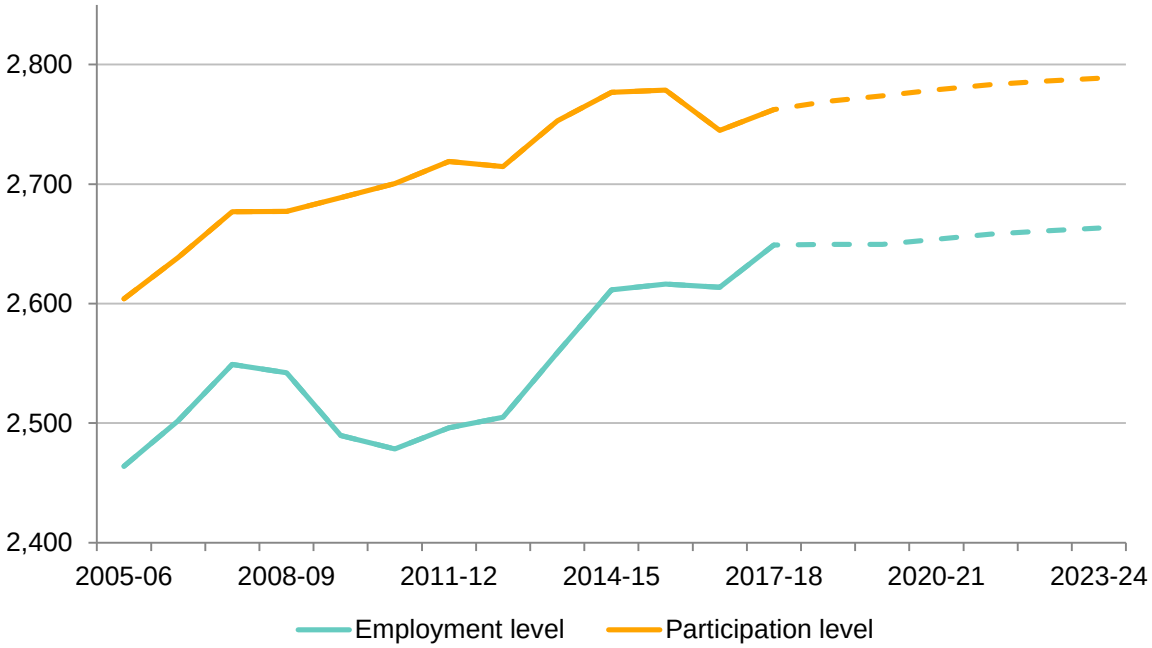
The labour market

2.115 The unemployment rate in Scotland is near a historic low of around 4 per cent, which is unlikely to be sustainable as businesses struggle to find labour. The latest set of quarterly economic indicators published by the Scottish Chamber of Commerce highlighted that recruitment difficulties continue to be a concern in a number of sectors.

2.116 Given the recent very low levels of unemployment, the Commission has retained its judgement on the long-run trend rate of unemployment of 4.5 per cent.

2.117 We assume the unemployment rate will gradually return to this trend rate over the forecast horizon. Despite this slight increase in the unemployment rate from four per cent, because of the increasing size of the labour force, the employment level is expected to increase over the forecast horizon, as shown in Figure 2.13.

Figure 2.13: Employment and participation level, outturn and forecast, thousands of individuals



Source: Labour Force Survey (link), Scottish Fiscal Commission, ONS (2018) Regional labour market statistics in the UK: May 2018, HI11 (link)

2.118 Due to the current low level of unemployment and slower growth in the participation level, the employment level is expected to increase modestly compared to recent years.

Wages, earnings and household incomes

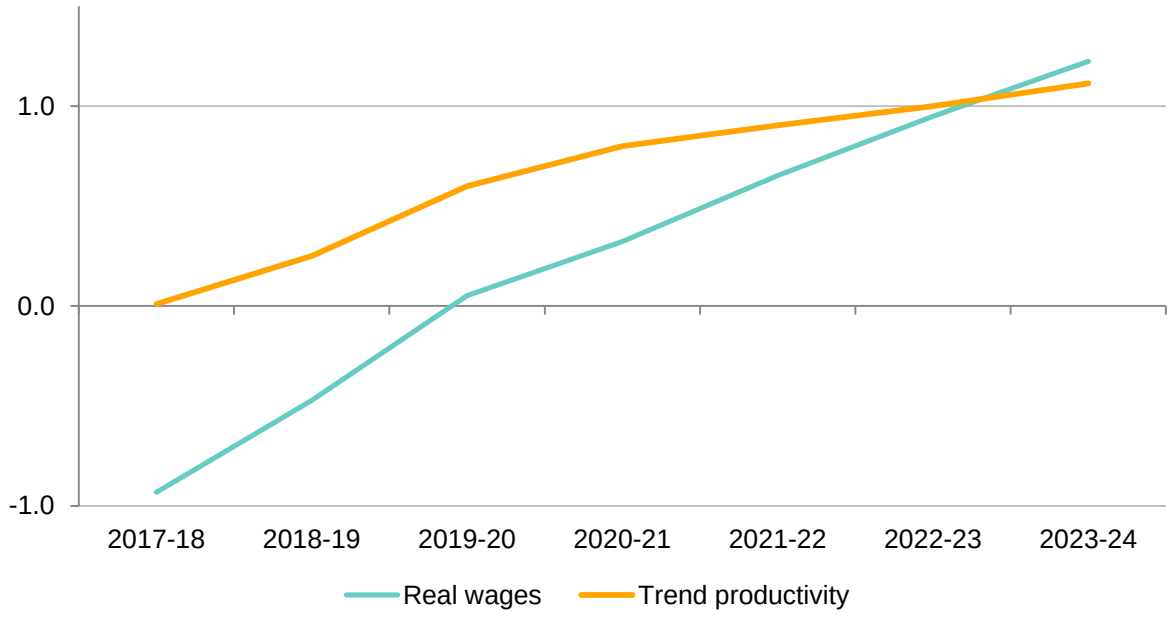
2.119 Wages are the hourly pay of those in employment. Average earnings are the total average annual pay of those in employment and are determined by average hours worked as well as average wages. Wages and employment are the main determinants of household income. Other determinants include

taxes, other sources of income such as income from wealth and from social security.

2.120 Real wage growth has been weak since 2010, with negative real wage growth in most years. The section 'Developments in the Scottish Economy' set out our view on the outlook for real wage growth in Scotland. Slow wage growth is explained in part by slow growth in productivity. However, wage growth has been slower still than might be expected given growth in productivity, and has also failed to increase in recent years despite tightening labour market conditions.

2.121 The section 'Developments in the Scottish Economy' sets out a number of reasons why we expect real wage growth to start to increase over the forecast horizon, including growth in productivity and on-going labour market tightness. We expect real wage growth to remain negative in 2018-19 at -0.5 per cent, gradually increasing to 1.2 per cent by 2023-24. This is stronger real wage growth than in recent years, but still below typical levels of historic real wage growth of around two per cent. This is shown in Figure 2.14.

Figure 2.14: Forecast real wages and productivity, annual growth (%)



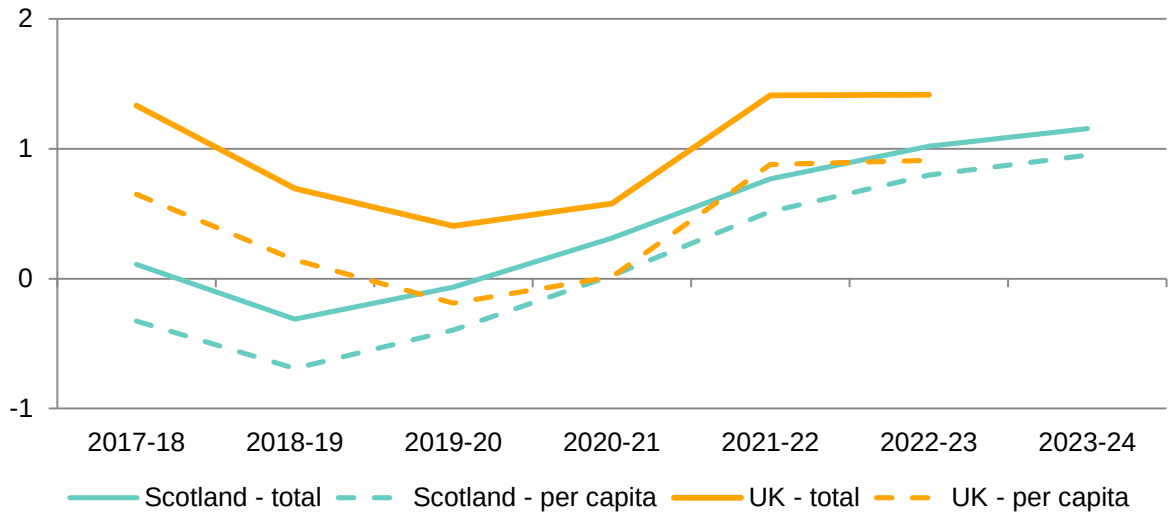
Source: Scottish Fiscal Commission

2.122 With inflation broadly flat at around two per cent, we expect nominal wage growth to pick up from 1.7 per cent in 2018-19 to 3.2 per cent in 2023-24.

2.123 Average hours worked in Scotland have been falling for some time, though this trend is expected to flatten out over the forecast horizon. Changes in average hours worked are not expected to have a significant impact on total household earnings.

2.124 Real disposable household income (RDHI) takes into account income from employment, from other sources such as dividends and the impact of changes in direct household taxes and social security transfers including pensions. Limited growth in real wages and employment means limited growth in average RDHI, shown in Figure 2.15

Figure 2.15: Real disposable household income, Scotland and OBR UK forecasts, total and per capita, financial year growth (%)



Source: Scottish Fiscal Commission, OBR (2018) Economic and Fiscal Outlook March 2018 (link), Scottish Government (2018) Quarterly National Accounts Scotland Quarter 3 2017 (link)

2.125 In line with the OBR, we forecast limited growth in RDHI per capita driven by slow growth in real wages. Because of slower population growth in Scotland, growth in total RDHI is only slightly above growth in RDHI per capita. Growth of RDHI is the main determinant of aggregate consumption.

GDP and the components of expenditure

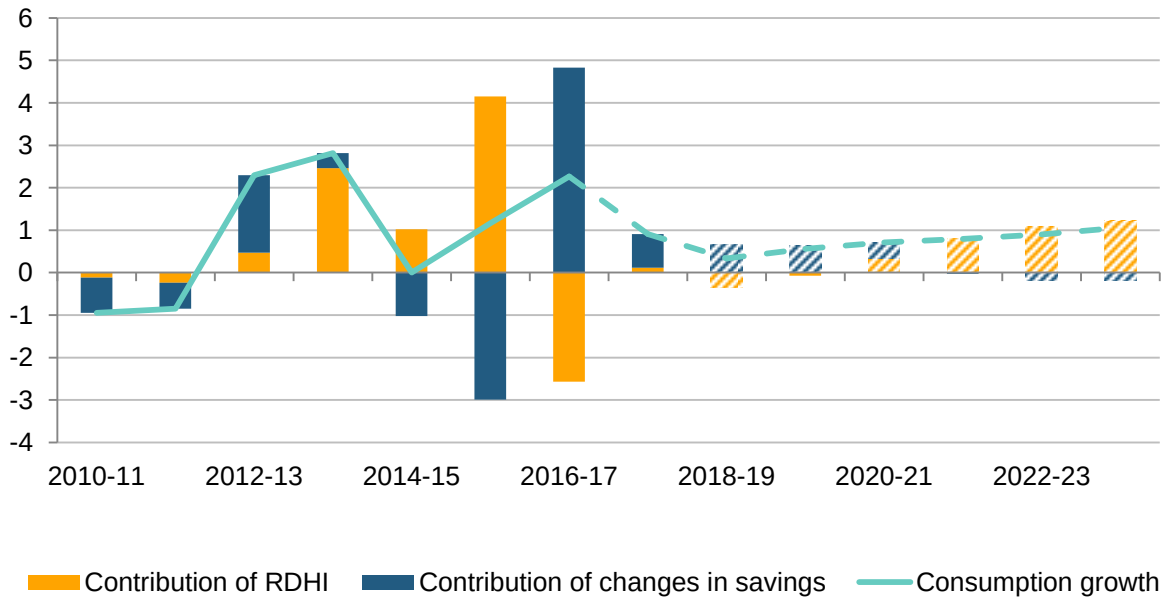
2.126 The Commission forecasts consumption, investment, government spending and net trade separately. These sum to create a pathway for GDP.

Consumption

2.127 During the period 2010-11 to 2016-17, consumption growth has been supported by households reducing their savings, running down their financial assets or borrowing more. In our previous forecast we expected the rate of decline in the savings ratio to slow down in 2018-19 and remain flat for the rest of the forecast. Our view on the pathway for the savings ratio is broadly unchanged from December 2017. As shown in Figure 2.16, we expect households to continue to reduce their savings rate, supporting consumption growth at the start of the forecast horizon. However, the positive contribution of changes in savings becomes increasingly small in later years.

2.128 With growth in RDHI near zero and the savings ratio already close to a historic low, growth in consumption was slow in 2017-18 and is forecast to remain close to this low level for the next two years. As the growth rate of RDHI picks up from 2020-21 onwards, consumption will start to recover. However, this growth will be tempered relative to previous years because of the neutral role of the savings ratio.

Figure 2.16: Consumption by contribution of components: RDHI and dis-saving, outturn and forecast, financial year growth rate (%)



Source: Scottish Fiscal Commission

Investment (private gross capital formation)

2.129 Private sector gross capital formation (GCF), more loosely referred to as investment, is a historically volatile component of GDP. Historically, investment is a small component of GDP growth, contributing on average 0.2 percentage points to annual GDP growth.

2.130 Investment has been weak in Scotland in recent years, largely falling since 2015. After recent contractions we expect a small bounce-back effect in 2018-19, with investment making a small but positive contribution to GDP growth in this period.

2.131 For the five-year forecast horizon, on-going economic uncertainty, driven by weakness in the UKCS and UK-EU exit, is likely to limit investment growth in Scotland. In the later years of the forecast, investment is therefore expected to flatten at the level achieved in 2018-19, neither contributing to or detracting from GDP growth from 2019-20 onwards.

Government

2.132 The public sector, including consumption and investment spending, accounts for over a quarter of the economy. Government spending is driven less by the economic cycle, and more by UK Government and Scottish Government policy decisions. The Commission models UK and Scottish Government spending plans to estimate the impact on GDP. The impact of changes in direct household taxes and social security policy is captured through its impact on RDHI, as discussed in the previous section.

2.133 For UK Government and local authority spending in Scotland, we use the latest OBR forecasts from March 2018.

2.134 For Scottish Government spending, the Commission asked the Scottish Government for its five-year spending plans as would be outlined in the Medium-Term Financial Strategy (MTFS). The baseline set of spending projections provided by the Scottish Government, covering the period up to 2022-23, are shown in Table 2.8.

2.135 Table 2.8 also illustrates the Commission's forecasts of general Government consumption expenditure and general Government capital investment in current prices. This combines the spending projections provided by the Scottish Government with the Commission's forecasts of UK Government and local authority spending in Scotland.[33] The constant-price forecasts of public

[33] General Government includes all levels of government spending in Scotland, that is, local authority, Scottish Government and UK Government spending.

sector output, also reported in Table 2.8, are obtained using the OBR's assumption that, for any given forecast of nominal government consumption or investment growth, around half will be reflected in real growth and half in the implicit deflator.

2.136 The MTFS capital spending figures include the support of capital borrowing available under the provisions of the Scotland Act 2016. The Scottish Government has confirmed capital borrowing and repayment plans up to 2019-20. Decisions on how much to borrow beyond this point will be taken in future budgets. The Scottish Government borrowed the annual maximum in 2017-18 and plans to do the same in 2018-19 and 2019-20. This will result in a projected debt stock of £1.87 billion by the end of 2019-20 which is 62 per cent of the total statutory limit of £3 billion.

2.137 For our economy forecasts beyond 2019-20, we have assumed the Scottish Government continues to use the maximum possible capital borrowing, in line with its current behaviour. We also assume that annual borrowing repayments continue to be evenly split across the current agreed repayment period of 25 years. We therefore expect that the Scottish Government will continue to borrow the annual limit of £450 million in every year up to 2022-23, taking the assumed repayment schedule into account, and to borrow the remaining available amount of £144 million in 2023-24 to reach the £3 billion aggregate cap. The reduction in capital borrowing in 2023-24 has contributed to a slightly lower GDP growth rate forecast than would otherwise be the case.

Table 2.8: Scottish Government's MTFS public sector spending plans and SFC forecasts (£million)

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
MTFS18 SG resource spending excl. Social Security (current prices)	26,159	26,750	27,570	27,622	27,861	28,604	29,222	*29,741*
SFC General Govt Consumption (current prices)	34,559	34,983	35,955	36,297	36,722	37,751	38,572	39,257
SFC General Govt Consumption (constant prices)	37,998	37,466	37,641	37,930	38,229	38,648	39,078	39,449
MTFS18 SG capital spending incl. borrowing (current prices)	3,224	3,616	3,863	4,376	*4,545*	*4,536*	*4,676*	*4,515*
SFC General Govt Investment (current prices)	5,886	6,137	6,121	6,885	7,205	7,230	7,454	7,378
SFC General Govt Investment (constant prices)	9,905	10,801	10,806	11,106	11,419	11,566	11,636	11,654

Source: Scottish Government (2018) Medium Term Financial Strategy, Scottish Fiscal Commission, Scottish Government (2018) Quarterly National Accounts Scotland Quarter 3 2017 (link)

Notes: We provided several iterations of our forecast to the Scottish Government during their process of preparing the MTFS. In line with the protocol on economy moving measures, our final economy forecasts were prepared using Scottish Government MTFS spending figures received before 4 May based on our penultimate economy forecast. The MTFS projections in this table are as published by the Scottish Government in the MTFS document based on our final economy forecasts provided to the Scottish Government on 11 May. Therefore, there is a slight discrepancy between the Scottish Government spending projections in our final economy forecasts, based on our penultimate economy forecasts, and those published in the MTFS document and included in this table. The differences will have a negligible impact on the outlook for the economy, tax revenues and public spending.

Figures in italics indicate the Commission's projections of MTFS plans into 2023-24. Resource spending in 2023-24 is grown in line with the latest available OBR forecasts of UK Government spending which extend to 2022-23. Capital spending in 2023-24 is based on its previous year growth rate. We also assume capital borrowing of £450 million from 2020-21, down to £144 million in 2023-24.

With regards to General Government Investment, the figure for 2016-17 in current prices is taken from the Scottish Government's 2017 Q3 QNAS publication. The 2016-17 figure in constant prices which provides the starting point for our level forecasts is taken directly from our core forecasting model, therefore the constant-price forecasts in this table can differ from deflated nominal values.

Net trade

2.138 Historically, trade has had a net negative impact on Scottish GDP growth, with growth in imports exceeding growth in exports. Net trade is made up of trade with the rest of the UK as well as international trade. Trade with the rest of the UK is by far the largest component. These two components are considered separately.

2.139 The changing UK-EU relationship is likely to have an impact on Scottish international trade. The Commission uses the OBR's forecasts of UK international trade, reflecting the OBR's Brexit assumptions, as a starting point for modelling Scottish international trade. Changing trade agreements, possibly leading to the UK and Scotland being more closed to trade, will have a negative impact on both gross exports and gross imports, reducing the total volume of trade, but with an ambiguous impact on net trade. In addition, an on-going lower Sterling level is likely to support exports and limit import growth, while weakness in household spending power will limit import growth. In aggregate, Scotland's net international trade is expected to be broadly neutral for GDP growth over the forecast horizon.

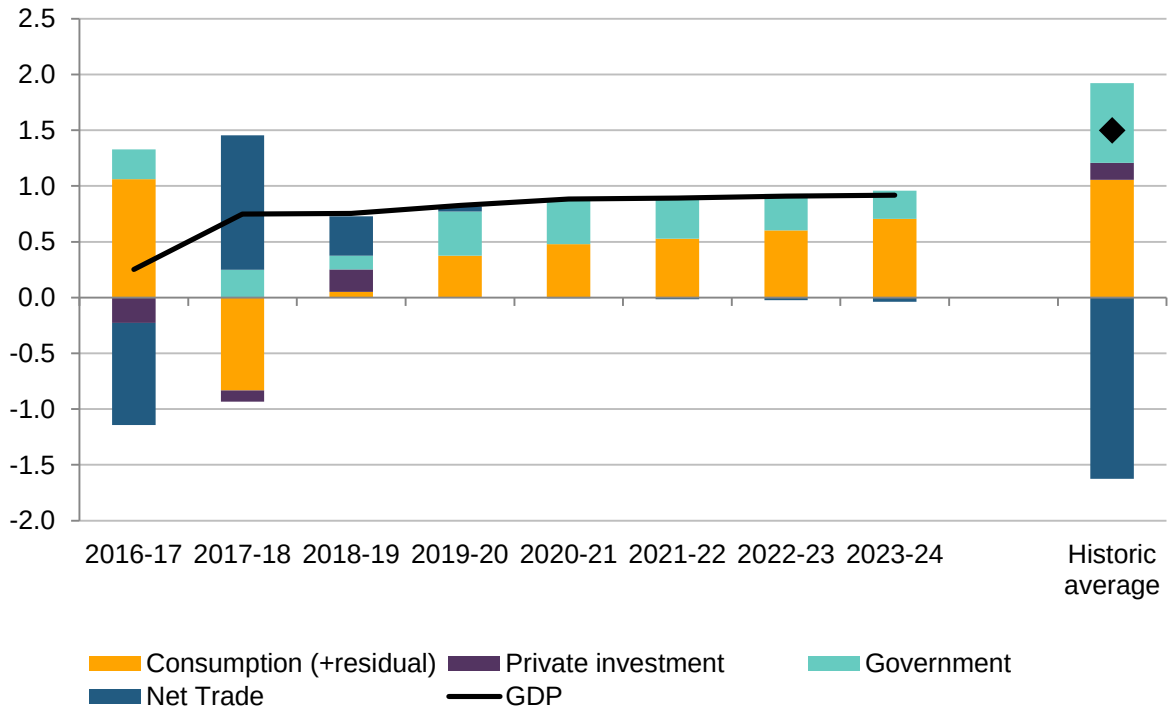
2.140 Scotland has long had a negative trade balance with the rest of the UK and this gap has been widening rapidly in recent years, with a negative effect on growth in GDP. Households in Scotland are expected to have slower growth in incomes than their counterparts in the rest of the UK over the next five years. The likely effect will be to slow the growth of the negative trade balance with the rest of the UK. We therefore forecast net trade with the rest of the UK to flatten out over the next five years.

2.141 Overall, Scottish net trade is expected to play a minor role in GDP over the forecast.

GDP

2.142 Figure 2.17 shows the contribution of each of these components to growth in GDP.

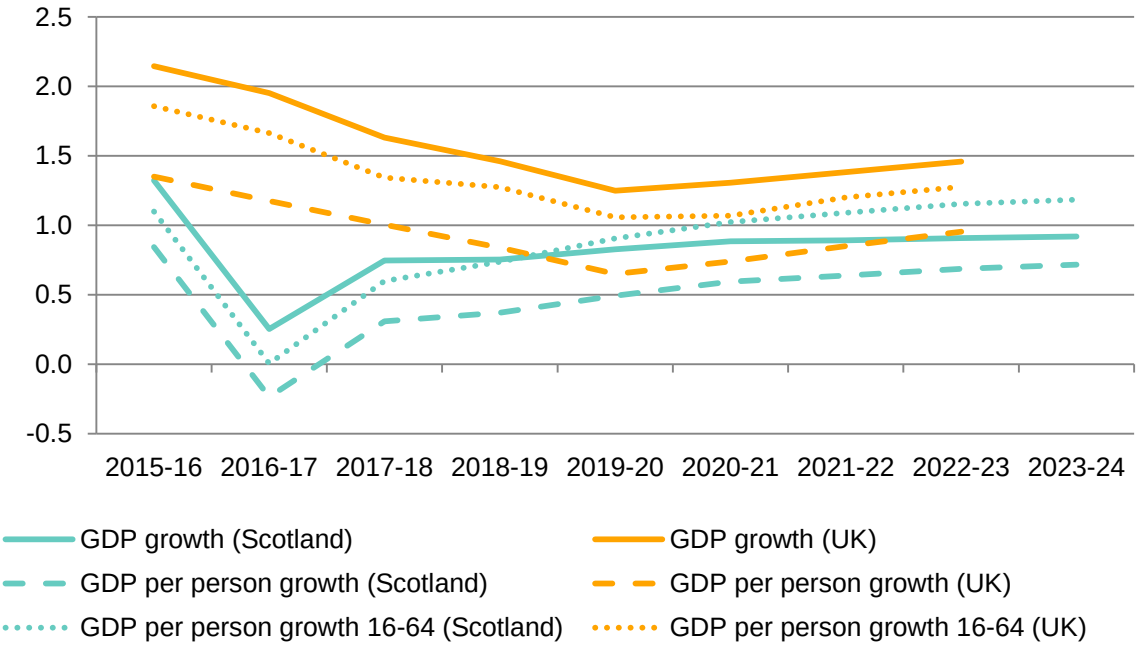
Figure 2.17: Contributions by component of expenditure to growth in GDP (%)



Source: Scottish Fiscal Commission
Note: Historic average is based on growth from 1998 to 2017

2.143 Compared to the OBR's forecasts for the UK, we forecast slower GDP growth for Scotland. As shown in Figure 2.18, this is in part because of slower population growth. Comparing growth in GDP per person, we still forecast slower growth in Scotland than in the UK, though the size of the growth gap is significantly reduced.

Figure 2.18: Forecast growth in GDP and GDP per person, Scotland as forecast by the SFC and UK as forecast by the OBR

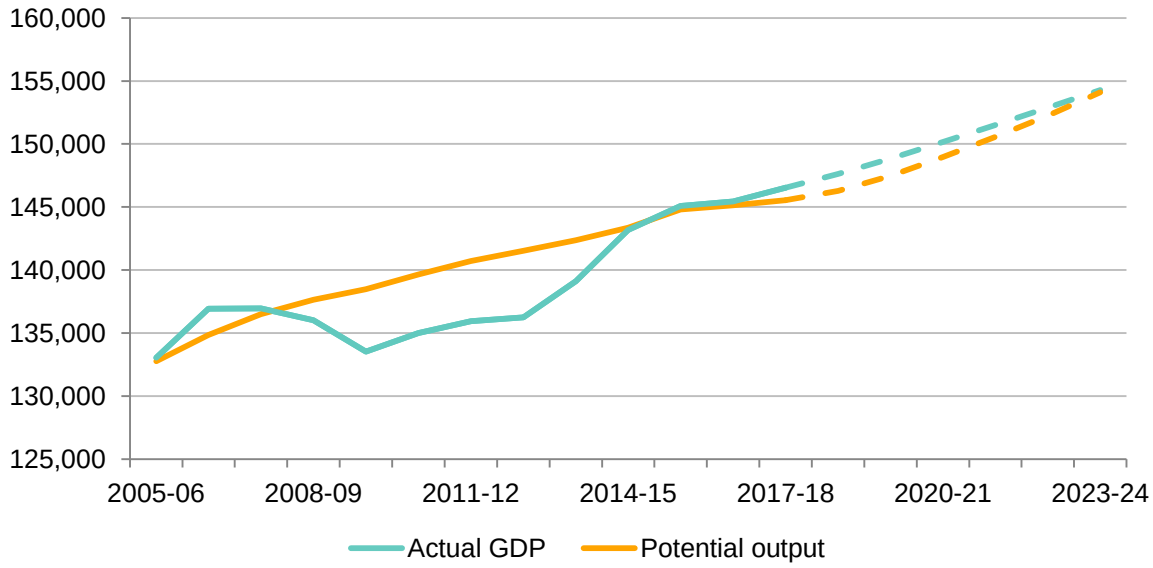


Source: Scottish Fiscal Commission, OBR (2018) Economic and Fiscal Outlook March 2018 (link), Scottish Government (2018) Quarterly National Accounts Scotland Quarter 3 2017 (link), ONS (2017) 2016-based Population Projections, principal population projections UK (link). Note: the OBR does not publish a figure for GDP per person aged 16 to 64. The figure we provide takes the OBR series for real GDP and divides this by the ONS principal projections for 16-64 population

Pathway of the output gap over the forecast horizon

2.144 The Commission estimates that actual GDP is currently broadly in line with its trend, with a positive but small output gap. Based on the analysis described above the growth rate of GDP is expected to be broadly in line with potential output. The output gap is forecast to gradually close over the forecast horizon.

Figure 2.19: Potential output and actual GDP, outturn and forecast, financial year, £ million, 2015 constant prices



Source: Scottish Fiscal Commission

Second round effects

2.145 Second round effects take account of recently announced changes in Scottish or UK Government policy that are judged to be of sufficient magnitude to affect the economy forecasts. Second round effects primarily capture any feedback from a change in policy on the economic determinants underlying the tax forecasts.

2.146 The impact of fiscal policies on the macroeconomy are hard to judge, often have long time-scales before impacts are fully realised and will only have a secondary indirect impact on tax revenues. Therefore, the Commission will only include such effects where we judge them to have a significant impact on tax revenues.

2.147 In this publication we have provided costings for two new policy changes announced by the Scottish Government. There has been a change to the policy for uprating the Carer's Allowance Supplement in line with inflation and the New Start relief has been removed for Non-Domestic Rates. Please refer to Annex A for further information on these policy costings.

2.148 In aggregate, these policies will affect the aggregate fiscal position of the Government by less than £10 million per year. These policies are not considered to be of sufficient magnitude to include as second round effects in the economy forecast.

2.149 There were a number of policies announced at Budget 2018-19, particularly on income tax and public sector pay. At the time, the Commission did not include second round effects of these policies. The Commission judged that the policies were not of sufficient magnitude to have a significant impact on the outlook for the economy. These policies are now part of our baseline economy forecast, and so there is no specific economy forecast adjustment to account for them.

Forecast sensitivities

2.150 The Commission is required to present a single set of forecasts for the economy, but in reality these represent a central point within a broad range of possible outcomes. The forecasts are primarily based on assuming recent underlying trends continue, with adjustments where evidence or judgement dictates. It is likely that in some instances the underlying trends the Commission has identified will change in unexpected ways in the coming years and the outcome for the economy will be different.

2.151 We make a number of judgements about the likely future pathway of the economy. We run additional analysis around our key judgements to illustrate the sensitivity of the forecast to them. This sensitivity analysis does not align with the scenarios presented in the Scottish Government's MTFS. This section presents the sensitivity of GDP, employment and average earnings to variants of four key judgements: migration, trend unemployment, average hours and productivity.

2.152 The Commission uses the 50 per cent EU migration population projection as its population forecast. The impact of higher migration is illustrated using the ONS principal projection and similarly the impact of lower migration is illustrated using their low migration variant.

2.153 Trend unemployment is another uncertainty in the forecast and has a significant impact on the long-run employment level. The variants considered are for a trend unemployment rate of 4.0 per cent in a low scenario and 5.0 per cent in a high scenario.

2.154 Average hours worked are expected to stay flat over the forecast. The high average hours variant assumes average hours will approximately return to pre-crisis average hours. This represents an increase of 0.4 hours worked to 31.9 weekly hours by 2023-24. The Commission considers a symmetric fall of 0.4 hours by the end of the forecast horizon for the low hours variant.

2.155 In the forecast, the growth rate of productivity is assumed to gradually increase from its current growth rate of around 0.25 per cent per year to reach growth of 1.0 per cent per year by 2022-23. In the low productivity variant presented here, the growth rate of productivity is assumed to grow from 0.25 per cent per year in 2018-19, remaining at the post-2008 average of 0.4 per cent per year since this point onward. In the high productivity growth variant, the growth rate of productivity is assumed to be close to 1.5 per cent per year in every year of the forecast, in line with average growth rates seen prior to 2008.

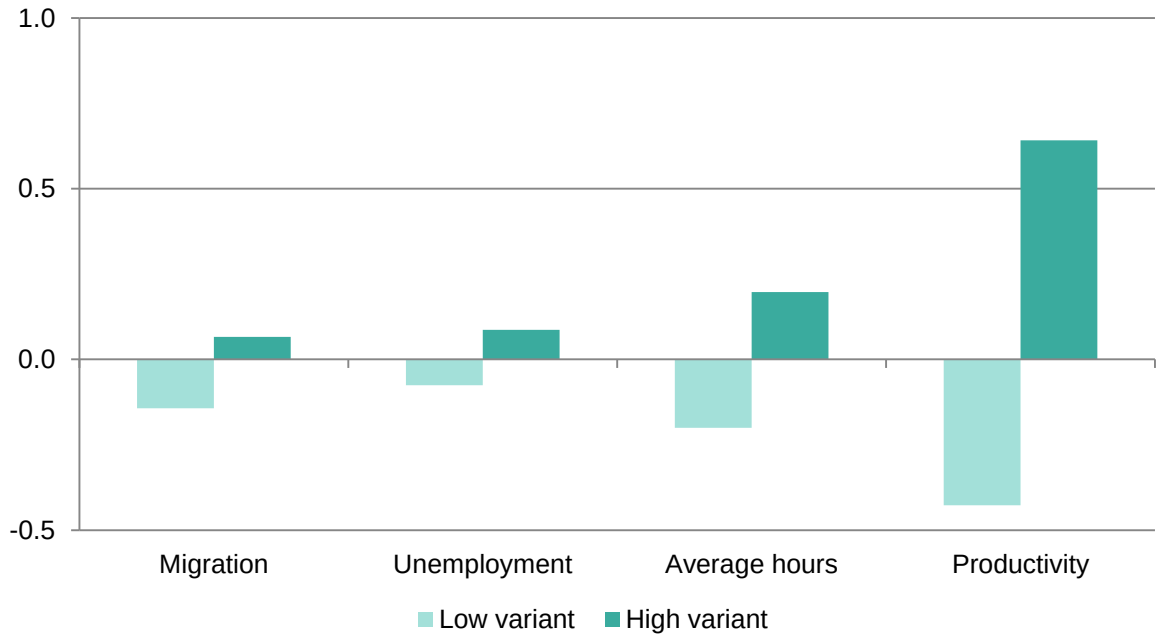
2.156 The impact of these variants on GDP, employment, and average earnings are shown in Table 2.9 and Figures 2.20 to 2.22. The impact on income tax revenues of these variants is shown in Chapter 3.

Table 2.9: Economic forecast variants, average growth rates of GDP, employment and average earnings from 2018-19 to 2023-24 (%)

	Central forecast average	Sensitivity	Low variant	High variant
GDP	0.9	Migration	0.7	0.9
		Unemployment	0.8	1.0
		Average hours	0.7	1.1
		Productivity	0.4	1.5
Employment	0.1	Migration	-0.1	0.2
		Unemployment	0.0	0.2
		Average hours	0.1	0.1
		Productivity	0.1	0.1
Average earnings	2.5	Migration	2.5	2.5
		Unemployment	2.5	2.5
		Average hours	2.3	2.7
		Productivity	2.1	3.1

Source: Scottish Fiscal Commission calculations

Figure 2.20: Economy forecast variants, average deviation from central forecast of annual GDP growth from 2018-19 to 2023-24, percentage points



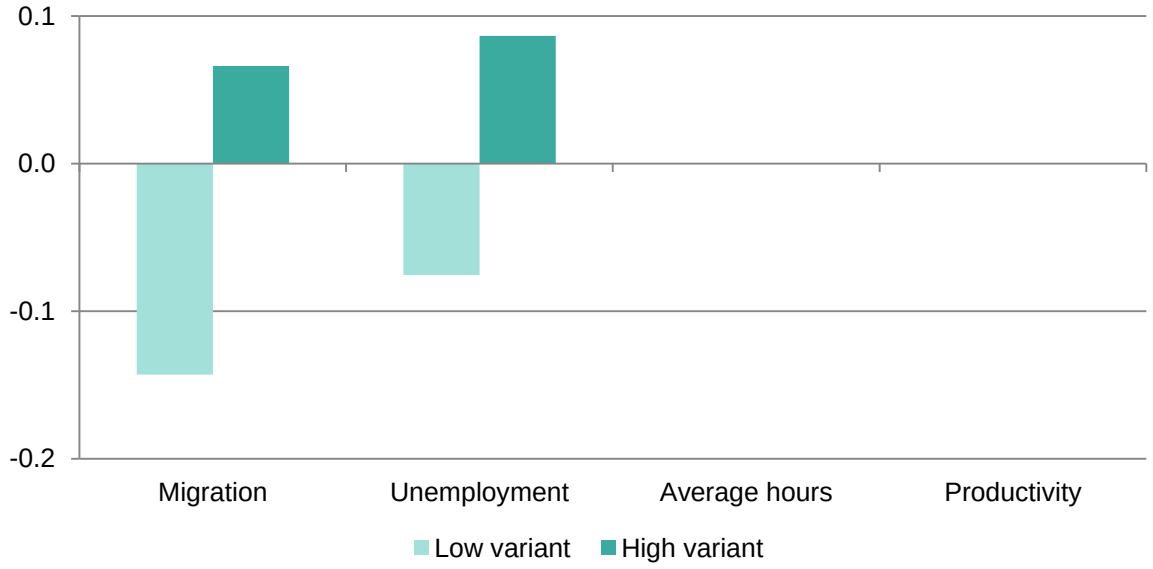
Source: Scottish Fiscal Commission

2.157 The central forecast is for GDP to grow at an average rate of 0.9 per cent per year from 2018-19 to 2023-24.

2.158 The migration and unemployment variants have a limited impact on GDP growth. The high and low average hours worked variants have a larger impact on GDP growth, up to an annual average of 0.3 percentage points over the forecast horizon.

2.159 The varying productivity assumptions have by far the greatest impact on the GDP growth rate. The Scottish economy would grow by an annual average of 0.6 percentage points more under the high productivity scenario, while it would grow by about 0.4 percentage points less under the low productivity scenario.

Figure 2.21: Economy forecast variants, deviation from central forecast of average employment growth from 2018-19 to 2023-24, (%)



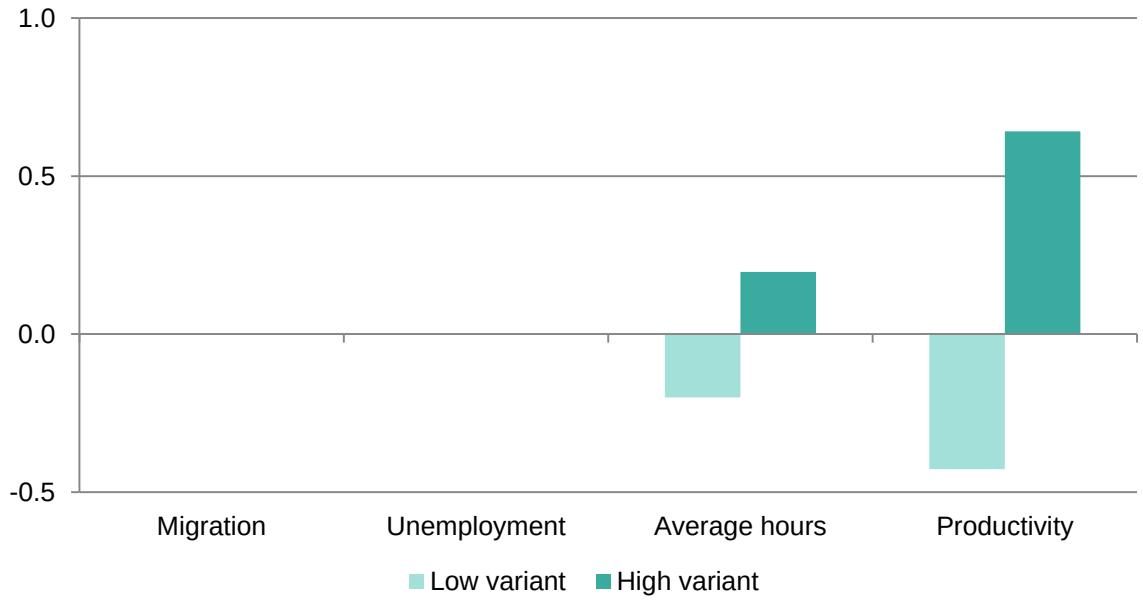
Source: Scottish Fiscal Commission

2.160 The central forecast for average annual growth in employment is 0.1 per cent. The employment level growth is affected by our migration and unemployment variants, with productivity and average hours having no direct impact in our model.[34]

2.161 The impact of migration and unemployment variants on employment is the same as the impact on GDP growth. The impact of migration and unemployment on GDP comes directly from their impact on employment level growth.

[34] This is unrealistic as a higher level of productivity is likely to increase wages and draw more individuals into the labour market. Such secondary effects are not captured in these simple sensitivities; the variants only illustrate the direct impacts on trend growth of the variants. Such considerations do not alter the broad message of the forecast sensitivities.

Figure 2.22: Economic forecast variants, average deviation from central forecast of average nominal earnings growth from 2018-19 to 2023-24, (%)



Source: Scottish Fiscal Commission

2.162 The central forecast for average annual growth in nominal earnings is 2.5 per cent over the forecast horizon.

2.163 Contrary to employment level growth, productivity and average hours variants have a significant impact on average nominal earnings growth. The migration and unemployment variants have no direct impact on the growth rate of average nominal earnings.

2.164 The impact of average hours and productivity variants on average nominal earnings is similar to their impact on GDP growth.

Comparison to previous forecasts

2.165 This is the second set of economy forecasts published by the Commission. Our previous forecasts were published in December 2017 to inform the Scottish Government's Draft Budget 2018-19.[35] Table 2.10 compares key variables from the December 2017 economy forecasts and our latest forecasts.

[35] Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

Table 2.10: Comparison of SFC May 2018 economy forecasts with SFC December 2017 economy forecasts, financial year, figures are % growth rates unless otherwise stated

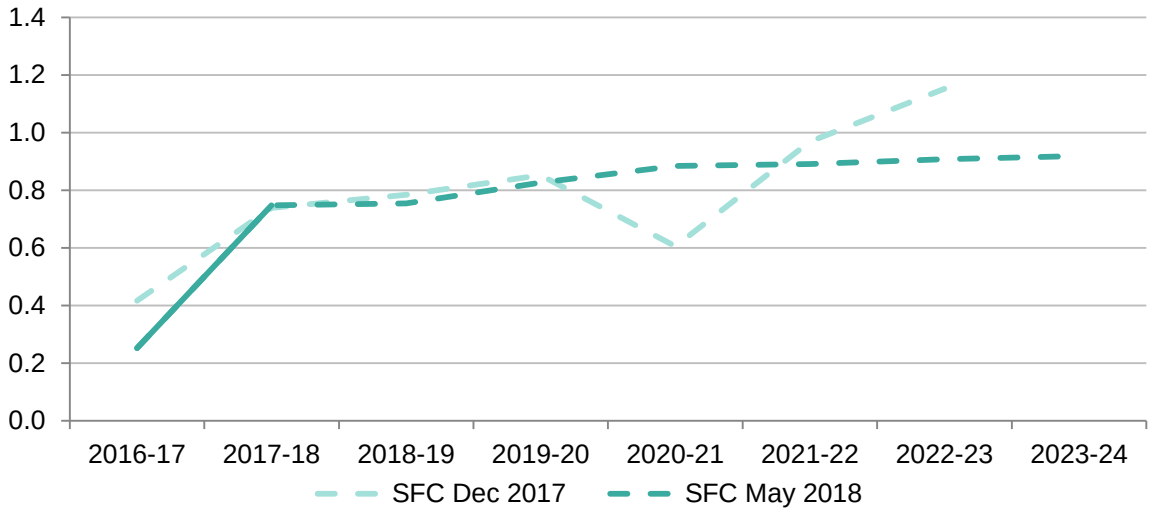
		2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
GDP	SFC Dec 17	0.7	0.8	0.9	0.6	1.0	1.2	
	SFC May 18	0.7	0.8	0.8	0.9	0.9	0.9	0.9
Employment ('000s)	SFC Dec 17	2,655	2,658	2,658	2,661	2,666	2,670	
	SFC May 18	2,649	2,650	2,650	2,654	2,658	2,661	2,663
Unemployment	SFC Dec 17	3.9	4.2	4.4	4.5	4.5	4.5	
	SFC May 18	4.1	4.3	4.5	4.5	4.5	4.5	4.5
Nominal wages	SFC Dec 17	2.0	2.3	2.4	2.6	2.9	3.2	
	SFC May 18	1.0	1.7	1.9	2.3	2.7	3.0	3.2
Inflation	SFC Dec 17	2.4	2.1	1.9	2.0	2.0	2.0	
	SFC May 18	2.0	2.2	1.9	2.0	2.0	2.0	2.0
Real wages	SFC Dec 17	-0.4	0.2	0.5	0.6	0.9	1.2	
	SFC May 18	-0.9	-0.5	0.1	0.3	0.7	0.9	1.2
Hours	SFC Dec 17	-0.2	0.0	0.0	0.0	0.0	0.0	
	SFC May 18	-0.2	0.1	0.0	0.0	0.0	0.0	0.0
Average annual earnings	SFC Dec 17	1.8	2.3	2.4	2.6	2.9	3.2	
	SFC May 18	0.8	1.8	2.0	2.3	2.7	3.0	3.3

Source: Scottish Fiscal Commission and Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

Note: Shaded cells represent outturn as was available at the time of publication

2.166 Figure 2.23 compares GDP growth rates from the two forecasts.

Figure 2.23: Forecast comparison, GDP financial year growth rate (%)

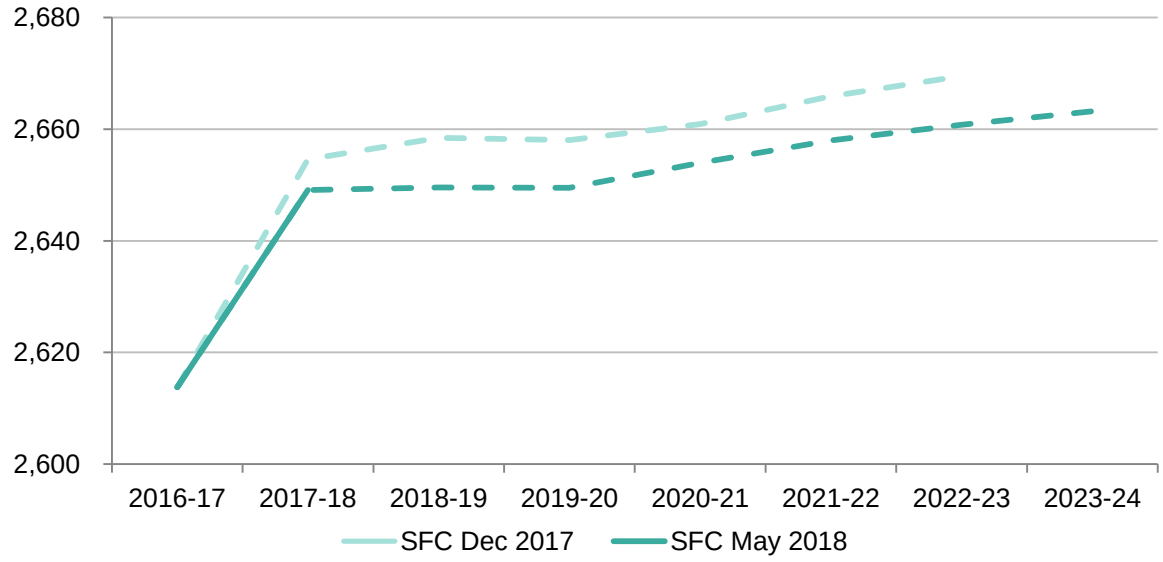


Source: Scottish Fiscal Commission and Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

2.167 The latest forecasts by the Commission show a flatter profile for GDP growth than in the previous forecasts, reflecting a smoother pathway for the output gap as this closes over the forecast horizon.

2.168 Growth in employment and average earnings are the most important economic determinants in forecasting income tax. Figure 2.24 shows comparisons of employment levels from the two forecasts.

Figure 2.24: Forecast comparison, employment level financial years (thousands)

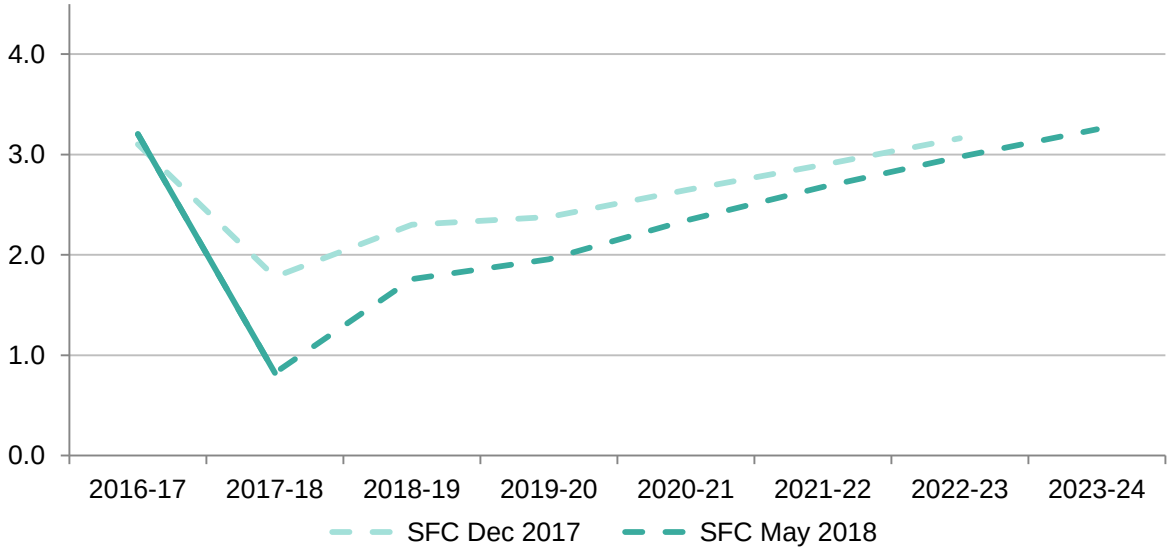


Source: Scottish Fiscal Commission and Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

2.169 We forecast the employment level to grow at a similar rate to our previous forecasts, though starting from a slightly lower base because of the latest outturn data.

2.170 Figure 2.25 compares forecasts of average nominal earnings.

Figure 2.25: Forecast comparison, average nominal earnings, financial year growth rate (%)



Source: Scottish Fiscal Commission and Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

2.171 The Commission has revised down growth in average nominal earnings over the forecast period to reflect our view on the outlook for nominal and real wage growth as described in the Section 'Developments in the Scottish Economy'. This has led to a weaker forecast of income tax revenues. The impact of these changes on the fiscal forecasts are set out in Chapter 3.

Comparison to OBR UK forecasts

2.172 This section compares our economic forecasts for Scotland with the OBR's forecasts for the UK.

2.173 We are forecasting a weaker economic outlook for Scotland compared to the OBR's forecast for the UK. This is primarily because of slower growth in population and productivity than the UK.

2.174 Table 2.11 summarises the forecasts for Scotland and the UK by the Commission and the OBR for five of the main economic determinants: GDP growth, GDP per capita growth, employment level, real hourly wage growth and nominal annual average earnings growth.

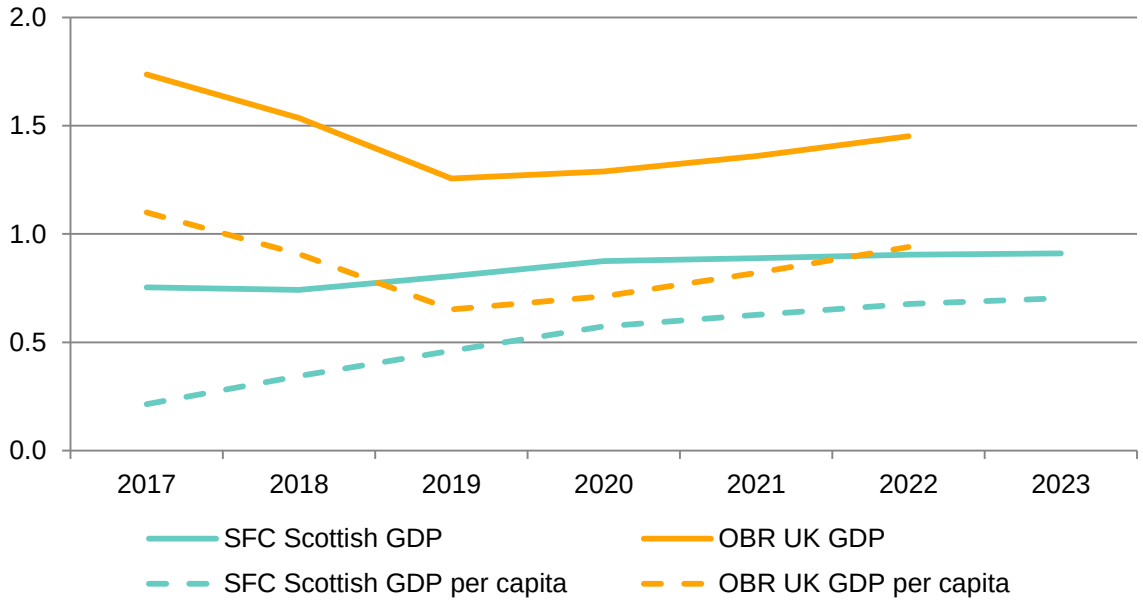
Table 2.11: Comparison of SFC May 2018 Scottish economy forecasts with OBR March 2018 UK economy forecasts, calendar year, % year on year growth unless otherwise stated

		2017	2018	2019	2020	2021	2022	2023
GDP	OBR March 2018	1.7	1.5	1.3	1.3	1.4	1.5	
	SFC May 2018	0.8	0.7	0.8	0.9	0.9	0.9	0.9
GDP per capita	OBR March 2018	1.1	0.9	0.7	0.7	0.8	0.9	
	SFC May 2018	0.2	0.3	0.5	0.6	0.6	0.7	0.7
Employment	OBR March 2018	32.1	32.2	32.4	32.5	32.6	32.7	
(millions)	SFC May 2018	2.6	2.6	2.6	2.7	2.7	2.7	2.7
Real wages (1)	OBR March 2018	0.5	0.5	0.6	0.6	0.8	1.0	
	SFC May 2018	-1.0	-0.5	0.0	0.2	0.6	0.9	1.2
Nominal annual	OBR March 2018	2.6	2.7	2.4	2.5	2.8	3.0	
average earnings	SFC May 2018	1.1	1.6	1.9	2.2	2.6	2.9	3.2

Source: Scottish Fiscal Commission and OBR (2018) Economic and Fiscal Outlook March 2018 (link)
Note: Shading represents outturn.
(1) The OBR does not publish a figure for real hourly wage growth. The figure we provide for "real wages" takes the OBR series for nominal average hourly earnings and deflates this using the Consumer Expenditure Deflator.

2.175 Growth in Scottish GDP is expected to be significantly lower than in the UK. This is primarily because of slower population growth in Scotland. Growth in per capita GDP in Scotland is expected to converge with the UK, but will remain lower because of slower productivity growth in Scotland. This is shown in Figure 2.26.

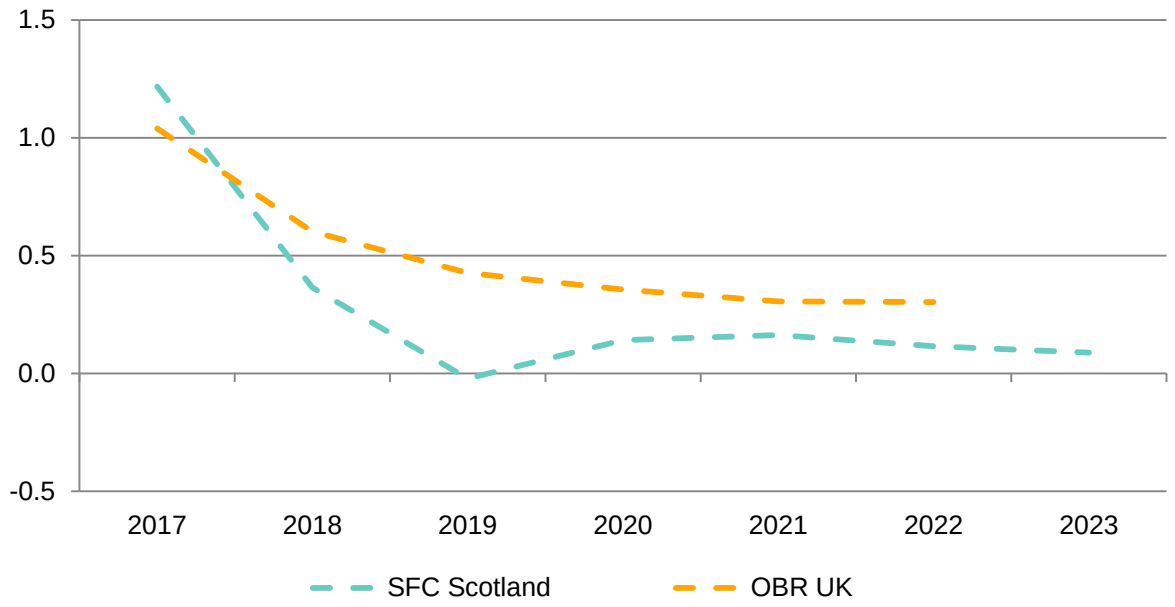
Figure 2.26: SFC May 2018 Scotland and OBR March 2018 UK forecast comparison, GDP and GDP per capita, calendar year growth rate (%)



Source: Scottish Fiscal Commission and OBR (2018) Economic and Fiscal Outlook March 2018 (link)

2.176 As shown in Figure 2.27, the Commission forecasts employment growth in Scotland below the OBR's forecast for the UK. Again, this is mainly because population is forecast to grow faster in the UK.

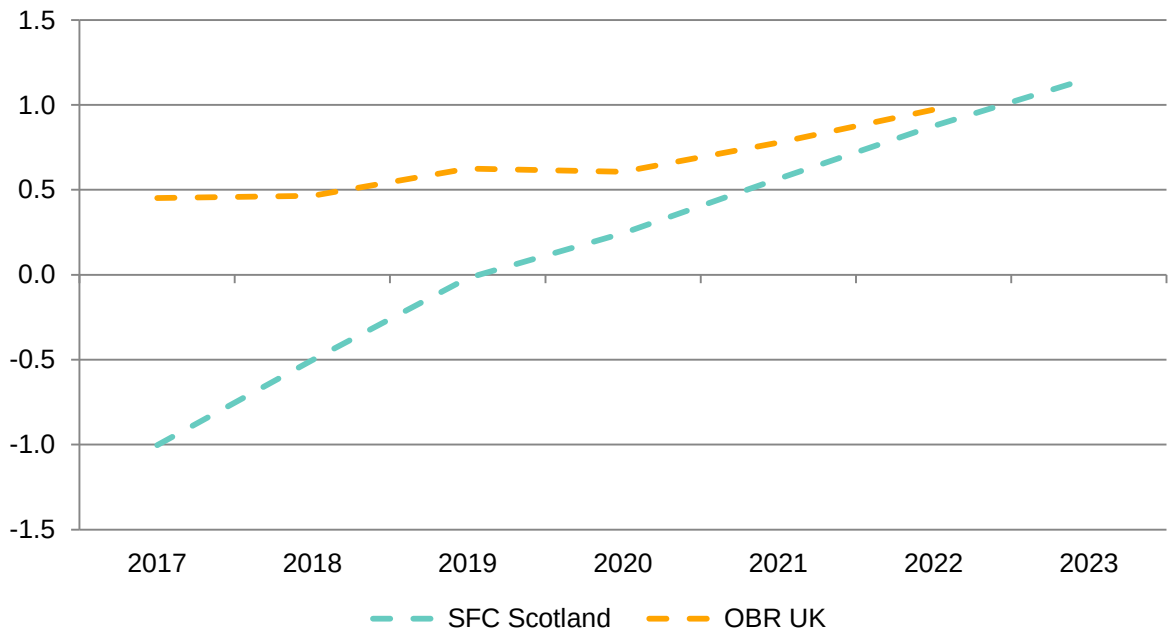
Figure 2.27: SFC May 2018 Scotland and OBR March 2018 UK forecast comparison, employment level, calendar year growth rate (%)



Source: Scottish Fiscal Commission and OBR (2018) Economic and Fiscal Outlook March 2018 (link)

2.177 Real wage growth in Scotland was negative in 2017, reflecting weak growth in productivity and nominal wages. It is expected to turn positive in 2019 and to grow in a similar manner as in the UK for the rest of the forecast period. This is shown in Figure 2.28.

Figure 2.28: SFC May 2018 Scotland and OBR March 2018 UK forecast comparison, real hourly wage, calendar year growth rate (%)



Source: Scottish Fiscal Commission and OBR (2018) Economic and Fiscal Outlook March 2018 (link)
Note: The OBR does not publish a figure for real hourly wage growth. The figure we provide for "real wages" takes the OBR series for nominal average hourly earnings and deflates this using the Consumer Expenditure Deflator.

2.178 Forecasts for the UK are an important component in the Commission's forecasts for Scotland. We will continue to monitor developments in the UK as a whole and reflect on what these mean for the outlook for Scotland.

Chapter 3
Tax

Introduction

3.1 This chapter presents the Scottish Fiscal Commission's tax forecasts. A summary of the forecasts is shown in Table 3.1 below. The sections in this chapter will explain the methods used to produce the forecasts, any differences from earlier forecasts, the impacts of new policy measures, and comparisons to OBR forecasts. The Income Tax, Land and Buildings Transaction tax and Scottish Landfill Tax sections include a comparison between our forecasts of receipts and the Scottish Government's block grant adjustment forecasts.

Table 3.1: Summary of tax forecasts

£ million	2016-17 Outturn*	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Income Tax	11,267	11,467	11,969	12,345	12,805	13,335	13,936	14,547
Non-Domestic Rates	2,731	2,774	2,788	2,859	2,931	3,110	3,307	3,339
Land & Buildings Transaction Tax	484	550	614	656	697	738	781	827
of which, Residential	214	259	312	342	373	405	438	473
ADS	93	91	97	100	104	108	112	116
Non-Residential	177	201	206	214	220	226	231	238
Air Passenger Duty	257	277	285	292	301	311	322	335
Scottish Landfill Tax	148	142	114	93	95	87	87	88
Total Tax	14,887	15,209	15,770	16,244	16,829	17,581	18,432	19,137

Source: Scottish Fiscal Commission. *Figure for Income Tax is not outturn data, as liabilities data in 2016-17 are not yet available. Figure for Air Passenger Duty is not classed as outturn data. It is an estimate of the Scottish share of tax receipts. Figures may not sum to totals because of rounding

3.2 Table 3.2 summarises all changes since our previous forecasts.

Table 3.2: Change from previous tax forecasts 2016-17 to 2022-23

£ million	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Income Tax	53	-118	-209	-302	-347	-398	-437
Non-Domestic Rates	0	-36	-24	-8	-8	-8	-23
Land & Buildings Transaction Tax	0	-6	26	28	29	31	33
of which, Residential	0	-12	7	6	7	9	12
ADS	0	-2	4	2	2	2	2
Non-Residential	0	7	15	20	20	19	19
Air Passenger Duty	-7	-15	-21	-22	-23	-25	-26
Scottish Landfill Tax	0	5	8	4	5	5	5
Total change in tax forecasts	45	-170	-220	-300	-344	-395	-449

Source: Scottish Fiscal Commission. Figures may not sum to totals because of rounding

Box 3.1: OBR forecasts of devolved taxes

Box 1.2 explains the operation of the Fiscal Framework, and the respective roles of the Scottish Fiscal Commission and the OBR. The OBR also produces forecasts of receipts from devolved taxes, not because this is a requirement of the Fiscal Framework but rather because their role as the UK-level fiscal forecaster requires them to produce forecasts of all revenue streams raised in the UK, whether they are set and administered by the UK Government, devolved administrations, or local government.

All forecasts of devolved taxes are set out in detail in their Devolved Tax and Spending publication, which is produced alongside each UK fiscal event. The OBR published a forecast of Carer's Allowance expenditure in Scotland in their March 2018 publication. As further social security benefits are devolved to the Scottish Parliament the OBR may expand their work into other social security expenditures.

In each tax section, differences to the OBR forecasts are discussed and explained. Such differences may be because of modelling approaches, timing, data used or differences in judgements made. As set out in Box 1.2, the OBR revenue forecasts of devolved taxes are not used as part of the block grant adjustment calculations. These are based on the OBR forecasts of UK Government receipts of corresponding UK taxes.[36]

[36] Please see Box 3.2 of our December 2017 forecast publication for an explanation of how the BGA works for Income Tax (link)

Income Tax

Forecast

Table 3.3: Non-Savings Non-Dividends income tax outturn and forecast

£ million	2015-16 Outturn*	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	10,948	11,267	11,467	11,969	12,345	12,805	13,335	13,936	14,547

Source: Scottish Fiscal Commission *Outturn in this context for income tax refers to our analysis of the 2015-16 Survey of Personal Incomes (SPI) data.

Background

3.3 The Scotland Act 2016 transferred new tax powers to the Scottish Parliament. From 2017-18, the Scottish Parliament took full responsibility for non-savings and non-dividend (NSND) income tax rates and thresholds, with the exception of the personal allowance.[37] Since April 2017, the Scottish Government receives all revenue from income tax on the NSND income of Scottish taxpayers.

3.4 The responsibility for defining the income tax base, including setting or changing income tax reliefs and the personal allowance continues to rest with the UK Government. HMRC remains responsible for the collection and management of Scottish income tax. It is HMRC's responsibility to decide who is a Scottish taxpayer as defined in legislation. The Scotland Act 2012 defines a Scottish taxpayer as someone who is a UK taxpayer and has their main place of residence in Scotland.[38]

3.5 The Scottish Government has implemented policy changes to income tax for both the 2017-18 and 2018-19 tax years. For 2017-18, most rates and bands were set at the same level as the UK. The only difference was the higher rate threshold, which was unchanged in cash terms from 2016-17 at £43,000. In 2018-19, a new five band income tax policy was introduced. We updated our income tax forecast in February 2018 to reflect the final agreed policy, and published the figures in a supplementary publication.[39] The final policy is set out in Table 3.4 below.

[37] This is primarily income from employment, pensions and property.

[38] Scotland Act 2012, Section 25, 80D (link)

[39] Scottish Fiscal Commission (2018) Scotland's Economic and Fiscal Forecasts Supplementary Publication Updated Income Tax Forecasts (link)

Table 3.4: Final income tax policy measure description (2018-19)

Gross income (£)	Tax band	Tax rate (%)
11,850 - 13,850	Starter rate	19
13,851 - 24,000	Basic rate	20
24,001 - 43,430	Intermediate rate	21
43,431 - 150,000	Higher rate	41
Above 150,000	Top rate	46

Source: Scottish Government (link)

3.6 The Scottish Government has not announced any income tax policy changes for this fiscal event. We have updated costings for the two policy measures to take account of model developments and new data published since February 2018. Further information on the policy recostings can be found in paragraph 3.23, Table 3.5 and Annex B.

Publication of outturn data in summer 2018

3.7 The Commission bases its forecasts on the best information available at the time of publication. Over time, new and sometimes better data sources become available. We forecast Scottish income tax liabilities using the Survey of Personal Incomes (SPI). This is a sample of HMRC's personal tax records. Currently, this is the best available source of information on income tax liabilities for Scotland, though it does have some limitations. The latest available SPI is for 2015-16, and this is the starting point from which we create our income tax forecasts.

3.8 In summer 2018, HMRC will publish its first full estimates of outturn income tax liabilities in Scotland in their annual report, covering the year 2016-17. For the first time, this will be based on full administrative data using Scottish taxpayer codes. Once available, this will be the primary measure of income tax liabilities in Scotland.

3.9 There will be a number of underlying differences between our 2015-16 SPI based estimate of income tax liabilities in 2016-17 published in this report and those published by HMRC using outturn data in the summer. We expect there will be a degree of difference between the current best estimate of 2016-17 income tax liabilities and the figure that will be published by HMRC. At present, there is insufficient information to know the likely magnitude or direction of this difference.

3.10 The likely sources of differences between the Commission's 2016-17 NSND income tax liabilities estimate and the outturn data published by HMRC include:

- The SPI is only available up to 2015-16. At least some of the difference between the Commission's estimate of income tax liabilities in 2016-17 and the outturn data published in the summer will be because of forecast error.
- The SPI is only a one to two per cent sample of all income tax records. The outturn data will be based on full administrative data.
- The Commission uses an anonymised version of the SPI called the Public Use Tape (PUT), which aggregates some high value records.
- There may be differences in the way Scottish taxpayers are identified between the SPI and the outturn data.

3.11 When the new data are published, the Commission will make appropriate adjustments to our forecasting approach for future forecasts and publications. We expect to be able to provide analysis of this issue in our September 2018 Forecast Evaluation Report.

Modelling approach – key judgements and changes since February

3.12 Our approach to creating the income tax forecast was set out in our 'Current Approach to Forecasting' publication.[40] The modelling is based on detailed taxpayer data published by HMRC called the Survey of Personal Incomes (SPI). The latest available SPI is for 2015-16. We use outturn data on income and earnings from other sources to estimate changes in the number of taxpayers, their incomes and tax liabilities up to 2016-17. From 2017-18 onwards, we then use forecasts of earnings and employment from our economy forecasts to estimate incomes and tax liabilities in future years.

3.13 While our overall approach is unchanged, there have been some small developments and new data received since our previous forecasts in February 2018. The rest of this section discusses the key judgements in the income tax forecast and changes introduced since our February 2018 publication.

2015-16 SPI data

3.14 In February 2018, our forecast was based on the 2014-15 SPI data, the latest available at the time. We have now incorporated the 2015-16 data. The data suggest slightly higher tax liabilities of £15 million for 2015-16, rising to £96

[40] Scottish Fiscal Commission (2017) Current Approach to Forecasting (link)

million by the end of the forecast horizon. This is predominantly driven by a higher than anticipated number of basic rate taxpayers in 2015-16, around 30,000 more in our latest forecasts than in our February 2018 forecast.

Latest employment and earnings outturn data

3.15 As we are using base SPI data from 2015-16, our modelling uses outturn employment and earnings data covering 2016-17. The most significant change to this has been the inclusion of the latest Annual Population Survey (APS) employment data for 2016-17. This resulted in a small upward revision to the number of taxpayers which is persistent across the forecast horizon – increasing the forecast of tax liabilities by £30 million in 2015-16 and by £92 million in 2022-23.

Economy forecast

3.16 The income tax forecasts published in February 2018 were based on our economy forecasts published in December 2017. The income tax forecasts have been updated to include the latest economy forecasts detailed in Chapter 2 of this report.

Tax Motivated Incorporations (TMI)

3.17 Throughout the UK there has been a steady rise in the proportion of people working for themselves, rather than as employees. Individuals who choose to work for themselves may be self-employed or have the option to incorporate and manage their business as directors of a limited company. For individuals who choose to incorporate, this changes their tax liabilities from NSND income tax to corporation tax and dividends income tax.

3.18 We received updated TMI modelling outputs from HMRC to estimate the reduction in tax liabilities across the forecast horizon. This adjustment is calculated and applied to our baseline forecast – excluding the impact of recent policy changes. The modelling from HMRC is based on the latest OBR economy determinants which means changes are expected following UK fiscal events. We have a separate approach for estimating additional TMI as a result of a change in policy.[41] This is consistent with our approach in December 2017.

3.19 Further information on TMI can be found in the OBR's 2017 Fiscal Risks report, and in our December 2017 publication. [42,43]

[41] Scottish Fiscal Commission (2018) How we forecast behavioural responses to income tax policy (link)

[42] OBR (2017) Fiscal Risks Report (link)

[43] Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

UK tax policies

3.20 We undertake additional modelling for certain policy measures introduced by the UK Government which will affect Scottish NSND income tax liabilities. One example is the pension flexibility measure announced by the UK Government at the Spring Budget 2014. Using the OBR's policy measure database, our approach calculates the relevant adjustments needed to the Scottish NSND income tax forecast to account for previous UK Government policy measures that have affected income tax revenues since 2015-16, the latest year of our base SPI data.[44]

Public sector pay

3.21 The Scottish Government announced basic pay awards for 2018-19 that were above previous years and higher than our previous baseline expectations for growth in public sector pay. This included a three per cent basic pay award for those in scope earning less than £36,500 per year, a limit of up to two per cent on the increase in baseline paybill for those earning above £36,500 and below £80,000 and a limit on the maximum pay increase for those earning £80,000 or more to £1,600. The Commission set out its approach to capturing the impact of these higher basic pay awards in its December and February publications.

3.22 The Scottish Government confirmed to the Commission on 8 May 2018 that it did not anticipate making any further changes to public sector pay policy at this time.[45] We have therefore left our assumptions about future public sector pay awards unchanged since February. The December 2018 Scottish Budget will set out the Public Sector Pay Policy for 2019-20.

Recosting previous policies

3.23 We have previously published estimates of the additional revenue raised from the two recent changes in income tax policy in Scotland – the 2017-18 higher rate threshold freeze, and the new 2018-19 five band income tax. Our policy costings include both the 'static costing' (the amount of revenue raised assuming no taxpayer behavioural change) and the 'post-behavioural costing' (the final revenue raised including the effects of taxpayer behaviour).

3.24 We provide updated costings with this report. There have been small changes in our policy costings as a result of other changes, such as inclusion of the latest economic forecast and moving to the latest 2015-16 SPI data.

[44] OBR policy costings database (link)

[45] The Scottish Government presented the Commission with all finalised policy measures on 8 May 2018. See Chapter 1 for further information.

3.25 In March 2018, we published an occasional paper 'How we forecast behavioural responses to income tax policy' which provides more detail on our income tax behavioural approach.[46] We have made no changes to our assumptions or underlying judgements on taxpayer behaviour.

HMRC RTI data

3.26 HMRC have been developing more timely estimates of Scottish income tax liabilities than currently available from the SPI. In January 2018, HMRC published its first experimental quarterly Real Time Information (RTI) statistics.[47] This includes estimates of numbers receiving pay and their pay from HMRC's RTI administrative data, covering April 2014 to September 2017 inclusive. In addition, HMRC have also been regularly providing the Commission and the Scottish Government provisional RTI tax receipt estimates, covering April 2016 to March 2018.

3.27 RTI data offer a potentially valuable source of real time information on income growth from employed taxpayers in Scotland. However, RTI is a new source of data and has some drawbacks. For example, RTI only covers the PAYE population (excluding the self-employed). We have some reservations about using these data to adjust our forecast at this time, and so we make no direct adjustments to our forecast using the RTI data.

3.28 We will continue to monitor RTI data and may choose to introduce changes in the future to our approach to forecasting income tax as a result. More should be known about the utility of the RTI data once the outturn data is published.

[46] Scottish Fiscal Commission (2018) How we forecast behavioural responses to income tax policy (link)

[47] HM Revenue and Customs (2018) UK Real Time Information, Experimental Statistics (link)

Forecast

3.29 Since February 2018 the Commission has revised its forecasts of NSND income tax liabilities. Table 3.5 presents in detail the differences between our February 2018 forecast and the latest forecast.

Table 3.5: Comparison with February 2018 forecast

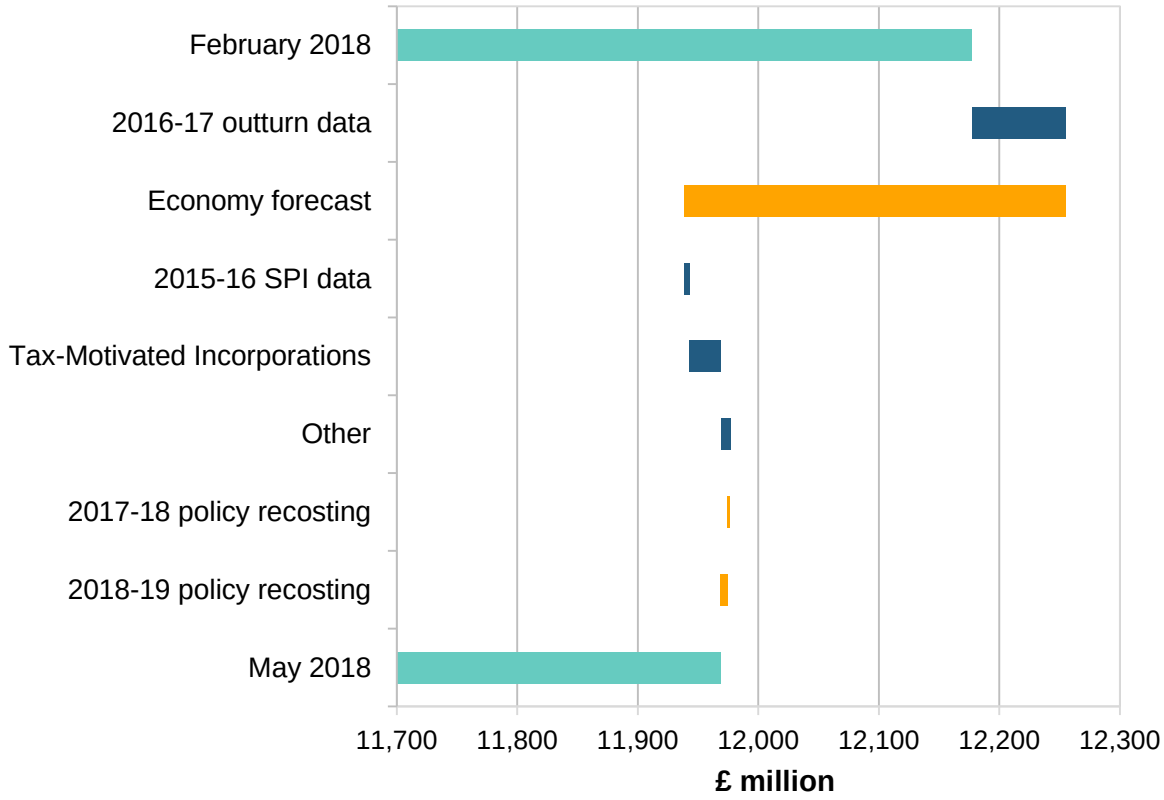
£ million	2015-16 Outturn*	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
February 2018	**10,932**	**11,214**	**11,584**	**12,177**	**12,647**	**13,152**	**13,733**	**14,372**
2016-17 outturn data	0	30	53	78	80	84	87	92
Economy forecast	0	6	-198	-317	-405	-474	-545	-614
2015-16 SPI data	15	-5	-21	5	7	25	66	96
Tax-Motivated Incorporations	0	21	43	26	31	35	10	13
Other[48]	1	0	7	8	-1	0	1	-3
2017-18 policy recosting	0	0	-2	-2	-7	-7	-7	-8
2018-19 policy recosting	0	0	0	-6	-8	-9	-11	-12
May 2018	**10,948**	**11,267**	**11,467**	**11,969**	**12,345**	**12,805**	**13,335**	**13,936**
Change from February 2018	16	53	-118	-209	-302	-347	-398	-437

Source: Scottish Fiscal Commission (February 2018) Scotland's Economic and Fiscal Forecasts Supplementary Publication Updated Income Tax Forecasts (link), Scottish Fiscal Commission. Figures may not sum to totals because of rounding
*Outturn in this context for income tax refers to our analysis of the 2015-16 Survey of Personal Incomes (SPI) data

3.30 The table shows a range of factors and developments, since our forecast in February, that have led to a small upward revision in 2015-16 and 2016-17 tax years, with downwards revision for subsequent years. The latest economy forecasts have reduced future tax liabilities, but other factors such as strong employment outturn data in 2016-17 have had some impact on the forecast. Figure 3.1 presents the relative scale of these factors for 2018-19.

[48] Includes revisions to OBR triple lock and CPI forecasts, HMRC Gift Aid estimates, inclusion of 2017 mid-year population estimates and model developments.

Figure 3.1: February 2018 compared to May 2018 forecast by factor, 2018-19



Source: Scottish Fiscal Commission (February 2018) Scotland's Economic and Fiscal Forecasts Supplementary Publication Updated Income Tax Forecasts (link), Scottish Fiscal Commission

3.31 Changes since February 2018 have led to a net downwards revision for 2018-19 of £209 million. The chart clearly shows that changes to the economy forecast are the most significant of these factors.

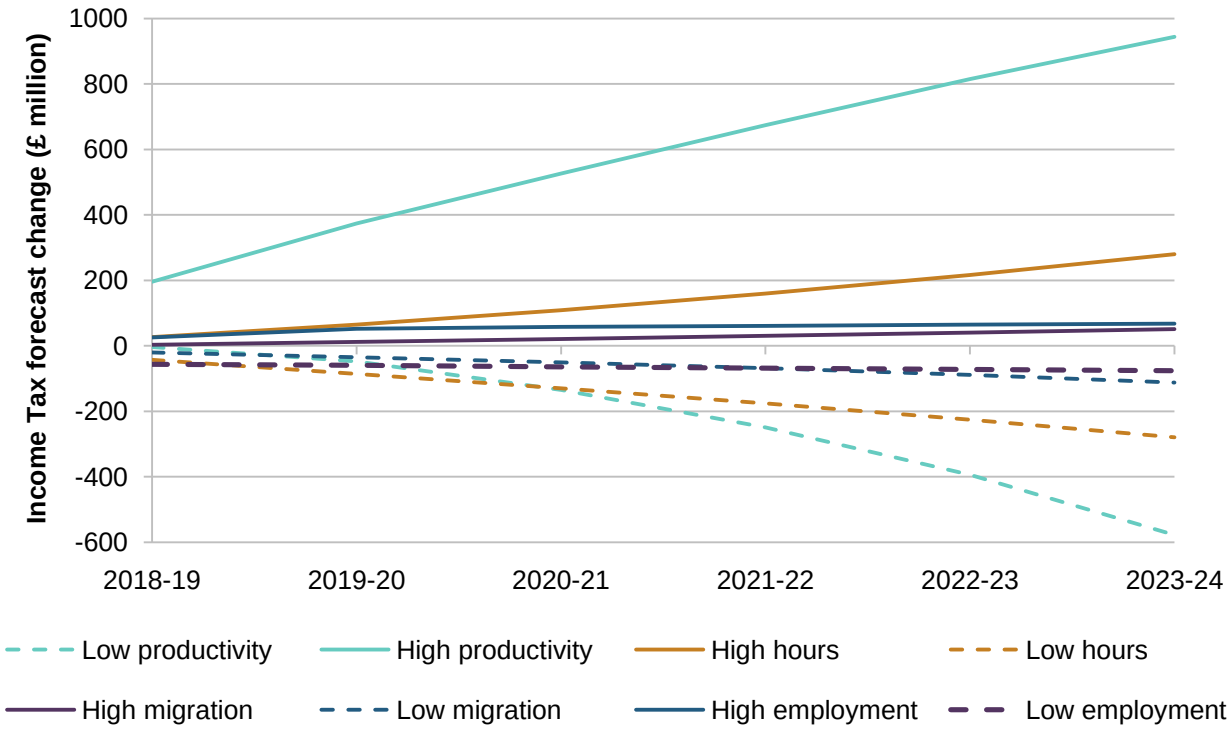
3.32 Changes to the economy forecast in isolation have reduced our forecast of income tax liabilities in 2018-19 by £317 million. The developments to the economy forecasts are discussed in Chapter 2. The main reasons for these changes are:

- New analysis by the Commission on wage growth in Scotland has led the Commission to revise down its outlook for wages
- One-off factors such as adjustments in the oil and gas supply chain to lower oil prices and declines in the construction industry leading to weaker than expected wage growth in 2017 and 2018
- A downwards revision to productivity growth in 2018-19, following a weaker than expected performance over the last two years, has also marginally reduced the outlook for earnings

Uncertainty

3.33 In this section, we assess the sensitivity of our income tax forecast to the alternative economy scenarios considered in Chapter 2, Table 2.9. The analysis are shown in Figure 3.2 below.

Figure 3.2: Income Tax sensitivity analysis



Source: Scottish Fiscal Commission

3.34 Changes in income tax receipts are most sensitive to changes in our assumption about productivity growth. In the high productivity scenario, income tax revenues are on average estimated to be around £200 million higher in 2018-19, rising to around £950 million by 2023-24. Across the forecast horizon this amounts to a cumulative increase of £3.5 billion. In the low productivity scenario we estimate a cumulative decrease of around £1.4 billion. Productivity is one of the most significant risks to our NSND income tax forecast.

Comparison to OBR forecast

3.35 As part of their role as UK-level fiscal forecaster, the OBR also produce a forecast of income tax receipts. Table 3.6 below compares the latest OBR forecast as presented in their March 2018 devolved tax and spending publication and our latest forecast.

Table 3.6: Commission and OBR Scottish NSND income tax forecasts

£ million	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
SFC May 18	10,948	11,267	11,467	11,969	12,345	12,805	13,335	13,936
OBR March 18	10,957	11,415	11,873	12,403	12,712	13,139	13,575	14,116
Difference	-9	-148	-407	-434	-367	-334	-240	-181

Source: OBR (2018) Devolved Tax and Spending Forecasts March 2018 (link), Scottish Fiscal Commission
Figures may not sum to totals because of rounding

3.36 Our forecast is consistently lower than OBR's forecast. There are a few reasons why our forecasts are different.

- **Modelling differences:** In our forecasts we use a 'bottom-up' micro simulation forecast based on our SPI model. This allows the Commission to develop an income tax model which is suitable for Scottish demographics and the distribution of taxpayers. The OBR (or HMRC on their behalf) utilises a 'top-down' approach by first producing a forecast of the NSND income tax for the whole UK and then estimating a Scottish share which is applied to this forecast.
- **Data:** Our forecasts are based on the 2015-16 SPI, and are projected forward using Scottish specific economic determinants which we produce as part of our economy forecasts. The OBR forecast of future earnings growth is based on UK economic determinants. In addition, the UK income tax forecast is partly adjusted based on the available 2016-17 and 2017-18 outturn receipts data for the UK. This approach will also be reflected in their Scottish NSND income tax forecast.
- **Policy costing:** The policy costing for the Scottish Government's 2018-19 five band income tax system is included in both forecasts. Table 3.7 below compares the OBR's costing with our latest estimate. The two costings are broadly similar – there are small differences in our static costings because of differences in our base forecast. On the behaviour element, the OBR have disaggregated the policy effect of TMI and migration, where as our behavioural approach includes this as part of our Taxable Income Elasticities (TIE). The OBR's costing has an increasingly higher behavioural reduction percentage because of the accumulation of additional TMI behaviour. Further information on our approach can be found in our March

2018 paper 'How we forecast behavioural responses to income tax policy'.[49]

Table 3.7: Comparison between Commission and OBR costing of the Scottish Government's 2018-19 income tax band policy

£ million	2018-19	2019-20	2020-21	2021-22	2022-23
OBR Costing					
Static Costing	274	281	290	302	317
Behavioural response	-49	-58	-64	-70	-77
Post-behavioural Costing	225	223	226	232	240
Reduction due to behaviour (%)	-18	-21	-22	-23	-24
SFC Costing					
Static Costing	266	274	288	303	321
Behavioural response	-53	-55	-58	-61	-66
Post-behavioural Costing	213	219	230	242	255
Reduction due to behaviour (%)	-20	-20	-20	-20	-20

Source: OBR (2018) Devolved Tax and Spending Forecasts March 2018 (link), Scottish Fiscal Commission
Figures may not sum to totals because of rounding

Comparison to Block Grant Adjustment

3.37 The OBR published updated economy and fiscal forecasts at the Spring Statement on 13 March 2018. These forecasts have been used by the Scottish Government to produce indicative updates of the Scottish Government's block grant adjustments in the Medium Term Financial Strategy. For illustrative purposes, a comparison between our income tax forecasts and these block grant adjustment estimates is shown in the table below.

[49] Scottish Fiscal Commission (2018) How we forecast behavioural responses to income tax policy (link)

Table 3.8: Comparison between Commission forecast and Spring Statement 2018 Block Grant Adjustment forecast estimates

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
SFC May 2018	11,467	11,969	12,345	12,805	13,335	13,936
Block Grant Adjustment Estimates*	11,626	11,930	12,215	12,612	13,015	13,531
Difference	-159	39	130	193	320	405

Source: Scottish Fiscal Commission, Scottish Government Medium -Term Financial Strategy, Table 6.2
* Estimates are based on Indexed Per Capita methodology

3.38 The income tax BGA for the next year is set at the UK Autumn Budget and is only reconciled once the final outturn data are available, typically within 15 months of the end of the financial year. For this reason these updated BGA figures presented will have no immediate bearing on the Scottish Government's budget.

3.39 The income tax BGA figures will all be updated at the UK Autumn Budget following publication of the 2016-17 outturn data in HMRC's annual report in July 2018.

Non-Domestic Rates

Forecast

Table 3.9: Forecast of Non-Domestic Rates

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	2,731	2,774	2,788	2,859	2,931	3,110	3,307	3,339

Source: Scottish Fiscal Commission

Background

3.40 Non-Domestic Rates (NDR) are paid by the owner, tenant or occupier of non-domestic properties. The amount of tax paid is dependent on the rateable value (RV) of the property, the tax rate (also known as poundage) and any reliefs or exemptions that the property is eligible to claim. While NDR are collected and ultimately spent by local authorities, the Scottish Government retains control over the administration of the tax. This includes control over decisions such as the poundage, the system of reliefs available to ratepayers, and the date at which a revaluation of properties will take effect.

3.41 Independent Assessors assign RV to every non-domestic property in Scotland (with some exemptions). The total rateable value of non-domestic properties in Scotland is the tax base for NDR. While the method used to assess RV depends on the type of property being valued, the RV can be thought of as being broadly equivalent to the annual rental value of the property in question.[50] Rateable values are reassessed on a regular basis, with every five years historically being the most common period in between revaluations.

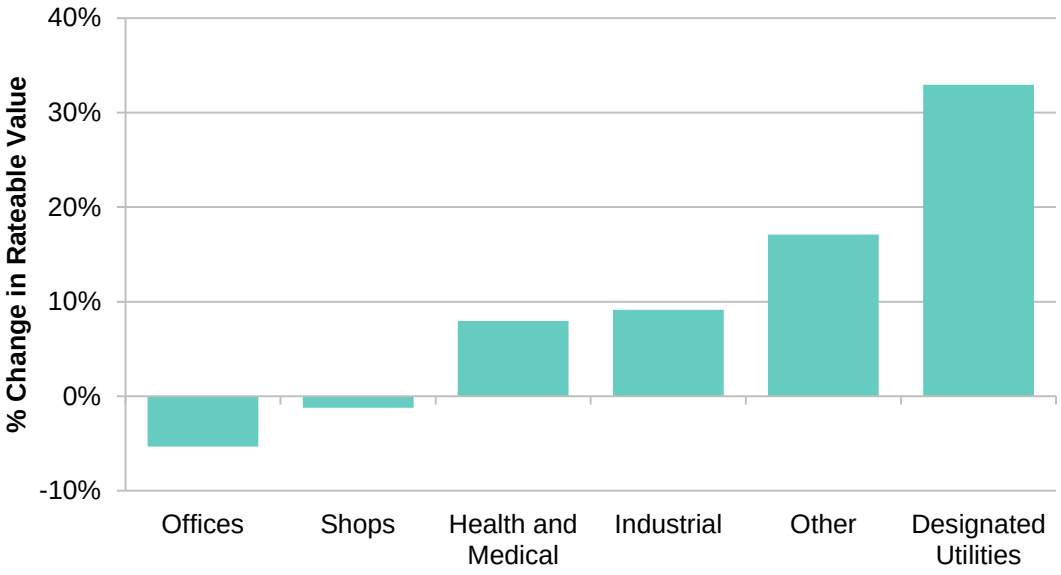
3.42 Ratepayers have the right to appeal the RV of their property if they believe it should be lower than valued by the Assessor. In Scotland the two main types of appeal are revaluation appeals, which can only be lodged within six months of a revaluation taking place, and running roll appeals which can be lodged at any point during the revaluation cycle.[51] Currently an appeal submitted by a ratepayer can only result in the rateable value of their property either being reduced or staying the same.

[50] Details of the methods used to value properties is available on the Scottish Assessors Association website (link). Rateable value is defined in the Valuation and Rating (Scotland) Act 1956 (link).

[51] Running roll appeals are lodged on the grounds of error, new interest, or a material change in circumstances (MCC). Appeals on the grounds of error must be lodged whilst the roll is in force. Appeals for MCC must be lodged no later than six months after the roll ceases to be in force.

3.43 The most recent revaluation of the tax base took effect in 2017 and saw total RV increase by eight per cent on 1 April 2017 when the new valuations came into effect. Similar to previous revaluations, this rise in RV was not uniform across the tax base. Designated Utilities – which are valued nationally by a single Assessor – saw their RV increase by 33 per cent on average compared to six per cent for the rest of the tax base as a whole.[52] In total, the 31 Designated Utilities entries on the valuation roll accounted for 36 per cent of the total growth in the tax base seen at the 2017 revaluation.

Figure 3.3: Changes in Rateable Value (RV) at 2017 revaluation by sector



Source: Scottish Government (2017) Revaluation 2017 in Scotland (link)

3.44 This concentration of growth in the tax base in a small number of high value entries on the valuation roll has important consequences for our forecast. The potential for a handful of successful revaluation appeals to significantly reduce the amount of income collected is greater than a scenario where RV growth is distributed across a larger number of entries on the tax base.

3.45 The Barclay Review report, published in August 2017, continues to have a significant impact on our forecast.[53] The review group made a total of 30 recommendations to the Scottish Government to reform the system of NDR in Scotland. Several of the recommendations relating to reliefs have been implemented from April 2018 and were included in our December 2017 forecast as policy costings.

[52] Legislation requires certain Utilities (Electricity, Gas, Fixed-Line Telecommunications, Docks and Harbours, Railways and Scottish Water) be valued at a national level by a designated assessor. See NDR (Valuation of Utilities)(Scotland) Order 2005 (link).

[53] Report of the Barclay Review of Non-Domestic Rates 2017 (link).

3.46 The Scottish Government published an implementation plan covering the recommendations of the Barclay Review group in December 2017 alongside the Draft Budget 2018-19.[54] Once information regarding the detail and timing of any further changes to the rates system is available, these will be included in our forecasts.

Description of modelling approach

3.47 The approach taken to forecast NDR has previously been set out in detail both in our September 2017 paper and our December 2017 forecast publication.[55] Data from the Scottish Assessors Association (SAA) on the tax base is used to estimate the amount of Gross NDR Income to be collected, taking account of growth in the tax base and losses from revaluation appeals.

3.48 Various deductions to this forecast of Gross Income are then made to account for the factors that reduce the amount of NDR income collected by local authorities. This includes factors such as expenditure on mandatory reliefs, write-offs and refunds resulting from overpayments in previous years.

3.49 The final step in the model accounts for the effect of a revaluation on NDR income. To do this, it is assumed that the Government will set the poundage following a revaluation in order to maintain revenue neutrality.[56] With a revenue neutral poundage, the only effect of a revaluation on NDR income is through the resolution of appeals, which cause revenues to be high early in the cycle before declining as increasing numbers of appeals are resolved. The table below demonstrates the magnitude of this effect, with revenue in year one of a revaluation cycle four per cent higher than a scenario where no revaluation takes place.

[54] See Scottish Government (2017) Implementation plan in response to the Barclay review (link)

[55] See Scottish Fiscal Commission (2017) Current Approach to Forecasting (link) and Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

[56] Policy around revaluations in Scotland has often focused on maintaining revenue-neutrality, though this was foregone at the last revaluation in favor of matching the English poundage. The formula used to calculate revenue neutral poundage is defined in legislation covering England and Wales, Local Government Finance Act 1988, Schedule 7 Part 1 (link)

Table 3.10: Impact of a revaluation on NDR Income

	Year 1	Year 2	Year 3	Year 4	Year 5
Percentage difference compared with no revaluation scenario	4%	1%	-2%	-2%	0%

Source: Scottish Fiscal Commission

3.50 By incorporating the effect of a revaluation on NDR income in this way, our forecast should reflect the expected revenues collected in the absence of any policy changes by the Scottish Government at the next revaluation.

Forecast

3.51 The Commission's forecast of NDR income is presented in the table below. The forecast has developed since December as a result of the inclusion of new data, and to a lesser extent because of modelling changes. Several of the policy costings produced for our last forecast have also been updated to include the latest available data on the tax base. The estimated net NDR income raised through the addition of shootings to the valuation roll has also been revised now that the remainder of these entries have been made by Assessors.[57]

Table 3.11: Change in NDR forecast

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Dec 2017	2,731	2,810	2,812	2,867	2,939	3,117	3,331	
Data updates		-33	-19	0	-1	-3	-3	
Modelling changes		0	-3	-8	-6	-4	-19	
Land reform costing		-3	-3	-3	-3	-3	-3	
Other[58]		0	1	2	3	2	2	
May 2018	2,731	2,774	2,788	2,859	2,931	3,110	3,307	3,339
Total change	0	-36	-24	-8	-8	-8	-23	

Source: Scottish Government, Scottish Fiscal Commission. Figures may not sum because of rounding.

3.52 Data updates have reduced the early years of our forecast and are mainly because of higher than expected appeals losses relating to the 2010 revaluation cycle. While losses to appeal from the 2017 cycle have also been higher than forecast, this has had a much smaller impact on our forecast. We

[57] Shootings were added to the valuation roll as a consequence of the Land Reform Act 2016 (link)

[58] Includes impact of policy changes since Draft Budget and recostings of previously published policy costings.

continue to assume five per cent of RV from the 2017 revaluation will be lost to appeal, but have re-calculated the profile of these losses over five years to account for the slightly higher than expected amount in year one of the cycle.

3.53 Initial estimates of growth in the tax base are weaker for 2017-18 than we forecast in December 2017. Our approach relies on projecting forward the long-run average of growth in the tax base, which is affected by several high observations in early years of the series. We now base our projections on the average growth post-2006-07, resulting in a slight downward revision to our projections for growth in the tax base. This lowers our forecast for the amount of NDR income collected from 2018-19 onwards by between £6 million and £10 million. The effect of revaluation on NDR income has also been recalculated to better capture the effect of a revenue neutral revaluation on NDR income, which lowers the forecast for 2022-23. Other modelling updates have a smaller impact on the forecast.

3.54 Our December 2017 forecast contained an estimate of the NDR income that would be raised as a result of the addition of shooting rights to the valuation roll.[59] At the time there was uncertainty around the net NDR that would be raised, with an additional 2,000 entries for shootings still to be made by Assessors. Our estimate assumed these entries were large with an average RV equal to the average RV for the 1,000 largest shootings already added to the roll. Now that Assessors have entered all shootings on the valuation roll, we have updated our costing and the additional NDR income generated is less than anticipated. The average RV of all shootings on the roll is currently calculated at £1,520 compared to the £2,865 assumed in December 2017. Net NDR income raised from shootings is estimated to be £3 million per year lower than we estimated in December 2017.[60]

3.55 Several of the policy announcements from the Draft Budget 2018-19 have been re-costed to account for new data. The impact of these changes is included in Table 3.11 in the 'Other' line. Our costing for the Business Growth Accelerator has been reduced to account for our revised projections of growth in the tax base. Additionally, the cost of New Start relief has been removed, to reflect legislation passed after the Draft Budget that will discontinue this relief. This also has a small impact on our costing for the policy introduced at Draft Budget to delay entry on the valuation roll for unoccupied new builds. The overall impact of these updates raises NDR income over the forecast. A full

[59] Shootings are defined as the right to occupy the land for the purpose of shooting wild animals and birds hunted for sport. See Scottish Assessor Association Practice Note 35 Valuation of shooting rights and deer forests (link)

[60] For more detail on how the net NDR income raised by shootings was estimated in December, see Scottish Fiscal Commission Land Reform Costing for NDR: FOI release 002/2017 (link)

breakdown of the impact of these changes on NDR income is shown in Table 3.12 below.

Table 3.12: Impact of Policy recostings and changes on NDR income

£ million	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Business Growth Accelerator	1.5	2.9	2.9	2.1	2.1	2.1
Day Nurseries	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1
Hydro	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
New Start	0.1	0.1	0.4	0.4	0.4	0.4
Delaying entry on the roll	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Total impact of changes	0.9	2.2	2.6	1.7	1.6	1.8

Source: Scottish Fiscal Commission. Figures may not sum to totals because of rounding

3.56 As noted in our December 2017 publication, both Hydro and Day Nurseries relief may change over the course of our forecast. Day Nurseries relief is due to be evaluated after three years, while Hydro relief will be considered once the review of the valuation of Hydro schemes recommended by the Barclay Review has reported. While this introduces uncertainty around the longer term cost of these policies, in the absence of firm detail we continue to assume they remain in place unchanged over the duration of our forecast. This approach is similar to that taken on other reliefs, such as the Small Business Bonus Scheme, which must be renewed via secondary legislation each year.

Box 3.2: Contributable vs. Distributable Amount

The Commission forecasts what is known as the 'contributable amount' for NDR, which can be thought of as being the amount collected by local authorities that subsequently flows to the Scottish Government. The contributable amount collected by local authorities 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 as part of this settlement is known as the 'distributable amount'.

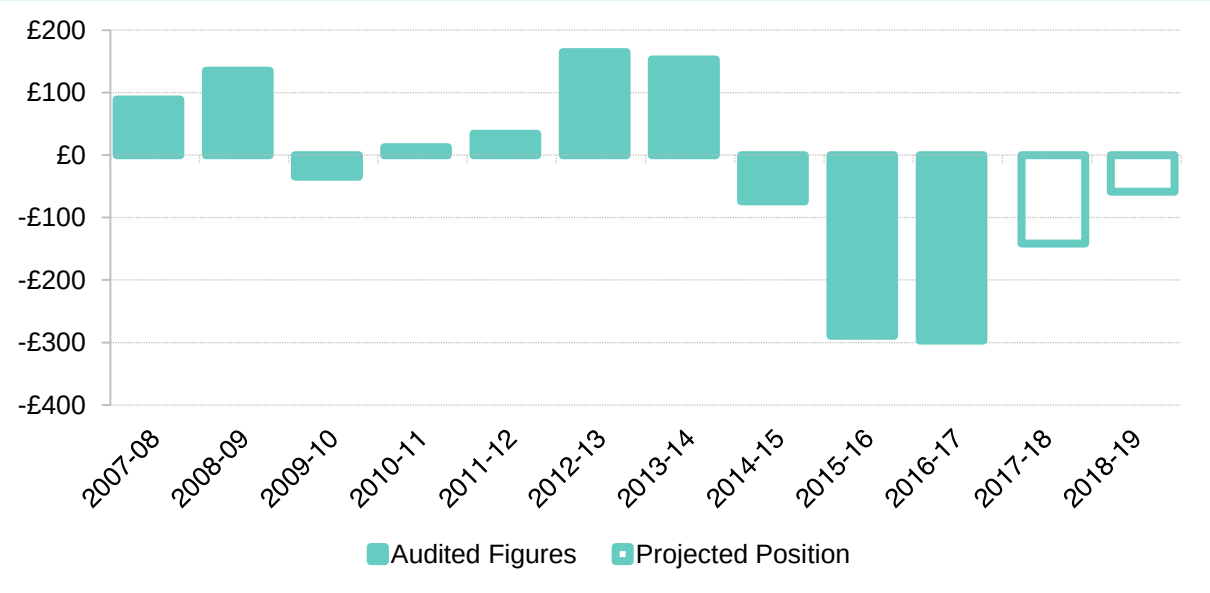
In any given year the contributable and distributable amounts will not be the same. Contributions from local authorities to the national pool are estimated by the local authorities themselves and are not known until after the start of the financial year. However, the distributable amount is set prior to the start of the financial year, meaning the Scottish Government must rely on our forecast of the contributable amount to inform this decision. In setting the distributable amount, the Government must also take account of any differences between the estimated and actual

contributions to the pool by local authorities from the year before.

To manage the difference between the contributable and distributable amounts, and demonstrate that NDR income pooled nationally is being redistributed to local authorities, the Government is required to publish what is known as the 'NDR Rating Account' or 'White Paper Account'. This account shows the annual and cumulative balance of the contributable and distributable amounts.

The figure below shows that while prior to 2014-15 the pool was typically in surplus, in recent years a cumulative deficit has been carried forward, totalling £297 million in 2016-17. Between 2013-14 and 2016-17, the Government distributed more NDR income to local authorities than was collected in each year.

Figure 3.4: Balance of NDR Rating Account at Year End, £ million



Source: NDR Rating Account 2008-09 to 2015-16 (link), NDR Rating Account 2016-17 (link), Scottish Fiscal Commission

The Commission only forecasts the contributable amount of NDR income. While decisions regarding the distributable amount are ultimately a policy choice for Government, in December 2017 this amount was set using our forecast with the aim of bringing the account to balance by the end of 2018-19.[61]

The final position of the pool cannot be known until the audit of the NDR rating account is published. However, using our current forecast of the contributable amount along with the distributable amount set for 2018-19, we estimate the pool will remain in deficit by £59 million at the end of this financial year. This projected deficit results

[61] See Scottish Government (2017) Draft Budget 2018-19, Table 10.18 Calculation of 2018-19 NDR Distributable Amount (link)

from a weaker forecast of NDR income collected in both 2017-18 and 2018-19 compared to our December 2017 forecast. The final audited position of the account will likely differ from this projection, as it is determined by data returns from local authorities on their estimated and actual contributions to the pool. As the distributable amount is set before the start of the financial year, a projected deficit cannot be addressed in-year, and so will be carried forward into the calculation of the amount to be distributed at the Scottish Budget later this year.

Description of Scottish and UK Government policy changes

3.57 A wide range of policy measures on NDR were announced at the Draft Budget 2018-19. These resulted, in part, from the Barclay Review of NDR published in August 2017. In our December 2017 publication we estimated the combined impact of these policy announcements would reduce the amount of NDR income collected by local authorities by £96 million in 2018-19.

3.58 We have re-estimated the cost of several of these policies to reflect the latest information on the tax base as of April 2018. This has resulted in revisions to our estimates of the cost of Day Nurseries, Hydro relief, and the Business Growth Accelerator. Our overall estimate of the cost of the policy changes announced at the Draft Budget in December 2017 is £1 million lower in 2018-19.

3.59 The Scottish Government published an implementation plan covering the recommendations of the Barclay Review in December 2017. Additional measures the Government has committed to implementing in future include introduction of three-year revaluation cycles after 2022-23, general anti-avoidance measures, and reforms to the system of appeals. Once detail is available along with timescales for the implementation of these measures, we will consider them in future forecasts.

3.60 The UK Government announced at the Spring Statement 2018 that the next revaluation of the tax base in England will be moved forward a year to 2021-22. The Scottish Government has since stated that it has no plans to move the date of the next revaluation, and so our forecast continues to assume this will take place in 2022-23.[62]

[62] See Question S5W-15289: Bill Bowman, Date Lodged: 15/03/2018 (link)

Land and Buildings Transactions Tax

3.61 Land and Buildings Transactions Tax (LBTT) is payable upon purchase of a residential property, or purchase or lease of a non-residential property. There are three components of LBTT: residential LBTT, which is charged on the purchase of a residential property; Additional Dwelling Supplement (ADS), which is charged on the purchase of an additional property, such as a buy-to-let or a second home; and, non-residential LBTT, which is charged on the purchase or lease of non-residential land or property, for example factories, offices and farms.

Table 3.13: LBTT forecasts

£ million	2016-17 Outturn*	2017-18**	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Total LBTT revenue raised	484	550	614	656	697	738	781	827
of which:								
Residential (excluding ADS)	214	259	312	342	373	405	438	473
Additional Dwelling Supplement (ADS)	93	91	97	100	104	108	112	116
Non-residential	177	201	206	214	220	226	231	238

Source: Scottish Fiscal Commission, Revenue Scotland (2017) 2016-17 Annual Report (link) *Accruals basis
** In-year forecast is on an accruals basis and will not exactly match the figure for total LBTT of £569 million published by Revenue Scotland in its LBTT statistical release March 2018 edition (link). See Box 3.3 for further discussion. Figures may not sum to totals because of rounding

3.62 We forecast LBTT revenues on a basis consistent with the audited figures published in Revenue Scotland's Annual Reports. These statistics will not exactly match those published monthly on Revenue Scotland's website, which are published based on the date the tax returns are received to allow for timely publication of data (see Box 3.3 for further detail).

Box 3.3: The accounting treatment of tax revenue

Tax revenue can be measured on the basis of when the tax is declared due (cash basis) or on the basis of when the liability arose (accruals basis).

Revenue Scotland publishes monthly statistics on tax declared due. These data are based on the date when Revenue Scotland receive the LBTT tax return from the buyer.[63] This differs from the date of completion, when the buyer takes legal ownership of the property, as buyers have up to 30 days after the date of completion to submit the tax return. In this report we will refer to the latter as the accruals basis, as it is the interpretation of accruals accounting on which our forecasts are based.

There are two situations in which the choice of accounting basis can lead to a significant difference in the financial year figures for tax revenue raised. First, when there is a policy change that causes some transactions either to be brought forward or pushed back into another financial year. Table 3.14 shows how this affected reported residential LBTT revenue raised in 2015-16. Second, Revenue Scotland's monthly statistics report ADS repayments against the month and year of the original additional dwelling purchase. In our forecast and in Revenue Scotland's Annual Report, repayments are accounted for in the year in which they were claimed. This is the reason why our 2017-18 forecast of £32 million for ADS repayments is considerably higher than Revenue Scotland's reported figure in its March publication of £17.6 million. The latter figure will change as future repayments tied to additional dwelling purchases that took place in 2017-18 are claimed.

We forecast revenue raised on an accruals basis, consistent with what is published in Revenue Scotland's Annual Reports.[64]

Table 3.14: Tax receipts for residential LBTT excluding ADS

£ millions	2015-16	2016-17
Receipts on basis of date tax return received	202	214
Receipts on basis of date property transaction completed	208	214

Source: Revenue Scotland LBTT statistics (link), Revenue Scotland (2017) 2016-17 Annual Report (link)

[63] Revenue Scotland Statistics (link)

[64] The Office for Budget Responsibility (OBR) uses the accruals accounting convention defined by the Office for National Statistics (ONS). While similar to the one we use, the two concepts are not exact matches. This is only a minor source of difference across all or our LBTT forecasts.

Residential LBTT

Forecast

Table 3.15: Residential LBTT forecast (excluding ADS)

£ million	2016-17 Outturn	2017-18*	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	214	259	312	342	373	405	438	473

Source: Scottish Fiscal Commission, Revenue Scotland (2017) 2016-17 Annual Report (link)
* In-year forecast is on an accruals basis and may not exactly match the figure of £260 million published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.

Background

3.63 Residential LBTT is paid on a residential property or land purchase over £145,000. LBTT was introduced on 1 April 2015 and replaced Stamp Duty Land Tax (SDLT) in Scotland.[65]

3.64 Before December 2014, SDLT tax rates were applied to the entire purchase price of the home.[66] Residential LBTT tax rates are applied only to the portion of the home purchase price that falls into each tax band. For example for a £150,000 home, the first £145,000 is taxed at zero per cent and the final £5,000 is taxed at two per cent.

3.65 The rates and bands for residential LBTT are:

- zero per cent on transactions up to £145,000
- two per cent on the portion above £145,000 up to £250,000
- five per cent on the portion above £250,000 up to £325,000
- 10 per cent on the portion above £325,000 up to £750,000
- 12 per cent on the portion above £750,000

[65] For further information about residential LBTT, please visit the Revenue Scotland website (link)

[66] Previous Commission reports have discussed the changes to the tax system in 2014 and 2015. Scottish Fiscal Commission (2017) Forecast Evaluation Report 2017 (link)

The Scottish Housing Market

3.66 Since December 2017, average Scottish house prices have continued to increase. Growth in the second half of 2017-18 has been higher than expected, in particular in the first quarter of 2018, during which average prices rose by 7.6 per cent compared with the same period of 2017.[67] The main reason was a change in the composition of transactions, with a fall in the number of lower value transactions occurring at the same time as an increase in the number of very high value transactions.

3.67 The number of purchases valued below £250,000 fell 3.8 per cent in the second half of 2017-18, compared with the same period in 2016-17. These transactions accounted for 81 per cent of total transactions in the second half of the financial year. This meant that despite an increase in transactions valued above £250,000, the total number of market transactions fell, in contrast to our expectation of a rise in December 2017.

3.68 Residential LBTT cash receipts in 2017-18 have been £260 million, £46 million more than in 2016-17.[68] If this figure is an exact reflection of the final audited figure published as part of Revenue Scotland's Annual Report later this year, it will mean that our December 2017 forecast for 2017-18 of £271 million will have proved too high. This is mainly down to a lower number of transactions than previously anticipated.

Modelling approach

3.69 Our approach to forecasting residential LBTT is unchanged since December 2017. We use mean and median house price and transactions forecasts to calculate a distribution of residential transactions in the Scottish housing market. Revenues are calculated from the forecasts of the average tax payable in each band and the total number of transactions falling into each band. Our forecasts include an explicit calculation of behavioural response to

[67] Registers of Scotland Quarterly house price statistics; Quarter 1: January – March 2018 (link). Note that as these data are not mix-adjusted, average prices can be affected by the composition of property types transacted in a given period.

[68] Revenue Scotland Monthly Statistics: March 2018 publication (link). In-year forecast is on an accruals basis and may not exactly match the figure of £260 million published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.

fiscal drag, which occurs as house prices rise thus increasing the tax payable.[69]

Forecast

3.70 The forecast for residential LBTT is shown in Table 3.16 below, along with how the forecast has developed since December 2017. There is a downward revision to 2017-18 and upward revisions to our revenue forecast thereafter.

Table 3.16: Residential LBTT receipts forecasts (excluding ADS)

£ million	2016-17 Outturn	2017-18*	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	214	271	305	336	366	395	426	
Prices		-1	16	19	23	28	33	
Transactions		-8	-9	-12	-14	-16	-19	
Fiscal Drag		0	0	-1	-1	-1	-1	
Other		-3	0	-1	-1	-1	-2	
May 2018	214	259	312	342	373	405	438	473
Total change	0	-12	7	6	7	9	12	

Source: Scottish Fiscal Commission, Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link), Revenue Scotland (2017) 2016-17 Annual Report (link)
* In-year forecast is on an accruals basis and may not exactly match the £260 million figure published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.
Figures may not sum to totals because of rounding

3.71 House price growth in the last two quarters of 2017-18 was higher than we forecast in December 2017. As a result, we have revised up our short-term forecast for average house price growth. We have also made a small upward revision to our estimate of medium-term growth. These increase our revenue forecast.

3.72 Our forecast for the median house price has also been revised upwards. This has the effect of lowering our forecast for revenue. The reason lies in the way

[69] Further detail on our modelling approach can be found in our September 2017 Current Approach to Forecasting paper (link)

that we estimate the distribution of transactions. All else equal, raising the median price has the effect of apportioning a greater share of transactions towards the lower tax brackets, thus reducing tax receipts.

3.73 From 2018-19, the effect of the higher mean price outweighs that of the higher median, leading to an overall upward revision to the revenue forecast from prices.

3.74 Our forecast for transactions has been revised down, in part because of fewer than previously forecast transactions in 2017-18 and in part because of a slightly slower rate of growth over the forecast horizon. The effect is to lower our revenue forecast.

3.75 As in December 2017, the current methodology accounts for the behavioural response to fiscal drag in the forecast.[70] Fiscal drag occurs when the tax paid on a transaction increases over time as a result of growth in prices, pushing the transaction up the tax schedule. This may cause some home buyers to offer a lower price for the house than they otherwise would, to offset, in part, the increased tax due.

3.76 We use the same behavioural elasticities as the OBR to assess the response of prices paid. As our price growth forecasts have increased, the effect of fiscal drag is greater than the estimates presented in December 2017. This reduces our revenue forecast by an additional £1 million in each year, compared to a situation in which our price growth forecasts had remained unchanged.

3.77 The Scottish Government has introduced legislation for a relief for First Time Buyers, which raises their zero tax threshold from £145,000 to £175,000. We have estimated that this policy will reduce LBTT revenue by an average of £7 million per year over the forecast horizon. Our costing has been updated slightly to reflect revisions to our price and transactions forecasts and to capture the fact that the relief will apply from 30 June 2018 rather than 1 June 2018 as assumed in our December 2017 forecast. The updated figures are set out in Annex B.

Scottish Government policy

3.78 The Scottish Government announced that the Help to Buy (Scotland) scheme will be extended until the end of March 2021 and that £100 million will be made available over the additional two years. Help to Buy is a shared equity scheme that supplements prospective home buyers' deposits. The

[70] Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

Government takes up to a 15 per cent equity stake in a property for which the purchaser has a minimum five per cent deposit. While there is no set deadline for home buyers to repay the Scottish Government, the equity support must be repaid upon the occurrence of certain events, the most common one being when the buyer decides to sell their home. The scheme applies to new build purchases with a maximum price of £200,000.

3.79 Our forecast incorporates the existing Help to Buy policy into current market trends. The expiry of the scheme in March 2021 could lead to a decrease of around 2,000 transactions in 2021-22. It could also affect average prices, given that increased deposits may have enabled buyers to increase offered prices. The impact on tax revenue raised is likely to be less than £1 million, given the fact that prices are capped at £200,000 and that two thirds of participants in 2017-18 were first time buyers who would be eligible for relief from LBTT. Therefore we have not included any adjustments for this in our forecast.

Forecast uncertainty

3.80 The Commission's residential LBTT forecasts are sensitive to variations in any of the key determinants: mean prices, median prices and transactions. The major area of forecast uncertainty is the forecast for house price growth. As outlined in the Commission's 2017 Forecast Evaluation Report this was the largest source of forecast error for revenue in the Scottish Government's December 2015 and 2016 forecasts.[71] Residential LBTT is a progressive tax, so small changes in the forecast for house price growth can lead to large changes in the forecast for LBTT revenues. Our December 2017 forecast included an illustrative analysis of the sensitivity of the LBTT forecast to the house price growth forecast.[72]

[71] Scottish Fiscal Commission (2017) Forecast Evaluation Report 2017 (link)

[72] Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

Comparison with OBR forecasts

Table 3.17: Commission and OBR Residential LBTT forecasts (excluding ADS)

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
SFC May 2018	214	259*	312	342	373	405	438
OBR March 2018	214	257	278	300	323	351	386
Difference		1	34	42	50	54	52

Source: Scottish Fiscal Commission, OBR (2018) Devolved Tax and Spending Forecast March 2018 (link), Revenue Scotland (2017) 2016-17 Annual Report (link)

* In-year forecast is on an accruals basis and may not exactly match the £260 million figure published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.

3.81 The Commission's forecasts are higher than those made by the OBR. The principal areas of difference in forecasting approach are:

- the OBR's use of UK price and transactions growth rates
- different modelling approaches and judgements for house prices and transactions
- the OBR's use of 2015 as the base year for its forecast as opposed to the Commission's starting point of 2017-18

3.82 Table 3.17 shows that our forecast for 2018-19 is £34 million higher than that of the OBR. This is driven by the combined effect of the OBR downgrading its in-year forecast for 2017-18 by £19 million and the respective revisions to house price growth forecasts in 2018-19. By 2022-23, the LBTT revenue difference is £52 million.

Additional Dwelling Supplement

Table 3.18: Additional Dwelling Supplement (ADS) forecast

£ million	2016-17 Outturn*	2017-18**	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	93	91	97	100	104	108	112	116

Source: Scottish Fiscal Commission, Revenue Scotland (2017) 2016-17 Annual Report (link) *Accrual basis outturn net ADS (link).
**In-year forecast is on an accruals basis and will differ from the £107 million net ADS figure published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.

Background

3.83 The Additional Dwelling Supplement (ADS) was introduced on 1 April 2016 and applies to purchases of additional residential properties worth £40,000 or more. The rate is set at three per cent on the full value of the property purchase.

3.84 ADS can be reclaimed if the purchaser sells their previous main residence within 18 months of purchasing the new property. The Commission forecasts net revenue – total ADS received less ADS repayments. Our forecast accounts for ADS payments when the original transaction takes place and repayments when the transfer of main residence occurs.

3.85 The accounting convention ensures our forecasts are aligned with Revenue Scotland's Annual Report figures for the devolved taxes, which makes evaluation of the forecasts clearer.

Modelling approach

3.86 The ADS model is unchanged since our December 2017 forecast. We use the forecasts for average house prices and transactions generated by the residential LBTT model.

3.87 Since the introduction of ADS in April 2016, around 23 per cent of all residential transactions have been liable for ADS. Gross revenues are calculated based on the assumption that the share of transactions liable for

ADS remains constant across the forecast horizon and that prices are the same as the main market.[73]

Table 3.19: Gross ADS, ADS repayments and net ADS forecasts

£ million	2017-18**	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Revenue	123	132	138	143	148	154	160
Reclaimed / Paid out	32	36	38	39	41	42	44
Net Revenue*	91	97	100	104	108	112	116

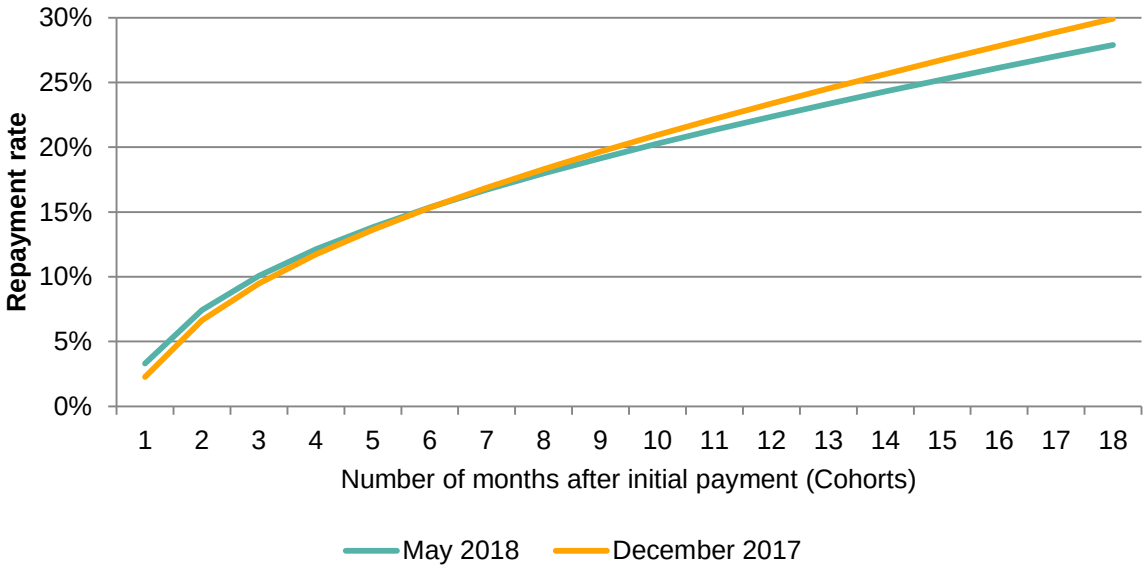
Source: Scottish Fiscal Commission
*Adjusted to account for Fiscal Drag and Policy. **In-year forecast is on an accruals basis and will differ from the £107 million net ADS figure published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.
Figures may not sum because of rounding.

3.88 Net revenue is calculated by adjusting gross revenue to account for refunds paid in each quarter. The repayment rate has been slightly reduced from 29.9 to 28.2 per cent since December 2017 as new data have become available. This results in a decrease in the future repayments and an increase in net ADS revenue. As in our December 2017 forecast, the final repayment rate includes an upward adjustment to reflect the changes to ADS refund eligibility for joint buyers which applied from 30 June 2017.[74]

[73] Prices of properties paying the ADS are, on average, the same as those in the main residential market. The prices of properties which pay ADS and do not claim a refund are on average lower than those in the main residential market. In the Commission's forecast, the difference in price is accounted for through the refunds of ADS.

[74] Revenue Scotland Guidance on Amendments to returns/repayment claims for the ADS (link). Previously, if spouses, civil partners or co-habitants were jointly buying a home to replace a home that was owned by only one of them, the additional amount was chargeable and non-refundable.

Figure 3.5: Assumed ADS repayment rate



Source: Revenue Scotland (link), Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)
Note: Repayment rates include an upward adjustment because of the policy change for joint buyer repayment claims

Forecast

3.89 The Commission's forecast of net ADS is shown in Table 3.20 along with how the forecast has developed since the December 2017 forecast. Overall, the May 2018 forecast entails a small upward revision to the previous forecast from 2018-19 onwards.

Table 3.20: ADS forecasts

£ million	2016-17 Outturn*	2017-18**	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	93	93	93	98	102	106	110	
House prices		2	3	3	3	4	4	
Transactions		-5	-3	-4	-5	-5	-5	
Repayment Rate		3	4	3	4	4	4	
Other		-2	0	0	0	-1	-1	
May 2018	93	91	97	100	104	108	112	116
Total change	0	-2	4	2	2	2	2	

Source: Scottish Fiscal Commission, Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link), Revenue Scotland (2017) 2016-17 Annual Report (link)
*Accrual basis outturn net ADS (link)
Note: Figures may not sum because of rounding.

** In-year forecast is on an accruals basis and will differ from the £107 million Net ADS figure published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.

3.90 The main upward revision to the forecast comes from a higher house price forecast, which adds £4 million to our 2022-23 forecast relative to December 2017. Changes to the repayment rate also result in an upward adjustment to revenue. As in the residential LBTT forecast, lower forecast transactions growth has reduced the ADS forecast. We have included the impact of changes to our forecast in response to fiscal drag, new data and variations in the percentage of transactions initially liable for ADS under 'Other' in Table 3.20.

3.91 A small adjustment is included in the forecast to account for the retrospective application of the Land and Buildings Transaction Tax (Relief from Additional Amount) (Scotland) Bill.[75] This lowers revenue by £1 million in 2018-19.

Forecast uncertainty

3.92 As with the residential forecast, the main sensitivities are the forecasts of house prices and transactions. The ADS forecast is also dependent on the estimate of the proportion of revenue that will be reclaimed.

UK Government policy

3.93 The UK Government introduced changes to mortgage interest relief (MIR) for buy-to-let landlords in its 2015 Summer Budget. These changes are being phased in between April 2017 and April 2020. In 2018-19, landlords will able to offset 50 per cent of their mortgage interest payments from their rental income before being taxed, rather than 100 per cent as under the old rules. The remaining 50 per cent could be deducted from their income at the 20 per cent basic income tax rate. The percentage of mortgage interest payments that landlords can deduct is decreasing over time and, by 2020, landlords will no longer be able to deduct any mortgage interest payments from their taxable profits. All landlords will pay tax on the full amount less a relief limited to 20 per cent of their mortgage interest payments.

3.94 Our assessment of the impact of this policy remains unchanged. Our forecast assumes that landlords are already aware of these changes and that there are

[75] The Land and Buildings Transaction Tax (Relief from Additional Amount) (Scotland) Bill allows couples who jointly purchased a property as a main residence to replace a main residence previously owned by one partner prior to 30 June 2017 to reclaim the ADS paid (link)

no additional market level reactions over and above those captured in existing market trends and the Commission's forecast.

Comparison with OBR forecasts

3.95 Table 3.21 below shows that the OBR net revenue forecasts are marginally higher than those made by the Commission. This is primarily driven by differing forecasts for house price and transactions growth. There is a difference in the repayments rate, with the Commission's set higher as a result of different modelling assumptions. We include an upward adjustment to reflect the impact of changes for joint buyers not included in the OBR's forecasts.

Table 3.21: Commission and OBR forecasts for net ADS revenues

£ million	2016-17 Outturn*	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
SFC May 2018	93	91**	97	100	104	108	112
OBR March 2018	90	96	99	103	108	113	119
Difference	3	-5	-2	-3	-4	-5	-7

Source: Scottish Fiscal Commission, OBR (2018) Devolved Tax and Spending Forecasts March 2018 (link), Revenue Scotland (2017) 2016-17 Annual Report (link)
*Accrual basis outturn net ADS (link).
** In-year forecast is on an accruals basis and will differ from the £107 million net ADS figure published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.
Figures may not sum because of rounding.

Non-residential LBTT

Table 3.22: Non-residential LBTT forecasts

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	177	201*	206	214	220	226	231	238

Source: Scottish Fiscal Commission, Revenue Scotland (2017) 2016-17 Annual Report (link)
* In-year forecast is on an accruals basis and may not exactly match the £201 million figure published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.

3.96 Non-residential LBTT applies to purchases or leases of commercial land and properties such as shops or offices, agricultural land, forests or any other transaction where the main subject matter of transaction consists of, or includes, an interest on land that is non-residential. Similar to residential LBTT, tax rates apply to the portion of the purchase price falling into the respective tax band.

3.97 The relevant rates and bands for non-residential LBTT transactions are:

- zero per cent on transactions up to £150,000
- three per cent on the portion above £150,000 up to £350,000
- 4.5 per cent on the portion above £350,000

3.98 Lease transactions, which account for 12 per cent of the total non-residential tax revenues, are taxed based on the net present value (NPV) of future rental payments.

3.99 The relevant rates and bands for non-residential LBTT leases are:

- zero per cent on transactions NPV up to £150,000
- one per cent on the NPV portion above £150,000

3.100 LBTT may also be payable on chargeable consideration other than rent, such as premium payments at the start of a lease. After taking into account the rental element of the lease, the tax rates and bands for non-residential property transactions apply to any such payments under a lease.[76]

[76] Tax on the premium is calculated by applying the amount payable to the tax rates and bands. The premium would normally fall within the nil rate band, but as the average annual rent is at least £1,000 the nil rate band does not apply. Because of this, all of the premium is taxed at the tax rate of the next band – three per cent.

Modelling approach

3.101 We have revised our methodology for forecasting non-residential LBTT receipts. The new approach is based on data from Revenue Scotland and Registers of Scotland and our own economic forecasts. This means that our forecasts are now fully based on Scotland-specific determinants.

3.102 We estimate a base-year distribution which is a weighted average of the distributions of prices and transactions from 2015-16 and 2016-17. Averaging over two years helps reduce the impact of volatile non-residential revenue from year-to-year. Previously we constructed the base-year forecast using a weighted average of the in-year forecast and the previous two years of revenues.

3.103 Statistical models drive short-term price and transactions growth forecasts.[77] The growth forecasts for prices from 2019-20 onwards are the same as the Commission's forecasts for the GDP deflator and the transactions growth forecast is the same as our real GDP growth projection for the Scottish economy from 2018-19 onwards. In December 2017, we used the OBR's UK commercial property price and transactions growth forecasts.

3.104 An estimate of 2017-18 revenues is constructed by estimating receipts for the remainder of the financial year, based on the proportion of revenues that have historically fallen into this period.[78]

3.105 In order to produce the forecast, we apply our price and transactions growth forecasts to our base year estimate. This provides a more granular approach than previously used, and allows for the estimation of fiscal drag and the production of costings in the event of a policy change.

3.106 This approach shares some similarities with the December 2017 methodology. Both approaches construct a baseline year which is grown by a set of price and transactions growth forecasts. The main difference is that our new model conducts the analysis at a more granular level and uses Scotland-specific forecasts for prices and transactions.

[77] The ARIMA (Auto-Regressive Integrated Moving Average) models we use are a basic type of statistical forecasting model. For further information on ARIMA models see Box 2.1 in Scottish Fiscal Commission (2017) Current Approach to Forecasting (link)

[78] At the time of publication, the Commission has data from Revenue Scotland on an effective date basis up to February 2017.

Forecast

3.107 The difference between the December 2017 forecast and the latest forecasts results from our revised price and transaction growth forecasts, incorporating new outturn data and methodology.

Table 3.23: Non-residential LBTT forecasts

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	177	193*	190	194	200	206	212	
Prices			13	18	19	19	20	
Transactions			-1	-2	-3	-4	-6	
Modelling & base year			1	2	2	3	3	
Other			2	2	2	2	1	
In-year revision		7						
May 2018	177	201*	206	214	220	226	231	238
Total change	0	-7	-15	-20	-20	-19	-19	

Source: Scottish Fiscal Commission, Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link), Revenue Scotland (2017) 2016-17 Annual Report (link)
* In-year forecast is on an accruals basis and may not exactly match the £201 million figure published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.
Note: Numbers may not sum to totals because of rounding.

3.108 The forecast for 2017-18 receipts has increased by £7 million as a result of higher than previously expected revenue in the second half of 2017-18. The monthly revenue profile can be seen in Figure 3.6 below.

3.109 The main change since the December 2017 forecast stems from increased price growth forecasts in the short-term and the introduction of a new forecasting approach. This increase in revenues has been only partially offset by lower forecasts for transactions.

3.110 Our forecasts from 2019-20 for transactions and 2020-21 for prices use the Commission's economic forecasts, rather than the UK economy forecasts from the OBR, as in December 2017. While non-residential price growth forecast remains constant at 1.8 per cent, the forecast for growth in real economic activity, and hence non-residential transactions, is lower. This reflects the downward revisions to the real GDP growth forecasts for Scotland since December 2017.

Scottish Government policy

3.111 The Scottish Government has brought forward secondary legislation to allow for Group Relief to be available where there is a transfer of properties within a corporate group structure and there is an existing 'Share Pledge' relating to the buyer. This brings the rules under LBTT in line with the rules under SDLT. The change will apply only to future transactions. We expect this to come into effect at the end of June, subject to parliamentary approval. We estimate that the change could reduce LBTT revenue by £0.6 million per year. We attach a high degree of uncertainty to the point estimate for this costing. We published a costing note to accompany the introduction of the secondary legislation on 18 May.[79]

UK Government policy

3.112 The UK Government announced a change to the capital gains tax (CGT) regime for non-UK residents selling commercial and residential property in November 2017. As of April 2019, non-UK resident sellers of property, which includes individuals, trusts and companies, will be liable for CGT. In line with the OBR, we assume that the main impact is on non-residential property and leads to a small decrease in non-residential LBTT revenues as of 2019-20.

Forecast uncertainty

3.113 The major uncertainty in forecasting non-residential LBTT revenues is the influence of a very small number of high value transactions. The top tax band for purchases accounted for 17 per cent of all transactions (both leases and purchases) but 85 per cent of total non-residential LBTT raised in 2016-17.[80]

3.114 Figure 3.6 below highlights the monthly profile of receipts from April 2015 onwards. The difference in revenue between 2015-16 and 2016-17 is entirely because of the absence of very high value transactions at the corporate and financial year ends in December and March in 2016-17. As with previous years, the second half of 2017-18 has seen the majority of revenue raised, with 61 per cent raised between October and March. This period includes calendar and financial year ends, which has been where the hard to predict very high value transactions have tended to fall.

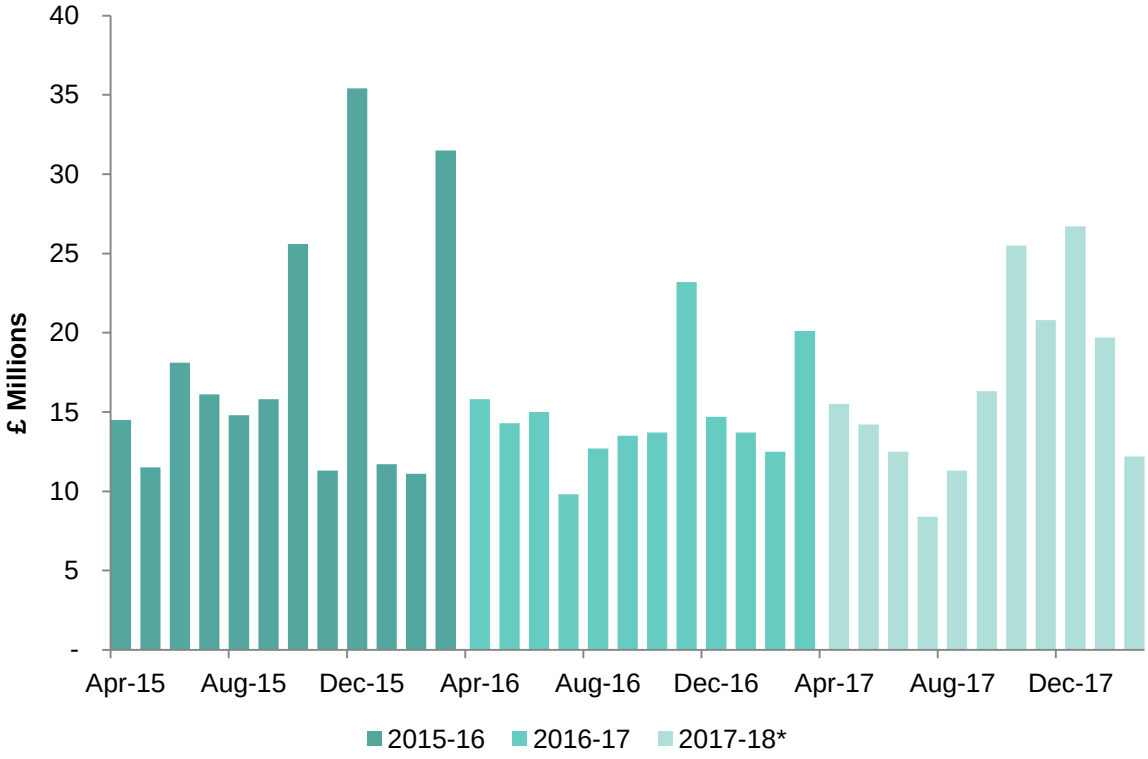
[79] Scottish Fiscal Commission (2018) Supplementary Costings Non-Residential Land and Buildings Transaction Tax Group Relief – May 2018 (link)

[80] Revenue Scotland LBTT Statistics, March 2018 (link)

3.115 There is also uncertainty to the forecast as a result of the forthcoming change to Group Relief. A number of submissions to the Scottish Government's recent consultation highlighted that there was initially an industry-wide assumption that transactions where a share pledge arrangement was in place were eligible for Group Relief under LBTT, as they would have been under SDLT.[81] The Scottish Government is currently exploring whether the change could be applied retrospectively. We will continue to monitor developments and revisit our forecast as appropriate.

3.116 April 2018 was the first month for tax returns received for three year lease reviews.[82] Unless a lease has been terminated, a further LBTT return must be submitted by the tenant at every third anniversary of the effective date of a lease and any additional LBTT must be paid or overpaid LBTT can be reclaimed. We will monitor data as it becomes available and revisit our forecasts again in December accordingly.

Figure 3.6: Non-residential LBTT receipts



Source: Revenue Scotland. *Accruals-based data available up to February 2018.

[81] Published responses to consultation on an amendment to Land and Buildings Transactions Tax Group Relief (link)

[82] See Revenue Scotland Guidance LBTT6014 – Three yearly review of the tax chargeable (link)

Comparison with OBR forecasts

3.117 Our forecast for non-residential LBTT is lower than that of the OBR. The primary reason for this is that our calculation of our base year is lower than the respective figure estimated by the OBR. The difference comes as a result of differing methods for calculating this figure, with the OBR using an in-year forecast for 2017-18, while the Commission uses an uplifted average of distributional data from 2015-16 and 2016-17.

Table 3.24: Comparison of OBR and Commission forecasts

£ million	2016-17 Outturn*	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
SFC May 2018**	177	201	206	214	220	226	231
OBR March 2018	177	208	210	216	222	229	230
Difference		-8	-4	-2	-2	-3	1

Source: Scottish Fiscal Commission, OBR (2018) Devolved Tax and Spending Forecasts March 2018 (link).
*Accrual basis outturn (link)
** 2017-18 in-year forecast is on an accruals basis and may not exactly match the £201 million figure published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion.
Figures may not sum because of rounding.

3.118 There is also a difference in forecasts stemming from our higher short-term non-residential property price growth forecast. This is in part down to the fact that we project Scotland-specific prices, as opposed to the OBR using a forecast for the UK as a whole. Further, we use a statistical model to produce our short-term forecast, whereas the OBR does not. Our transactions growth forecasts are lower relative to the OBR's, owing to differences in the respective forecasts for the Scottish and UK economies.

Comparison with BGA forecasts

3.119 The OBR published updated forecasts of UK Government receipts at the UK Government's Spring Statement 2018. These forecasts have been used to produce indicative updates of the Scottish Government's block grant adjustments. The adjustments are updated and applied to the Scottish Government's block grant at the Autumn Budget 2017.

3.120 Table 3.25 compares our LBTT forecast to the corresponding Block Grant Adjustment (BGA) forecast for LBTT, calculated on an indexed per capita basis. Our May 2018 forecast is lower than the BGA forecast for 2017-18, but is higher than the BGA forecast from 2018-19 onwards.

Table 3.25: Comparison between Commission forecast and Spring Statement 2018 Block Grant Adjustment forecast estimates

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
SFC May 2018*	550	614	656	697	738	781
Block Grant Adjustment Estimates**	586	588	606	630	656	689
Difference	-36	26	50	67	82	92

Source: Scottish Fiscal Commission, Scottish Government (2018) Medium -Term Financial Strategy, Table 6.2

* 2017-18 In-year forecast is on an accruals basis and may not exactly match the £569 million figure published by Revenue Scotland in its March 2018 LBTT statistical release (link). See Box 3.3 for further discussion. ** Estimates are based on Indexed Per Capita methodology

Air Passenger Duty

Table 3.26: Forecast of Scottish APD

£ million	2016-17*	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	257	277	285	292	301	311	322	335

Source: Scottish Fiscal Commission
Figure for Air Passenger Duty is not classed as outturn data. It is an estimate of the Scottish share of tax receipts.

3.121 Air Departure Tax (ADT) was due to replace UK Air Passenger Duty (APD) in Scotland from April 2018. The introduction of ADT in Scotland has been deferred until the issue raised in relation to the Highlands and Islands exemption has been resolved.[83] We have therefore forecast APD paid in Scotland.

3.122 APD is a tax paid on passengers departing from UK airports. Passengers departing the Highlands and Islands airports are exempt.[84] The amount of tax paid depends on the passenger's class of travel and their final destination. Under APD, destinations fall into two bands based on flight distance from London. The higher band applies to countries whose capital city is further than 2,000 miles from London. As APD applies to the final destination, connecting flights are exempt. There are a number of other exemptions to APD, such as passengers under the age of 16 travelling in the lowest class.

3.123 The class of travel determines the rate of APD paid. The reduced rate applies where passengers are travelling in the lowest class available. The standard rate applies to passengers travelling in any other class of travel and the higher rate applies to private jets.

Forecast of Scottish APD

3.124 APD tax forms are returned on a company-by-company basis, with one tax return for all their business in the UK. There are therefore no historic data on APD receipts or passengers paying APD in Scotland. The Civil Aviation Authority (CAA) airport data provide total passenger numbers for all Scottish airports on a monthly basis from January 1997 onwards.[85]

3.125 The data represent all passengers travelling and not all passengers paying APD. It does not provide information on the band or class of travel. The CAA

[83] Letter from Cabinet Secretary for Finance and Constitution to the Convener of the Finance and Constitution committee 22 November 2017 (link)

[84] HMRC (2017) Excise Notice 550: Air Passenger Duty (link)

[85] Civil Aviation Authority (2017) UK Airport Data (link)

departing passenger survey is used to estimate the number of passengers exempt from the tax and to calculate the tax paid by the remaining passengers. The survey runs every year interviewing passengers departing certain UK airports. The survey covered Scottish airports in 2005, 2009, 2013 and 2015-16. The next survey of Scottish airports is taking place in 2018.

3.126 Our approach to estimating the Scottish share of APD is consistent with the methodology used by the Scottish Government in Government Expenditure and Revenue Scotland (GERS) publication.[86]

Methodology

3.127 Scottish APD revenue forecasts are based on the relationship between total passenger numbers departing the major Scottish airports and UK GDP.[87] Our model uses the OBR forecast of percentage growth in UK GDP to estimate the percentage growth in passenger numbers.[88] We estimate a one per cent increase in UK GDP increases Scottish passengers by 1.5 per cent.

3.128 The forecast of total passenger numbers is then allocated into bands and class of travel using the CAA departing passenger survey.[89] This is then multiplied by the appropriate tax rate to produce a forecast for Scottish APD.[90]

3.129 The historic data and statistical evaluations suggest UK GDP explains movements in Scottish passenger numbers better than Scottish GDP. A reason for UK GDP performing better could be that a significant proportion of ADT taxpayers will not be resident in Scotland. Analysis on the 2013 CAA survey shows that approximately 40 per cent of passengers departing Scottish airports are not resident in Scotland. This means that their decision to fly would be largely unaffected by Scottish economic conditions and could to a greater extent depend on UK-wide economic conditions.

3.130 The past four years have seen strong growth in Scottish passenger numbers at a time when Scottish GDP growth has been relatively low. This could explain why UK GDP appears to be better correlated with Scottish passenger

[86] Scottish Government (2017) Government Expenditure & Revenue Scotland 2016-17 (link)

[87] The airports covered are Aberdeen, Edinburgh Glasgow and Prestwick. Dundee is not included, as it has a low volume of flights for primarily non-APD liable routes.

[88] Real (inflation adjusted) GDP

[89] The CAA Surveys used are the 2009, 2013 and 2015-16 surveys, Prestwick is only surveyed in 2009 and 2015-16 survey only covers Edinburgh and Glasgow.

[90] For further information, see Scottish Fiscal Commission (2017) Current Approach to Forecasting (link)

growth. In the future, we will continue to monitor the appropriateness of this method and explore whether the relationship between passenger numbers and Scottish/UK GDP growth is changing over time.

Forecast

3.131 Table 3.27 shows how our forecast of Scottish APD has changed since December 2017. This forecast includes the UK Government policy announced at Autumn Budget 2017 to freeze the Band B reduced rate and increase the Band B standard rate in 2019-20.[91]

Table 3.27: Changes in APD forecasts

£ million	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	264	292	306	314	324	336	348	
Methodology changes	0	-3	-8	-9	-9	-10	-11	
Data updates	0	-4	-5	-5	-5	-6	-6	
Updated child exemption	-7	-8	-8	-8	-8	-9	-9	
May 2018	257	277	285	292	301	311	322	335
Total change	-7	-15	-21	-22	-23	-25	-26	

Source: Scottish Fiscal Commission. Note: Figures may not sum to totals because of rounding

3.132 The methodology updates include the slight changing of our forecasting approach to model total departing passengers from Scotland rather than estimated APD liable passengers. It also includes a correction to how the Q3 data from 2017 was incorporated by the model.[92]

[91] HM Treasury (2017) Autumn Budget 2017: policy costings (link)

[92] Our forecast model in December contained an error in the incorporation of Q3 2017 data. This did not significantly affect our forecast and did not have budgetary implications. The response aligns with the categorisation of such an error as described by the Commission's voluntary compliance with best practice set out in the Office for Statistics Regulation's Code of Practice for Statistics (link)

3.133 The data updates include passenger number data up to March 2018 and OBR determinants for GDP growth and inflation from Spring Statement 2018.[93]

3.134 We have also updated the estimate for the child exemption because of recently published data from HMRC.[94] This information was not available in December 2017 and the new estimate revised up the cost of the exemption from two per cent of APD revenues to five per cent.

Uncertainties

3.135 There are a number of uncertainties around the forecast of Scottish APD. One of the major uncertainties is the lack of historic data on APD receipts in Scotland. The estimate is based on a combination of administrative and survey data. The Commission has undertaken a significant programme of work to explore available data and determine the most appropriate method for estimating Scottish APD. The accuracy of the estimate will only be known once the tax is devolved and separately collected for Scotland.

3.136 Another uncertainty is the use of UK GDP to forecast Scottish passenger numbers. If the effect of GDP growth on passenger numbers is different in future years compared to the historical data, this will affect the accuracy of the forecast. Any difference between the OBR's GDP forecast and outturn GDP could lead to an error in the forecast. Thirdly, changes in the OBR's forecast of RPI could change the tax rates for Band B flights affecting our forecast. This uncertainty is reduced as the APD bands up to 2019-20 are already set.

3.137 Finally, the Scottish Government has committed to cutting the overall burden of APD by 50 per cent.[95] The introduction of ADT has been delayed as a result of complications around the Highlands and Islands exemption. We will include Scottish Government policy in the forecast when sufficient detail on the introduction of ADT and any changes to tax rates is made available.

[93] Growth in passenger numbers over the year to the end of the first calendar quarter of 2018 was weaker than in recent years. This may have been because of the poor weather experienced in Scotland at the start of March. We have excluded this quarter from the forecast model at present and will continue to monitor trends in outturn data over the summer.

[94] HMRC (2018) Principal tax reliefs (link)

[95] Scottish Government (2017) Programme for Scotland 2017-18 (link)

Comparison to OBR forecast

Table 3.28: Comparison with OBR forecasts of Scottish APD

£ million	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
SFC May 2018	257	277	285	292	301	311	322
OBR March 2018	282	295	307	319	331	342	355
Difference	-25	-18	-22	-27	-29	-31	-33

Source: Scottish Fiscal Commission; OBR (2018) Devolved Tax and Spending Forecast March 2018 (link)
Figures may not sum to totals because of rounding

3.138 The differences in the estimate of receipts in 2016-17 as the baseline for the forecasts remains the main case of differences between the OBR and Commission forecasts. Furthermore as a result of the downwards revision to the Commission's APD forecast, the annual differences between Commission and OBR forecasts have increased. The percentage growth over the forecast horizon (2016-17 to 2022-23) for the two sources is very similar (approximately 25 per cent). This is because both methodologies use the OBR's forecasts of UK GDP growth to project passenger numbers.

3.139 The OBR takes the share of APD revenue raised in Scotland as the mid-point between 2015-16 and 2016-17 average estimates presented by HMRC (8.9 and 9.6 per cent) and the Scottish Government (8.0 and 8.3 per cent). This gives a figure of 8.7 per cent; the share is then applied to the UK forecast. Our forecast uses the 2016-17 estimate of Scottish APD receipts produced by the Scottish Government with an adjustment for revised data on the child exemption, as it is consistent with our approach.

3.140 The main difference in methodologies is the survey used to allocate passengers into bands of travel. HMRC use the International Passenger Survey (IPS), which may underestimate the share of Band A passengers in Scotland and the rest of the UK. The Commission uses the CAA Passenger Survey, which includes domestic travel and is therefore less likely to overestimate the share of Band B passengers. However, the CAA surveys are less timely than the IPS.[96] The CAA are undertaking a survey of Scottish airports throughout 2018 and we will work closely with the OBR to review our methodology, with a view to making further improvements to our estimates of the Scottish share of APD.

[96] Most recent CAA surveys by airport: Glasgow and Edinburgh 2015-16, Aberdeen 2013 & Prestwick 2009. Travel trends 2016 using IPS data covering Scottish Airports was last released by ONS in May 2017 (link)

3.141 There are other smaller differences in the approaches such as, how exempt passengers are calculated and the proportion of passengers travelling in the reduced rate and standard rate of travel.

Scottish Landfill Tax

Table 3.29: Forecast of Scottish Landfill Tax

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	148	142	114	93	95	87	87	88

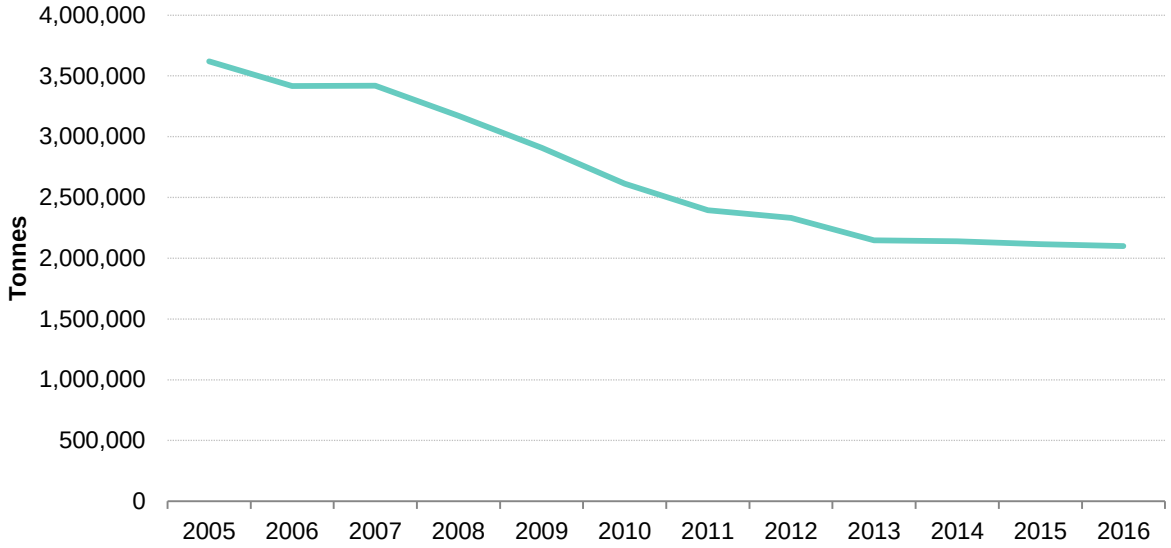
Source: Scottish Fiscal Commission

Background

3.142 Scottish Landfill Tax (SLfT) is a tax on the disposal of waste to landfill, with the amount of tax payable determined by the weight of waste being disposed of on the basis of two rates. In 2018-19 the standard rate of tax has been set at £88.95 per tonne, with a lower rate of £2.80 per tonne for certain inert materials such as rocks and soils.

3.143 SLfT is an environmental tax, aimed at reducing the amount of waste landfilled and the associated environmental damage. Since 2005 landfill volumes have fallen consistently, although recently there is evidence that this reduction has begun to stall in Scotland.

Figure 3.7: Mixed Waste Landfilled in Scotland



Source: SEPA Waste Landfilled in Scotland 2016 (link)
Note: Mixed waste constitutes two SEPA reporting categories: 'household and similar wastes' and 'sorting residues', and is used here as a proxy for standard rated waste.

3.144 Despite the apparent slowing of this trend, the Commission is forecasting significant reductions in the amount of waste landfilled over the next five years, with planned increases in the capacity of incineration facilities expected

to divert waste away from landfill. This alternative treatment to landfill across Scotland is in part a reaction to the increasing cost of the tax on disposal via landfill. It also indicates that local authorities and waste management companies are beginning to plan ahead in response to the changing regulatory landscape and the ban on the landfill of biodegradable municipal waste from 2021.[97]

Description of modelling approach

3.145 Our model uses available outturn data from Revenue Scotland for 2017-18 on the amount of standard and lower rate waste being landfilled. Data from the first three quarters are scaled up to the full year using the average proportion of annual landfilled waste that has historically been in these quarters. This is then projected forward over the entire forecast period, with adjustments made to reflect anticipated changes to waste generation and household recycling rates. Our current forecast assumes that waste generation remains largely flat over the forecast because of the current weak economic outlook, with household recycling continuing to grow in line with the trend rate of growth observed since 2009 of roughly one per cent annually.

3.146 Final adjustments are then made to this baseline to account for anticipated increases in the capacity of incineration facilities across Scotland that can be expected to divert standard rate waste away from landfill. The Commission has worked with experts within the Scottish Environment Protection Agency (SEPA) to ensure these projections of future incinerator capacity are up-to-date and as far as possible reflect the likely timescales for these facilities coming on line. This aspect of the forecast will continue to be reviewed and updated regularly, given the uncertainties involved with the precise start dates for these facilities.

Table 3.30: Impact of increasing incineration capacity on SLfT revenue

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Reduction in SLfT revenue	0	-32	-56	-58	-69	-73	-75

Source: Scottish Fiscal Commission

3.147 After accounting for changes to waste generation, recycling and incineration in the baseline, a forecast of revenue is made by applying the relevant tax rate to the forecasted amount of landfilled waste. The current policy assumption is that the tax rates are matched to those announced by the UK Government,

[97] See, The Waste (Scotland) Regulations 2012, Regulation 4 (link)

and then in subsequent years uprated in line with the latest OBR forecast of RPI.[98] The maximum contributions allowed to the Scottish Landfill Communities Fund are then netted off this total to arrive at a final forecast of revenue.

Description of Scottish policy changes

3.148 The Scottish Government has legislated for a ban on the landfilling of biodegradable municipal waste (BMW) from 2021 onwards, with the ban being written into permits issued by SEPA to landfill sites allowing them to operate.[99] This will require significant volumes of waste to be diverted to alternative management options, which will particularly affect local authorities who manage large amounts of biodegradable municipal waste through the kerb-side collection of black-bag waste.

3.149 Exactly how and when this diversion away from landfill will be achieved is still subject to some uncertainty. The projected rise in incineration capacity will significantly reduce the amount of waste landfilled in the future, but there is still a shortfall between our current projection of incinerator capacity and our best estimate of the amount of waste needing to be diverted from landfill as a result of the ban. Other management options such as increased recycling, exporting waste to Europe as refuse derived fuel, or landfilling in England may contribute to this diversion but there is currently little evidence as to how and when additional waste will start to be diverted to these in the lead up to the ban.

3.150 The Commission will continue to work with the Scottish Government and SEPA to establish the evidence base for how and when waste can be expected to be diverted from landfill in the lead up to 2021, and the profile of waste landfilled after the ban is implemented. Once a suitable evidence base has been established this will then be included in our future forecasts of SLfT revenue.

Forecast

3.151 The Commission's forecast of SLfT is shown in the table below, along with how the forecast has developed since our December 2017 forecast.

[98] OBR (2018) Economic and Fiscal Outlook March 2018 (link)

[99] SEPA published guidance (May 2018) on the BMW ban to help stakeholders understand what BMW is, why it will be banned and how the ban will be implemented (link)

Table 3.31: Changes in Scottish Landfill Tax forecasts

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	148	137	106	88	90	82	82	
Data updates		4	4	4	5	5	5	
Incinerator capacity update		1	4	0	0	0	0	
May 2018	148	142	114	93	95	87	87	88
Total change		5	8	4	5	5	5	

Source: Scottish Fiscal Commission. Figures may not sum to totals because of rounding.

3.152 The main change to the forecast has been the inclusion of the most recent published data from Revenue Scotland (2017-18 Q2 and 2017-18 Q3). This has raised the forecast by approximately £4 million in each year. An update to economic determinants which affect the level of waste generated in our model account for the remainder of the data updates. Notification of a delay to the full rate operation of the first site to increase incineration capacity has resulted in a further increase to revenue in 2017-18 of £0.9 million and in 2018-19 of £3.7 million.

Forecast Uncertainty

3.153 The largest factor driving the forecast is the timing and size of additional incineration capacity. While we have engaged with SEPA to ensure projections of capacity reflect intelligence available at the time, these are large complex construction projects that can encounter significant delays for a variety of reasons. Delays in the construction of the first site due for completion in our model has already resulted in diversion from landfill being lower in 2017-18 and 2018-19 than would have otherwise been the case. The table below demonstrates the potential impact on the forecast of a twelve month delay to each of the incineration facilities included in our model coming on-line.

Table 3.32: Impact of delays on forecast

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Central Revenue	142	114	93	95	87	87	88
Twelve Month Delay	142	145	114	95	97	89	91
Difference	0	31	21	0	9	3	3

Source: Scottish Fiscal Commission. Figures may not sum to totals because of rounding

3.154 Other factors that could divert waste from landfill but are not currently incorporated in the forecast, such as the export of refuse derived fuel (RDF), represent another source of uncertainty. While evidence currently available suggests this market has a significantly smaller effect in diverting waste from landfill than incineration, it has grown in recent years and may have the potential to grow or decline rapidly in response to short-term market conditions. For local authorities without access to an incineration facility, it represents one option to meet their obligations under the biodegradable municipal waste landfill ban, suggesting it may experience further growth. In future forecasts the Commission will look to build the evidence base for the current RDF market in Scotland and potentially include a projection of RDF exports within the forecast.

3.155 Restrictions placed upon imported recyclable materials by the Chinese Government may also have an impact on our forecast. The recycling industry has been forced to respond to this by identifying new international markets to manage waste currently exported to China. While landfilling and incineration of separately collected recyclable material is currently banned in Scotland, if the decision by the Chinese Government results in certain recycling collections no longer being profitable it could result in greater volumes of mixed waste being landfilled.[100] Our current forecast makes no adjustment for the potential impact of this on tax revenues, but we will continue to monitor this situation as the response from industry to this development becomes clearer.

3.156 We know from HMRC tax gap estimates that there can be a difference between the amount of tax that should, in theory, be collected by HMRC, and what is actually collected.[101] Such gaps can arise for a number of reasons

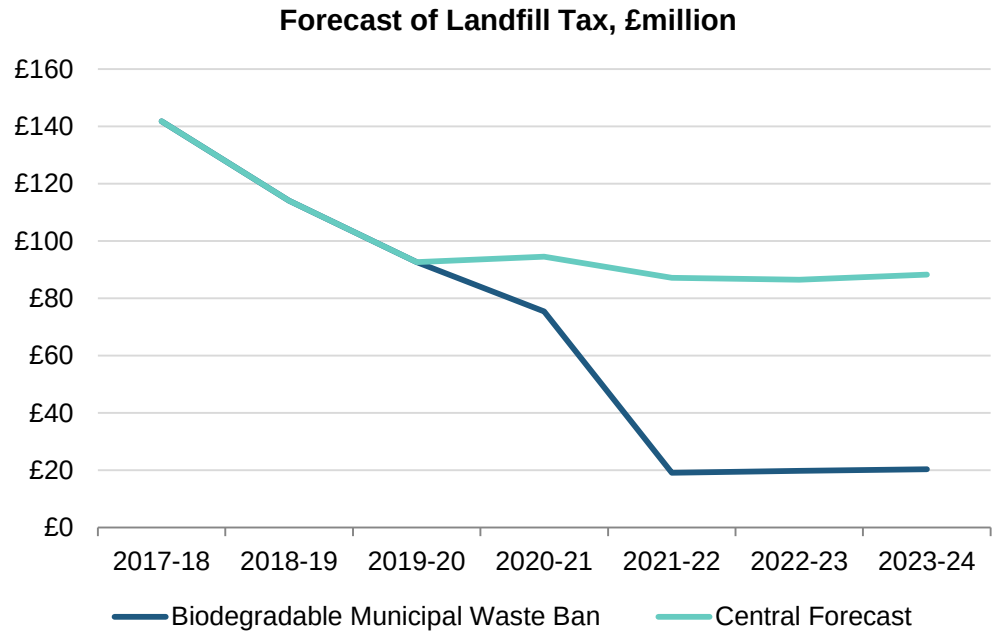
[100] A ban on material collected separately for recycling being landfilled or incinerated was introduced from 2014 as a consequence of the Waste (Scotland) Regulations 2012 (link)

[101] HMRC (2017) Measuring tax gaps: Tax gap estimates for 2015-16 (link)

including simple errors and compliance issues such as avoidance and evasion. Estimates published by HMRC show that the percentage tax gap for Landfill Tax is relatively high compared to other taxes. Since Landfill Tax is devolved recent estimates do not include Scotland and although there is no current estimate of the gap in (SLfT), it would not be unreasonable to assume that a gap does exist. Coupled with taxpayer behaviours, changes to the size of this gap could impact our forecast.

3.157 Finally, progress towards implementing the ban on biodegradable municipal waste landfilled from 2021 represents a major source of uncertainty in our forecast. Once implemented in full, volumes of standard rate waste landfilled will fall to levels significantly lower than those currently forecast from 2020-21 onwards. Sensitivity analysis shown below, which assumes additional diversion from landfill begins in 2020-21, suggests SLfT revenue could fall to £20 million per annum by the end of the forecast as a result of the ban. The Commission will continue to engage with the Scottish Government and SEPA to establish how local authorities will respond to the ban and how compliance with the ban will be approached.

Figure 3.8: Impact of Biodegradable Municipal Waste Ban



Source: Scottish Fiscal Commission

Table 3.33: Impact of Biodegradable Municipal Waste ban

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Central forecast	142	114	93	95	87	87	88
BMW ban forecast	142	114	93	75	19	20	20
Difference	0	0	0	-19	-68	-67	-68

Source: Scottish Fiscal Commission. Figures may not sum to totals because of rounding

Comparison to OBR forecasts

3.158 The OBR also produces a forecast of SLfT, published as part of its Devolved Tax and Spending Forecast Publication. As detailed in their most recent publication, the OBR now use largely the same model as the Commission for forecasting SLfT, leading to only very slight differences between our forecasts. A comparison between forecasts is shown in the table below.

Table 3.34: Comparison between Commission and OBR SLfT forecasts

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
SFC May 2018	142	114	93	95	87	87
OBR Mar 2018	142	111	93	94	86	84
Difference	0	3	0	0	2	3

Source: Scottish Fiscal Commission, OBR (2018) Devolved Taxes and Spending Forecast March 2018 (link)
Figures may not sum to totals because of rounding

3.159 The differences between these forecasts result from slightly different methods used to scale up available data from Revenue Scotland covering 2017-18, while an additional quarter of data (2017-18 Q3) has also become available since the OBR published its latest forecast in March. Different determinants are also used to grow waste generation with the OBR taking a population based approach.

Comparison to Block Grant Adjustment

3.160 The OBR published updated forecasts at the Spring Statement in 2018. These forecasts have been used to produce indicative updates of the Scottish Government's block grant adjustments. The adjustments are updated and applied to the Scottish Government's block grant at the Autumn Budget. A comparison between our SLfT forecasts and the most up-to-date block grant

adjustment estimates following the UK Government Spring Statement (13 March 2018) is shown in the table below.

Table 3.35: Comparison between Commission forecast and Spring Statement 2018 Block Grant Adjustment forecast estimates

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
SFC May 2018	142	114	93	95	87	87
Block Grant Adjustment Estimates*	104	106	91	81	77	71
Difference	38	8	2	14	10	16

Source: Scottish Fiscal Commission, Scottish Government (2018) Medium Term Financial Strategy, Table 6.2
* Estimates are based on Indexed Per Capita methodology.

Chapter 4
Social Security

Introduction

4.1 The Commission is responsible for producing forecasts of devolved social security expenditure in Scotland. In accordance with our regulations, we have produced forecasts for a variety of areas including the main benefits devolved under the Scotland Act 2016, the Scottish Welfare Fund and the new employability services. The Social Security (Scotland) Bill provides for the devolution of benefits covered by the Scotland Act 2016.[102] The dates for devolution are still to be agreed between the Scottish and UK Governments. As further benefits are devolved in the future, we will produce independent forecasts of expenditure on these areas.

4.2 The Scottish Government's intention is to use secondary legislation to set out detailed rules relating to eligibility criteria and rates of payment for the devolved benefits. To support the Scottish Parliament and the public in understanding and scrutinising the Scottish Government's policy, we may choose to produce a forecast of expenditure when secondary legislation for social security benefits is published in the Scottish Parliament. We have updated our protocol with the Scottish Government to provide further detail of the process we would follow if we choose to produce forecasts to accompany secondary legislation.[103] Over the next year, we expect secondary legislation to be published for Funeral Expense Assistance, Best Start Foods and Best Start Grant.

4.3 Our expenditure forecasts are summarised in Table 4.1. These cover benefits already devolved and a number of benefits the Scottish Government has committed to devolving by summer 2019. Box 4.1 sets out the areas we are forecasting and the basis for our forecasts.

[102] Social Security (Scotland) Bill (2018) [as passed] (link)

[103] Protocol for engagement between the Scottish Fiscal Commission and the Scottish Government (link)

Table 4.1: Summary of social security forecasts

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Carer's Allowance (CA)	234	248	267	285	303	318	334	349
CA Supplement			35	37	40	42	44	46
Discretionary Housing Payments	50	60	61	63	65	66	67	69
Scottish Welfare Fund	33	33	33	33	33	33	33	33
Employability Services		11	20	19	28	22	9	0
Fair Start Scotland		*0*	*16*	*19*	*28*	*22*	*9*	*0*
Work Able Scotland		*3*	*0*	*0*	*0*	*0*	*0*	*0*
Work First Scotland		9	4	0	0	0	0	0
Funeral Expenses Payment	5	5	5	5	5	5	5	5
Healthy Start Vouchers	5	4	4	4	4	4	4	3
Sure Start Maternity Grant	3	3	3	3	3	3	3	3
Total social security	330	364	428	450	480	493	498	508

Source: Scottish Fiscal Commission, DWP Benefit Expenditure by Country and Region 2016-17 (link), Scottish Government Discretionary Housing Payments Statistics (link), Scottish Government Scottish Welfare Fund Statistics (link), DWP unpublished data, Department of Health unpublished management information. Figures may not sum to totals because of rounding.

4.4 Our forecast for total social security expenditure has increased in most years compared to our December 2017 publication. The increase in expenditure is largely driven by changes to the model used to forecast Carer's Allowance (CA) expenditure and a policy change to uprate the CA Supplement in line with inflation. We have also redistributed the spending for Fair Start Scotland (FSS) towards the later forecast years, although total FSS expenditure over the five year period is unchanged.

4.5 Table 4.2 details the change in total forecast expenditure for social security since our December 2017 publication. We provide a breakdown of the change in forecast expenditure for each of the benefits, where applicable, in the relevant sections of this chapter.

Table 4.2: Change in total social security forecast expenditure

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	362	430	448	465	471	470	
Total Change	2	-3	3	15	22	28	
May 2018	364	428	450	480	493	498	508

Source: Scottish Fiscal Commission, Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link). Figures may not sum because of rounding.

Box 4.1: Devolved social security expenditure

We are required to forecast devolved social security expenditure and we also forecast expenditure for some benefits not yet devolved which we consider relevant to the Scottish Government's Budget. Our forecasts cover:

- social security expenditure already devolved to the Scottish Parliament
- reserved benefits where the Scottish Government has announced plans for devolution
- newly created benefits

Our forecasts cover expenditure on the benefits or programmes but do not cover the associated administrative costs, which are determined by the Scottish Government.

Devolved social security: This is expenditure devolved to Scotland and included in the Scottish Government's 2018-19 Budget. Since this expenditure is already devolved, we only consider Scottish Government policy in our forecasts. The devolved expenditure we forecast and the dates of devolution are as follows:

- Scottish Welfare Fund (April 2013)
- Employability Services (April 2017)
- Discretionary Housing Payments (April 2017)

Reserved social security: We forecast expenditure for a number of benefits which are currently reserved but where the Scottish Government has announced plans for devolution. As we have not received specific policy details, or dates for devolution, we forecast these benefits based on existing UK Government policy. These include:

- Carer's Allowance (by summer 2018, to be initially administered by DWP)
- Funeral Expenses Payment (by summer 2019)

- Sure Start Maternity Grant (by summer 2019)
- Healthy Start Vouchers[104] (by summer 2019)

As the Scottish Government announces plans for devolution of other benefits we will incorporate these into our forecasts.[105]

Newly created benefits: These are benefits created by the Scottish Parliament under the powers in the Scotland Act 2016. When producing these forecasts, we only consider Scottish Government policy. Currently the only newly created benefit we forecast is the Carer's Allowance Supplement. The Social Security (Scotland) Bill includes a temporary provision to pay a Carer's Allowance Supplement to qualifying individuals on a twice yearly basis.[106] The Scottish Government's intention is that the supplement will start being delivered at the earliest opportunity and payments will be backdated to April 2018.[107]

We will provide policy costings for new benefits such as the Young Carer Grant (from autumn 2019) when secondary legislation is published in the Scottish Parliament.[108]

4.6 The approach taken to forecast expenditure varies by benefit and has developed since our December 2017 forecasts. We have largely brought the production of forecasts in house and the Commission has reviewed and developed the models initially created by analysts in the Scottish Government. Our forecasts of expenditure on the employability programmes remain the one area where we rely on Scottish Government analysts to produce the forecasts under the guidance of the Commissioners and our staff. This will be brought into the Commission over the summer.

4.7 We have made relatively minor adjustments to the majority of our models. The one area of significant development work has been our Carer's Allowance (CA) model. We now forecast the total number of individuals expected to receive CA payments, this is often referred to as a 'stock' model. Previously we forecasted the number of new claimants flowing on to the benefit (inflow) and the number of claimants leaving the benefit (outflow) and then aggregated the flows to produce our forecast. This is often referred to as a 'flow' model.

[104] Despite Healthy Start Vouchers being reserved, they are currently funded from the Scottish Government budget. This structure is an anomaly and not replicated in any other benefits.

[105] The benefits to be devolved are: Attendance Allowance, Disability Living Allowance, Personal Independence Payment, Industrial Injuries Disablement Benefit, Severe Disablement Allowance, Cold Weather Payment and Winter Fuel Payment.

[106] Social Security (Scotland) Bill (2018) [as passed] (link)

[107] Scottish Government (2017) Support for carers: social security position paper (link)

[108] Scottish Government (2017) Support for carers: social security position paper (link)

Our new approach better aligns to the data publically available from DWP as flow data are not currently available. We will continue to review and monitor all our forecast models, refining them as more information become available.

4.8 In the following sections, each area of social security will be examined in turn. The sections will describe our approach to forecasting, impacts of any policy changes, forecast uncertainties and for Carer's Allowance, provide a comparison to the OBR's expenditure forecast published in March 2018.

4.9 For future publications, we will also look to include comparisons of our forecast expenditure against the block grant adjustments (BGA) for devolved social security payments. There will be an initial baseline addition to the block grant for devolved social security payments when the reserved benefit is devolved. This will be equivalent to forecast expenditure in Scotland the year prior to devolution, and then reconciled to actual spend in the following financial year. This amount will then be indexed in future years based on the OBR's forecasts and final expenditure by the UK Government in the rest of the UK. The approach is set out in the fiscal framework agreement between the Scottish Government and the UK Government.[109]

4.10 Information on the BGA for devolved social security payments is not currently available as the dates for devolution for the benefits which will have an associated BGA have not been finalised. As this information becomes available, we will compare the block grant adjustments with our forecasts of expenditure. For further information on how the Scottish Budget is determined, please refer to Box 1.2.

4.11 Forecasts of social security expenditure face a number of uncertainties. While the specific risks to each forecast are discussed in the relevant section, we set out some of the common areas of uncertainty for our social security forecasts in Box 4.2.

[109] The Agreement Between the Scottish Government and the United Kingdom Government on the Scottish Government's fiscal framework (link). Note there is a different approach for Cold Weather Payments where the baseline addition will be an average value over a time period rather than solely the year prior to devolution.

Box 4.2: General uncertainties for forecasting social security expenditure

Demographics matter: Some benefits are more likely to be taken up by women than by men; others are targeted at particular age groups. To capture the effect of changing demographics over the forecast horizon, many of our modelling approaches incorporate population projections. In line with our economy forecasts, we use the 50 per cent future EU migration variant of ONS 2016-based population projections.[110] Were we to use a different set of projections, our expenditure forecasts would change.

Assessing eligibility: Eligibility for some of the benefits we are forecasting depends, in part, on individuals' entitlement to other benefits. To estimate the proportion of the relevant population in receipt of these benefits our forecasts use the DWP Policy Simulation Model (PSM). The PSM draws on information from the Family Resources Survey and we use the trends it identifies to inform our view of the eligible population.[111] Uncertainties about the population in receipt of qualifying benefits will affect our forecasts of expenditure.

Take-up of benefits: The proportion of the eligible population which applies for and receives a given benefit is known as the take-up rate. Take-up rates are often challenging to calculate as little information is available on the proportion of the population who could receive support but are not doing so. Box 4.4 sets out further information on take-up rates.

Universal Credit: We do not forecast expenditure on Universal Credit as it is a reserved benefit. Universal Credit provides support to people who are on a low income or are out of work. It is being rolled out in stages across the UK and is replacing other legacy benefits. The roll out of Universal Credit creates additional uncertainties in some of our forecasts for the following reasons:

- being in receipt of Universal Credit is included in the qualifying criteria for several of the benefits we forecast
- there are some crossovers between eligibility for Carer's Allowance and the carer's element of Universal Credit

In the cases where Universal Credit is linked to eligibility criteria, individuals transitioning from a legacy benefit onto Universal Credit may find their entitlement to one of the benefits we forecast is altered. Where we are using the PSM to inform our judgements on eligibility, a gradual rollout rate for Universal Credit is assumed, capturing changes in eligibility. Any unexpected delays and changes to the

[110] ONS (2017) 2016-based Population Projections, 50 per cent EU Migration Variant Population projections Scotland (link)

[111] DWP Family Resources Survey (link)

Universal Credit rollout may change our expenditure forecasts.

The impact of devolution: The Scottish Government is in the process of setting up Social Security Scotland; the executive agency that will deliver social security benefits. Changes to the design and delivery of the benefits once devolved are likely to impact on future levels of expenditure. As the Social Security (Scotland) Bill has progressed through the Scottish Parliament we have noted changes in respect of a commitment to uprate certain benefits in line with inflation and a duty on Scottish Ministers to promote the take-up of devolved assistance.[112]

The set-up of the agency is in its early stages and at this time it is not possible to quantify the impact of any changes. As further information becomes available regarding policy and administrative changes the Scottish Government plans to make we will update our forecasts.

[112] Social Security (Scotland) Bill (2018) [as passed] (link)

Carer's Allowance

Forecast

Table 4.3: Forecast expenditure on Carer's Allowance and Carer's Allowance Supplement

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Carer's Allowance (CA)	234	248	267	285	303	318	334	349
CA Supplement			35	37	40	42	44	46
Total expenditure	234	248	302	323	342	360	377	395

Source: Scottish Fiscal Commission, DWP Benefit Expenditure by Country and Region 2016-17 (link),

Background

4.12 Carer's Allowance (CA) is paid to people who care for someone who is disabled. Since 2011, CA has been uprated for each financial year in line with CPI. The payment amount (known as the rate) for 2018-19 is £64.60 per week and is set by the UK Government.[113]

4.13 To be eligible for CA, both the carer and care recipient must meet qualifying criteria. The key criteria are that the care provider must be over 16, providing care for at least 35 hours per week and earn no more than £120 per week in 2018-19.[114] The care recipient must also be in receipt of a qualifying benefit.[115]

4.14 CA is subject to overlapping benefit rules, which state that individuals should not receive more than one income replacement benefit at one time.[116] This is particularly relevant for people reaching state pension age as claimants are not able to receive their full state pension and CA simultaneously. Over our forecast period, the UK Government is increasing the state pension age from 65 to 66 in 2019-2020.[117] Increasing the state pension age will increase the number of individuals expected to receive CA payments (caseload) as

[113] UK Government's proposed benefit and pension rates for 2018-2019 (link)

[114] These are some of the eligibility criteria for 2018-19. The earnings limit is typically increased on an annual basis.

[115] The CA qualifying benefits are: Attendance Allowance (AA), the highest or middle rate of Disability Living Allowance (DLA) care component, the daily living component of Personal Independence Payment (PIP), Armed Forces Independence Payment or Constant Attendance Allowance in respect of an industrial or war disablement. Full eligibility criteria can be found on the UK Government's page on CA eligibility (link)

[116] More information on overlapping benefit rules can be found in DWP staff Decision maker's guide: Vol 3 Chapter 17 (link)

[117] DWP State Pension Age timetables (link)

individuals will remain eligible for a longer period until they reach state pension age.

Approach to forecasting

4.15 Since December 2017, we have undertaken work to develop the CA forecast model. This development will continue over the summer as we further expand our work on social security. The revised approach for forecasting CA expenditure is detailed below.

4.16 We estimate the number of individuals expected to receive CA payments (caseload) over the forecast horizon and multiply the caseload by the annualised payment amount, resulting in an expenditure forecast. DWP publish historic caseload figures and these form the basis for our forecast.[118]

4.17 Higher numbers of females claim CA and there are fewer young people claiming. To account for these demographic differences, we forecast the caseload separately by gender and age groups. The age groupings are: 16 to 35, 36 to 50, over 50 for claimants of working-age and then an additional group for pension age claimants. This is a change from the previous model which grouped claimants in five year age bands. Our model includes adjustments for changes to the state pension age as CA cannot be claimed by individuals in receipt of the state pension.

4.18 The historic claimant data are converted into claimant rates by dividing the number of claimants by their corresponding population estimate. Our model includes an update for the 2017 Scotland population estimates published by the National Records of Scotland.[119] We use statistical models to forecast these rates.[120] The forecast rates can then be combined with population projections to give an estimate of future caseload that takes account of projected population size and demographics. We use the 50 per cent future EU migration variant of ONS 2016-based population projections, in line with our other forecasts.[121]

4.19 This approach differs from the model used in December 2017 as we are forecasting the total caseload for these age and gender groups. This is often

[118] DWP Stat Xplore (link)

[119] National Records of Scotland (2018) Mid-2017 population estimates Scotland (link)

[120] The ARIMA (Auto-Regressive Integrated Moving Average) models we use are a basic type of statistical forecasting model. For further information on ARIMA models see Box 2.1 in Scottish Fiscal Commission (2017) Current Approach to Forecasting (link)

[121] ONS (2017) 2016-based Population Projections, 50 per cent EU Migration Variant Population projections Scotland (link)

referred to as a 'stock' model. Previously, we forecasted the number of new claimants flowing on to the benefit (inflow) and the number of claimants leaving the benefit (outflow). This is often referred to as a 'flow' model.

4.20 In line with the UK Government's current policy, the weekly CA payment rate is projected over the forecast horizon by uprating the payment amount at the start of each financial year in line with the OBR's CPI forecast from the third quarter of the previous financial year.[122]

4.21 Expenditure is calculated by multiplying the forecast caseload by the forecast payment amount. We make a final adjustment to reflect known differences between the DWP claimant and expenditure data. The DWP claimant data are taken as a snapshot each quarter whereas the expenditure figures cover the total cost in a financial year and are slightly higher.

4.22 We are continuing to develop and refine our model to forecast CA expenditure over the course of 2018. We will provide an update on any further model changes in our next forecast publication.

4.23 There have been two releases of claimant data from DWP since our last publication. The second release (in respect of November 2017) was too late for inclusion in our forecasts. We chose not to update our forecast for the earlier release (in respect of August 2017) as this shows a fall in the number of individuals in receipt of Carer's Allowance compared to the previous quarter. The August 2017 data point is an outlier compared to historic data and there is not sufficient information available to explain why the number of claimants would have fallen. We discuss this further in Box 1.3 and also in the forecast uncertainty section below.

[122] See Scottish Fiscal Commission (2018) Scotland's Economic and Fiscal Forecasts May 2018 Supplementary Economy Tables S2.7 (link)

Table 4.4: Change in forecast expenditure (excluding CA supplement)

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	234	247	265	282	297	309	321	
Model Updates		1	2	2	5	8	11	
Data Updates*		0	0	1	1	1	2	
May 2018	234	248	267	285	303	318	334	349
Total Change		1	2	3	6	9	13	

Source: Scottish Fiscal Commission ,Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link),DWP Benefit Expenditure by Country and Region 2016-17 (link). Figures may not sum because of rounding. *Data updates include revised CPI forecasts and NRS mid-2017 population estimates

Carer's Allowance Supplement

4.24 The Social Security (Scotland) Bill includes a temporary provision to pay a Carer's Allowance Supplement to qualifying individuals on a twice yearly basis.[123] The Bill includes detail on how the value of the CA Supplement will be calculated and payment arrangements. Each lump sum payment will be worth six months (26 weeks) of the difference between CA and the higher of: Jobseeker's Allowance (JSA) or the amount JSA would be if it were adjusted for inflation. The lump sum payments will be made to all those in receipt of CA on a qualifying date.[124]

4.25 After CA is devolved, it will continue to be administered by DWP at the rate set by the UK Government, until Social Security Scotland takes over delivery of CA. The CA Supplement will be paid by the Scottish Government.

4.26 The qualifying and payment dates have not yet been set by the Scottish Government. In the absence of this information, our forecast for the CA Supplement remains illustrative.

4.27 We use the forecast quarterly caseload figures which are closest to the mid points of the six month time periods, namely 31 May and 30 November. The caseload on these dates are illustrative of the caseload on the eligibility dates. Our caseloads are then multiplied by the value of the supplement, resulting in an illustrative expenditure forecast. The cost of the supplement is outlined in Table 4.5 below.

[123] Social Security (Scotland) Bill (2018) [as passed] (link)

[124] The supplement payments will be made in respect of April to September and October to March each year.

Scottish Government policy changes

4.28 The Social Security (Scotland) Bill was amended at Stage 3 to place a duty on Scottish Ministers to uprate the CA Supplement each year in line with inflation. Our December forecast assumed the CA Supplement matched the JSA payment rate and was therefore subject to the UK Government's benefit freeze and not uprated until 2020-21. Table 4.5 shows the forecast cost of the CA Supplement before and after this policy change. More information on our methodology to cost the change can be found in Annex A.

Table 4.5: Change in CA Supplement forecast expenditure

£ million	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	35	30	32	33	34	
Model Updates	0	0	1	1	1	
Data Updates*	0	-1	-1	-1	-1	
Move to lump sum payments	0	0	0	0	0	
May 2018 Pre Measures	35	30	32	33	35	37
Uprating Policy	0	8	8	8	9	9
May 2018 Post Measures	35	37	40	42	44	46
Total Change		7	8	8	9	

Source: Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link), Scottish Fiscal Commission. Figures may not sum because of rounding.
*Data updates include revised CPI forecasts and NRS mid-2017 population estimates

Forecast

Table 4.6: Forecast expenditure on Carer's Allowance and CA Supplement

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Carer's Allowance (CA)	234	248	267	285	303	318	334	349
CA Supplement post-measures			35	37	40	42	44	46
Total expenditure	234	248	302	323	342	360	377	395

Source: Scottish Fiscal Commission, DWP Benefit Expenditure by Country and Region 2016-17 (link).

4.29 CA expenditure (including the CA Supplement) is forecast to increase by £148 million over the forecast period from 2017-18 to 2023-24. The key drivers for this change are the introduction of the CA supplement, increasing caseload and the annual uprating of the payment rate.

4.30 Table 4.7 below breaks down how much of the forecast increase in expenditure (excluding the supplement) can be attributed to increasing

caseload and how much can be attributed to the annual uprating of the payment rate.

Table 4.7: Breakdown of CA forecast (excluding supplement) into driving components

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Expenditure	234	248	267	285	303	318	334	349
Yearly increase		13	19	19	18	16	15	16
Of which is due to ...								
Increasing caseload		11	11	12	12	9	9	9
Uprating		2	8	7	5	6	6	7

Source: DWP Benefit Expenditure by Country and Region 2016-17 (link), Scottish Fiscal Commission. Figures may not sum because of rounding.

Increasing caseload

4.31 The caseload for Carer's Allowance has been increasing in recent years as shown in Table 4.8 below. The key drivers are:

- Increases in the female state pension age over this period
- An increase in the number of individuals caring and taking up Carer's Allowance support
- An increase in the number of people in receipt of eligible disability benefits requiring care

Table 4.8: Outturn Carer's Allowance average in-payment caseload

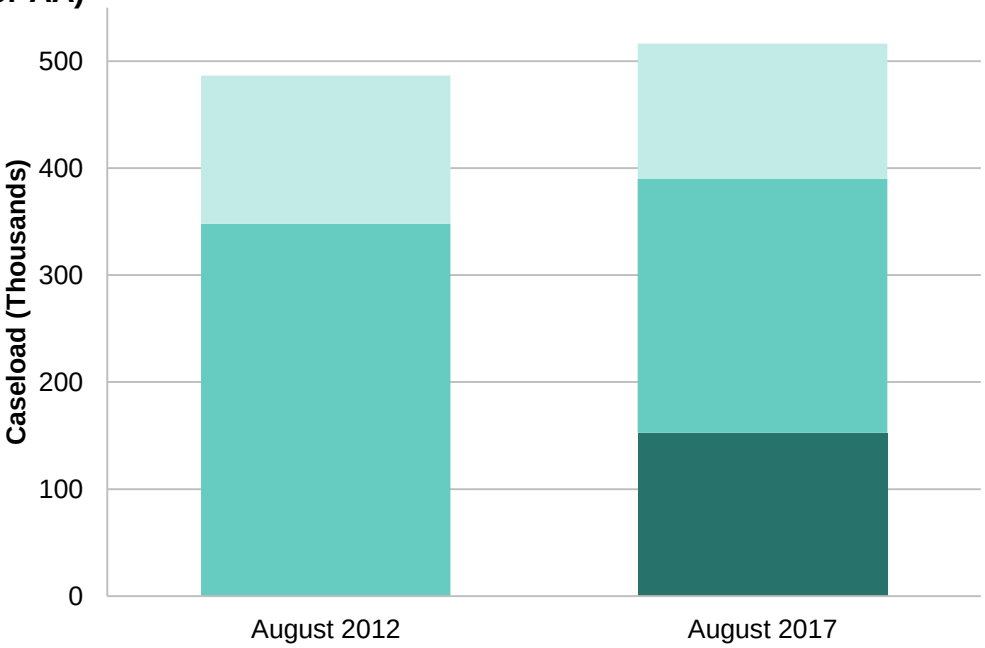
Thousands	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
	50	53	56	59	64	69	73

Source: DWP Stat Xplore (link), Scottish Fiscal Commission

4.32 We discussed the impact of the increase in the female state pension age in our last publication. There has also been an increase in the number of individuals in receipt of eligible disability benefits over this period. This increase is observed in both Scotland and the UK. As the caseloads for disability benefits such as Disability Living Allowance (DLA), Personal Independence Payment (PIP) and Attendance Allowance (AA) increase, the

number of individuals requiring care and support also increases. As a result, we expect the number of individuals eligible and claiming CA to increase. Figure 4.1 illustrates how the caseload for DLA, PIP and AA has changed over the past five years.

Figure 4.1: Number of people receiving a disability benefit in Scotland (DLA, PIP or AA)



Source: DWP Stat Xplore (link)

4.33 We expect the CA caseload to continue to increase over the forecast horizon, as displayed in Table 4.9 below.

Table 4.9: Forecast Carer's Allowance average in-payment caseload

Thousands	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	76	79	83	86	89	92	94

Source: Scottish Fiscal Commission

Forecast uncertainty

4.34 Many of the uncertainties outlined in Box 4.2 apply to CA. Additionally, expenditure on CA depends on the value of the weekly payment and any changes in inflation or policy will have an impact on our expenditure forecast.

Disability benefits

4.35 A further uncertainty for CA is the change in the underlying disability benefits. The care recipient must be in receipt of a qualifying benefit, of which the most common are Attendance Allowance (AA), Disability Living Allowance (DLA)

and Personal Independence Payment (PIP). Further information on these benefits and recent changes are outlined in Box 4.3 below.

Box 4.3: Disability benefits

DLA supports children and adults who need help with personal care or mobility. DLA is made up of two components, the 'care component' and the 'mobility component'. To get DLA you must be eligible for at least one of the components.[125] AA provides support for those aged 65 and over that need care support due to disability.[126]

The Welfare Reform Act 2012 introduced PIP as a replacement for DLA, for adults aged 16 to 64.[127] PIP is made up of two components, the 'daily living' component and the 'mobility' component.[128] Entitlement to DLA is based on an individual's condition and their needs arising from this, whereas entitlement to the two components of PIP is assessed on an individual's ability to complete a number of key everyday activities. The roll out of PIP commenced in April 2013.

The OBR produce expenditure forecasts for DLA, PIP and AA in Great Britain. We have not produced forecasts for these benefits as they are not yet devolved to Scotland. The OBR's welfare trends report highlights challenges in forecasting expenditure for disability benefits.[129] They note that the major structural reform to the disability benefits systems (moving from DLA to PIP) has proceeded more slowly than expected and has saved less than initially predicted. There has also been a rising prevalence of mental health conditions, particularly at younger ages, that has increased expenditure.

The UK Government's welfare reforms have been subject to a number of legal challenges, and it is possible that there could be further challenges in the future to existing or new policy changes. In December 2017, the High Court ruled that certain changes to the PIP regulations on how mental health conditions should be treated in calculating PIP awards were unlawful. The UK Government confirmed they will not challenge the ruling and will instead review the cases of all affected claimants.[130] The OBR has estimated that complying with this ruling at a UK level could increase the PIP caseload by 25,000 claimants and 165,000 individuals could receive a higher

[125] More information on DLA and its rates can be found on the UK Government's website (link)

[126] More information on AA and its rates can be found on the UK Government's website (link)

[127] Welfare Reform Act 2012 Part 4 (link)

[128] More information on PIP and its rates can be found on the UK Government's website (link)

[129] OBR (2016) Welfare trends report (link)

[130] Welfare reform: written statement by the Secretary of State for Work and Pensions January 2018 (link)

award by 2022-23.[131]

The Social Security (Scotland) Bill provides for the devolution of benefits covered by the Scotland Act 2016 which includes DLA, PIP and AA.[132] As the Scottish Government announces plans for devolution of DLA, PIP and AA, we will incorporate these into our forecasts.

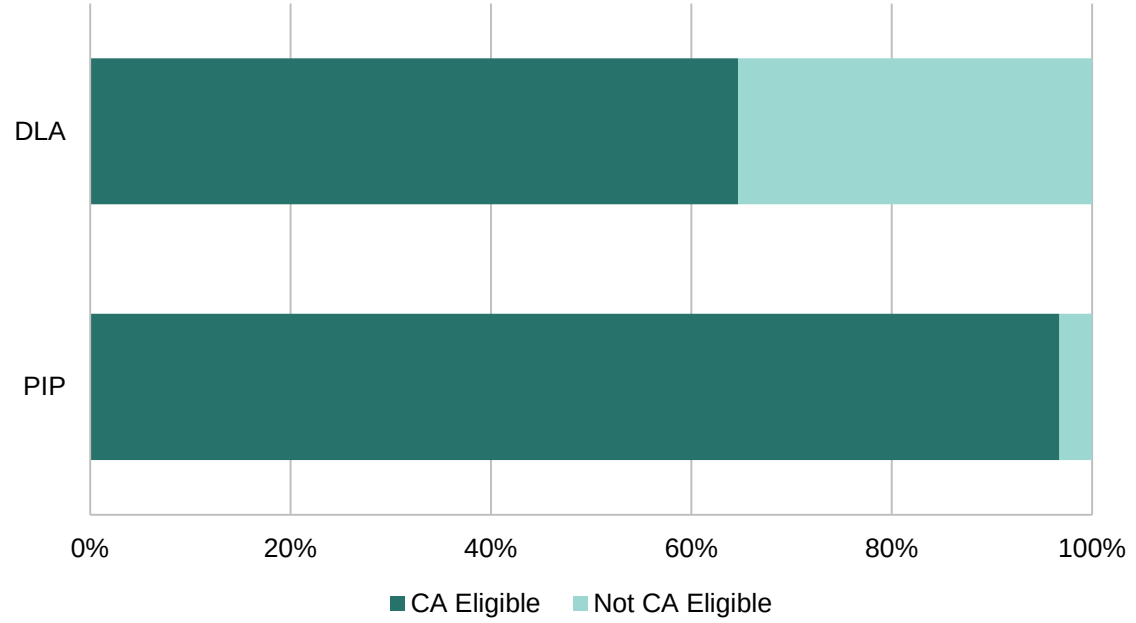
4.36 Recent increases in the caseload for DLA, PIP and AA is one of the key drivers for increases in the CA caseload. If the caseload for DLA, PIP and AA increases at a faster or slower rate compared to what we have observed historically then we expect this to impact forecast CA caseloads.

4.37 To be eligible for CA, the person receiving care needs to be in receipt of AA, the middle or highest rate of the DLA care component or the daily living component of PIP. Figure 4.2 shows the proportion of PIP claimants who are in receipt of a component that would make their carer eligible for CA is higher than the corresponding figure for DLA. The transfer of individuals from DLA to PIP may increase Carer's Allowance expenditure as a result of this difference in eligibility criteria. We will continue to monitor this as more data become available.

[131] OBR (2018) Economic and Fiscal Outlook March 2018 (link)

[132] Social Security (Scotland) Bill (2018) [as passed] (link)

Figure 4.2: Proportion of DLA and PIP claimants in Scotland who are in receipt of a component that would make their carer eligible for CA in November 2017



Source: DWP Stat Xplore (link)
Note: This comparison is for adults (aged 16 and over) only as children are unable to claim PIP.

4.38 There is limited information on the impact of the DLA to PIP migration on Carer's Allowance. In advance of our next publication, we will consider if any adjustments should be made to forecast expenditure to reflect the change in disability benefits over the forecast period.

Universal Credit

4.39 As discussed in our December publication, Universal Credit contains a carer's element with similar qualifying criteria and therefore the rollout may impact CA expenditure. We will continue to monitor the outturn data for CA to consider if the rollout of Universal Credit is affecting the CA caseload.

Comparison to OBR forecast

4.40 The OBR published a forecast of CA expenditure in Scotland in their March 2018 devolved tax and spending publication.[133]

4.41 The OBR base their forecast on the Scottish share of CA expenditure in Great Britain and adjust for slower growth in Scotland's working-age population relative to Great Britain as a whole. Differences in expenditure will arise because of the different approaches taken. We will work with the OBR to explore the reasons for these differences and whether there is relevant

[133] OBR (March 2018) Devolved tax and spending forecasts publication; Chapter 5 (link)

information that we can allow for in our next forecast. In particular, we will consider information on the forecast number of people claiming disability benefits (Disability Living Allowance, Personal Independence Payments and Attendance Allowance) which qualify their carer to claim CA.

Table 4.10: Forecast comparison (excluding CA supplement)

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
SFC May 2018	248	267	285	303	318	334
OBR March 2018	251	282	301	316	331	347
Difference	-3	-15	-16	-13	-12	-13

Source: OBR (March 2018) Devolved Tax and spending forecasts: charts and tables. Table 5.4: Scottish carer's allowance spending (excluding Scottish Government Supplement) (link), Scottish Fiscal Commission. Figures may not sum because of rounding.

Discretionary Housing Payments

Forecast

Table 4.11: Forecast expenditure on Discretionary Housing Payments

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	50	60	61	63	65	66	67	69

Source: Scottish Government Discretionary Housing Payments Statistics (link), Scottish Fiscal Commission
Note: In 2016-17 DWP made £15.2 million available to Scottish local authorities for DHP funding. The Scottish Government provided an additional £35 million. Total funding was £50.2 million.

Background

4.42 Discretionary Housing Payments (DHPs) are grants awarded by local authorities to people in need of financial assistance with housing costs. The Scottish Government provides funding to local authorities who pay out the grants and are responsible for managing the budget throughout the year.

4.43 Individuals in receipt of Housing Benefit or the housing cost element of Universal Credit are eligible to apply for DHPs. Local authorities decide who will receive payment. DHPs can be a one-off payment or could last an indefinite length of time.

4.44 The UK Government introduced the removal of the spare room subsidy (RSRS) also known as the 'Bedroom Tax' from April 2013. RSRS reduces the amount of Housing Benefit or housing component of Universal Credit for claimants living in social housing categorised as having one or more spare bedrooms.

4.45 The Scottish Government has provided additional funding to mitigate the RSRS since 2013-14. DHPs were devolved to the Scottish Parliament in April 2017 and the Scottish Government has committed to fully mitigate the RSRS using DHPs.[134]

Methodology

4.46 The budget for DHPs is split into two parts. The first is demand-led and dedicated to the mitigation of the RSRS. The second is a discretionary fund for all other DHP claims.

4.47 In 2017-18, the discretionary fund was £10.9 million. In the absence of further information from the Scottish Government we assume this stays constant over

[134] Scottish Government (2017) Welfare Reform (Further Provision) (Scotland) Act 2012 – Annual Report (link)

the forecast horizon. This assumption is unchanged from our previous forecast.

4.48 The methodology for forecasting expenditure to mitigate RSRS has not changed significantly from our December forecast.[135] We estimate the reduction in payments of Housing Benefit and the housing component of Universal Credit resulting from the RSRS in 2017-18 based on data from DWP. We then allow for expected changes in social sector rent and the stock of social housing over the forecast period to determine forecast expenditure.

4.49 There have been a number of minor updates to the forecast model. In our previous forecast, we assumed the stock of social housing remained constant. We have adjusted the forecast to take into account Scottish Government's commitment to increase the stock of social housing in Scotland. Based on a report commissioned by Shelter Scotland, Scottish Federation of Housing Associations and the Equality and Human Rights Commission Scotland, the number of social housing units is expected to increase from 595,000 in 2017 to 618,000-620,000 in 2021.[136] We assume a constant relationship between number of social housing units and the number of households affected by RSRS.

4.50 We have changed the data source used to inform our social housing rent assumption. Previously we used unpublished data from the Scottish Housing Regulator. Now we use outturn social sector rent data from the Social Tenants in Scotland report published by the Scottish Government.[137] We have also updated our methodology to use a two year average value instead of a three year average value. The rent increases in 2014-2015 are higher than the values observed more recently and we have decided to exclude this value, noting the risks associated with this assumption in the uncertainties section below.

4.51 Using the most recent data from DWP Stat-Xplore, we have updated our estimate of the reduction in payments of Housing Benefit and the housing component of Universal Credit resulting from the RSRS in 2017-18.

4.52 Finally there has been minor model refinement since our forecast in December 2017. We have performed our calculations at a more aggregated level in order to simplify the model. This increases our forecast expenditure by less than £0.1 million from 2018-19 onwards.

[135] See Scotland's Economic and Fiscal Forecasts December 2017 (link)

[136] Shelter Scotland (2018) Review of Strategic Investment Plans for Affordable Housing (link)

[137] Scottish Government (2018) Social Tenants in Scotland 2016 (link)

4.53 The impact of these changes on forecast expenditure is shown in Table 4.12 below.

Table 4.12: Change in mitigating RSRS forecast expenditure

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	48.7	50.0	51.2	52.5	53.9	55.2	
Increase in social housing stock		0.4	0.8	1.2	1.3	1.3	
Update social housing rent assumption		-0.1	-0.1	-0.2	-0.3	-0.4	
Data Update*	0.2	0.2	0.2	0.2	0.2	0.2	
Model changes	0.0	0.0	0.0	0.1	0.1	0.1	
May 2018	48.9	50.5	52.2	53.8	55.1	56.5	57.8
Total Change	0.2	0.5	0.9	1.3	1.3	1.2	

Source: Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link), Scottish Fiscal Commission. Figures may not sum because of rounding.
* Data update refers to updated data from DWP Stat Xplore (link)

Scottish Government policy

4.54 The Social Security (Scotland) Bill introduces an intent to legislate to provide additional support for housing costs in relation to the RSRS.[138] The intent is that the 'Bedroom Tax' would be mitigated at source for example, through Universal Credit.

4.55 As we have not received firm policy details, we assume DHPs continue to be the only source of funding for mitigating the RSRS. We will review and update this assumption for our future forecasts.

Forecast

4.56 We expect funding for DHPs to rise from £60 million in 2017-18 to £69 million in 2023-24. This is because of the rising costs of mitigating the RSRS.

4.57 The Scottish Government has provided a provisional outturn figure for 2017-18 based on initial information received from local authorities. This indicates that the actual outturn for RSRS in 2017-18 will be materially close to the estimate for 2017-18 shown in Table 4.13. Once all the local authorities have provided information and the outturn figure is finalised we will look to update our forecast.

[138] Social Security (Scotland) Bill (2018) [as passed] (link)

Table 4.13: Forecast expenditure on Discretionary Housing Payments

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Mitigation of RSRS		49	51	52	54	55	56	58
Other DHPs		11	11	11	11	11	11	11
Total expenditure	50	60	61	63	65	66	67	69

Source: Scottish Government Discretionary Housing Payments Statistics (link), Scottish Fiscal Commission. Figures may not sum because of rounding.

Forecast uncertainty

4.58 Aside from the uncertainties mentioned in Box 4.2 there are specific risks relating to the forecast of expenditure to mitigate RSRS.

4.59 We assume that the cost of mitigating the RSRS grows by the average increase in social housing rent over the last two years (2.4 per cent). If social housing rent changes by a different amount then expenditure may deviate from our forecast.

4.60 We assume a constant relationship between the number of social housing units and the number of households affected by RSRS. There is limited data available on the tenants who will move into the new social housing units. As a result, we do not know if new tenants will be equally likely to be under occupying the property and in receipt of housing benefit or the housing component of Universal Credit as current tenants. We will review this assumption when we receive outturn data on the number of claimants receiving support for the RSRS.

Scottish Welfare Fund

Forecast

Table 4.14: Forecast expenditure on the Scottish Welfare Fund

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	33	33	33	33	33	33	33	33

Source: Scottish Government Scottish Welfare Fund Statistics (link), Scottish Fiscal Commission

Background

4.61 The Scottish Welfare Fund (SWF) was set up in April 2013 to provide grants for people on low incomes, following the devolution of parts of the Social Fund.[139] Similar to DHPs, Scottish Government provides funding to local authorities who then deliver the discretionary grants.

4.62 Our forecasts in December 2017 included the cost of mitigating the removal of support for housing costs for some 18-21 year olds in receipt of Universal Credit.[140] In March 2018, the UK Government announced it would not continue with the policy.[141] Therefore, our forecast no longer includes this component.

Methodology

4.63 The Scottish Government has set the 2018-19 budget for the SWF at £33 million. The fund has stayed constant at £33 million since 2013-14. We have included expenditure for the Family Reunion Grant in our forecast from 2018-19 onwards. This helps refugees with increased living costs after being reunited with their family. It is a discretionary fund of £100,000 paid through the SWF.[142]

4.64 In the absence of information from the Scottish Government about future changes to the SWF, we have assumed the fund remains constant at £33 million over the forecast period.

[139] Scottish Government and COSLA (2012) Welfare Reform in Scotland (link)

[140] Scottish fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link)

[141] Welfare reform: written statement by the Secretary of State for Work and Pensions March 2018 (link)

[142] Minister for Social Security - Letter to Social Security Committee December 2017 (link)

Forecast

4.65 Table 4.15 shows our forecast of SWF compared to our forecast in December 2017. The key change is the removal of the cost of mitigating the 18 to 21 year old reduction in eligibility for the housing component of Universal Credit

Table 4.15: Change in Scottish Welfare Fund forecast expenditure

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	33.0	33.3	34.2	34.5	34.6	34.6	34.6	
Removal of 18-21 UC		-0.3	-1.2	-1.5	-1.6	-1.6	-1.6	
Family Reunion Grant			0.1	0.1	0.1	0.1	0.1	
May 2018	33.0	33.0	33.1	33.1	33.1	33.1	33.1	33.1
Total Change		-0.3	-1.1	-1.4	-1.5	-1.5	-1.5	

Source: Scottish Government Scottish Welfare Fund Statistics (link), Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link), Scottish Fiscal Commission. Figures may not sum because of rounding.

Forecast uncertainty

4.66 The removal of the costs to mitigate the cut in eligibility for the housing component has removed a large amount of uncertainty in our forecast. The remaining uncertainty is if the Scottish Government changes the funding amount for SWF.

Employability Services

Forecast

Table 4.16: Forecast expenditure on employability services

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	11	20	19	28	22	9	0

Source: Scottish Fiscal Commission

Background

4.67 The Scottish Government's Fair Start Scotland service launched on 3 April 2018.[143] There were two transitional services, which accepted referrals during 2017-18.[144]

4.68 Fair Start Scotland (FSS) is a voluntary service designed to help people with disabilities or who are long-term unemployed find sustained employment. The Scottish Government has contracted external providers to deliver the service. It is voluntary and provides support to individuals to find and sustain employment. Eligible individuals are referred mainly by Jobcentre Plus to an employability service provider.

4.69 The service is designed around participant's needs and there are three broad categories of service provided: Core, Advanced and Intense. This segmentation reflects the range of circumstances of the people who opt-in. For most participants, pre-employment support is provided for up to 12 months followed by a further 12 months of support in employment, should the participant agree. For participants in the Intense category, who face more significant and complex barriers to employment, there will be an option to extend pre-employment support from 12 to 18 months.

Financial background

4.70 The FSS service has been allocated a £96 million budget by the Scottish Government to accept referrals over three years. Contracts with providers are for five years.

4.71 Providers are paid a portion of their contract as a service fee, which is fixed at 30 per cent of the value of their contract. They receive 50 per cent of the

[143] Employability in Scotland website (link)

[144] For further details on the transitional services, see Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts, December 2017, page 170 (link)

service fee in year one, 30 per cent in year two and 20 per cent in year three. Fees are fixed and spread evenly over each month. Providers were able to ask for a portion of the service fee up front during 2017-18 to support preparation for delivery from April 2018. In the forecast this up-front element amounts to £300,000 in total.

4.72 The remaining 70 per cent of the contract value is set aside for performance-related fees. This is to incentivise a high rate of starts and conversions to sustained employment outcomes. Payments are higher for groups which are more challenging to support. Providers are paid according to the number of people who move into employment and the length of time they're employed. The key milestones are 13 weeks (15 per cent of the maximum fee), 26 weeks (35 per cent of the maximum fee) and 52 weeks (50 per cent of the maximum fee) of sustained employment.[145] The average maximum fees per person vary by service group. The fee for the Intense group is more than double that of the Core group. This is referred to as a part payment by results model and it means payments to providers will be made over a five-year period.

4.73 The service contains financial penalties in the event that a provider fails to achieve any one or more of 16 contracted key delivery indicators.[146] The Scottish Government plan to apply these with discretion but based on clearly set out guidelines. Should the Scottish Government decide that a failure has occurred and should it be established this did not occur for reasons beyond the provider's control, the provider will be subject to a penalty.

Modelling approach

4.74 The forecast model for FSS starts from an estimate of the eligible population.[147] The estimated size of this population is 76,000 people of which 38,000 are expected to start the service. Based on Scottish Government planning assumptions, it is expected that 14 per cent of referrals will fall into the Core group, 50 per cent will be in the Advanced group and 36 per cent will be in the Intense group.

4.75 As part of the tendering process, service providers were asked to give their forecasts for the numbers of people they expected to help into sustained

[145] The definition of sustained employment allows for a period out of employment. For the 13 week milestone to be met 13 weeks of employment are required in a 16 week period, for the 26 week milestone the corresponding period is 30 weeks and for the 52 week milestone it is 60 weeks.

[146] The Scottish Government set standard delivery outcomes, detailing a list of key delivery indicators they expect the contractors to meet. Delivery indicators include the provision of induction programs for participants, setting work support plans and procedures for dealing with complaints all delivered within a specific time.

[147] As with the December 2017 forecast, the Commission is using the Scottish Government's forecast model, which we will be reviewing ahead of the Scottish Budget 2019-20.

employment in each support group. They also gave information about the costs of supporting people in each group through the full service to the 12 month employment outcome and how many people in each group would sustain employment for the 13, 26 and 52 weeks. All of the above judgements remain unchanged from the December 2017 forecast.

4.76 The May 2018 forecast contains an important update to the methodology. Service providers have now provided the Scottish Government their monthly forecasts, both of how many service starts and sustained employment outcomes they expect and when they expect these milestones to be achieved. Previously, service providers gave forecasts only for the total number of job outcomes they expected to realise over the full life of the service.

4.77 The information from the Scottish Government and service providers is combined and used to calculate how much money will be spent per person referred to the service.

Scottish Government policy

4.78 The transitional services referral period ended on 9 March 2018. FSS will take referrals for three years, but contracts with and payments to providers run for five years, from April 2018 to November 2023 with final outcome payments made up to 29 February 2024.

Forecast

Table 4.17: Forecast expenditure on employability services

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Fair Start Scotland	0.3	15.7	19.2	27.7	21.9	8.5	0
Work Able Scotland	2.5	0.4	0	0	0	0	0
Work First Scotland	8.5	3.5	0	0	0	0	0
Total expenditure	11.3	19.6	19.2	27.7	21.9	8.5	0

Source: Scottish Fiscal Commission. Figures may not sum because of rounding.

4.79 Table 4.17 details the forecast of spending for Fair Start Scotland, Work Able Scotland and Work First Scotland. There are three main points to note. First, the forecast spend for Fair Start Scotland is £93 million, slightly under the announced £96 million budget.[148] This stems from the service provider estimates of expected caseloads and sustained job conversions. Second,

[148] Employability in Scotland webpage "About Fair Start Scotland" (link)

payments peak in the middle of the forecast horizon. This reflects individuals entering services at a different point as well as the time necessary to enter into employment, and to achieve the key milestones when performance fees are disbursed. Third, payments continue into 2021-22 and 2022-23, which is after the referral period ends. This is because there will be a number of cases in which participants are referred to the service during the latter part of 2020-21 and then achieve the milestones.

4.80 There have been revisions made to the expected expenditure for Fair Start Scotland (FSS) within each year of the forecast. FSS has seen downward revisions to forecast spending in the first two years of the service, with an equal total upward revision to spending in the last three years.

Table 4.18: Change in Fair Start Scotland forecast expenditure

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	0.2	17.6	26.9	27.2	18.0	3.3	
Updated service provider forecasts for sustained job outcomes	0.1	-1.9	-7.7	0.5	3.9	5.2	
May 2018	0.3	15.7	19.2	27.7	21.9	8.5	0
Total Change	0.1	-1.9	-7.7	0.5	3.9	5.2	

Source: Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link), Scottish Fiscal Commission. Figures may not sum because of rounding.

4.81 Providers were able to ask for a portion of the service fee up front during 2017-18 to support preparation for delivery from April 2018. After discussions with service providers this up-front element was revised up from £200,000 to £300,000.

4.82 The reason for FSS revisions from 2018-19 onwards is entirely down to the change in the way the forecast was constructed, as described in the Modelling Approach. Previously, providers estimated overall numbers of job outcomes realised and the profile across years was based on judgement. The new forecasts are based on the providers own estimates of the number and profile of the job outcomes being realised. This has resulted in job outcomes being assumed to be achieved later than in the forecasts made in December 2017, with expenditure therefore increased in later years.

4.83 For the transitional services, there has been a £2.2 million downward revision to forecast expenditure in 2018-19 on Work First Scotland. This is principally as a result of a lower than expected achievement of sustained job outcomes. This has meant lower performance-related fees for providers and lower spending overall. There has been only a very a minor revision to the forecast for Work Able Scotland expenditure, with a reduction in spending of £0.2 million in 2017-18 and an increase of £0.1 million in 2018-19.

Forecast uncertainty

4.84 The voluntary nature of the service may lead the eventual number of people being referred and then agreeing to participate being lower than expected. Assumptions about take-up have been based on previous DWP schemes, in particular the New Deal for Disabled People. Despite this, the evidence base underpinning this assumption is limited, owing to few comparable previous voluntary schemes. Therefore there is a high degree of uncertainty surrounding estimates of the take-up rate.

4.85 The second source of sensitivity for the forecasts is the effectiveness of the service providers at supporting participants into sustained employment. The £2.2 million downward revision to the forecast for spending on Work First Scotland came as a result of the crystallisation of this risk. For Fair Start Scotland this forecast risk may be mitigated by a longer service period and the monthly performance monitoring system put in place by the Scottish Government. We anticipate that this risk will more likely affect the profile of spending rather than the total amount spent. That said, the fact that the forecast revisions push expected job outcomes into the latter years of the service increases the risk of overall spending coming in lower than expected

4.86 A third risk is the effectiveness of the Scottish Government's channels for affecting the performance of the service. This will only be known several months after the intervention takes place. For example, should the number of people opting into the service be much higher than anticipated, it may be several months before the Scottish Government is able to know whether its intervention to slow the number of referrals has worked. This raises a risk of spending more than anticipated. Similarly if the numbers opting in are lower than anticipated there is a risk spending could be lower than anticipated.

4.87 An important feature of the service is that the budget is allocated across the nine regions. This means that should referrals or provider performance differ from expectations in any single region, the Scottish Government will manage the overall service budget at a national level to help mitigate risks of over or undershooting the overall £93 million expected spend.

4.88 We will continue to monitor expenditure on the service, in particular the assumptions around the risks identified above. These will be reviewed for future forecasts. We will also be reviewing our overall forecasting approach for FSS ahead of the Scottish Budget 2019-20.

Funeral Expenses Payment

Forecast

Table 4.19: Forecast expenditure on Funeral Expenses Payment

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	5.1	5.0	5.1	5.4	5.4	5.3	5.4	5.3

Source: DWP unpublished data, Scottish Fiscal Commission

Background

4.89 Funeral Expenses Payment (FEP) supports individuals on low incomes with funeral costs.

4.90 To receive FEP individuals must have been awarded one of the qualifying benefits.[149] They must also be responsible for the cost of the funeral. The amount paid in FEP can be recovered by DWP from any assets left by the deceased to the claimant or their family.

Forecast methodology

4.91 The forecast for FEP is influenced by the complex nature of the benefit, the interactions with qualifying benefits and family relationships. To forecast expenditure on FEP in Scotland, we use the ONS population projections to estimate the number of deaths in Scotland over the forecast period.[150]

4.92 The number of funerals eligible for FEP is then estimated by multiplying the number of deaths by the percentage of funerals eligible for FEP. Using results from the Policy Simulation Model (PSM) and information on family relationships from the Understanding Society survey, we assume around 10 per cent of funerals are eligible for a payment of FEP for 2017-18.[151] This is forecast to fall to nine per cent by 2022-23.

[149] The qualifying benefits are: Income support (IS), Income based JSA, Income related ESA, Housing benefit, Child tax credits (which includes a child, disabled child or severely disabled child element), Working tax credit (which includes the disabled worker or severe disability element), Pension credit (guarantee or savings credit) and Universal credit (link)

[150] ONS (2017) 2016-based Population Projections, 50 per cent EU Migration Variant Population projections Scotland (link)

[151] UK Data Archive Understanding Society survey (link)

Box 4.4: Take-up rate

As well as meeting the eligibility criteria for a benefit or tax relief, in many cases the individual must also apply in order to receive payment. The proportion of the eligible population who receive the benefit is referred to as the take-up rate.

The take-up rate is measured by the percentage of people who claim the benefit or tax relief they are eligible for:

$$\textbf{Take-up rate} = \frac{\textit{Number of claimants}}{\textit{Estimated eligible population}}$$

Take-up rates are challenging to calculate as there is limited information available on the population who are eligible but not claiming. This is particularly complex for benefits where eligibility depends on being in receipt of another benefit. For new benefits or reliefs, the number of claimants is also unknown and must be estimated. Therefore, take-up rates reflect uncertainties in the size of the eligible population as well as the likelihood that eligible individuals claim.

Take-up rates vary across different benefits and reliefs, these differences may be explained by:

- **Financial gain:** The larger the potential gains, the higher the take-up rate. The eligible population would be more willing to spend time/effort to apply for a benefit or tax relief.
- **Awareness:** A lack of awareness about the benefit or relief could lower the take-up rate.
- **Ease of application**: The lower the time, effort and cost of applying, the higher the take-up rate is likely to be.
- **Social barriers:** Any stigmas associated with claiming a benefit or tax relief could negatively affect the take-up rate.

The Social Security (Scotland) Bill includes a requirement for Scottish Ministers to prepare a strategy to promote take-up of assistance through the Scottish social security system.[152] The strategy will be publicly available and will set out the steps

[152] Social Security (Scotland) Bill (2018) [as passed] (link)

that Scottish Ministers intend to take to promote take-up. These steps may impact future expenditure. We will review the take-up strategy once it becomes available and consider if our take-up rate assumptions should be revised accordingly.

4.93 The take-up rate (see Box 4.4) is estimated at 61 per cent based on historical estimates of the eligible population and DWP outturn statistics on expenditure in Scotland. We assume the take-up rate does not change over the forecast period. Multiplying the take-up rate by the number of eligible deaths provides a forecast of the number of individuals expected to receive FEP.

4.94 Finally, we assume the average award increases at two per cent per year. This reflects the increase in the average award for FEP over the last ten years.

4.95 There has only been minor model refinement since our forecast in December 2017. We have performed our calculations at a more aggregated level given the small sample sizes available from the Understanding Society survey and PSM. This increases our forecast expenditure by an average of £0.4 million from 2019-20 onwards.

UK Government and Scottish Government policy

4.96 Since our previous forecast, the UK Government has announced changes to Funeral Expenses Payment that will mean recipients can receive contributions from others without them being deducted from the payment, as well as introducing other changes to make the system simpler.[153] These changes came into effect on 2 April 2018. We do not expect these changes to have an impact on forecast expenditure but there is risk associated with this assumption which is outlined in the uncertainties section below.

4.97 The Scottish Government has announced that they plan to replace FEP in Scotland with Funeral Expense Assistance (FEA) by summer 2019.

4.98 Since our previous forecast, the Scottish Government has released a consultation for the draft regulations for FEA.[154] The consultation provides further details on the Scottish Government's proposals for FEA. The key proposal that will impact expenditure is the change in approach to determine whether the applicant is an appropriate person to take responsibility for the funeral. Some of the restrictions in the current DWP FEP process would be

[153] UK Government (2018) Press release (link)

[154] Scottish Government consultation on the Funeral Expense Assistance Regulations (link)

removed under these proposals and this would result in increased eligibility and therefore increased forecast expenditure.

4.99 The forecast below covers expenditure in Scotland under current UK Government policy. Our intention to produce forecasts for devolved benefits at the time secondary legislation is introduced in Parliament is discussed in paragraph 4.2. When secondary legislation for FEA is introduced in Parliament we will provide a forecast under the new Scottish Government policy.

4.100 At Stage 3 of the Social Security Bill, an amendment was introduced that would mean relevant figures prescribed in FEA regulations would be uprated with inflation.[155] This change will be reflected when we forecast FEA.

Forecast

4.101 Expenditure on FEP is forecast to remain around £5 million per year over the forecast horizon. Pension Credit is a key qualifying benefit for FEP. As the number of Pension Credit claimants falls the proportion of eligible deaths decreases in our forecast. This is offset by an increase in average payments and an increase in the total number of deaths.

Table 4.20: Forecast expenditure on Funeral Expenses Payment

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	5.1	5.0	5.1	5.1	5.0	5.0	5.1	
Model Updates		0.0	0.0	0.3	0.4	0.3	0.3	
May 2018	5.1	5.0	5.1	5.4	5.4	5.3	5.4	5.3
Total Change		0.0	0.0	0.3	0.4	0.3	0.3	

Source: DWP unpublished outturn data, Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link), Scottish Fiscal Commission. Figures may not sum because of rounding.

Forecast uncertainty

4.102 There are a number of uncertainties around the forecast of FEP. The risks around Universal Credit and the estimated proportion of individuals in receipt of qualifying benefits are mentioned in Box 4.2. Additional uncertainties for the forecast are the increase in average award and the recent changes announced by the UK Government.

4.103 The average amount paid in FEP in Scotland has changed year on year by between minus one per cent and plus eight per cent. If the average payment

[155] Social Security (Scotland) Bill (2018) [as passed] (link)

was to grow at a different rate to our estimate (two per cent) this would impact expenditure.

4.104 There is also uncertainty regarding the recent changes announced by the UK Government.[156] Many of these changes are not expected to impact expenditure as they are focused on improvements to make the whole system simpler. We note the following two changes which could potentially impact expenditure.

4.105 Allowing recipients of a FEP to receive contributions from relatives, friends or charities without them being deducted from the payment. We do not expect this to have a material impact on expenditure. From DWP data we know that the reported amount of Funeral Expenses Payment recovered in the UK is low (approximately 0.26 per cent of total expenditure in 2016-17).[157] We also expect fewer deductions before awards are finalised which should increase the average award paid out to individuals. Again we do not expect this to be significant and we will review outturn data on the average award made to claimants once this becomes available.

4.106 Extending the claim period from three to six months from the date of the funeral. This could impact expenditure if a significant number of potential claimants did not have time to submit an application within three months of the funeral and they would now be able to apply as the window is extended. There is currently no data available to be able to assess the impact this change may have on take-up rates. Due to the large upfront costs of paying for a funeral we do not expect many claimants to be claiming after the three month period and we have assumed take-up rates are unchanged. We recognise the potential upside risk to our forecast of this change and we will continue to monitor as outturn data becomes available.

[156] UK Government (2018) Press release: Claiming Funeral Expenses Payment to be made easier (link)

[157] Annual Report by the Secretary of State for Work and Pensions on the Social Fund 2016-17 – Annex 1 (link)

Healthy Start Vouchers

Forecast

Table 4.21: Forecast expenditure on Healthy Start Vouchers

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	4.6	4.4	4.2	4.0	3.9	3.7	3.6	3.4

Source: Department of Health unpublished management information, Scottish Fiscal Commission

Background

4.107 The Healthy Start Scheme provides vouchers to purchase healthy foods for all pregnant teenagers under the age of 18 plus pregnant women and families with children under the age of four who are in receipt of a qualifying benefit.[158]

4.108 Those who qualify for Healthy Start Vouchers (HSV) receive weekly vouchers worth £3.10 each that can be exchanged for milk, fruit and vegetables.

Forecast methodology

4.109 We have made minor refinements to our forecast model since our forecast in December 2017. We have updated for more recent population estimates from National Records of Scotland (NRS) and Department of Health caseload and take-up rate statistics. These changes result in a marginally higher forecast as shown in the forecast section below.

4.110 The forecast for HSV is based on a forecast of the number of successful applicants (caseload) multiplied by voucher value, adjusted to create a yearly figure.

4.111 The caseload is determined by forecasting the eligible population and applying a take-up rate (see Box 4.4 on take-up rates) to this group. The eligible population is forecast by applying eligibility rates to population (birth and maternity) statistics and projections from NRS and ONS. The proportion of the population estimated to be eligible to receive HSV is forecast to fall from 14 to 10 per cent over the forecast horizon, based on historic data and outputs from the PSM. A key driver for falling eligibility rates is that the income thresholds in the eligibility criteria are frozen in nominal terms, while household incomes are expected to increase.

[158] The qualifying benefits are: income support, income-based JSA, income-related ESA, child tax credit (with a family income of £16,190 or less per year) or universal credit (with family take home pay of £408 or less per month) (link)

4.112 We then apply a take-up rate of 70 per cent to the forecast eligible population. The take-up rate is based on unpublished information from the Department of Health and refers to the proportion of the eligible population who both apply for and use their vouchers.

Scottish and UK policy changes

4.113 The powers over Welfare Foods (which includes HSV and also the Nursery Milk Scheme) are being devolved to Scotland through provisions in the Scotland Act 2016.

4.114 In 2018-19, HSV remains reserved and our current forecast assumes HSV continues in line with current UK policy for the forecast horizon. HSV are currently administered by the Department of Health but paid for from the Scottish Budget.

4.115 Since our last publication, the Scottish Government has launched a consultation on Welfare Foods.[159] The consultation provides further details on the Scottish Government's proposals for Best Start Foods which will replace the existing Healthy Start Scheme.

4.116 It is expected that Best Start Foods will commence by summer 2019 and be delivered by the new Social Security Agency. The key changes proposed on devolution are:

- An increase in the weekly payment from £3.10 to £4.25
- Support will be provided for families with children up to the age of three, instead of up to the age of four under the Healthy Start Scheme
- The introduction of a smartcard rather than paper vouchers
- An expansion in the eligible foods to include eggs, tinned fruits, vegetables, pulses and dried pulses

4.117 Our intention to produce forecasts for devolved benefits at the time secondary legislation is introduced in Parliament is discussed in paragraph 4.2. When secondary legislation for Best Start Foods is introduced in Parliament we will provide a forecast under the new Scottish Government policy.

Forecast

4.118 The forecast for HSV is slightly higher than the forecast published in December 2017. This can be attributed to refinements to our forecast model and updated data from Department of Health and NRS.

[159] Scottish Government Welfare Foods consultation (link)

4.119 Forecast expenditure is decreasing over the forecast horizon because of decreasing eligibility rates. Other key components of the forecast model such as number of children, number of pregnant women and take-up rates do not change significantly over the period.

Table 4.22: Change in Healthy Start Vouchers forecast expenditure

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
December 2017	4.6	4.3	4.0	3.8	3.8	3.5	3.5	
Model updates		0.0	0.2	0.2	0.1	0.2	0.1	
Data updates		0.0	0.0	0.0	0.0	0.0	0.0	
May 2018	4.6	4.4	4.2	4.0	3.9	3.7	3.6	3.4
Total Change		0.1	0.2	0.3	0.1	0.2	0.1	

Source: Department of Health unpublished management information, Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts December 2017 (link), Scottish Fiscal Commission. Figures may not sum because of rounding.

Forecast uncertainty

4.120 Many of the uncertainties around this forecast, such as population projections, take-up rates, devolution and the number of individuals on qualifying benefits are common to all social security forecasts and have been discussed in Box 4.2.

Sure Start Maternity Grant

Forecast

Table 4.23: Forecast expenditure on Sure Start Maternity Grant

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	2.5	2.6	2.6	2.6	2.5	2.6	2.6	2.6

Source: DWP unpublished data, Scottish Fiscal Commission
Note: In our December 2017 publication the 2016-17 outturn value was shown as £2.0 million. This figure was rounded and has been corrected above.

Background

4.121 Sure Start Maternity Grant (SSMG) is a one-off payment of £500 to help low income households with the costs associated with having a first child.[160] To qualify, families must have been awarded at least one of the qualifying benefits.[161]

4.122 An allowance was introduced in April 2011 for families who have multiple children in one birth (referred to in this document as 'multiple births'), where they may be eligible to receive additional payments.

Approach to forecasting

4.123 The approach to forecast SSMG is unchanged since our forecast in December 2017. There have only been minor refinements to our forecast model which have not impacted forecast expenditure. The eligible population is forecast by applying eligibility rates to birth data and population projections from NHS and ONS respectively. The number of claimants is determined by applying a take-up rate to the eligible population. We then multiply by the award amount to determine forecast expenditure.

Scottish and UK Government policy changes

4.124 SSMG will be devolved to the Scottish Parliament and the Scottish Government has announced plans to replace SSMG with the Best Start Grant by summer 2019.

[160] In some circumstances, such as for kinship carers or multiple births, a SSMG may be awarded for second or subsequent children.

[161] The qualifying benefits are: income support, income based JSA, income related ESA, child tax credit (which includes a child, disabled child or severely disabled child element), pension credit (guarantee or savings credit), working tax credit including the disabled worker or severe disability element or Universal Credit. Individuals may also qualify if they are receiving a support for mortgage interest loan (link)

4.125 Since our previous forecast, the Scottish Government has released a consultation for the draft regulations for Best Start Grant.[162] The consultation provides further details on the Scottish Government's proposals for Best Start Grant. The key changes proposed after devolution that will impact expenditure are:

- An increase in the maternity and new baby payment to £600 for a first child and £300 for a subsequent child
- The introduction of a nursery/early learning payment of £250 to help with costs during nursery and early learning years
- The introduction of a school payment of £250 to help with the costs of preparing for primary school

4.126 The forecast below covers expenditure in Scotland under current UK Government policy. Our intention to produce forecasts for devolved benefits at the time secondary legislation is introduced in Parliament is discussed in paragraph 4.2. When secondary legislation for Best Start Grant is introduced in Parliament we will provide a forecast under the new Scottish Government policy.

Forecast

4.127 The forecast has been extended to include 2023-24 but otherwise remains unchanged from our last publication.

Table 4.24: Forecast expenditure on Sure Start Maternity Grant

£ million	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	2.5	2.6	2.6	2.6	2.5	2.6	2.6	2.6

Source: DWP unpublished data, Scottish Fiscal Commission.
Note: In our December 2017 publication the 2016-17 outturn value was shown as £2.0 million. This figure was rounded and has been corrected above.

Forecast uncertainty

4.128 The uncertainties which are likely to affect the SSMG forecast are common across all the social security forecasts. For more information on these, please see Box 4.2.

[162] Scottish Government consultation on the Best Start Grant Regulations (link)

Chapter 5 Borrowing

Background

5.1 The Commission is required to assess the reasonableness of the Scottish Government's projections of their borrowing.[163]

5.2 We fulfil this role by assessing any borrowing which Ministers can project in advance. In our economy chapter, we assess if there is a Scottish specific economic shock that would allow the Scottish Government increased borrowing powers. This is discussed further in paragraph 5.6.

5.3 Our assessment of reasonableness will consider the level of borrowing relative to the statutory caps set out in the Scotland Act 2016 and the associated Fiscal Framework. The caps are detailed in Table 5.1.

5.4 Where appropriate, we will also consider how broader fiscal factors may affect the resources available to the Scottish Government.[164] For example, in this report we examine the payments into, and drawdown of funds from, the Scotland Reserve. We will review the scope of this assessment and our work on borrowing over the summer.

Borrowing limits

5.5 Capital borrowing allows the Scottish Government to fund capital projects, for example to invest in schools, roads and hospitals. The Scotland Act 2012 gave the Scottish Government power to borrow from the National Loans Fund, through the issue of bonds, or through commercial loans (directly from a bank or other lender). Resource borrowing can only be funded from the National Loans Fund (NLF), whereas capital borrowing can be funded from the NLF, commercial loans or the issue of bonds subject to a statutory aggregate cap and an annual limit.[165] These limits were increased with the Scotland Act 2016

[163] Scottish Fiscal Commission Act 2016 section 2(2)(b) (link)

[164] Fiscal factors are defined in the Scottish Fiscal Commission Act 2016 (link) as: "anything which the Scottish Ministers use to ascertain the amount of resources likely to be available for the purposes of sections 1 to 3 of the Public Finance and Accountability (Scotland) Act 2000 (link)

[165] Scotland Act 2012, Part 3 Borrowing (link)

to an annual limit of £450 million and a total limit of £3 billion for capital borrowing, and £600 million and £1.75 billion for resource borrowing.[166]

5.6 The Scottish Government have the power to borrow for resource spending for the following reasons:

- In-year cash management
- Forecast error in relation to devolved and assigned taxes and devolved social security expenditure arising from forecasts of Scottish receipts/expenditure and corresponding UK forecasts for the Block Grant Adjustments.
- Any observed or forecast shortfall in devolved or assigned tax receipts or devolved social security expenditure incurred where there is, or is forecast to be, a Scotland-specific economic shock.[167]

5.7 The current limits on capital and resource borrowing are shown in Table 5.1.

Table 5.1: Capital and resource borrowing provisions in the Fiscal Framework

Capital borrowing
Statutory overall capital borrowing limit of £3 billion
Annual limit of 15 per cent of the overall borrowing cap – equivalent to £450 million a year
The term of any loan is normally 10 years, but where the lives of the assets being purchased through the loan justify longer or shorter terms, these can be agreed
Resource Borrowing
Statutory overall resource borrowing limit of £1.75 billion
Borrow up to £500 million for in-year cash management
Borrow up to £300 million in relation to forecast errors – increases to £600 million in the case of a Scotland-specific economic shock
Annual limit for all resource borrowing (in-year cash management and forecast errors) of £600 million
Flexible repayment period of between three and five years, decided by Scottish Ministers

Source: Scottish Government and UK Government (2016) The Agreement between the Scottish Government and the United Kingdom Government on the Scottish Government's fiscal framework (link)

[166] Scotland Act 2016, Part 2 Borrowing (link)

[167] Scotland-specific economic shock is defined as annual GDP growth of below one per cent and GDP growth in Scotland one percentage point below GDP growth in the UK. A forecasted shock would depend on our forecast of Scottish GDP compared to the OBR's forecast of UK GDP.

Capital borrowing assessment

5.8 The Scottish Government's historic borrowing and borrowing plans, along with repayment schedules and cumulative stock of debt are shown in Table 5.2. This shows the repayment of the debt, not any interest payments.

5.9 The information on the borrowing plans up to 2023-24 has been provided to the Commission by the Scottish Government, in addition to the following information on repayment schedules:

- Borrowing in 2018-19 and beyond is expected to be repaid over a 25 year time horizon, linked to the life of the assets that are likely to be built. This flexibility on repayment period is built in to the Fiscal Framework.
- The 2018-19 Budget makes full use of the £450 million capital borrowing powers available. Final decisions on the specific borrowing arrangements for 2018-19 will be taken over the course of the current financial year.
- The Scottish Government expects to make full use of its borrowing powers in 2019-20, but will take final decisions on whether to borrow and how much to borrow in 2019-20 as part of the Scottish Budget 2019-20.
- Decisions on borrowing beyond 2019-20 will be considered as part of the 2019 Spending Review process.
- Borrowing undertaken in 2015-16 and 2016-17 was agreed to be paid back over 30 years. This borrowing is different to borrowing from 2017-18 onwards as it is notional.[168]

[168] Scottish Ministers agreed a notional borrowing arrangement with HM Treasury in 2015-16 and 2016-17 as part of managing the budgetary impact of ONS classification decisions on a number of Non-Profit Distributing (NPD) projects, including the Aberdeen Western Peripheral Route. As a result, the amounts shown were recorded against borrowing limits to be notionally repaid over 30 years (linked to the life of the underlying NPD contracts). Notional borrowing counts towards the overall capital borrowing cap, but does not have a cash impact on the Scottish Governments budget.

Table 5.2: Scottish Government capital borrowing

£ million	2015-16 Outturn	2016-17 Outturn	2017-18 Outturn	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Borrowing	283	333	450	450	450				
Agreed repayment period (years)	30	30	25	25	25				
Repayments									
2015-16 borrowing		9	9	9	9	9	9	9	9
2016-17 borrowing			11	11	11	11	11	11	11
2017-18 borrowing				7	14	15	15	15	16
2018-19 borrowing					7	14	15	15	15
2019-20 borrowing						7	14	15	15
Total Repayments	0	9	21	28	42	57	64	65	66
Debt Stock	283	607	1,036	1,459	1,867	1,810	1,746	1,681	1,615
Percentage of debt cap (%)*	**9**	**20**	**35**	**49**	**62**	**60**	**58**	**56**	**54**

Source: Scottish Government. Figures only include repayment of the principal and not the interest. Figures may not sum because of rounding
* Debt cap is £3 billion

5.10 We note:

- The Scottish Government borrowed £450 million in 2017-18, which is the maximum allowed under the Fiscal Framework rules.
- The Scottish Government also plan to borrow the maximum allowed in 2018-19 and in 2019-20.

5.11 Therefore, we judge the Government's projections of capital borrowing are reasonable, as they comply with the terms set out in the Fiscal Framework.

5.12 We note that the Government will have borrowed 62 per cent of the total statutory limit on capital borrowing by 2019-20. It will only be possible for the Government to continue to borrow the maximum amount per year with a 25

year repayment horizon until 2022-23. Beyond this point, the statutory borrowing cap of £3 billion would limit the annual amount available to borrow.[169]

5.13 Our economy forecasts assume the Scottish Government borrows the maximum amount in each year, until 2023-24 when capital borrowing is £144 million. This lower borrowing in 2023-24 has contributed to lower GDP growth forecasts than would otherwise have been the case. See Chapter 2 for further details.

Resource borrowing assessment

5.14 The Scottish Government have confirmed they have not used resource borrowing powers to date and that there are no plans for resource borrowing over the period of the MTFS.

5.15 We do not forecast an economic shock to allow access to the additional resource borrowing set out in Table 5.1. The definition of a Scottish specific economic shock discussed in paragraph 5.6. We are therefore not making any assessment of resource borrowing.

The Scotland Reserve

5.16 The Scotland Act 2012 enabled the Scottish Government to make discretionary payments into a cash reserve in advance of new powers being devolved. Until 2017-18 the Scottish Government was able to carry forward underspends, up to an agreed cap. This process is described as the Budget Exchange Mechanism. The maximum resource budget which could be carried forward was 0.6 per cent of resource spending by the Scottish Government. The maximum capital budget was 1.5 per cent of Scottish Government capital spending.[170]

5.17 Table 5.3 shows the historic transfer of funds using the Budget Exchange Mechanism from 2013-14 to 2016-17.

[169] If the government borrowed £450 million every year up to 2022-23, with a 25 year repayment schedule, the debt stock would be £2,977 million at the end of 2022-23. This would represent 99 per cent of the £3 billion debt cap. In 2023-24 they would be able to borrow £144 million. This would consist of the £23 million remaining of the £3 billion cap, plus £120 million freed up by repayments during the year. Numbers may not sum perfectly because of rounding.

[170] HM Treasury (2015) Statement of funding policy: funding the Scottish Parliament, National Assembly for Wales and Northern Ireland Assembly (link)

Table 5.3: Historic data on the use of the Budget Exchange Mechanism

£ million	2013-14	2014-15	2015-16	2016-17
Capital	4	45	35	35
Financial transactions*	31	14	40	52
Resource	142	153	91	110
Balance of Budget Exchange	177	212	166	197

Source: Scottish Government. Figures may not sum because of rounding

*Financial Transactions are separate to capital borrowing as they can only be used for the provision of loans or equity investment beyond the public sector. Financial transactions have to be repaid to HMT in future years.

5.18 The Scotland Reserve came into effect in 2017-18 and replaced both the Scotland Act 2012 cash reserve and the Budget Exchange Mechanism. The Scotland Reserve provides the Scottish Government with a cash reserve to build up funds when devolved revenues are higher than forecast and drawdown funds when devolved revenues are lower than forecast. It also allows the Scottish Government to carry forward any underspends in both resource and capital budgets.

5.19 The Scotland Reserve is held within the UK Government's Exchequer and is separated between resource and capital.

5.20 Payments may be made into the resource reserve from the resource budget, which includes tax receipts. Funds can be drawn down to fund resource or capital spending. Similarly, payments may be made into the capital reserve from the capital budget but can only be drawn down to fund capital spending.

5.21 The current limits on payments into and drawdowns from the Scotland Reserve are show in Table 5.4.

Table 5.4: Scotland Reserve provisions in the Fiscal Framework

Resource
No annual limits for payments into the reserve
Annual limit to drawdown of £250 million
Annual drawdown limits waived in face of Scotland specific economic shock
Capital
No annual limits for payments into the reserve
Annual limit to drawdown of £100 million
Annual drawdown limits waived in face of Scotland specific economic shock
Aggregate
The Scotland Reserve is capped in aggregate at £700 million

Source: Scottish Government and UK Government (2016) The Agreement between the Scottish Government and the United Kingdom Government on the Scottish Government's fiscal framework (link)

Scotland Reserve assessment

5.22 The balance of the Scotland Reserve along with the Scottish Government's planned payments and drawdowns are shown in Table 5.5. The Scottish Government has provided the information on the plans up to 2018-19 to the Commission. No details were provided on planned payments into, or drawdowns from, the reserve after 2018-19.

5.23 The Scottish Government also provided the following information on the payments into the reserve:

- The initial £74.2 million was paid into the cash reserve in 2015-16 through excess tax receipts from Land and Buildings Transaction Tax (£43.9 million) and Scottish Landfill Tax (£30 million) as well as £0.3 million in penalties and interest. This was carried forward into the resource reserve.
- In 2016-17, there were no payments into, or out of, the cash reserve. The Budget Exchange Mechanism was used as set out in Table 5.3.
- In 2017-18, the Scottish Government have made a number of payments into the reserve which are estimated to total £72 million for capital and £305 million for resource. The resource figure includes £100 million, which was part of the payment provided by the UK Government for implementation of new powers devolved by the Scotland Act 2016.

5.24 This resulted in the reserve having a provisional aggregate balance of £451 million at the start of 2018-19.[171]

5.25 Beyond the planned drawdown in 2018-19, the Scottish Government have no current plans to drawdown further resources from the reserve.

Table 5.5: Scotland reserve

£ million	2017-18 Outturn	2018-19
Capital		
Balance at start of year	0	72
Change in-year - Capital funds	60	-57
Change in-year - Financial transactions	12	-12
Balance at end of year	72	3
Resource		
Balance at start of year	74	379
Change in-year	305	-238
Balance at end of year	379	141
Aggregate balance		
Start of year	74	451
Change in-year	377	-306
End of year	451	144

Source: Scottish Government. The figures for 2017-18 and the plans for 2018-19 are provisional and are expected to be confirmed by the Cabinet Secretary for Finance and the Constitution to the Scottish Parliament in June 2018. Figures may not sum because of rounding

5.26 We note that:

- The planned £68 million drawdown from the capital reserve (including financial transactions) in 2018-19 is within the £100 million limit set by the Fiscal Framework.
- The planned £238 million drawdown from the resource reserve in 2018-19 is within the £250 million limit set by the Fiscal Framework.

5.27 The Scotland Reserve replaced both the cash reserve and the Budget Exchange Mechanism. Therefore, it is expected that the Scotland Reserve will be used to transfer funds between financial years.

5.28 Given historic use of the Budget Exchange Mechanism, capital payments into the reserve (including financial transactions) in 2017-18 are within the range expected. The Government plan to drawdown capital payments in 2018-19.

[171] Figures for 2017-18 represent the latest estimates provided by the Scottish Government. These may change, both as year-end income and expenditure forecasts are confirmed over the coming weeks in the lead up to the publication of the annual accounts. Figures will be confirmed by the Cabinet Secretary for Finance and the Constitution to the Scottish Parliament in June.

5.29 The Scottish Government plan to drawdown £238 million from the resource reserve in 2018-19. The Commission understands the planned drawdown from the resource reserve in 2018-19 includes £100 million, which was part of the payment provided to support the implementation of new powers as laid out in the Fiscal Framework.[172] This amount was paid as a one-off transfer in 2017-18. Adjusting for this would bring the planned resource drawdown into line with historic use of the Budget Exchange Mechanism where an average of £124 million in resource funding was transferred between years in the four years prior to 2017-18.

5.30 Beyond 2018-19 drawdown, the Scottish Government have not outlined any plans to drawdown further resources from the reserve. We expect that normal budget management processes as per the historic use of the Budget Exchange Mechanism will result in continued inflow into and outflow from the reserve. We will continue to monitor the Scottish Government's use of the reserve and will comment further in our future publications.

[172] Scottish Government and UK Government (2016) The agreement between the Scottish Government and the United Kingdom Government on the Scottish Government's fiscal framework (link)

Annex A
Policy Costings

Introduction

A.1 This Annex sets out the methodology underpinning new policy costings included in the forecasts produced by the Commission for this report. The material will show the different steps and judgments taken to arrive at our costings of new Government policy proposals.

A.2 Our December 2017 publication included costings for policies announced by the Scottish Government at the Draft Budget 2018-19. Since then, we have costed two policies in supplementary publications: one on income tax and the other on Land and Buildings Transaction Tax.

A.3 On 31 January 2018, the Scottish Government announced changes to income tax during Stage 1 of the budget debate.[173] To support Parliamentary scrutiny, we provided updated income tax forecasts with policy costings for these changes.[174]

A.4 On 18 May 2018, the Scottish Government published secondary legislation for proposed changes to Group Relief for Non-Residential Land and Buildings Transaction Tax.[175] On the same day, we published a supplementary policy costing of the tax revenue forgone as a result of the proposed change to accompany the secondary legislation.[176]

A.5 Where we have previously provided a policy costing, any further changes will be captured in Annex B on policy recostings. This section only provides costings for policy changes where we have not previously provided a policy costing.

[173] Scottish Government (2018) Budget Bill 2018-19 stage 1 – news release (link)

[174] Scotland's Economic and Fiscal Forecasts Supplementary Publication – Updated Income Tax Forecasts – February 2018 (link)

[175] The Land and Buildings Transaction Tax (Group Relief Modification) (Scotland) Order 2018 (link)

[176] Supplementary Costings Non-Residential Land and Buildings Transaction Tax Group Relief – May 2018 (link)

A.6 Table A.1 provides a summary of new policy costings included in our forecasts.

Table A.1: Policy costings to accompany the Medium Term Financial Strategy

£ million	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Social Security:						
Carer's Allowance Supplement	0.0	-7.5	-8.1	-8.3	-8.8	-9.3
Non Domestic Rates:						
Removal of New Start relief	0.1	0.1	0.4	0.4	0.4	0.4
Overall impact of policy proposals	0.1	-7.4	-7.7	-7.9	-8.4	-8.8

Source: Scottish Fiscal Commission.
Note: Negative figures indicate costs to the Scottish Budget, whilst positive figures indicate gains.
Figures may not add up to totals because of rounding.

Social Security

Title of measure

Change to the method of uprating the Carer's Allowance Supplement

Measure description

A.7 The Social Security (Scotland) Bill has been amended to require the Carer's Allowance (CA) Supplement to be increased each year in line with inflation. The CA supplement will be increased to the higher of: Jobseeker's Allowance (JSA) or the amount that JSA would be if it were adjusted for inflation.[177]

A.8 In December 2017, we assumed CA was increased to match the UK Government's JSA rate. The UK Government's benefit freeze affects JSA and it is not due to be uprated until the freeze ends in 2020-21. The introduction of the uprating policy has increased our forecast of expenditure on the CA Supplement.

The cost base

A.9 Expenditure for the CA Supplement is based on the number of individuals in Scotland who are in receipt of CA on the eligibility dates defined by the Scottish Government. The Scottish Government is yet to announce the eligibility dates. Chapter 4 contains our forecast of the number of individuals expected to receive CA payments over the forecast horizon used in the costing.

The costing

A.10 While forecasting expenditure on the main CA, the CA rate (weekly amount paid to individuals) was uprated each year in line with the CPI forecast. To calculate the value of the CA Supplement we uprated the 2018-19 JSA rate in line with CPI forecasts each subsequent year to create an illustrative JSA rate.[178] Table A.2 details the forecast JSA and CA rates.

[177] Social Security (Scotland) Bill (2018) [as passed] (link)

[178] Scottish Fiscal Commission (2018) Scotland's Economic and Fiscal Forecasts May 2018 Supplementary Economy Tables S2.7 (link)

Table A.2: Forecast rates for illustrative JSA and CA

£	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Illustrative JSA rate	73.10	74.85	76.20	77.70	79.25	80.85
CA rate	64.60	66.15	67.35	68.70	70.05	71.45

Source: Scottish Fiscal Commission, UK Government's proposed benefit and pension rates for 2018-2019 (link)

A.11 The Social Security (Scotland) Bill outlines that the CA Supplement is to be paid twice a year; and calculated as the difference between these weekly rates multiplied by 26 to convert to a six-monthly amount.[179]

Table A.3: Uprating the Carer's Allowance Supplement policy costing

£ million	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Pre-measures forecast	35	30	32	33	35	37
Uprating Policy	0	8	8	8	9	9
Post-measures forecast	35	37	40	42	44	46

Source: Scottish Fiscal Commission
Figures may not add up to totals because of rounding.

Uncertainties around the costing

A.12 Many of the uncertainties outlined in Box 4.2 in Chapter 4 apply to the CA Supplement. In addition, any changes in the CA Supplement payment because of inflation or further policy change will have an impact on our expenditure forecast.

A.13 We assume the introduction of the CA Supplement has no impact on the take-up rate, and therefore, the number of individuals expected to receive CA payments over the forecast horizon. See Box 4.4 in Chapter 4 for more information on take-up rates. A decision to exit the labour market to care for a family member will likely be a long-term decision and it is unclear to what extent this decision would be influenced by the introduction of the CA supplement. We will continue to monitor this assumption for future forecasts.

[179] Social Security (Scotland) Bill (2018) [as passed] (link)

Non-Domestic Rates

Title of Measure

Removal of New Start relief

Measure Description

A.14 New Start currently provides rates relief of up to 100 per cent for certain empty new build properties.[180]The relief is available for unoccupied properties for a maximum 15 month period, which does not need to be continuous.

A.15 Following legislation passed in February 2018 New Start relief will not be extended to properties entered on the roll after 1 April 2018. Properties entered on the roll before this date will continue to be eligible for the relief until the end of 2019-20.[181]

The cost base

A.16 The cost base for the removal of this policy is current forecast expenditure on New Start relief for properties already on the roll.

The costing

A.17 Mid-year estimates for local authority relief expenditure are available. The latest estimate for expenditure on New Start in 2017-18 is £0.35 million. Expenditure to 2019-20 is projected forward by uprating latest estimates by the annual growth in gross NDR income. To account for the removal of the relief, the cost of New Start has been eliminated in our model from 2020-21 onwards.

A.18 An adjustment is also made to account for the interaction with the new relief announced at the Draft Budget 2018-19 to delay entry on the roll for unoccupied new builds. We assume that from April 2018, new builds that previously may have claimed New Start will now be able to claim this relief. Based on information from the 2016 Billing system, costs of New Start attributable to new build properties from 2018 are removed from the forecast cost of New Start. An equivalent increase is made to our costing for delaying entry on the roll relief.

[180] New Start is only available if the new entry is not a result of a combination or division of a building already on the roll, and not a result of refurbishment or change of use of an existing building (including domestic property or other property exempt from rating.

[181] The Non-Domestic Rating (Unoccupied Property) (Scotland) Regulations 2018 (link)

A.19 Forecast NDR income is increased by just under £0.4 million in each year of our forecast post 2020-21 as a result of this change.

Table A.4: Removal of New Start

£ million	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Final Costing	0.1	0.1	0.4	0.4	0.4	0.4

Source: Scottish Fiscal Commission

Uncertainties around the costing

A.20 The main uncertainty for this costing is the projected cost of New Start, which given the small number of properties may be volatile from year to year. Additionally, the interaction between the removal of New Start and the introduction of a new relief for unoccupied new builds is difficult to assess, even when data from local authorities becomes available.

Annex B
Policy Recostings

Introduction

B.1 A policy recosting is a revised estimate of a policy that has previously been costed. There are two main reasons why we may recost previously announced or implemented measures:

- Changes or additional administrative outturn data available since the introduction of the policy (or previous forecast). For example, we will not receive outturn data on the 2017-18 Higher Rate threshold policy until summer 2019.
- We revise key judgements or assumptions relating to our previous policy costing – particularly in response to new evidence.

B.2 This Annex sets out the latest policy recosting estimates and how they have changed from the previous costing. All of the policy recostings contained in this Annex fall under the first category (administrative outturn data not yet available). We intend to publish this Annex twice a year as part of our Scotland's Economic Fiscal Forecast (SEFF) series.

Table B.1: Latest policy recostings

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Income Tax*							
2017-18 Higher rate threshold freeze	54	59	61	70	75	85	95
2018-19 five band policy, of which	0	213	219	230	242	255	271
Introduction of starter rate	0	-48	-50	-51	-53	-55	-57
Introduction of intermediate rate	0	136	140	146	153	161	169
Higher rate threshold adjustment	0	54	55	58	61	65	69
Increase in higher rate	0	70	71	74	78	82	86
Introduction of top rate	0	3	3	3	3	3	3
NDR							
Switch to CPI to uprate Poundage	0	-24	-23	-23	-24	-25	-31
Business Growth Accelerator	0	-41	-48	-48	-49	-49	-51
Continuation of transitional relief	0	-15	0	0	0	0	0
Hydro relief	0	-6	-6	-6	-7	-7	-7
Day nurseries	0	-6	-6	-6	-6	-7	-7
Expansion of Fresh Start relief	0	-2	-2	-2	-2	-2	-2
Delaying entry on the roll for unoccupied new builds	0	-1	-2	-2	-2	-2	-2
LBTT							
Relief for first time buyers, of which	0	-5	-7	-7	-7	-7	-8
Residential component	0	-5	-6	-7	-7	-7	-7
ADS component	0	0	0	0	0	0	0

Source: Scottish Fiscal Commission. Figures may not sum to total because of rounding.

* These recostings are not a direct comparison to the rUK income tax policy. For the 2017-18 Higher rate threshold policy, the baseline assumed is statutory CPI indexation. For 2017-18, the UK Government increased the higher rate threshold greater than statutory indexation to £45,000. The full static costing, behavioural reduction and post-behavioural income tax costing breakdowns can be found in Scottish Fiscal Commission (2018) Supplementary tables S3.2 and S3.3 May 2018 (link)

Table B.2: Change from previous costing

£ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Income Tax						
2017-18 Higher rate threshold freeze	-1.6	-2.2	-6.8	-7.4	-6.9	-8.1
2018-19 five band policy, of which	0.0	-5.8	-8.2	-9.5	-10.5	-11.8
Introduction of starter rate	0.0	-0.8	-0.9	-0.9	-0.9	-1.0
Introduction of intermediate rate	0.0	0.7	0.0	-0.1	-0.2	-0.3
Higher rate threshold adjustment	0.0	-1.8	-2.4	-3.0	-3.3	-3.8
Increase in higher rate	0.0	-3.8	-4.8	-5.5	-6.0	-6.6
Introduction of top rate	0.0	-0.1	0.0	0.0	0.0	-0.2
NDR						
Switch to CPI to uprate Poundage	0.0	0.0	0.2	0.2	0.2	0.3
Business Growth Accelerator	0.0	1.5	2.9	2.9	2.1	2.1
Continuation of Transitional relief	0.0	0.0	0.0	0.0	0.0	0.0
Hydro relief	0.0	-0.5	-0.5	-0.5	-0.5	-0.5
Day Nurseries	0.0	-0.2	-0.2	-0.2	-0.2	-0.2
Expansion of Fresh Start relief	0.0	0.0	0.0	0.0	0.0	0.0
Delaying entry on the roll for unoccupied new builds	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
LBTT						
Relief for first time buyers, of which	0.0	0.7	0.1	0.2	0.2	0.2
Residential component	0.0	0.6	0.1	0.1	0.1	0.1
ADS component	0.0	0.0	0.0	0.0	0.0	0.0

Source: Scottish Fiscal Commission. Figures may not sum to total because of rounding.

Annex C Developing our approach to forecasting VAT

Introduction

C.1 The Commission is currently developing an approach to forecast revenue from Value Added Tax (VAT) assigned to Scotland. Regulations have been introduced in the Scottish Parliament to expand the remit of the Commission to include VAT forecasting.[182] This Annex sets out, at a high level, our planned approach and the areas of uncertainty which will require careful judgement.

C.2 This Annex is a starting point for discussion and will be followed by stakeholder engagement and a more detailed methodology paper in September 2018 in advance of our first full VAT forecast in our next publication of Scotland's Economic and Fiscal forecasts.

Background

C.3 VAT is levied on the purchase of many goods and services. It is reflected in the price paid when items are bought and is collected from traders. Unlike a simple sales tax, it is levied on the amount of value added at each stage of the production chain. For example, a retailer would be able to reclaim VAT paid on the goods they bought from a wholesaler. Therefore the net VAT paid to the Government would be on the price (value) added by the retailer. VAT can either be charged at 20 per cent (standard rate), five per cent (reduced rate) or zero per cent (either zero rated or exempt).[183]

C.4 The Fiscal Framework agreement between the Scottish and the UK Governments states that receipts from the first 10p of standard rate of VAT

[182] Draft amendments to the Scottish Fiscal Commission Act 2016 (2018) (link)

[183] For more detail on goods that fall under the different rates see HMRC's guidance (link)

and the first 2.5p of reduced rate of VAT in Scotland will be assigned to the Scottish Government.[184]

C.5 VAT being assigned rather than devolved means the Scottish Government will not have any policy control over VAT. For example, the Scottish Government will not have the ability to change the rates of VAT in Scotland or change which goods or services fall under the different rates.

C.6 Outturn receipts data for VAT raised in Scotland are not available. This will still be the case when VAT is assigned to Scotland, as VAT is collected by HMRC at a UK level. In a VAT return, there is no information on where the sales of goods and services took place. Therefore, it is not possible to calculate VAT raised in Scotland from tax returns.

C.7 Due to lack of outturn Scottish receipts, the amount of VAT assigned to Scotland must be estimated using a statistical model. The methodology for VAT assignment is currently under development by HMRC, HM Treasury and Scottish Government officials prior to ministerial sign-off by the Joint Exchequer Committee. The assignment model will use a range of sources to estimate the proportion of UK expenditure across the different sectors that occurs in Scotland. This method will be used to estimate an outturn figure, which we will evaluate the accuracy of our forecasts against.

C.8 VAT assignment will be implemented in 2019-20 as part of a transitional period where VAT raised in Scotland will be calculated but there will not be an impact on the Scottish Government's budget.

C.9 The National Statistics publication 'Government Expenditure and Revenue Scotland' estimates that VAT revenue assigned to Scotland would have been £5,097 million in 2016-17.[185] [186]

Proposed approach to forecasting

C.10 The Commission has considered a range of approaches to forecasting VAT assigned to Scotland. Our approach will use components of our economy forecasts, such as projections of household and government spending.

[184] Scottish Government and UK Government (2016) The agreement between the Scottish Government and the United Kingdom Government on the Scottish Government's fiscal framework (link)

[185] This figure represents 50 per cent of the assigned VAT receipts. Note the GERS methodology is not the same approach discussed in paragraph C.7

[186] Scottish Government (2017) Government Expenditure and Revenue Scotland 2016-17 (link)

C.11 The OBR commissions a UK VAT forecast from HMRC for each of their fiscal events.[187] We are currently reviewing these models and forecasts before developing and refining our forecast approach for Scotland.

C.12 The UK forecast of VAT is based on the concept of a 'VAT total theoretical liability' (VTTL). The VTTL is the total value of VAT that could theoretically be collected from the tax base. The VTTL does not include any adjustments for error, fraud, evasion, avoidance and debt to HMRC and therefore will always be higher than outturn VAT receipts. The percentage difference between the VTTL and the actual receipts represents an estimated VAT tax gap.[188]

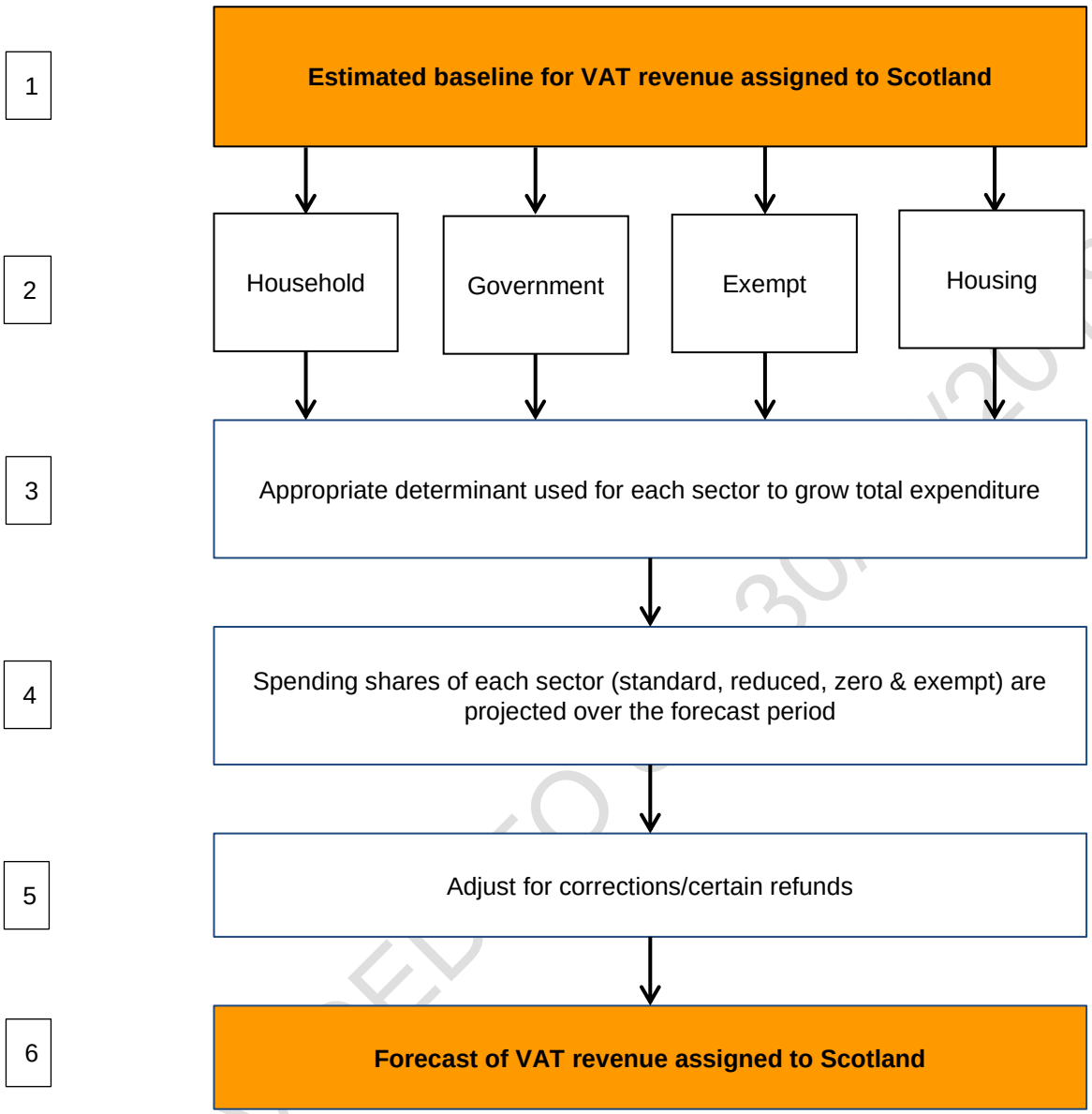
C.13 The estimate for the historic Scottish share of VAT is likely to be based upon a VTTL approach, although this is still to be finalised. We expect to use the assignment model mentioned in paragraph C.7 as our baseline. We will grow total expenditure in each sector in line with appropriate determinants from our economic forecasts to generate a forecast of VAT revenue assigned to Scotland. As there will not be outturn data available for Scotland, the tax gap will be assumed to be consistent with the tax gap across the UK.

C.14 Figure C.1 sketches out in further detail of how this forecast may work in practice.

[187] The OBR's website has a page dedicated to information on their UK VAT forecast (link)

[188] HM Revenue & Customs (2017) Measuring tax gaps: Tax gap estimates for 2015-16. (link)

Figure C.1: Schematic representation of our likely approach to forecasting VAT revenue assigned to Scotland



C.15 The key steps in this process will be:

4. The Commission will use historic estimates of assigned VAT revenue as agreed by the Joint Exchequer Committee. The Scottish Government, HM Treasury and HMRC are currently in the process of agreeing a methodology for estimating the Scottish share of VAT revenue. Our forecast in our next publication of Scotland's Economic and Fiscal Forecasts will use the figures calculated using this agreed methodology as the baseline for the forecast.

5. We will split our forecast into these four main sectors as each are driven by different determinants.[189] The Household sector is the largest, accounting for a majority of VAT revenue assigned in Scotland.
6. The choice of determinant for each sector will be a judgement. Where possible we will look to use Scottish specific determinants. For instance, for the household sector we are likely to use Scottish nominal household consumption.
7. We will forecast the share of spending subject to the different rates of VAT that reflects changes in spending patterns within each sector. Typically, consumer durables, such as televisions, are charged at the standard rate of VAT (20 per cent). Necessities, such as food, are more likely to be exempt from VAT. If consumers were to shift their spending from durables to necessities then VAT revenue would decline.
8. In the VAT assignment methodology there are a number of corrections made. For instance, if a trader is below the registration threshold then they do not charge VAT on their goods and services.[190] Similarly, various schemes and reliefs will allow businesses to reclaim VAT. Other adjustments are made to account for domestic and foreign tourism in the model. We will consider whether any of these factors are likely to change over the forecast period and therefore will need to be accounted for in our model.
9. This will produce our forecast of VTTL for Scotland. As discussed in paragraph C.13 we will use the UK tax gap estimates to move from VTTL to VAT receipts.

Key drivers

C.16 Household expenditure accounts for the majority of VAT revenue assigned in Scotland. We will likely use the Scottish nominal household consumption forecast, which is generated as part of our economy forecast to grow household expenditure.

C.17 Table C.1 shows the forecast for growth in household consumption in Scotland compared to the UK as a whole. Household consumption is a major component of VAT revenue and we note that growth in household consumption is forecast to be slower in Scotland than the UK. Other

[189] We anticipate that Non Profit Institutions Serving Households (NPISH) will be included within the household sector for the purposes of our forecast.NPISH are non-government institutions that provide their goods and services below the market price. Most charities fall under this sector

[190] For more details on the VAT registration see the UK Government's guidance (link)

determinants will affect our forecast of the Scottish share of VAT assignment. Any impact for the Scottish Government's budget will depend on the Block Grant Adjustment.[191] Slower growth in nominal household consumption would lead to a reduction in the Scottish share of total UK VAT revenue assigned to Scotland over the forecast period.

Table C.1: Nominal Household consumption forecasts for Scotland and for the UK

Percentage change on previous year	2016-17 Outturn	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Scotland	4.3	2.9	2.5	2.4	2.7	2.8	2.9	3.1
UK	4.6	3.3	2.9	2.9	3.2	3.5	3.5	

Source: Scottish Fiscal Commission; UK growth rates calculated using OBR March 2018 Economic and fiscal outlook - supplementary economy tables, tab 1.2 Private Consumption (link).
Note: Scottish household consumption in nominal terms is derived by applying the Consumer Expenditure Deflator to real-terms household consumption.

C.18 The Commission will make judgements in order to create forecasts where there is uncertainty or limited evidence. In addition to expenditure in each sector, the key drivers in our forecast which will require further investigation and judgement include:

- **Standard, reduced and exempt spending shares.** Our judgement will be informed by the evidence on changes at the UK level, the historical estimates of the share and any other factors in our broader economy forecasts that we consider relevant.
- **Feedback between our forecast of VAT assignment and our economy forecast.** Assignment of VAT will be the second largest revenue source to affect the Scottish Government's budget after income tax. Government spending is a significant component of GDP. Therefore, there will be interdependence between our VAT and economy forecasts.

Timeline for engagement and forecast development

C.19 The Commission will develop a methodology for forecasting assignment of VAT revenue to Scotland over the summer. We will present the results of this development work along with an illustrative forecast in September 2018, using economic determinants taken from our forecasts in this publication.

C.20 We will publish our first full VAT forecast in our next publication of Scotland's Economic and Fiscal Forecasts.

[191] During 2019-20 VAT assignment will be calculated but there will be no impact on the Scottish Government's budget due to a corresponding adjustment to the block grant. Beyond this point the BGA is yet to be decided.

Abbreviations

AA	Attendance Allowance
ADS	Additional Dwelling Supplement
ALEOs	Arm's length external organisations
APD	Air Passengers Duty
APS	Annual Population Survey
ARIMA	Autoregressive Integrated Moving Average
ASHE	Annual Survey of Hours and Earnings
AWE	Average Weekly Earnings
BGA	Block Grant Adjustment
BMW	Biodegradable Municipal Waste
BOE	Barrels of Oil Equivalent
CA	Carer's Allowance
CAA	Civil Aviation Authority
CBI	Confederation of British Industry
CGT	Capital Gains Tax
COE	Compensation of Employees
COSLA	Convention of Scottish Local Authorities
CPI	Consumer Price Index
DHP	Discretionary Housing Payment
DLA	Disability Living Allowance
DWP	Department for Work and Pensions
ESA	Employment and Support Allowance
EU	European Union
FEA	Funeral Expense Assistance
FEP	Funeral Expenses Payment
FOI	Freedom of Information
FSS	Fair Start Scotland
FT	Full Time
FTB	First Time Buyers
GCF	Gross Capital Formation
GDP	Gross Domestic Product
GERS	Government Expenditure & Revenue Scotland
GWE	Gross Weekly Earnings
HMRC	Her Majesty's Revenue and Customs
HR	Higher Rate
HSV	Healthy Start Vouchers
ICE	Intercontinental Exchange

IFI	Independent Fiscal Institution
IPS	International Passenger Survey
JSA	Jobseeker's Allowance
LBTT	Land and Buildings Transaction Tax
LHA	Local Housing Allowance
LFS	Labour Force Survey
MCC	Material Change of Circumstances
MTFS	Medium Term Financial Strategy
NDR	Non-Domestic Rates
NDRi	Non-Domestic Rates Income
NHS	National Health Service
NLF	National Loans Fund
NPD	Non-Profit Distributing
NPISH	Non-Profit Institutions Serving Households
NPV	Net Present Value
NRS	National Records of Scotland
NSND	Non-Savings and Non-Dividends
OBR	Office for Budget Responsibility
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
PAYE	Pay As You Earn
PIP	Personal Independence Payment
PMI	Purchasing Managers' Index
PSM	Policy Simulation Model
PUT	Public Use Tape
QNAS	Quarterly National Accounts Scotland
RDF	Refuse Derived Fuel
RHDI	Real Household Disposable Income
RPI	Retail Price Index
RTI	Real Time Information
RV	Rateable Value
RSRS	Removal of the Spare Room Subsidy
SAA	Scottish Assessors Association
SCC	Scottish Chambers of Commerce
SDLT	Stamp Duty Land Tax
SEFF	Scotland's Economic and Fiscal Forecasts
SEPA	Scottish Environmental Protection Agency
SFC	Scottish Fiscal Commission
SG	The Scottish Government
SLfT	Scottish Landfill Tax
SPA	State Pension Age
SPI	Survey of Personal Incomes
SSMG	Sure Start Maternity Grant
SWF	Scottish Welfare Fund
TIE	Taxable Income Elasticity
TMI	Tax Motivated Incorporations
UC	Universal Credit
UKCS	UK Continental Shelf
UKF	UK Finance

VAT	Value Added Tax
VTTL	VAT Total Theoretical Liability

A full glossary of terms is available on our website:

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