Outlook for Scotland's Public Finances and the Opportunities of Independence

May 2014

The Scottish Government

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Executive Summary

This report provides a summary of recent trends in Scotland's public finances and an analysis of the fiscal position Scotland is likely to achieve in coming years.

The report develops and builds on the analysis of Scotland's public finances in 2016-17 provided in *Scotland's Future* by demonstrating how they could evolve over a range of time periods and under different assumptions about the division of assets and liabilities held by the UK Government and wider public sector, and Scotland's economic performance.

The table below summarises the forecasts for Scotland's public finances in 2016-17 based upon the assumptions and methodologies outlined in the report. Estimates of Scotland's public finances are provided under three illustrative scenarios to reflect the potential share of UK public sector net debt that Scotland could assume responsibility for as part of a wider negotiation over UK assets and liabilities. Estimates for the UK are also provided in a range.[1]

Public Finance Summary: Scotland and UK 2016-17

	Scotland (Per Capita Share)	Scotland (Historic Share)	Scotland (Zero Share)	UK
Current Budget Balance				
£ Billions	-£1.6	-£0.8	+£4.0	-£17 to -£40
% GDP	-0.9%	-0.5%	+2.5%	-2.2% to -0.9%
Net Fiscal Balance				
£ Billions	-£4.7	-£3.9	+£1.0	-£45 to -£68
% GDP	-2.8%	-2.4%	+0.6%	-3.7% to -2.4%
Public Sector Net Debt				
£ Billions	£120	£109	£0	£1,497 to £1,522
% GDP	74%	64%	0%	80% to 78%

Analysis assigns Scotland an illustrative geographical share of North Sea tax receipts and GDP. Estimates of North Sea revenues are taken from Scottish Government Oil and Gas Analytical Bulletin. Scotland's historic share of UK public sector debt is calculated with reference to Scotland's historic contribution to the UK public sector finances since 1980-81. The proportion of UK public sector debt which is assigned to Scotland affects the country's annual fiscal position via the associated expenditure on debt interest payments.

[1] The range provided for the UK public finances takes as its lower bound the estimates published by the Office for Budget Responsibility in their March 2014 Economic and Fiscal Outlook. The upper bound is based on an illustrative estimate of the public finance plans set out by the Official Opposition based on analysis originally published by HM Treasury. Further information on this calculation is provided in Box 3.3.

The figures contained in the above table illustrate that Scotland would begin as an independent country with a sustainable fiscal position in 2016-17. Key fiscal aggregates would be similar to, or stronger than, both the UK and the G7 group of industrialised countries as a whole.

Just like any other independent country, the future path for Scotland's fiscal position will depend upon the policy choices of successive Scottish administrations. Successful economic policies which boost productivity, grow Scotland's working age population and increase participation in the labour market will strengthen the public finances.

1. Introduction and Overview

1.1 This report provides a detailed discussion of Scotland's public finances.

- Chapter two summarises the results of the latest *Government Expenditure and Revenue Scotland* (GERS) report, which provides estimates of Scottish public spending and tax revenue for the years 2008-09 to 2012-13.

- Chapter three provides projections of Scotland's fiscal position in future years. It develops the analysis in *Scotland's Future* by illustrating the impact that alternative policy choices, and the negotiations between the Scottish and UK governments in the case of independence, could have on the results.

- Finally, Chapter four highlights the longer term impact that improving Scotland's economic performance could have on the country's public finances.

1.2 The key results contained in the report are summarised below. Unless otherwise noted, all the analysis in the report assigns Scotland an illustrative geographical share of both offshore oil and gas tax receipts and GDP.

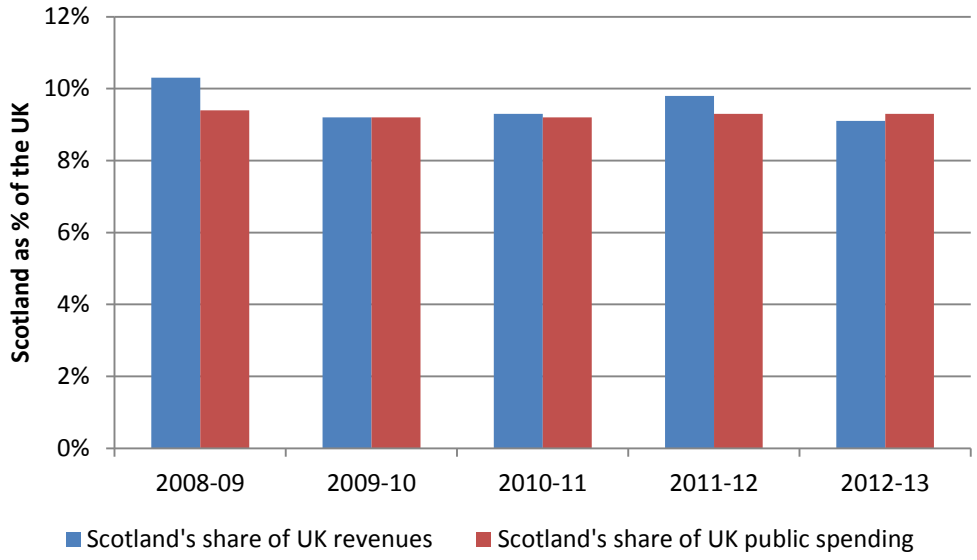
Scotland's Public Finances – 2008-09 to 2012-13

1.3 Taxes and public spending vary from year to year.

1.4 In the five years to 2012-13, and under the current constitutional framework, Scotland is estimated to have generated 9.5% of UK tax receipts and accounted for 9.3% of UK public spending.

1.5 On a per capita basis, average tax receipts in Scotland were £10,000 over this period, £1,200 or 14% higher than in the UK as a whole.

Chart 1.1 – Scotland's Share of UK Public Spending and Receipts (2008-09 to 2012-13)



Source: Government Expenditure and Revenue Scotland 2012-13

1.6 Over the period 2008-09 to 2012-13 as a whole, Scotland's estimated net fiscal deficit, the difference between total public spending and total tax receipts, has averaged £10.3 billion a year, equivalent to 7.2% of GDP. This is proportionately smaller than the UK's fiscal deficit which averaged £125.6 billion or 8.4% of GDP over the same period.

1.7 In cash terms, Scotland's relatively stronger fiscal position compared to the UK over this period is estimated to have been worth £8.3 billion, equivalent to £1,600 per person in Scotland.

Outlook for Scotland's Public Finances in 2016-17

1.8 Scotland's public finances are projected to improve in the coming years as the economic recovery strengthens.

1.9 The charts below provide illustrative projections of Scotland's estimated public sector net debt, current budget balance and net fiscal balance in 2016-17 based upon the assumptions and methodologies outlined in this report.

1.10 A number of scenarios are presented, each reflecting potential outcomes of the negotiation over assets and liabilities held by the UK Government and wider public sector[2]. Estimates for the UK are also provided in a range.[3]

[2] In this paper the term UK public sector assets and liabilities is used to refer to all assets and liabilities held by the UK Government and wider public sector.

[3] The range provided for the UK public finances takes as its lower bound the estimates published by the Office for Budget Responsibility in their March 2014 Economic and Fiscal Outlook. The upper bound is based on an illustrative estimate of the public finance plans set out by the Official Opposition based on analysis originally published by HM Treasury. Further information on this calculation is provided in Box 3.3.

- **Per capita share of UK debt** – This could be considered the upper bound on the share of UK debt that Scotland could inherit.

- **Historic Share of UK debt** – This is calculated with reference to Scotland's illustrative historic contribution to the UK public sector finances since 1980-81 and negotiations around UK public sector assets and liabilities[4].

- **Zero share of UK debt** – This can be considered the lower bound on Scotland's share of UK public sector net debt.

1.11 Although the UK Government have confirmed legal title to all existing UK public sector debt, the Scottish Government has indicated that it envisages servicing a share of such debt as part of a wider negotiation over the division of UK assets and liabilities. A zero debt scenario would therefore only be likely in the event that Scotland did not receive an equitable share of UK public sector assets.

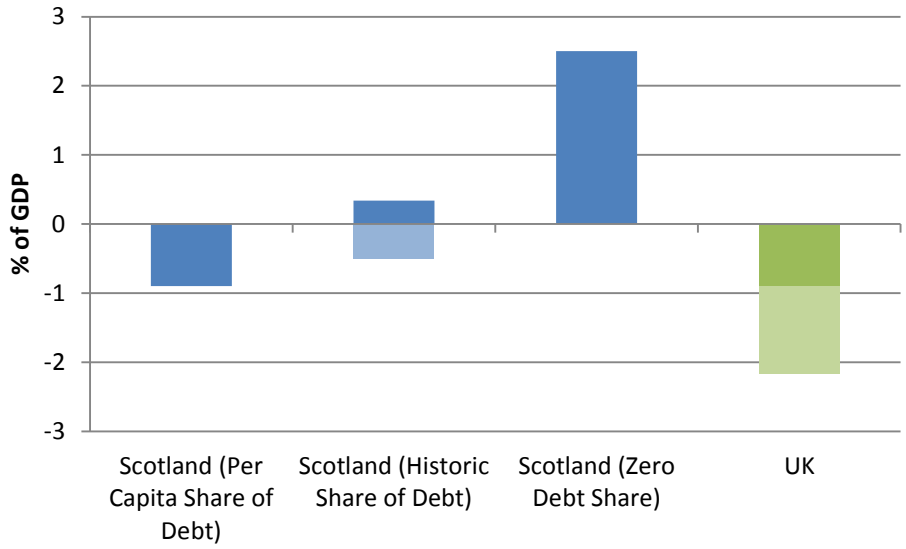
1.12 The Scottish Government believes that a negotiated settlement for debt payments would ultimately lie within the bounds of a per capita and zero share range. This will not only reflect Scotland's historic contribution to the UK public finances, but also the likelihood that Scotland would be unlikely to want (or need) to take on a per capita share of certain existing UK assets (e.g. defence and non-Scottish physical assets).

1.13 In addition, around 30% of outstanding UK gilts are effectively held by the Bank of England and HM Treasury as part of the programme of Quantitative Easing. Any commitment to service such 'internal' as oppose to 'external' debt payments would also be part of wider negotiations on a range of issues including monetary policy.

1.14 This is reflected in the estimates of Scotland's fiscal position in the charts below, which are based on the assumptions and methodologies outlined in this report. The light-blue shaded forecast within the scenario of Scotland's historic share of debt, illustrates the possible further reduction in Scotland's debt and deficit from servicing only an 'external' share of UK debt payments and negotiating a less than proportionate share of UK assets.

[4] This can be considered as a proxy for the range of options between the upper and lower bounds. See Chapter 3 for a further discussion.

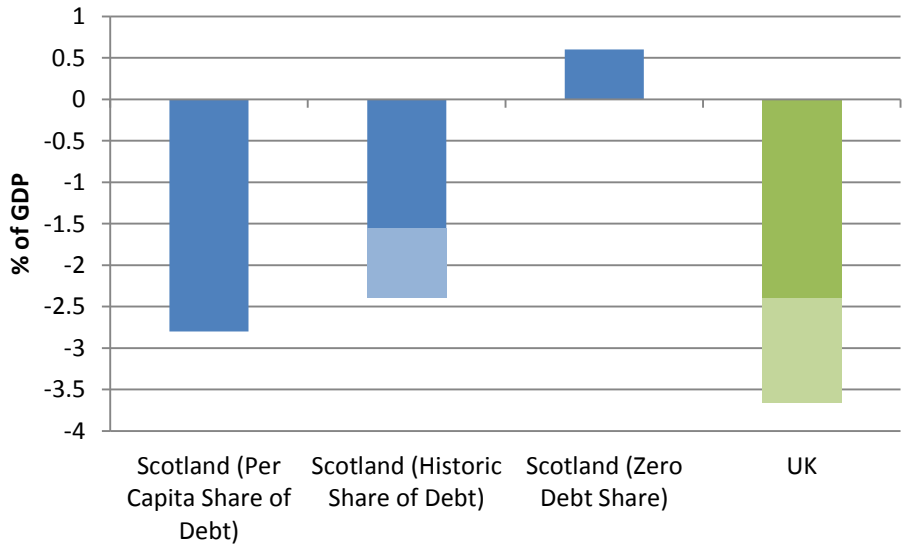
Chart 1.2 – Current Budget Balance (2016-17)



Dark green forecast for the UK is taken from the OBR March 2014 Economic and Fiscal Outlook. Light shaded green forecasts denotes the additional borrowing implied by the Official Opposition's current public spending plans. See Box 3.3 for methodology

1.15 Scotland's current budget balance, the difference between public sector revenue and current expenditure (i.e. excluding capital expenditure) is estimated to be the same as, or lower than, the UK's in all three scenarios.

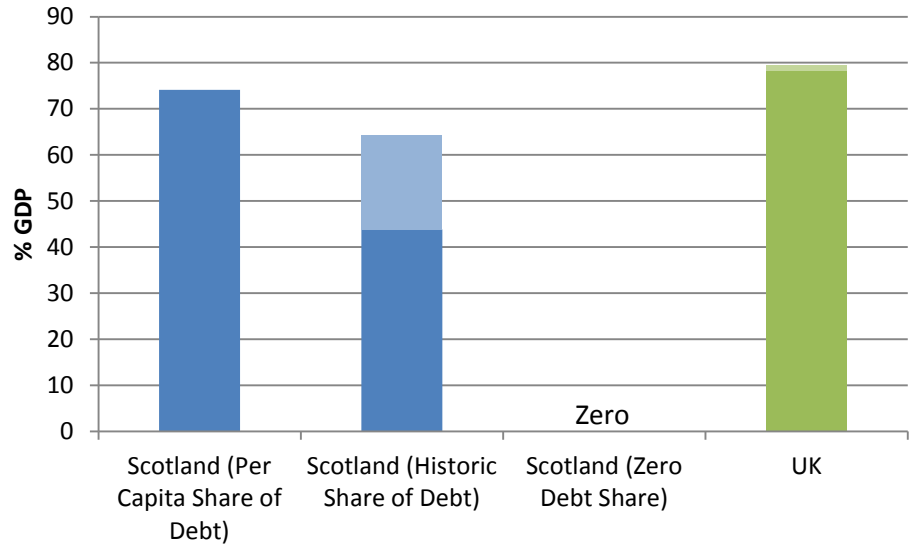
Chart 1.3 – Net Fiscal Balance (2016-17)



Dark green forecast for the UK is taken from the OBR March 2014 Economic and Fiscal Outlook. Light shaded green forecasts denotes the additional borrowing implied by the Official Opposition's current public spending plans. See Box 3.3 for methodology

1.16 Scotland's net fiscal balance, the difference between public sector revenue and total public expenditure (i.e. current plus capital expenditure) is estimated to be stronger than the UK's when estimated based on a zero debt share, and broadly in line with the UK's when estimated using a historic or per capita share of UK debt.

Chart 1.4 – Public Sector Net Debt (2016-17)



Dark green forecast for the UK is taken from the OBR March 2014 Economic and Fiscal Outlook. Light shaded green forecasts denotes the additional borrowing implied by the Official Opposition's current public spending plans. See Box 3.3 for methodology

1.17 Scotland's estimated debt to GDP ratio in 2016-17 is projected to be lower than the UK's under all three scenarios highlighted in Chart 1.4.

Outlook for Scotland's Public Finances to 2018-19

1.18 In the years following independence, the Scottish Government will have responsibility for setting the overall levels and composition of public spending and taxation, and ensuring that the public finances are sustainable[5].

1.19 As an illustration of the impact that different spending choices would have on Scotland's fiscal position, Chart 1.5 demonstrates how Scotland's net fiscal balance could evolve in 2017-18 and 2018-19 under different assumptions about the growth in non-debt interest current spending.

1.20 The projections are based on the scenario that Scotland continues to meet the cost of a historic share of UK debt interest payments (as a proxy for a negotiated settlement over assets and liabilities). They should be seen as an illustrative rather than an exhaustive list of the potential choices that will be available for future Scottish administrations.

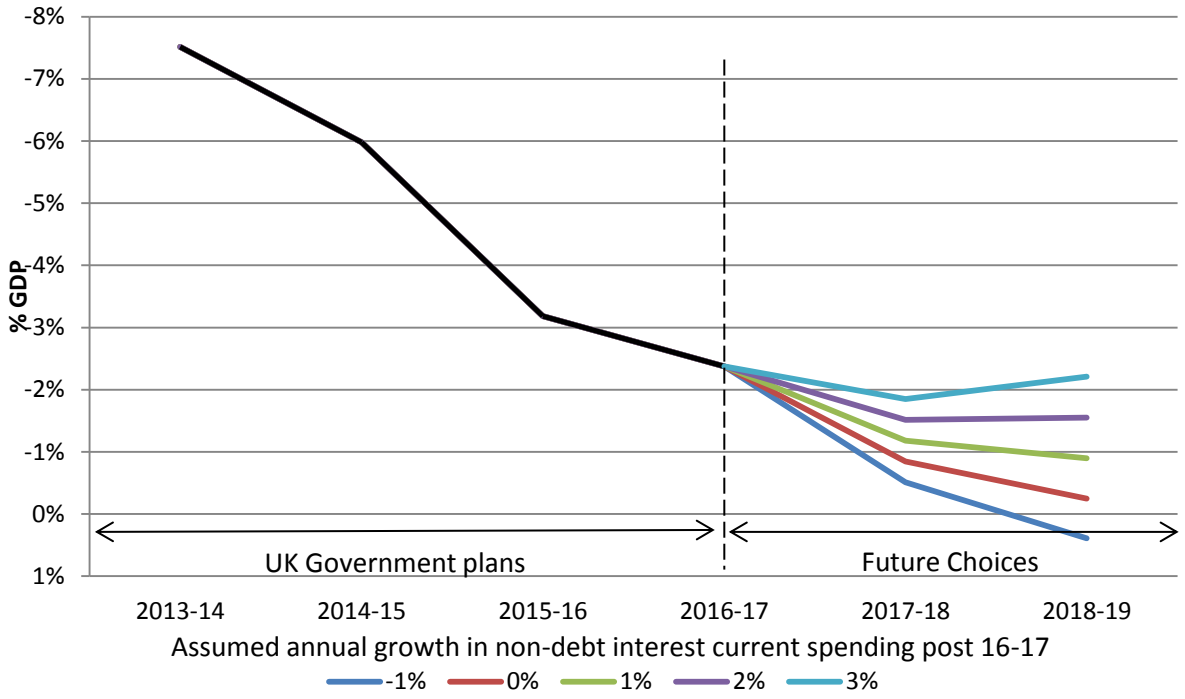
1.21 The results imply that, assuming 3% nominal growth in non-debt interest current spending during 2017-18 and 2018-19, Scotland's net fiscal deficit would fall to 2.2% of GDP in 2018-19. Alternatively, assuming that this spending grew 1% in nominal terms, Scotland's net fiscal deficit is estimated to fall to 0.9% of GDP by 2018-19.

[5] See *Scotland's Future*, pages 76-77, and 116-117

1.22 Increasing this spending by 3% a year would provide approximately £2.4 billion in additional resources in 2018-19 compared to a scenario where spending grows by 1%.

1.23 Both positions would be within the bounds of a sustainable fiscal position in a Sterling Area monetary union. The Scottish Government's preference in these years is for growth of around 3% which contrasts with the UK coalition's preference for growth closer to 1% (i.e. a real terms cut). It should be noted that the UK position is even before any potential review of the way in which Scottish public spending is funded under the Barnett Formula.

Chart 1.5 – Scotland – Net Fiscal Balance (2013-14 to 2018-19)



Future Policy Choices and Scotland's Public Finances

1.24 The Scottish Government believes that independence would provide Scotland with the tools to tailor economic policy in Scotland to maximise the country's strengths and address the specific challenges that it faces. If future governments were successful at improving Scotland's economic performance this would have a positive impact on the country's public finances. It would also assist in responding to the long term challenges that many advanced economies, including Scotland, face as a result of their demographic profiles.

1.25 Policies which successfully increase the size of the working age population, or increase labour market participation, would boost tax receipts whilst potentially also reducing expenditure via the benefit system. Likewise, policies which successfully close the gap in

Scotland's productivity performance compared to many other advanced economies could in turn feed through to higher tax receipts.

1.26 Such effects are potentially significant. The analysis in Chapter Four indicates that if Scotland was able to increase its population and close some of the gap in its employment and productivity rates with the top performing countries in the OECD, it would boost tax revenues year on year[6]. After thirteen years this could provide an additional boost to tax receipts of over £5 billion a year.

[6] Analysis assumes that Scotland's long run productivity growth increases by 0.3 percentage points, that Scotland's employment rate increases by 3.3 percentage points and that the population increases beyond current projections. Further details are provided in Chapter 4.

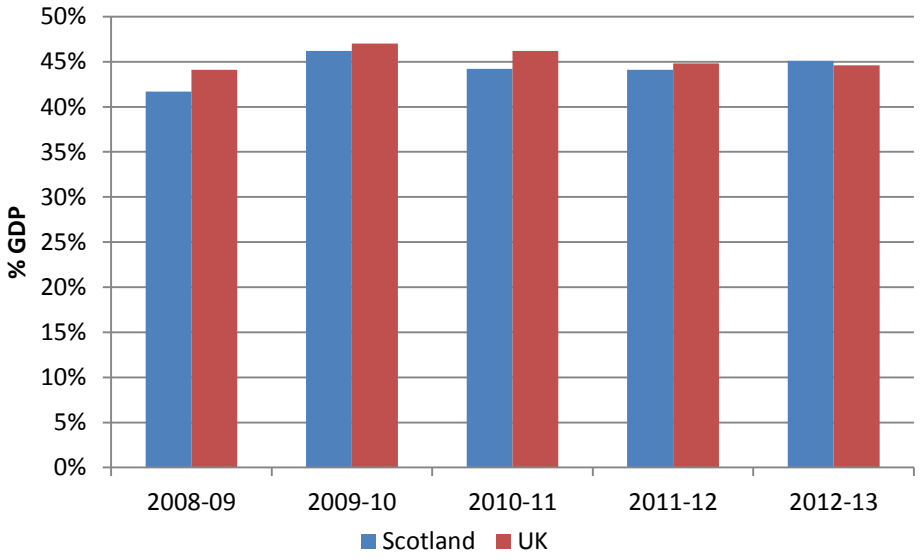
2. Scotland's Public Finances – 2008-09 to 2012-13

2.1 A detailed analysis of Scotland's public finances under the current constitutional framework is provided in the National Statistics publication Government Expenditure and Revenue Scotland (GERS).[7] The analysis estimates the total amount of tax revenues raised as a result of economic activity in Scotland, and total public sector expenditure undertaken on behalf of Scottish residents and businesses. The latest results were published in March 2014 and provide statistics for the five years to 2012-13. This chapter provides a summary.

Public Spending

2.2 In 2012-13, total public spending for Scotland was estimated to be £65.2 billion, equivalent to 9.3% of total UK public spending. This represents a higher proportion of spending than Scotland's share of the UK population (8.3%). However, as a share of GDP, public spending in Scotland has generally been lower than in the UK as a whole.

Chart 2.1 – Public Spending in Scotland and the UK (% GDP)



Source: Government Expenditure and Revenue Scotland 2012-13

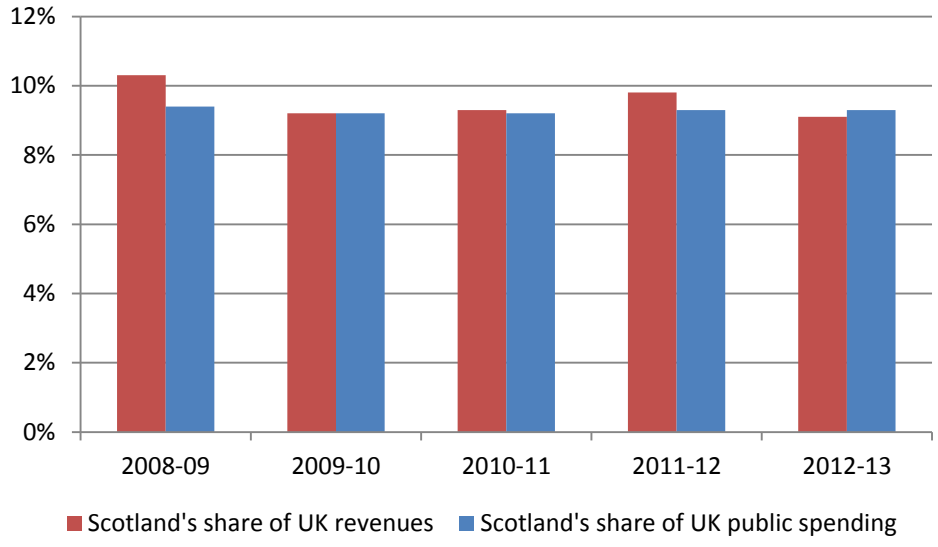
2.3 Approximately 60% (£38.5 billion) of public spending in Scotland is undertaken by the Scottish Government, Scottish Local Authorities and other Scottish public bodies.

2.4 A further 26% (£17.3 billion) is undertaken by the UK Government directly for the benefit of Scottish residents, for example through the benefit system. The remaining 14% (£9.4 billion) of public spending represents Scotland's notional share of UK Government expenditure on UK wide services, such as defence, overseas aid, and debt interest

[7] http://www.scotland.gov.uk/gers

payments. In GERS, Scotland is generally assigned either a population or a GDP share of such UK-wide expenditures. It is these 'reserved' areas that future Scottish Governments would have a choice over the appropriate levels of expenditure.

Chart 2.2 – Scotland's Share of UK Public Spending and Tax Receipts



Source: Government Expenditure and Revenue Scotland 2012-13

Tax Receipts

2.5 Total public sector receipts for Scotland comprise both onshore and offshore tax revenues. In 2012-13, estimated onshore tax receipts[8] in Scotland were £47.6 billion. This is equivalent to 8.2% of the UK total, broadly in line with Scotland's share of the UK population. Scotland's illustrative geographical share of offshore oil and gas tax receipts were estimated to be £5.6 billion (84% of UK offshore receipts). In 2012-13, combined public sector receipts in Scotland to £53.1 billion or 9.1% of the UK total.[9]

2.6 Looking over the past five years as a whole, when North Sea oil revenues are included, Scotland has on average accounted for 9.5% of UK tax receipts. On a per capita basis, annual tax receipts in Scotland have averaged £10,000 over the past five years, £1,200 or 14% per capita higher than in the UK as a whole.

Scotland's Overall Fiscal Position

2.7 GERS provides two measures of Scotland's overall fiscal position, the current budget balance and the net fiscal balance. Both measures are directly comparable to the measures

[8] The most significant contributions to Scottish tax receipts are from income tax, VAT and National Insurance Contributions.

[9] See Chapter 4 for a discussion on how North Sea receipts are apportioned to Scotland in GERS. http://www.scotland.gov.uk/Publications/2014/03/7888/6. Further discussion and information on oil revenues can be found in the Scottish Government's Oil and Gas Analytical Bulletin, http://www.scotland.gov.uk/Topics/Economy/Publications/oilandgas

of the UK's overall fiscal position used by the Office for National Statistics (ONS) and the Office for Budget Responsibility (OBR).

2.8 The current budget balance illustrates the difference between current revenue and current expenditure. It therefore excludes capital expenditure. The current budget balance measures the degree to which current taxpayers meet the cost of paying for the public services they consume today plus a contribution to debt interest payments. If a country is running a current budget balance or surplus it may still have to borrow to fund capital expenditure. However, such borrowing will be for long term investment which could increase the economy's productive capacity in future years. In effect, no borrowing is being used to fund day to day government services.

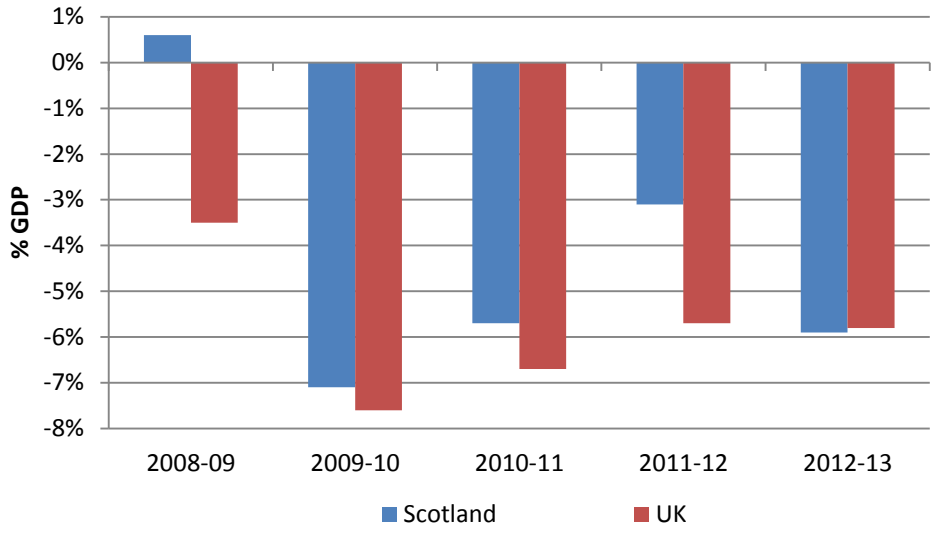
2.9 The net fiscal balance measures the difference between total public spending and tax revenue in a given year. It therefore determines the government's annual borrowing requirement. It includes spending on capital investment, such as the construction of roads, hospitals, and schools, which yields benefits not just to current taxpayers but also to future taxpayers.

Current Budget Balance

2.10 Chart 2.3 provides estimates of Scotland's current budget balance in the five years to 2012-13.

2.11 Scotland is estimated to have run a current budget surplus in 2008-09. The UK last ran a surplus in 2001-02. In more recent years, Scotland has run a current budget deficit, reflecting, in part, the impact of the international financial crisis and resulting recession. In 2012-13, Scotland is estimated to have run a current budget deficit equivalent to 5.9% of GDP, broadly in line with the UK (5.8% of GDP). Looking at the period 2008-09 to 2012-13 as a whole, Scotland ran an average current budget deficit equivalent to 4.3% of GDP. Over the same period, the UK ran an average current budget deficit equivalent to 5.9% of GDP.

Chart 2.3 – Scotland and UK Current Budget Balance (2008-09 to 2012-13)



Source: Government Expenditure and Revenue Scotland 2012-13

Net Fiscal Balance

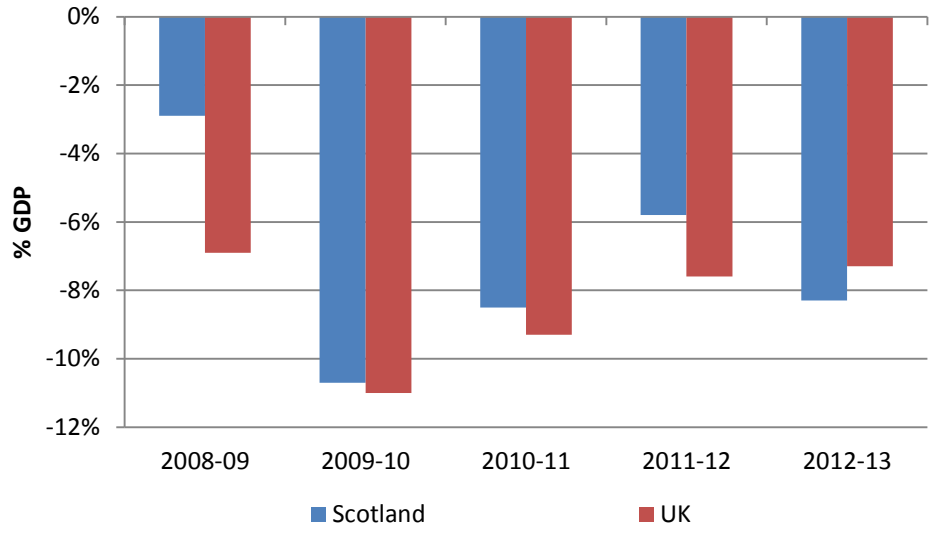
2.12 Scotland's estimated net fiscal balance, the difference between total public spending and total public sector receipts, for the years 2008-09 to 2012-13 is illustrated in Chart 2.4.

2.13 Over the period 2008-09 to 2012-13 as a whole, Scotland's estimated net fiscal deficit has averaged £10.3 billion a year, equivalent to 7.2% of GDP. This is proportionately smaller than the UK's fiscal deficit which averaged £125.6 billion or 8.4% of GDP over the same period.

2.14 In cash terms, Scotland's relatively stronger fiscal position compared to the UK over the past five years is estimated to have been worth £8.3 billion, equivalent to £1,600 per person in Scotland.[10]

[10] The relative financial positions of Scotland and the UK can be illustrated by analysing the difference in net fiscal balances (i.e. borrowing) as a share of GDP between the two countries. This allows the relative size of the economies to be controlled for when comparing their fiscal positions. Multiplying this difference by the value of Scottish GDP provides a cash measure of Scotland's relative fiscal position compared to the UK as a whole. On this basis, over the past five years, Scotland's relatively stronger fiscal position has cumulatively been equivalent to £8.3 billion.

Chart 2.4 – Scotland and UK Net Fiscal Balance (2008-09 to 2012-13)



Source: Government Expenditure and Revenue Scotland 2012-13

2.15 Although Scotland's public finances have been stronger than those of the UK as a whole over the past five years, Scotland's deficit, like that of many other countries, is currently at a high level. Of the 31 members of the OECD for which data are available, 28 were also in deficit during 2012.[11]

Conclusion

2.16 In summary, between 2008-09 and 2012-13, Scotland is estimated to have on average accounted for 9.3% of UK public spending, and generated 9.5% of UK tax revenue. As a consequence, over the past five years as a whole Scotland is estimated to have been in a relatively stronger fiscal position than the UK. In cash terms, Scotland's relatively stronger fiscal position during this period is estimated to have been equivalent to £8.3 billion.

2.17 Scotland's relatively stronger fiscal position reflects the contribution of North Sea tax revenues to the country's public finances. Per capita onshore receipts are broadly similar in both Scotland and the UK as a whole, whilst per capita expenditure is higher in Scotland. The inclusion of a geographical share of North Sea receipts has tended to bring Scotland into a relatively stronger position than the UK as a whole in recent years.

2.18 Although Scotland's net fiscal deficit is currently at a high level, this is not uncommon compared to other advanced economies given the recent financial crisis. As the next chapter demonstrates, Scotland's fiscal position is projected to strengthen significantly in the coming years.

[11] OECD – Economic and Fiscal Outlook http://www.oecd.org/eco/public-finance/

3. Outlook for Scotland's Public Finances: 2016-17 to 2018-19

3.1 With the Scottish economy anticipated to continue to strengthen in the coming years it is expected that Scotland's deficit upon independence will be substantially lower than currently observed.

3.2 The fiscal position that Scotland will inherit in the event of independence will depend on a number of factors including:

- The strength of the economic recovery in Scotland;
- The outlook for oil and gas revenues;
- UK Government policies prior to independence;
- The outcome of negotiations between the Scottish and UK governments on the division of public sector assets and liabilities; and
- The decisions made by the Scottish Government on the level and composition of public spending and taxation following independence.

3.3 The analysis below provides projections for Scotland's public finances in 2016-17 and demonstrates the impact that negotiations over assets and liabilities in the event of independence could have on the results. It then assesses the impact that policy choices by the government of a newly independent Scotland could have on the country's fiscal position in subsequent years.

Outlook for Scottish Tax Revenues and Public Spending

3.4 This section sets out projections of Scottish public sector revenues and expenditures in 2016-17.

Onshore Revenues

3.5 In recent years, Scottish onshore tax receipts have generally grown in line with UK tax revenues, with income tax, VAT and national insurance continuing to be the three largest onshore sources of tax revenue. Assuming that this trend continues, Scottish onshore tax receipts are projected to increase to £57.3 billion in 2016-17.[12]

[12] Source: Scottish Government

Offshore Revenues

3.6 Future tax revenues from the oil and gas industry will depend on a range of factors including production in the North Sea, wholesale prices, and operating and investment costs. The Scottish Government has published a detailed analysis of the outlook for Scottish oil and gas revenues to 2018-19 under a range of different scenarios.[13] The analysis in this chapter is based on the scenario where production and future investment grow broadly in line with current industry expectations and oil prices remain constant at $110 a barrel.[14]

3.7 In this scenario, North Sea receipts are forecast to stand at £6.9 billion in 2016-17. A range of other scenarios and related revenue projections are also possible and these are discussed in Box 3.4.

Public Spending

3.8 Total public expenditure consists of spending on public services, welfare payments, capital investment and debt interest payments.

3.9 Collectively, spending on the first three of these items is assumed to stand at £63.3 billion in 2016-17, under current UK Government policies.[15]

3.10 The contribution that Scotland makes to the cost of servicing UK Government debt following independence will be subject to negotiation as part of the broader division of UK public sector assets and liabilities. This is discussed further in Box 3.1.

Box 3.1 - Assets and Liabilities

Scotland's share of UK public sector assets and liabilities will be subject to negotiation following independence.

A range of potential approaches could be taken to calculate Scotland's share of public sector assets and liabilities. For example, land, property and equipment may be allocated on a geographical basis. In other situations assets and liabilities may be divided on a per capita basis, with reference to Scotland's historic share of UK tax receipts and public spending, in relation to the original funding for the assets or as part of a negotiated political settlement.

[13] Scottish Government – Oil and Gas Analytical Bulletin May 2014
http://www.scotland.gov.uk/Topics/Economy/Publications/oilandgas

[14] The Oil and Gas Analytical Bulletin refers to this as Scenario 4. For a discussion of alternative assumptions is provided in the Analytical Bulletin.

[15] For a discussion of the one-off costs that Scotland may make in the transition to independence, please refer to Chapter 10 of *Scotland's Future*.

In the case of UK public sector debt, the UK Government has confirmed that "*in the event of Scottish independence from the United Kingdom (UK), the continuing UK Government would in all circumstances honour the contractual terms of the debt issued by the UK Government*"[16]. However, as set out in *Scotland's Future*, the Scottish Government envisages making a contribution to the cost of servicing this debt as part of the wider division of UK assets and liabilities[17].

UK public sector assets are substantial. The latest estimates for 2011-12 in the Whole of Government Accounts[18] suggest that total UK public sector assets stand at £1.3 trillion, as summarised in the table below. Following independence, the Scottish Government would expect Scotland to receive an equitable share of these assets.

Whole of Government Accounts, 2011/12 (£ Billions)	
Property, plant and equipment	£745
Trade and other receivables	£142
Financial assets (inc. equity investment in public sector banks)	£288
Other assets	£93
Total Assets	**£1,268**

In some cases, it may not be practical for an asset to be split between Scotland and the rest of the UK. This may be the case with land and buildings used for reserved functions outwith Scotland. Scotland may also not require some assets, such as some UK defence equipment.

In such situations, assets could be retained by the rest of the UK. Scotland could instead receive either a larger share of other assets or a lower share of liabilities, such as UK public sector debt. This latter option will have implications for Scotland's annual debt interest payments and in turn its overall fiscal position. As an illustrative example, if Scotland's share of UK public sector net debt was reduced by £10 billion as part of a wider negotiation of UK assets and liabilities (9% of Scotland's share of total UK assets to which it would be entitled), this would reduce annual debt interest payments by approximately £400 million, equivalent to 0.2% of GDP in 2016-17.

[16] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/270643/uk_debt_and_the_Scotland_independence_referendum.pdf

[17] See pages 348 to 349 of Scotland's Future for a discussion of this issue

[18] https://www.gov.uk/government/publications/whole-of-government-accounts-2011-to-2012

Outlook for Scotland's Overall Fiscal Position

3.11 The charts below provide illustrative projections of Scotland's estimated public sector net debt, current budget balance and net fiscal balance in 2016-17 based upon the assumptions and methodologies outlined in this report. A number of scenarios are presented each reflecting potential outcomes of the negotiation over UK public sector assets and liabilities. Estimates for the UK are also provided in a range.[19]

- **Per capita share of UK debt** – This could be considered the upper bound on the share of UK debt that Scotland could inherit.

- **Historic Share of UK debt** – This is calculated with reference to Scotland's illustrative historic contribution to the UK public sector finances since 1980-81 and negotiations around UK public sector assets and liabilities.[20]

- **Zero share of UK debt** – This can be considered the lower bound on Scotland's share of UK public sector net debt.

3.12 Although the UK Government have confirmed legal title to all existing UK public sector debt, the Scottish Government has indicated that it envisages servicing a share of such debt as part of a wider negotiation over the division of UK assets and liabilities[21]. A zero debt scenario would therefore only be likely in the event that Scotland did not receive an equitable share of UK public sector assets.

3.13 The Scottish Government believes that a negotiated settlement for debt payments would ultimately lie within the bounds of a per capita and zero share range. This will not only reflect Scotland's historic contribution to the UK public finances, but also the likelihood that Scotland would be unlikely to want (or need) to take on a per capita share of certain existing UK assets (e.g. defence and non-Scottish physical assets).

3.14 In addition, given that almost 30% of outstanding UK gilts are effectively held by the Bank of England and HM Treasury as part of the programme of Quantitative Easing, any commitment to service such 'internal' as oppose to 'external' debt payments would also be part of the wider negotiations (See Box 3.2).

[19] The range provided for the UK public finances takes as its lower bound the estimates published by the Office for Budget Responsibility in their March 2014 Economic and Fiscal Outlook. The upper bound is based on an illustrative estimate of the public finance plans set out by the Official Opposition based on analysis originally published by HM Treasury. Further information on this calculation is provided in Box 3.3.

[20] This can be considered as a proxy for the range of options between the upper and lower bounds. See Boxes 3.1 and 3.2 for a discussion of this issue.

[21] See pages 348 to 349 of Scotland's Future for a discussion of this issue

3.15 This is reflected in the estimates of Scotland fiscal position in the charts below. The light blue shaded forecast within the scenario of Scotland's historic share of debt, illustrates the possible further reduction in Scotland's debt and deficit from servicing only an 'external' share of UK debt payments and negotiating a less than proportionate share of UK assets.

Box 3.2: Quantitative Easing and the UK Public Finances

In recent years, a substantial share of UK gilts has been purchased by the Bank of England as part of its Quantitative Easing (QE) programme. Gilts purchased through the QE programme are held by the Bank of England Asset Purchase Facility Fund Ltd (APF Ltd). APF Ltd is managed by the Bank of England but is underwritten by HM Treasury who is the sole shareholder of APF Ltd.[22]

Since its inception, the APF has purchased gilts worth £375 billion[23]. This is equivalent to nearly 30% of outstanding gilts. Annual interest payments made by the UK Government on these gilts stood at £14.3 billion in 2013-14. However, the profits generated by the APF are returned to HM Treasury and in turn reduce overall borrowing in the short term. This transfer was worth £12.1 billion in 2013-14.

The measure of Scotland's net fiscal balance used in this report treats the annual interest payments to the APF as a public sector expenditure but does not incorporate the annual dividend payment from the APF to HM Treasury. This is consistent with the approach taken by the ONS and OBR in reporting the public sector finances. Were these factors accounted for, Scotland's estimated deficit would be reduced by approximately 0.7% of GDP in 2013-14.

Unwinding the APF's gilt holdings will be a gradual process and linked closely to the operation of monetary policy. It will have implications for both the Bank of England's policy interest rate and the cost to the UK Government of servicing its outstanding gilts. The Bank of England has stated that the sale of the APF's holdings is "*likely to be associated with a lower path of Bank Rate than would otherwise have been the case*".[24]

As part of a formal monetary union with shared institutions, management of these assets could continue broadly as before - with Scotland both contributing to and receiving the benefit of such a policy approach to managing monetary policy (including sharing in the

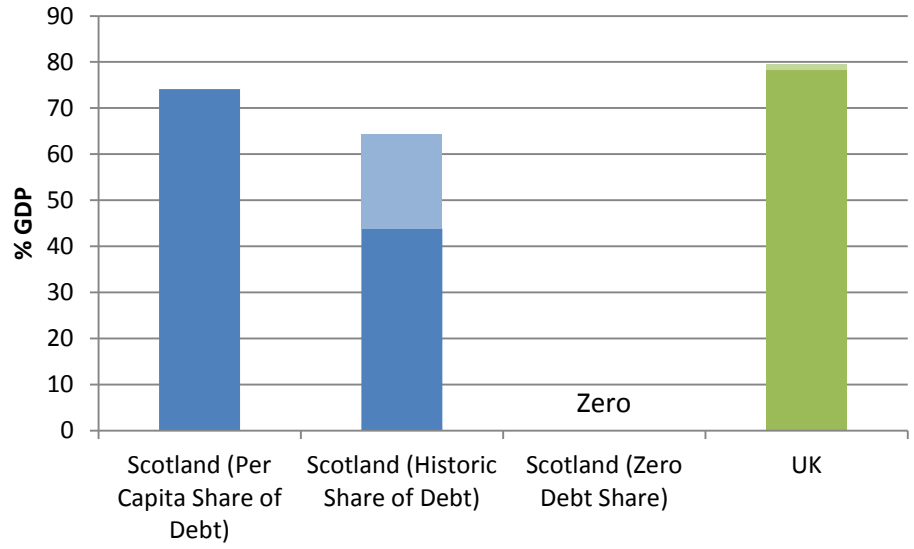
[22] http://www.bankofengland.co.uk/publications/Documents/other/markets/apf/boeapfannualreport1307.pdf
[23] Asset Purchase Facility – Annual Report 2012-13
[24] Bank of England Inflation Report – May 2014, Pg. 43

costs of unwinding the scheme over time). Under any alternative arrangements, this would clearly no longer be appropriate and the costs of unwinding and stock of debt would remain the responsibility of the UK Government.

Public Sector Debt

3.16 Scotland's projected public sector debt to GDP ratio in 2016-17 under each of these scenarios is provided in the charts below. A range of estimates for the UK are also provided for reference. Under each scenario Scotland is projected to have a lower debt to GDP ratio than the UK.

Chart 3.1 – Public Sector Net Debt (2016-17)



Dark green forecast for the UK is taken from the OBR March 2014 Economic and Fiscal Outlook. Light shaded green forecasts denotes the additional borrowing implied by the Official Opposition's current public spending plans. See Box 3.3 for methodology

Current Budget Balance

3.17 Chart 3.2 sets out estimates of Scotland's current budget balance[25] in 2016-17 under the scenarios outlined above.

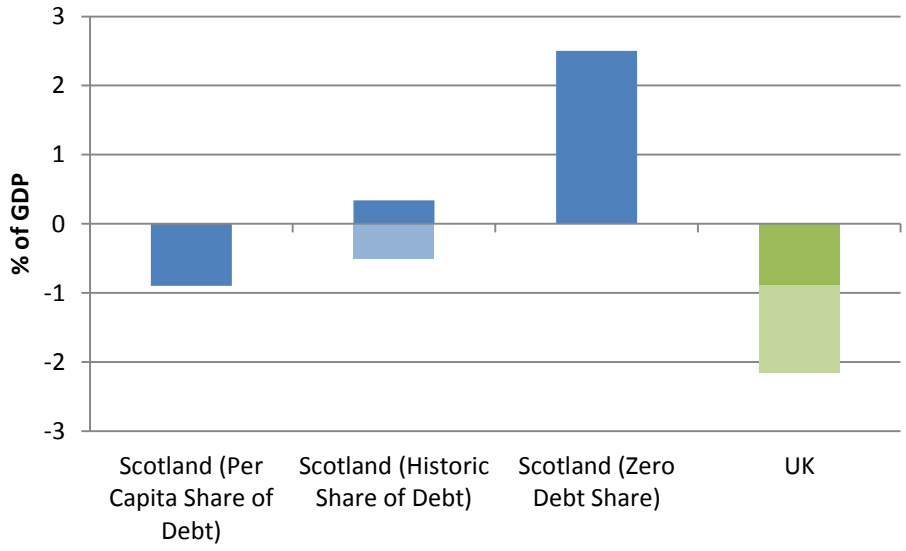
3.18 Using the assumptions and methodologies outlined in this report, the analysis shows that under a per capita share of UK debt interest payments, Scotland's current budget deficit is projected to stand at 0.9% of GDP by 2016-17. This is in line with the projections provided in *Scotland's Future*.[26] If Scotland services a historic share of debt interest payments, its

[25] the difference between current revenue and current expenditure i.e. excluding capital spending

[26] See Scotland's Future – Chapter 2

current budget deficit is projected to fall to 0.5% of GDP. Under the zero debt share scenario, Scotland is projected to have a current budget surplus of 2.5% of GDP. The UK is projected to run a current budget deficit of between 0.9% and 2.2% of GDP in 2016-17

Chart 3.2 – Current Budget Balance (2016-17)



Dark green forecast for the UK is taken from the OBR March 2014 Economic and Fiscal Outlook. Light shaded green forecasts denotes the additional borrowing implied by the Official Opposition's current public spending plans. See Box 3.3 for methodology

Net Fiscal Balance

3.19 Scotland's projected net fiscal balance[27] in 2016-17 under the scenarios outlined above is set out in Chart 3.3. Under the assumption of a per capita share of UK debt interest payments, Scotland's deficit is projected to fall to 2.8% of GDP in 2016-17. Under a historic share of debt the deficit would fall to 2.4% of GDP, and under a zero share of debt Scotland is projected to run a surplus equivalent to 0.6% of GDP. These projections are in line with the projections in *Scotland's Future.*[28]

3.20 To put these results into context, the IMF forecast that the G7 economies as a whole will be running a fiscal deficit equivalent to 4.0% of GDP in 2016, as indicated by the dashed red line in Chart 3.3.[29] The OBR forecast that the UK as a whole will run a fiscal deficit equivalent to 2.4% of GDP in 2016-17.[30] Under the Official Oppositions public finance plans, the UK net fiscal deficit could stand at approximately 3.7% of GDP in the same year.

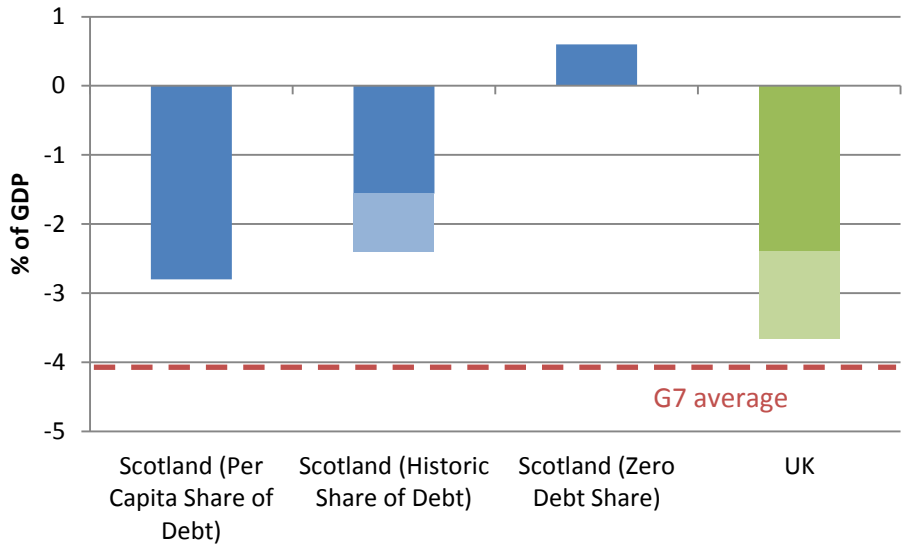
[27] The difference between total public spending and revenue

[28] Scotland's Future – Pages 75 and 76

[29] Source: International Monetary Fund, Fiscal Monitor April 2014, http://www.imf.org/external/pubs/ft/fm/2014/01/pdf/fm1401.pdf

[30] OBR Economic and Fiscal Outlook March 2014, page 156

Chart 3.3 – Net Fiscal Balance (2016-17



Dark green forecast for the UK is taken from the OBR March 2014 Economic and Fiscal Outlook. Light shaded green forecasts denotes the additional borrowing implied by the Official Opposition's current plans. See Box 3.3 for methodology

Box 3.3 - Forecasts of the UK Public Finances

The OBR's forecasts of the UK public finances are based on the current UK Government's fiscal plans. If there is a change of government following the 2015 General Election, this may lead to a different fiscal strategy.

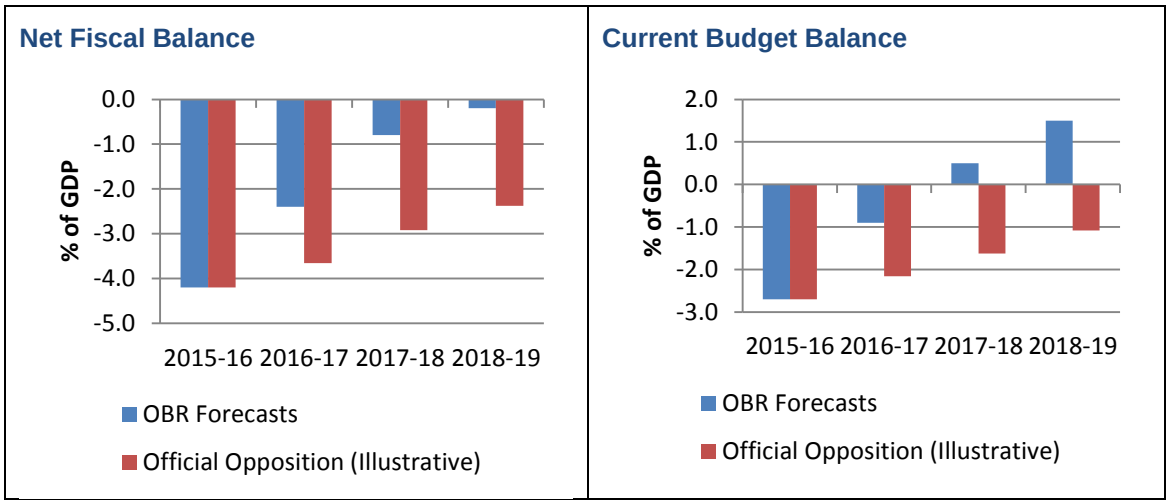
The Financial Times reports that the Official Opposition intend to commit to "*running a surplus on the current budget and to put national debt on a downward path by 2020 at the latest*"[31]. All else remaining equal, this would lead to a larger fiscal deficit in the years 2016-17 to 2018-19 than is projected in the OBR's current forecasts.

HM Treasury have previously published illustrative fiscal projections for the UK based on the public finance plans outlined to date by the Official Opposition.[32] Using the same approach as HM Treasury but updating the projections for more recent data, the estimated public finance positions are presented in the charts below. The corresponding OBR forecasts for the current UK Government's plans are provided for reference.

[31] http://www.ft.com/cms/s/0/eeed2a6e-851b-11e3-86f7-00144feab7de.html#axzz329Djvhz9

[32] Similar analysis has previously been undertaken by HM Treasury - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/276555/Opposition_policy_costing_-_surplus_rule.doc

In producing the illustrative forecasts for these alternative plans outlined to date, it has been assumed that a current budget balance is achieved in 2020-21 with the current budget deficit reducing on a straight line basis from the OBR's forecast for 2015-16. Alternative assumptions about the speed and composition of fiscal consolidation would change these results. Public sector net investment and GDP are assumed to move in line with the OBR's current forecasts. Additional debt interest costs are assumed to be funded within overall current expenditure.



3.21 The Scottish Government's Oil and Gas Analytical Bulletin contains forecasts of North Sea tax revenues under a range of scenarios. The impact that these different scenarios would have on the analysis contained in this report is discussed in Box 3.4.

Box 3.4: Scotland's Fiscal Position and North Sea Tax Receipts

The Scottish Government published its latest Oil and Gas Analytical Bulletin in May 2014.[33] The report provides forecasts of North Sea oil and gas tax receipts under six scenarios based on different assumptions about price, production and investment. For detailed information on the assumptions used in each scenario, please refer to the Bulletin itself.

The revenue projections under each scenario are summarised in the table below.

[33] The Scottish Government's Oil and Gas Analytical Bulletin is available from http://www.scotland.gov.uk/Topics/Economy/Publications/oilandgas

Illustrative Projections for Scottish North Sea Tax Receipts (£ Billions)						
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Total 2014-15 to 2018-19**
Scenario 1	£3.3	£3.4	£2.9	£3.1	£3.2	£15.8
Scenario 2	£4.0	£5.5	£4.7	£4.9	£4.8	£24.0
Scenario 3	£5.4	£7.4	£6.2	£6.5	£5.9	£31.4
Scenario 4	£5.8	£8.3	£6.9	£7.3	£6.0	£34.3
Scenario 5	£5.5	£8.3	£7.5	£8.2	£7.4	£36.8
Scenario 6	£5.6	£9.0	£7.8	£8.3	£8.0	£38.7

Scenario 4 is used in all forecasts contained in this report. It is based on the assumption that prices remain fixed at $110 in cash terms in future years (this represents a real terms drop in prices of 10% by 2018-19). In line with latest industry forecast, production is forecast to increase from approximately 1.4 million barrels per day at present to approximately 1.6 million barrels per day in 2018. Investment levels are also expected to moderate in future years in line with industry forecasts, returning to 'normal levels' as a number of major projects are completed.

Scenario 4 implies, on average, just under £7 billion per year in tax revenue from North Sea production over the five-year forecast period to 2018-19. The latest GERS report estimates that in the five years to 2012-13 average North Sea tax revenues for Scotland were approximately £8 billion per year.

If alternative assumptions for future North Sea receipts were used, or the profile of revenues changed, this would have an impact on the projections of Scotland's overall fiscal position in any particular year. For example, a £1 billion variation in tax revenues would be expected to change Scotland's fiscal position by approximately 0.6% of GDP in 2016-17.

Policy Choices Post Independence

3.22 In the years following independence, the Scottish Government will have responsibility for setting the overall levels and composition of public spending and taxation, ensuring that the public finances are sustainable and support economic growth.[34]

3.23 The Scottish Government has set out in *Scotland's Future* a range of policy priorities it intends to take forward immediately following independence. This includes generating

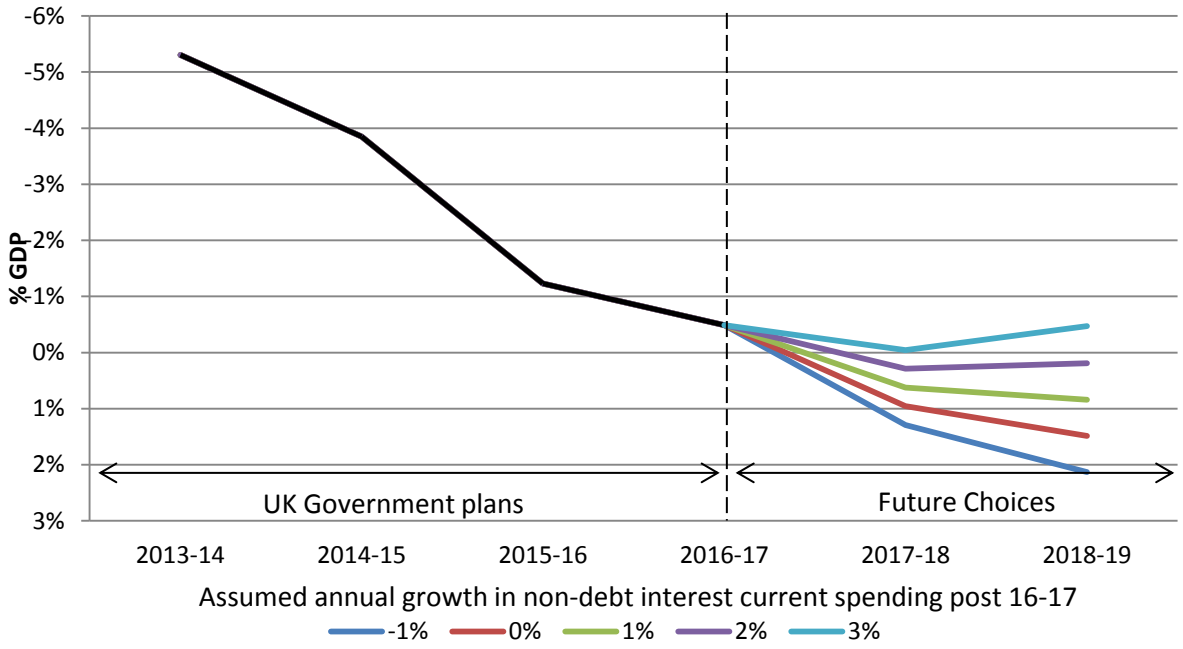
[34] For a discussion of options for managing Scotland's public finances under independence please refer to Chapters 2 and 3 of *Scotland's* Future and the analysis published by the Fiscal Commission Working Group http://www.scotland.gov.uk/Topics/Economy/Council-Economic-Advisers/FCWG

savings of £600 million from reducing spending on defence and security, ending the married couple's allowance, no longer contributing to the cost of running the Westminster Parliament and a number of other measures. The Scottish Government intends to use these savings to fund a range of policies including providing 600 hours of childcare to around half of two years olds and abolishing the 'bedroom tax'.[35] These policies are estimated to cost around £500 million. The Scottish Government's initial priorities will therefore be broadly fiscally neutral.

3.24 If a future Scottish Government wished to change the overall level of public spending or taxation, this would affect the projections of Scotland's current budget balance and overall net fiscal balance presented above.

3.25 As an illustration of the impact that different spending choices would have, Charts 3.4 and 3.5 demonstrate how Scotland's current budget balance and net fiscal balance could evolve in 2017-18 and 2018-19 under different assumptions about the level of nominal growth in non-debt interest current spending. The projections are based on the assumption that Scotland continues to meet the cost of a historic share of UK debt interest payments. They should be seen as illustrative rather than an exhaustive list of the potential spending choices that will be available for future Scottish administrations.

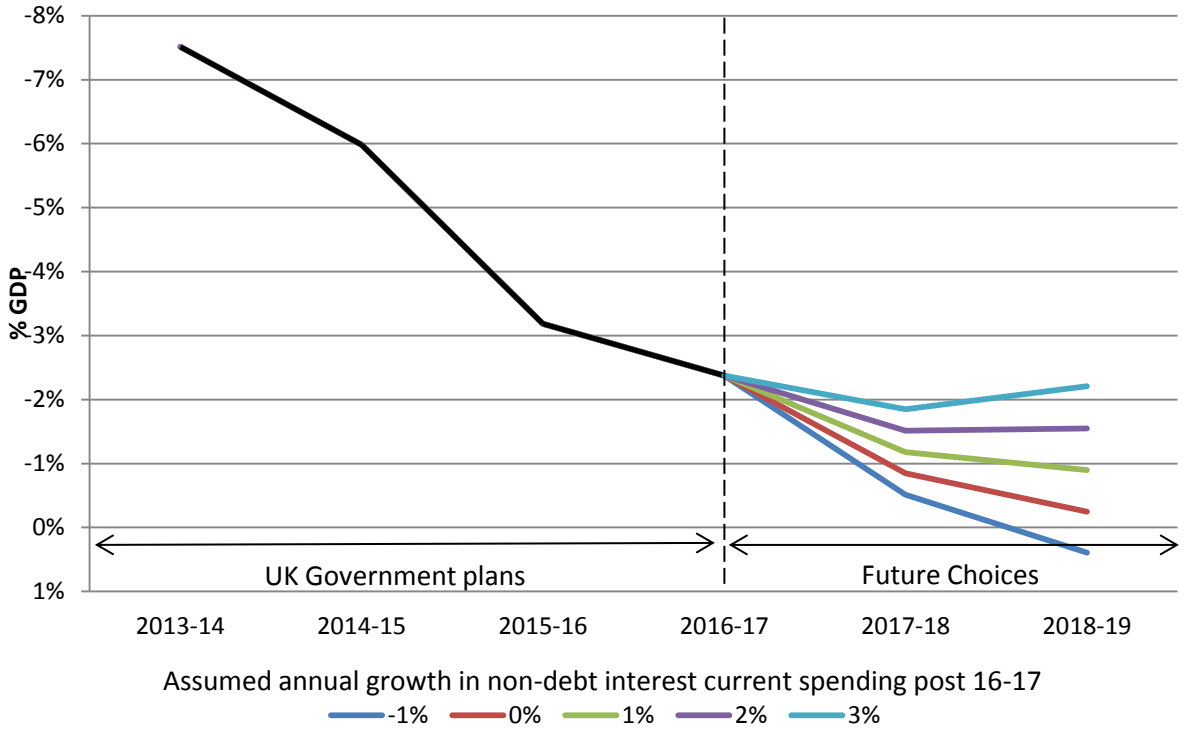
Chart 3.4 – Scotland – Current Budget Balance (2013-14 to 2018-19)



Source: Scottish Government analysis

[35] For further details of the Scottish Government's plans for public spending and taxation from 2016-17 onwards in the event of independence please refer to Chapter 2 of Scotland's Future

Chart 3.5 – Scotland – Net Fiscal Balance (2013-14 to 2018-19)



Source: Scottish Government analysis

3.26 The results imply that, assuming 3% annual growth in 2017-18 and 2018-19, Scotland could achieve a current budget deficit of 0.5% in 2018-19, with the net fiscal deficit falling to 2.2% of GDP. Alternatively, assuming growth of 1% in nominal terms, Scotland could achieve a current budget surplus of 0.8% in 2018-19 and an overall net fiscal deficit of 0.9%.

3.27 Growth of 3% a year would provide approximately £2.4 billion in additional resources in 2018-19 compared to a scenario where spending grows by 1%.

3.28 All of the projections of Scotland's net fiscal balance in 2018-19 are consistent with ensuring that the country's stock of public sector debt is on a downward trajectory as a share of GDP (see Box 3.5). The speed with which public sector debt declines will vary with each spending scenario.

3.29 The Scottish Government's preference is for growth of around 3% between 2016-17 and 2018-198. This contrasts with the UK coalition's preference for growth closer to 1% (i.e. a real terms cut). It should be noted that the UK position is even before any potential review of the way in which Scottish public spending is funded under the Barnett Formula. For example, the Westminster All-Party Parliamentary Taxation Group has recommended replacing the Barnett Formula with a new funding mechanism based on the findings of the

Holtham Commission in Wales,[36] These reforms could potentially see public spending in Scotland cut by £4 billion a year,[37]

3.30 The Fiscal Commission Working Group has published analysis of the conditions under which Scotland could consider investing in a long term oil savings fund. They concluded that investments "*could be started once Scotland's overall budget deficit was reduced to below the nominal level of long-run economic growth and debt was on a downward trajectory.*" [38]

3.31 The projections in Chart 3.5 suggest that by 2016-17 Scotland's deficit will be below 3% of GDP and its stock of public sector debt will be on a downward trajectory. As such the Scottish Government could have the opportunity to consider making investments into a long term oil savings fund balanced alongside other priorities.

Box 3.5 - Public Sector Debt Dynamics

Public sector debt is the sum of all outstanding debt issued by successive governments. The cost of servicing this debt is met annually through debt interest payments.

In assessing the sustainability of a given level of debt, it is important to consider not just the cash value of the debt, but its size relative to an economy's ability to meet the associated debt interest payments. For this reason, a country's stock of debt is often expressed as a share of its GDP.

As a country's economy typically expands year on year, the size of a given value of debt, as a share of GDP, declines over time. For example, debts of £100 billion would have represented 42% of UK GDP in 1980-81, but would represent just 6% of UK GDP in 2013-14. As such, it is possible for a country to run a fiscal deficit year on year, thereby adding to their stock of debt, whilst still seeing their debt to GDP ratio decline so long as the economy grows at a faster rate than debt is accumulated.

The annual deficit that a country can run whilst maintaining a constant debt to GDP ratio depends on three key variables: nominal economic growth, the interest rate on government debt and the country's initial debt to GDP ratio.

Scotland's historic share of UK public sector debt in 2018-19 is projected to be equivalent to

[36] http://www.appgtaxation.org/APPTG_Achieving_Autonomy_2013.pdf

[37] http://www.ft.com/cms/s/0/eafb6198-8865-11df-aade-00144feabdc0.html#axzz32XeQ55I3

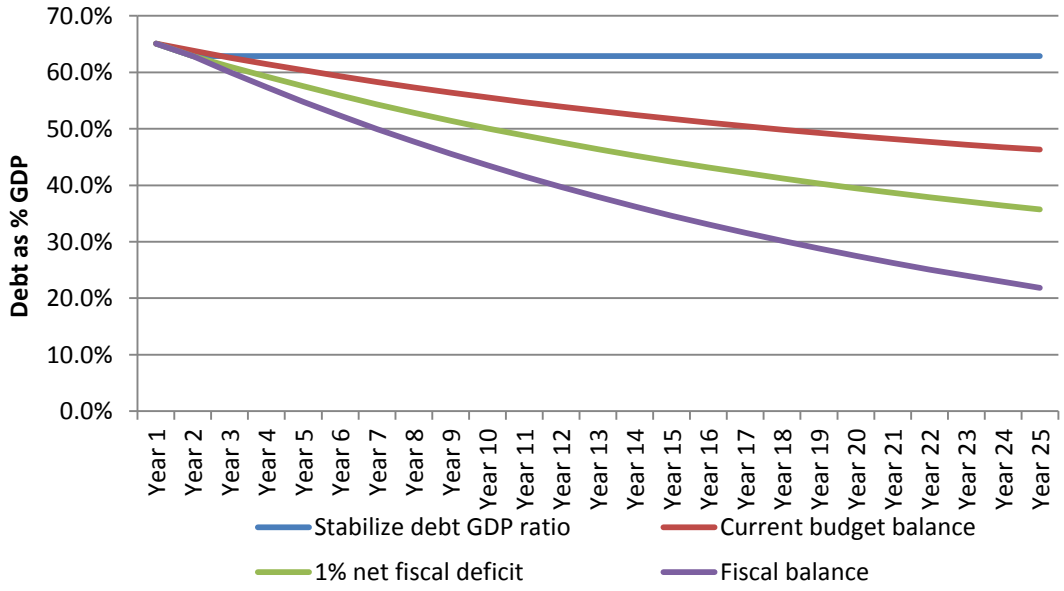
[38] Fiscal Commission Working Group paper "Stabilisation and Savings Funds for Scotland" Pg. 12 http://www.scotland.gov.uk/Resource/0043/00435303.pdf

approximately 65% of GDP. Assuming nominal GDP growth of 4.7% a year and an average interest rate on gilts of 5%; and the long run assumptions used by the OBR for the UK as a whole; a deficit maintained at approximately 3% of GDP would be sufficient to stabilise Scotland's debt to GDP ratio.

There are a number of reasons why a country may wish to reduce its debt to GDP ratio over the coming years. For example, to increase its capacity to absorb any future economic shock and to lower its costs of borrowing.

Based on the above stylised assumptions, if Scotland maintained a current budget balance in future years, public sector debt would fall to 46% of GDP after 25 years.[39] If Scotland maintained its fiscal deficit at around 1%, then the debt to GDP ratio would fall to 36% after 25 years. Alternatively, if Scotland maintained a net fiscal balance in future years, public sector debt would fall to 22% of GDP after 25 years.

Illustrative Example – Public Sector Debt Dynamics



This analysis demonstrates the path that public sector debt would take under a number of stylised assumptions. Key assumptions used are: debt to GDP ratio of 65% in year 1, average interest rate on outstanding debt of 5%, nominal GDP growth of 4.7%. The long run assumptions adopted by the OBR for the UK as a whole. It does not represent a projection of Scottish public sector debt as it does not take into account the expected future path of public sector expenditure and revenue

[39] Public sector net investment is assumed to be 1.7% a year

Conclusion

3.32 Scotland's public finances are projected to improve in the coming years as the economic recovery strengthens.

3.33 The analysis in this chapter has provided projections of Scotland's public finances in 2016-17 under three scenarios – a per capita share, an illustrative historical share and a zero share of debt. The results show that:

- Scotland's estimated debt to GDP ratio in 2016-17 is projected to be lower than the UK's under all three scenarios.
- Scotland's current budget balance is estimated to be the same as, or better than, the UK's in all three scenarios.
- Scotland's net fiscal balance, the difference between public sector revenue and total public expenditure (i.e. current plus capital expenditure) is estimated to be better than the UK's when estimated on a zero debt share and broadly the same as the UK's when estimated using a historic or per capita share of UK debt.

3.34 The Scottish Government envisages that a negotiated settlement for debt payments would ultimately lie within the bounds of a per capita and zero share range.

3.35 In the years following independence, the Scottish Government will have responsibility for setting the overall levels and composition of public spending and taxation, ensuring that the public finances are sustainable and support economic growth.

4. Impact of Future Policy Choices

Introduction

4.1 The previous chapter provided projections for Scotland's public finances in the years 2016-17 to 2018-19. Following independence, the Scottish Government will be able to use policy levers to influence Scotland's economic performance and ensure that the public finances remain on a sustainable footing.[40] This chapter considers some illustrative impacts on the country's public finances in the years to 2029-30 as a result of improvements in Scotland's economic performance.

Long Term Fiscal Challenges

4.2 The Scottish Government believes that independence offers the opportunity to transform Scotland's economy and to create a fairer society by making policy choices which better reflect the needs and priorities of Scottish households and businesses. It also provides the tools required to safeguard the sustainability of Scotland's public finances, for example by addressing the challenge presented by demographic change.

4.3 As outlined in Chart 4.1, many advanced economies will see their dependency ratios, the working age population relative to the pension age/child (under 15) population, worsen in the coming years as their populations' age and fertility rates remain below replacement levels. This will put pressure on their public finances as their working age populations have to support a growing number of retirees.[41]

4.4 The European Commission noted in its 2012 Fiscal Sustainability Report that "*the deterioration in fiscal positions and increases in government debt since 2008 together with the demographic transition, with an ageing population, compound each other and make fiscal sustainability an acute policy challenge*".[42] Likewise, the OBR have concluded that, for the UK as a whole "*on current policy we would expect the budget deficit to widen sufficiently*

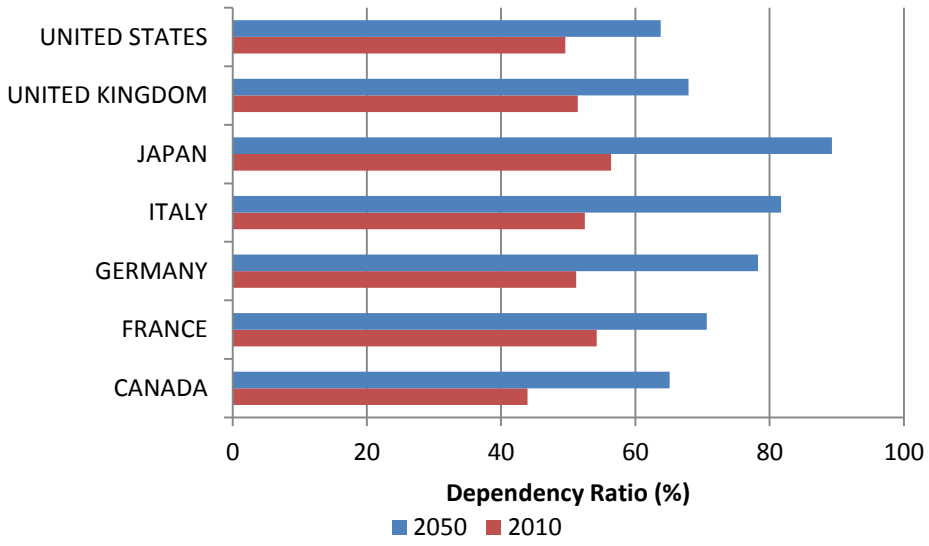
[40] For a discussion of the economic policy opportunities that independence would provide, see Chapter 3 of *Scotland's Future* and the Scottish Government report "Building Security and Creating Opportunity: Economic Policy Choices in an Independent Scotland" http://www.scotland.gov.uk/Publications/2013/11/2439

[41] Dependency ratios should be interpreted with a degree of caution. For example, the usual interpretation is the number of older people or children 'dependent' on people aged 16 to state pension age, the assumption being that the majority are economically inactive. The reality is more complex. For example, some people of working age are unemployed or economically inactive (e.g. in education) themselves, retirement age can vary and many retirees are financially independent. The ratios do however, provide a useful indication of the relative age structure of the population.

[42] European Commission (2012) *Fiscal Sustainability Report 2012* http://ec.europa.eu/economy_finance/publications/european_economy/2012/pdf/ee-2012-8_en.pdf

over the long term to put public sector net debt on a continuously rising trajectory as a share of national income".[43] They state that such an outcome would be "*clearly unsustainable*".[44]

Chart 4.1 – G7 Dependency Ratios



Note: Dependency ratio here is defined as the ratio of dependents – people younger than 15 and older than 64 – to the working age population – those aged 15-64, expressed as a percentage.
Source: World Bank

4.5 The dependency ratio is projected to rise in Scotland. This increase is due to a relative increase in the number of older people in the population.

4.6 Previous analyses of the long term outlook for Scotland's public finances[45] have highlighted the fiscal pressures that Scotland could face if it continues as part of the UK economic model and takes no alternative action to address the challenge. However, with independence, the Scottish Government will have the ability to tailor policy and create the conditions for the economy to grow. The following analysis provides illustrative examples to demonstrate the potential impact of such changes.

Improving Scotland's Economic Performance

4.7 This section illustrates the impact that changes in Scotland's economic performance could have on the country's public finances between 2018-19 and 2029-30. Three mechanisms are considered; boosting productivity growth, increasing employment and higher population growth.

[43] OBR – Fiscal Sustainability Report – July 2013, Pg. 12
http://budgetresponsibility.org.uk/wordpress/docs/2013-FSR_OBR_web.pdf
[44] ibid
[45] See for example, the Institute for Fiscal Studies publication 'Fiscal Sustainability of an independent Scotland'

4.8 The key assumptions underpinning this analysis are summarised in Box 4.1 below.

Box 4.1 - Assumptions underpinning long term analysis

The analysis in this chapter uses the projections for Scotland's public finances in 2018-19 set out in Chapter 3 as a baseline and then applies a number of stylised assumptions about future economic growth.

The baseline in each scenario is 2.2% annual labour productivity growth and a 71.0% employment rate, both of which reflect recent trends. The analysis further assumes that the size and composition of the population grows in line with the principle population projections published by the ONS. GDP grows as a result of growth in labour productivity and the working population (the population aged 16-64 multiplied by the employment rate is used as a proxy for the working population). Public expenditure and tax receipts per capita vary for different ages. Tax revenues for those assumed to be in employment are higher than for those not in employment.

All scenarios model an improvement in one or all of the drivers of economic growth rather than a specific policy. The analysis is also static and therefore does not take into account the impact that changes in economic performance could have on the behaviour of individuals or businesses. Nor does it include the second round effects that changes in tax revenue could have on the country's public finances, such as through changes in subsequent debt interest payments or from benefits of further investment in public services and/or infrastructure.

All scenarios are in 2012-13 prices.

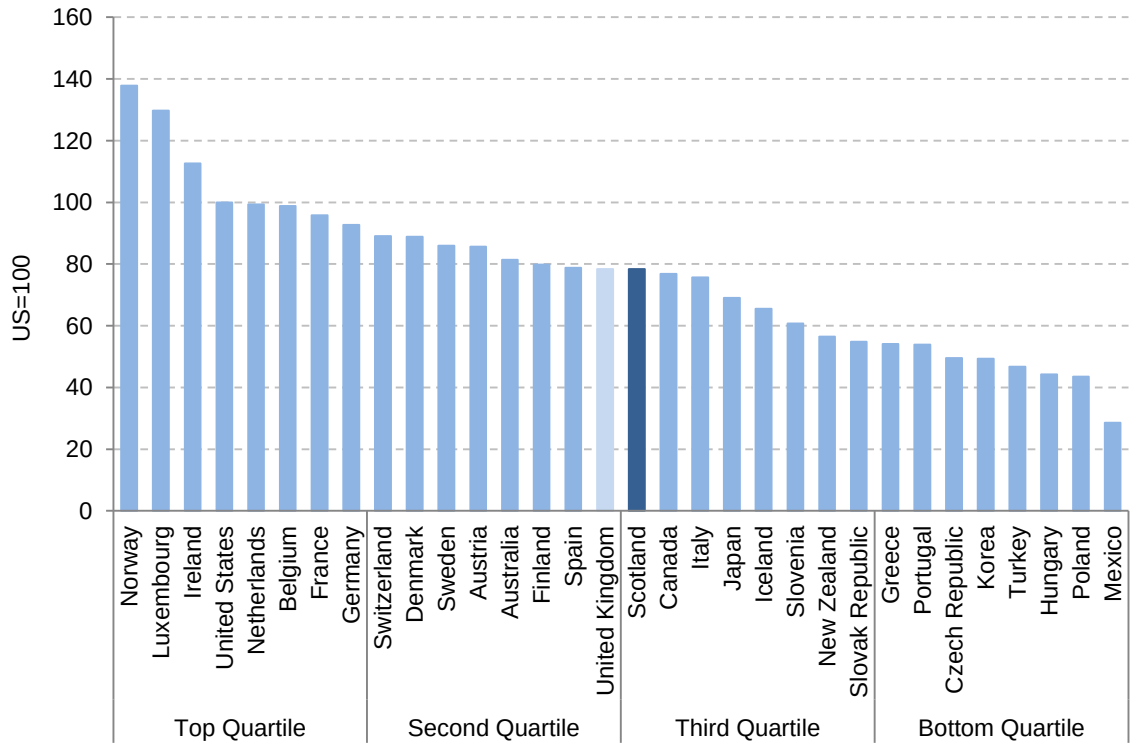
Productivity Growth

4.9 Productivity relates to the quantity and quality of goods which can be produced with a given level of inputs. The more productive an economy becomes, the greater the level of output it can produce with a given set of inputs (labour, capital etc.). In the long term, increasing the productivity of an economy is therefore a key driver of economic growth. As Professor Paul Krugman has noted, "*Productivity isn't everything, but in the long run it is almost everything. A country's ability to improve its standard of living over time depends almost entirely on its ability to raise its output per worker*".[46]

[46] Paul Krugman (1994). The Age of Diminishing Expectations.

4.10 Scottish productivity, excluding offshore oil and gas production, is broadly in line with the UK average.[47] However, it lags behind many key comparators as shown in Chart 4.2 below. For example, GDP per hour worked in Scotland is currently over 15% lower than in Germany, which is ranked at the bottom of the top quartile of OECD countries.

Chart 4.2 – OECD Productivity – GDP Per Hour Worked - 2011



Source: OECD and Scottish Government calculations

4.11 Narrowing the gap in productivity between Scotland and the top performers in the OECD is a key objective in Scotland's National Performance Framework and progress has been made since devolution with Scotland now broadly in line with the UK.[48]

4.12 The Scottish Government set out a range of channels through which independence would provide opportunities to enhance the country's productivity performance in the publication '*Building Security and Creating Opportunity: Economic Policy Choices in an Independent Scotland*'.[49] Some of the policy options outlined in the report include establishing an industrial strategy to rebalance the economy and diversify Scotland's industrial base, ensuring core national infrastructure is appropriate for Scotland's size and

[47] See Scotland Performs - Productivity Purpose Target
http://www.scotland.gov.uk/About/Performance/scotPerforms/purpose/productivity

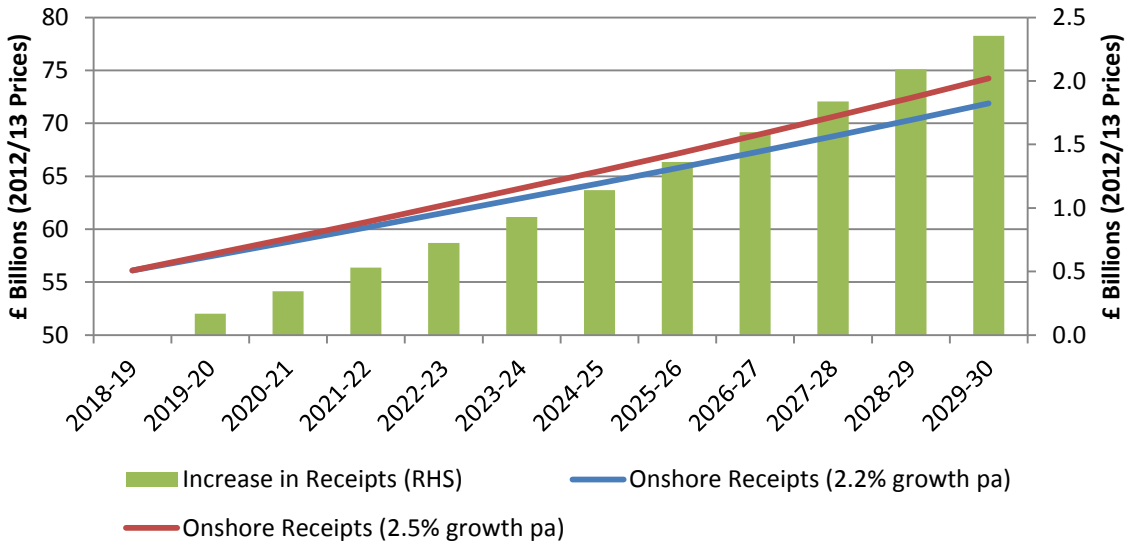
[48] ibid

[49] http://www.scotland.gov.uk/Publications/2013/11/2439

geography and establishing a more efficient tax regime targeted to the needs of Scottish business to promote investment, entrepreneurship and innovation.

4.13 Improving Scotland's productivity could have a significant impact on the country's economic performance and hence the tax revenue that it generates. The red and blue lines in Chart 4.3 estimate the future growth in Scottish onshore tax revenues with and without an increase in the productivity rate. It is estimated that by 2029-30 annual onshore receipts would be £2.4 billion a year higher in real terms as a result of a 0.3 percentage point increase in Scotland's annual productivity growth.

Chart 4.3 – Estimated Impact of a 0.3 Percentage Point Increase in Annual Productivity Growth on Onshore Receipts



Source: Scottish Government analysis. Tax revenue per capita assumed to grow in line with labour productivity.

4.14 Higher productivity growth will boost public sector revenues as increased economic output leads to higher tax receipts. The impact on public spending will depend on a number of factors. If public spending continues to rise at the same rate as before, the full effects of an improvement in productivity will be reflected in the country's overall net fiscal balance (the difference between total public sector revenue and expenditure).

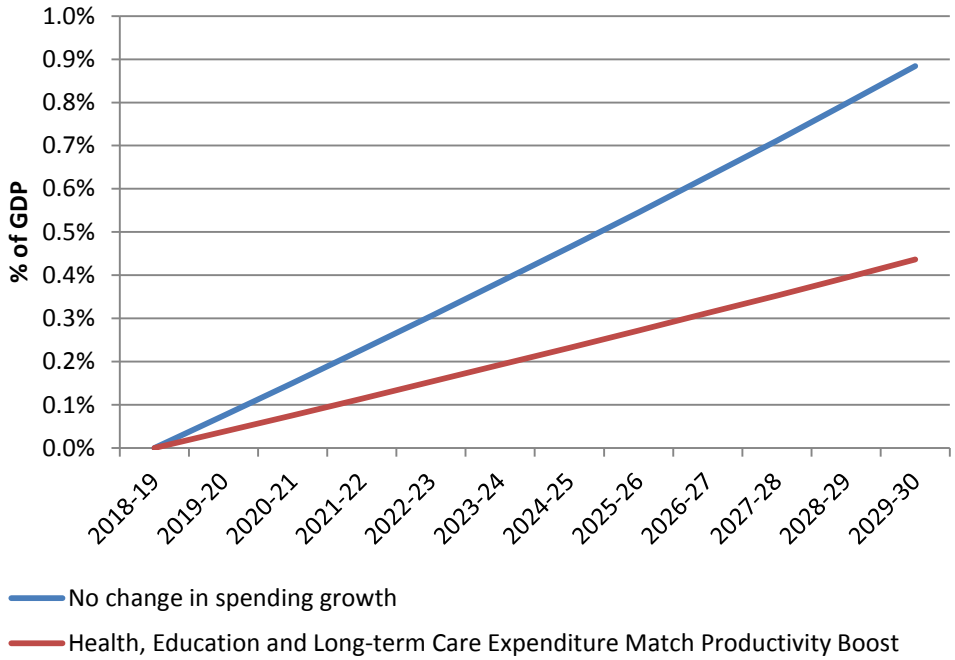
4.15 However, policy makers may choose to use some of the benefits of higher revenues to increase spending beyond existing growth plans. In this case, the impact on the overall fiscal position will be lessened but will still be material.

4.16 The impact that the increase in productivity modelled above could have on Scotland's overall fiscal position is illustrated in Chart 4.4.

4.17 The blue line shows the projected improvement in the country's net fiscal balance if spending continued on its previous growth path. Under this scenario, higher productivity growth is estimated to improve Scotland's net fiscal position by 0.9 percentage points a year by 2029-30.

4.18 The red line shows the impact of the increase in onshore tax revenues if the increase in productivity was accompanied by an even faster increase in public spending. Under this scenario, the improvement that higher productivity has on the net fiscal balance is more modest, but remains significant. If all expenditure grew in line with the productivity increase, then the fiscal balance would be unchanged.

Chart 4.4 – Scotland – Improvement in Net Fiscal Balance from a 0.3 Percentage Point Increase in Annual Productivity Growth



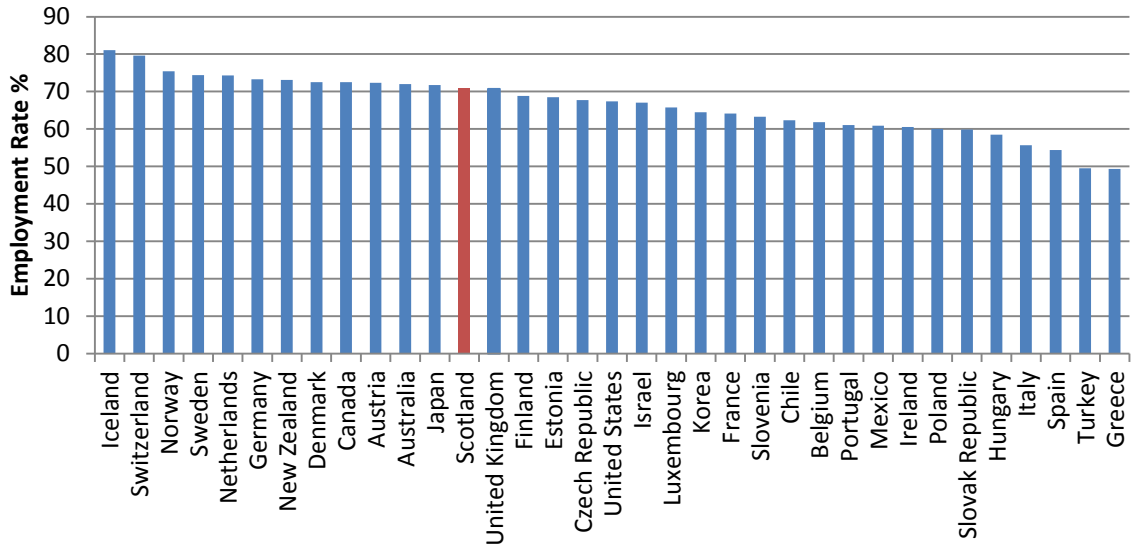
Source: Scottish Government analysis. Note as above

Increased Employment

4.19 As more people enter the labour market, a country's productive capacity increases, raising aggregate economic output, employment and living standards. Higher employment can therefore have a positive impact on a country's public finances by increasing tax revenue and reducing public expenditure, for example on unemployment benefits.[50]

[50] Modelling assumes that a base level of taxation is raised from all individuals, and additional taxation raised only from those in employment. The higher employment rate therefore feeds through to higher overall tax revenues.

Chart 4.5 – Employment Rate in OECD Countries 2013



Source: OECD and Annual Population Survey. Note: OECD figures show the employment rate for those aged 15-64. APS figures for Scotland show the employment rate for those aged 16-64.

4.20 Scotland's employment rate stood at 71.0% over 2013.[51] This places Scotland close to the average of OECD countries. However, as illustrated in Chart 4.5, there are a number of countries, including Norway, Sweden and Denmark, who have higher employment rates than Scotland.

4.21 There are a range of potential mechanisms through which the government can seek to increase labour market participation, and potentially employment rates. These include better aligning the provision of in-work and out-of-work benefits and improving access to training and wider educational attainment.

4.22 One key area is in childcare. Evidence suggests that Scotland lags behind many other countries, particularly in Scandinavia, in terms of female participation. The cost and availability of childcare and the implications that this has on the choices and opportunities available to parents with young families is seen as a major barrier. As set out in *Scotland's Future*, the current Scottish Government would make transforming childcare a top priority under independence.[52]

4.23 The participation target in Scotland's National Performance Framework is to close the gap in the employment rate between Scotland and the top five performing OECD countries.[53]

[51] Source: ONS Annual Population Survey. Scotland's employment rate has continued to improve and for the period Jan-Mar 2014 stood at 73.5% compared to 72.7% for the UK (Source: ONS Labour Force Survey)

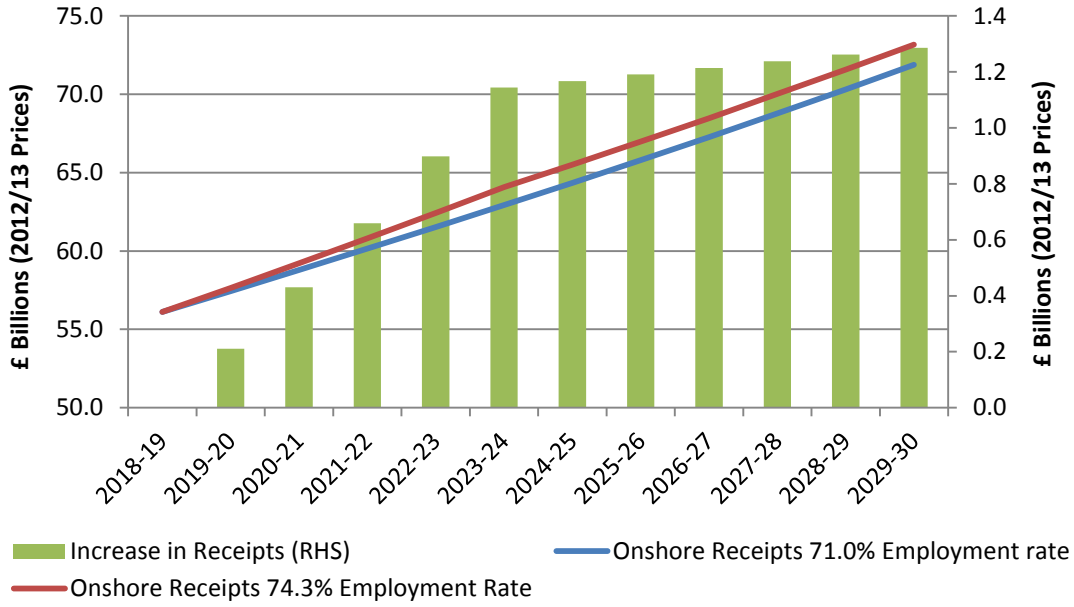
[52] For a discussion of the Scottish Government's child care proposals and the economic impact of increasing labour market participation in Scotland, please refer to Chapter 5 of *Scotland's Future*, http://www.scotland.gov.uk/Resource/0044/00441783.pdf and http://www.scotland.gov.uk/Resource/0043/00439259.pdf

[53] http://www.scotland.gov.uk/About/Performance/scotPerforms/purpose/participation

For Scotland to move into the top five performing countries (as currently indicated by matching the Netherland's employment rate), this would require an increase in the employment rate of approximately 3.3 percentage points. Achieving this target would have a substantial impact on Scotland's economy and public finances.

4.24 To demonstrate the potential scale of these effects, Chart 4.6 models the impact that a 3.3 percentage point increase in Scotland's employment rate, phased in over a five year period from 2019 onwards, could have on Scottish tax receipts.[54] The red and blue lines show the expected growth in Scottish onshore tax receipts with and without an improvement in the employment rate. By 2029-30, a 3.3 percentage point increase in the employment rate is estimated to increase onshore receipts by approximately £1.3 billion a year in real terms.

Chart 4.6 – Impact of a 3.3 Percentage Point Increase in the Employment Rate on Onshore Receipts

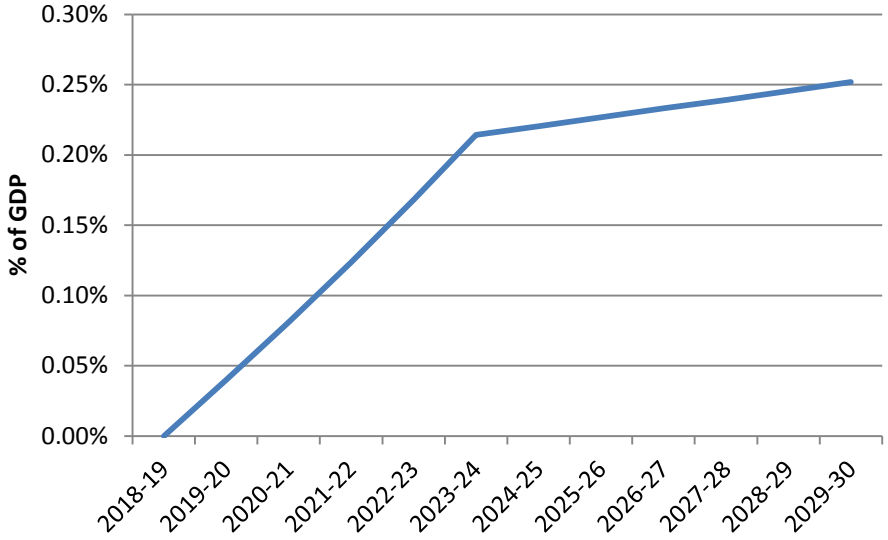


Source: Scottish Government analysis. The employment rate is assumed to increase from 71.0% to 74.3% over the period 2019 to 2023. This illustrative analysis provides a high level indication of the impact on tax receipts and GDP, however this may not capture all the benefits of an increase in the employment rate as it assumes there is no reduction in benefit expenditure as a result of the increase in the employment, tax revenue changes are based on average tax revenue by age with tax revenues for those in employment higher than for those not in employment.

4.25 Chart 4.7 illustrates the impact that such an increase in tax receipts could have on Scotland's overall net fiscal balance. The results suggest that achieving a 3.3 percentage point increase in the employment rate by 2024 could improve Scotland's fiscal balance by 0.25% of GDP a year by 2029.

[54] In the model the employment rate increases from 71.0% to 74.3% over the period 2019-20 to 2023-24.

Chart 4.7 – Projected Improvement in Net Fiscal Balance (% GDP) of 3.3 percentage point increase in employment



Source: Scottish Government analysis. Note as above

Growing Scotland's Working Age Population

4.26 Scotland's working age population is currently projected to fall by 0.8% between 2018-19 and 2029-30, as the population ages.[55]

4.27 As outlined in *Scotland's Future*, an independent Scotland would have the opportunity to develop a distinct strategy to attract and retain skilled workers[56]. This would include introducing a points-based approach to migration targeted at particular Scottish requirements and the reintroduction of the post-study work visa. It would also centre on creating more employment opportunities – particularly for young people – to reduce outmigration from Scotland and to benefit from Scotland's worldwide diaspora. Such effects could be significant – over the 10 years to 2011-12, outmigration from Scotland averaged 69,000 per year, of which, on average, 38,700 people were aged 16-34

4.28 If these policies helped boost Scotland's working age population from 2018-19, then this will have a positive impact on Scotland's public finances in the coming years.

4.29 Chart 4.8 illustrates the estimated impact of higher population growth on Scottish tax receipts in the period to 2029-30.[57] Under the 'high' projection Scotland would still

[55] Based on ONS and GRO 2012-based principle (i.e. central) population projections.

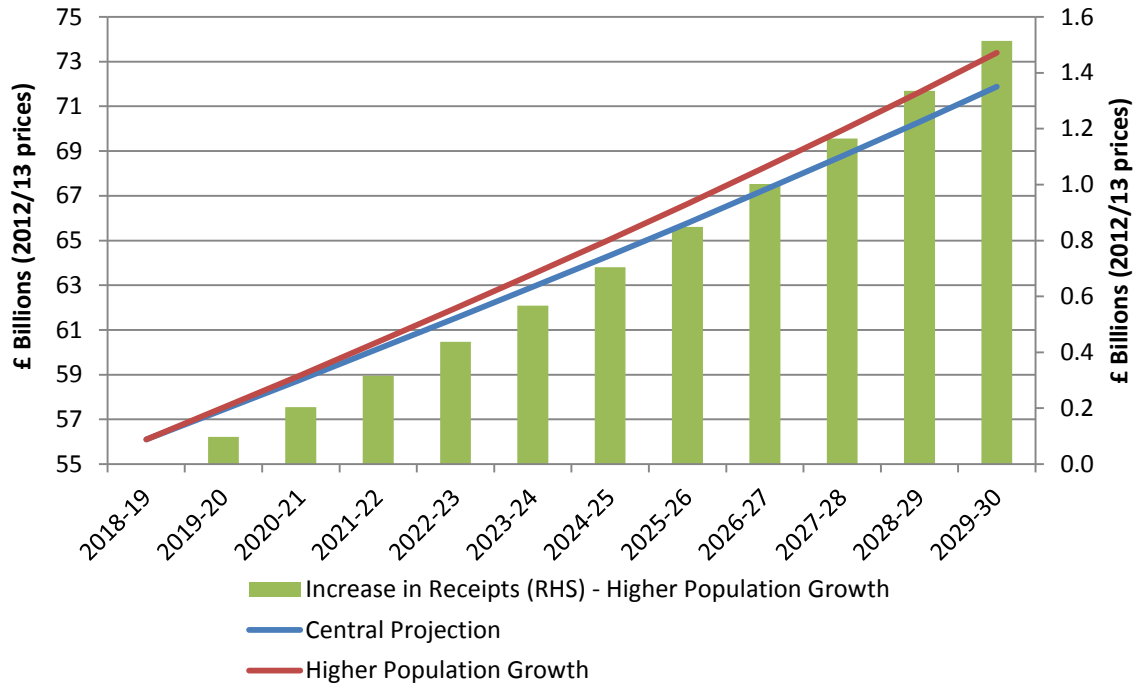
[56] For a discussion of the Scottish Government's proposals on the working population see Chapter 3, Chapter 4 and Chapter 7 of *Scotland's Future*,

[57] The higher population growth scenario uses the ONS high migration variant population projection for Scotland. This uses the principal assumptions for fertility and life expectancy but assumes higher net migration into Scotland.

experience lower population growth than the UK. Between 2018-19 and 2029-30 the UK's central projection is for the total population to increase by 6.5%. Over the same period Scotland is projected to see a 6.2% increase in the population under the 'high' population scenario.[58]

4.30 The lines show the potential impact of higher population growth on onshore tax revenues in Scotland. The bars show that the 'high' population scenario is estimated to increase onshore revenues by around £1.5 billion in real terms by 2029-30 relative to the 'central' scenario.

Chart 4.8 – Impact of Population Growth on Onshore Receipts

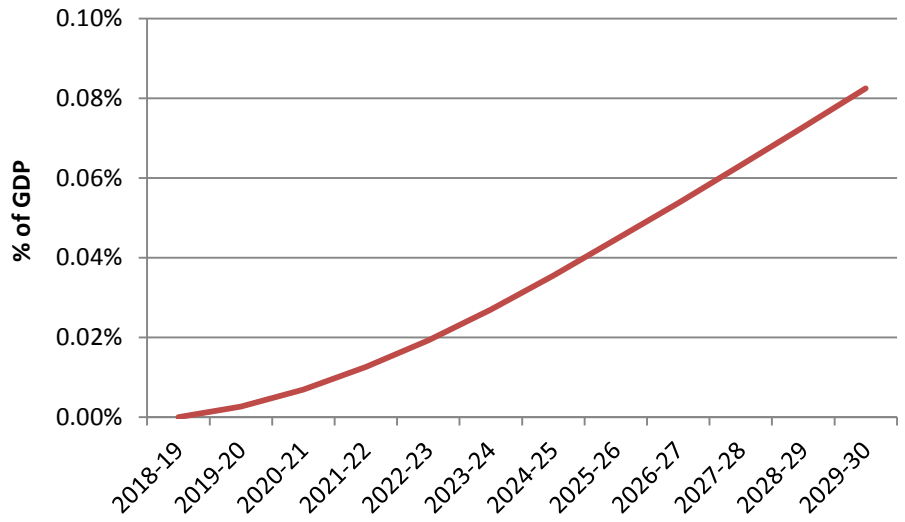


Source: Scottish Government analysis.

4.31 Chart 4.9 illustrates the impact that such an increase in Scotland's population could have on Scotland's overall net fiscal balance. In doing so, it also takes into account the increase in public spending that would be associated with a larger population. Under the 'high' scenario, Scotland's fiscal balance is estimated to improve by nearly 0.1% of GDP by 2029-30 compared to the 'central' scenario.

[58] ONS and GRO 2012-based population projections

Chart 4.9 – Projected Improvement in Net Fiscal Balance (% GDP) of Population Growth



Source: Scottish Government analysis.

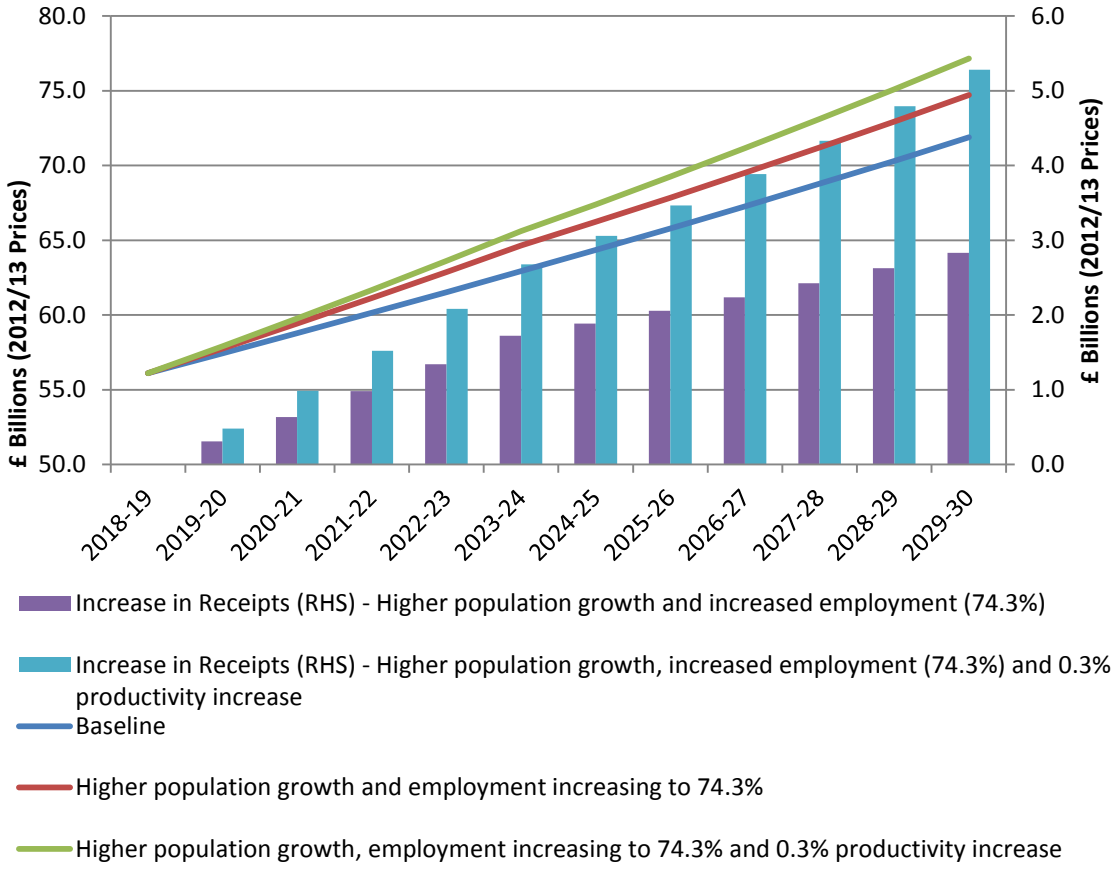
Combined Impact of Policy Changes

4.32 The three drivers of growth outlined above are not mutually exclusive. It is conceivable that any combination of the different effects could be achieved. The combined impact of boosting these drivers of growth could therefore result in a cumulative improvement in Scotland's public finances.

4.33 Chart 4.10 illustrates the estimated increase in Scottish tax receipts in the period to 2029-30 under different scenarios.

- The blue line shows the projected increase in Scottish onshore revenues if there is no improvement in the country's economic performance (baseline scenario).
- The red line demonstrates how onshore tax receipts could evolve with higher population growth and increased employment. Under this scenario, onshore receipts are projected to be £3 billion a year higher by 2029-30 compared to the baseline.
- The green line projects onshore receipts if an increased employment rate, higher population growth and increased productivity were achieved. This is projected to increase onshore revenues by over £5 billion a year by 2029-30 relative to the baseline.

Chart 4.10 – Impact of Combined Scenarios on Onshore Receipts



Source: Scottish Government analysis

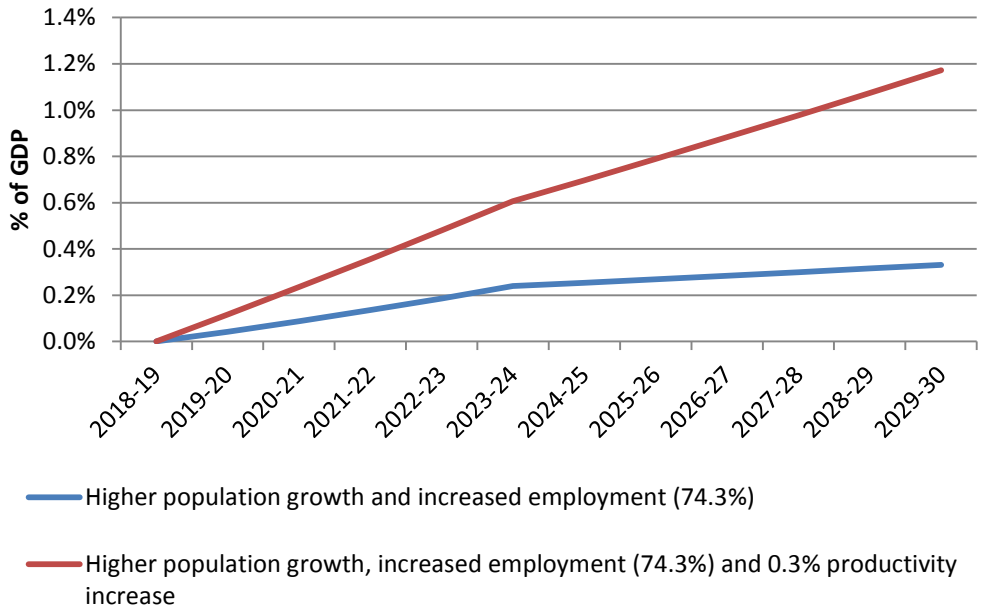
Under the scenario of 2.5% p.a. increases in labour productivity, tax revenue per capita also increases by 2.5% p.a. whilst expenditure per capita increases remain based on 2.2% p.a. labour productivity growth. The employment rate increases from 71.0% to 74.3% over the period 2019 to 2023. This illustrative analysis provides a high level indication of the impact on tax receipts and GDP, however this may not capture all the benefits of an increase in the employment rate as it assumes there is no reduction in benefit expenditure as a result of the increase in the employment, tax revenue changes are based on average tax revenue by age.

4.34 Chart 4.11 demonstrates the impact that the above scenarios could have on Scotland's overall net fiscal balance over the period to 2029-2030 compared to the baseline scenario.

4.35 The analysis suggests that increasing Scotland's employment rate along with higher population growth could improve Scotland's net fiscal balance by 0.3% of GDP relative to the baseline scenario.

4.36 If an increased employment rate, higher population growth and increased productivity were achieved, it is estimated that Scotland's net fiscal balance in 2029-30 could improve, as a share of GDP, by nearly 1.2 percentage points relative to the baseline scenario.

Chart 4.11 – Projected Improvement in Net Fiscal Balance (% GDP) of Combined Scenarios



Source: Scottish Government analysis. Note as above

Improved Economic Performance and Public Sector Net Debt

4.37 The previous section has demonstrated the impact that improving Scotland's long-run economic performance could have on the country's annual net fiscal balance. This section extends the analysis to consider the impact that such an outcome could have on Scotland's overall stock of public sector debt.

4.38 It has been highlighted, for example by the Institute for Fiscal Studies (IFS)[59], that in the absence of mitigating action, Scotland's fiscal position can be expected to deteriorate in future years. Scotland would not be unique in experiencing such challenges. Virtually all advanced economies will face long term fiscal challenges as a result of their ageing populations.

4.39 The potential path that Scotland's debt to GDP ratio could follow in future years, in the absence of policy reforms to improve the country's economic performance (i.e. continuing with existing UK Government policies), is highlighted by the blue line in Chart 4.12. Under this scenario, Scotland's debt to GDP ratio would eventually move onto an unsustainable path as an ageing population increases expenditure on health and long term care and

[59] http://www.ifs.org.uk/comms/r88.pdf

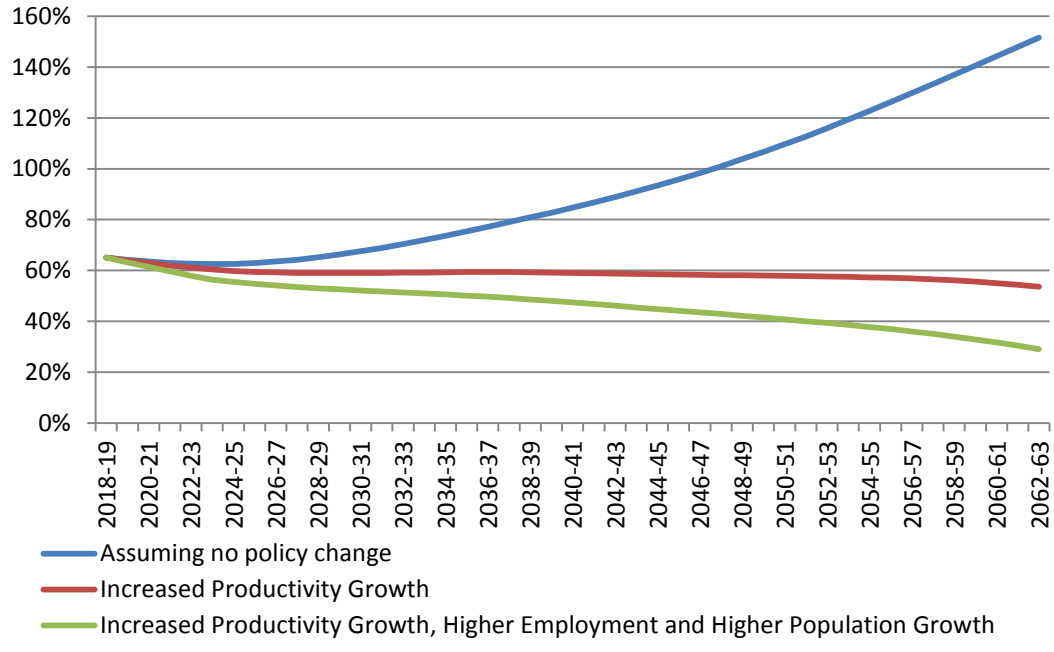
reduces tax receipts. A similar outcome has been reported for the UK as a whole by both the IFS and OBR.[60]

4.40 If the Scottish Government were able to improve Scotland's economic performance, via the three levers highlighted above, this could significantly change the future path of Scottish public sector debt. This is highlighted by the red and green lines in Chart 4.12.

4.41 The red line provides a projection for Scottish public sector debt based on an increase in annual labour productivity growth of 0.3 percentage points per annum. Under this assumption, Scotland's debt would broadly stabilise as a share of GDP and would remain below 60% from 2024-25 onwards. The green line shows how public sector debt could evolve if this labour productivity increase occurred alongside higher population growth and employment increasing.[61]

4.42 Under this scenario, Scotland's debt to GDP ratio would decline from 2016-17 onwards reaching approximately 29% of GDP by 2062-63. Whilst such projections only provide an indication of how Scotland's public finances could evolve under different scenarios, they demonstrate the potential impact and importance of improved economic performance on Scotland's fiscal position.

Chart 4.12 – Scotland's Debt Projection



[60] See http://budgetresponsibility.org.uk/pubs/2013-FSR_OBR_web.pdf and http://www.ifs.org.uk/comms/r88.pdf

[61] This analysis is based on an increase in the employment rate from 71.0% to 74.3% occurring over the period 2019 to 2023. This illustrative analysis provides a high level indication of the impact on tax receipts and GDP, however this may not capture all the benefits of an increase in the employment rate as it assumes there is no reduction in benefit expenditure as a result of the increase in the employment, tax revenue changes are based on average tax revenue by age. Similarly, the costs of any policies introduced to achieve the increase in the employment rate are not included in the analysis.

Source: Scottish Government analysis. Scotland's debt to GDP ratio in 2018-19 is assumed to stand at 65% of GDP, whilst its public sector net borrowing is assumed to be 2.4% of GDP. GDP figures include North Sea activity and, consistent with the long term analysis published by the IFS, it is assumed that any decline in North Sea activity in future decades is made up for by increases in onshore productivity and tax receipts. Analysis accounts for debt interest payments with interest rates based on OBR assumptions for the UK as a whole. Interest rates converge from current levels to a long-run nominal interest rate of 5% from 2026-27 onwards. Under the scenario of labour productivity growth of 2.5% p.a. tax revenue per capita also increases by 2.5% p.a. whilst expenditure per capita increases remain based on 2.2% p.a. labour productivity growth. Population growth follows the ONS principle projections under the baseline scenario and the high migration variant under the higher population growth scenario . Under the increased employment scenario the employment rate increases from 71.0% to 74.3% over the period 2019 to 2023. This illustrative analysis provides a high level indication of the impact on tax receipts and GDP, however this may not capture all the benefits of an increase in the employment rate as it assumes there is no reduction in benefit expenditure as a result of the increase in the employment, tax revenue changes are based on average tax revenue by age.

Conclusion

4.43 Scotland, like many advanced economies, faces pressures over its public finance position over the longer term due in part to the country's ageing population.

4.44 Under independence, Scotland would have the opportunity to address these pressures by tailoring economic policy to maximise Scotland's economic strengths and to address the specific challenges that Scotland faces.

4.45 This chapter has shown how three drivers of economic growth – productivity, employment and population growth – can act individually and in combination to increase fiscal revenues and thereby help improve the long term debt position.

5. Conclusion

5.1 This report has provided a summary of recent trends in Scotland's public finances and estimates of the fiscal position Scotland could face in the years following independence.

5.2 The key findings are:

- Over the five years to 2012-13 Scotland's public finances, despite showing a fiscal deficit, have been relatively healthier than those of the UK as a whole. This is due to Scotland generating an estimated 9.5% of UK public revenues whilst receiving 9.3% of total UK expenditure.

- Scotland's fiscal position in 2016-17 will depend in part on the outcome of negotiation over UK public sector assets and liabilities. The analysis in this report is based on three different scenarios about the divisions of UK public sector net debt (per capita share, historic share and zero share) to reflect some of the potential outcomes. The results show that:

    - Scotland's estimated debt to GDP ratio in 2016-17 is forecast to be lower than the UK's under all three scenarios.

    - Scotland's current budget balance, the difference between public sector revenue and current expenditure is also estimated to be the same as, or lower than, the UK's in all three scenarios.

    - Scotland's net fiscal balance, the difference between public sector revenue and total public expenditure (i.e. current plus capital expenditure) is estimated to be better than the UK's when estimated on a zero debt share and in line with the UK's when estimated using a historic or per capita share of UK debt.

- The Scottish Government envisages that a negotiated settlement for debt payments would ultimately lie within the bounds of a per capita and zero share range. This will not only reflect Scotland's historic contribution to the UK public finances, but also the likelihood that Scotland would be unlikely to want (or need) to take on a per capita share of certain existing UK assets (e.g. defence and non-Scottish physical assets).

- In the years following independence, the Scottish Government will have responsibility for setting the overall levels and composition of public spending and taxation, ensuring that the public finances are sustainable and support economic growth.

- Chapter three demonstrated how Scotland's net fiscal balance could evolve in 2017-18 and 2018-19 under different assumptions about the level of nominal growth in current spending.

- The results imply that, assuming 3% nominal growth in current spending during 2017-18 and 2018-19, Scotland's net fiscal balance could fall to 2.2% of GDP in 2018-19. Alternatively, assuming that public spending grew 1% in nominal terms, Scotland's net fiscal balance is estimated to fall to 0.9% of GDP by 2018-19.

- The Scottish Government's preference is for growth of around 3% between 2016-17 and 2018-19. This contrasts with the UK coalition's preference for growth closer to 1% (i.e. a real terms cut)

- If future governments were successful at increasing Scotland's economic performance this would have a positive impact on the country's public finances.

- Such effects are potentially significant. As an illustration, the analysis in Chapter four indicates that if Scotland was able to increase its population, and close some of the gap in its employment and productivity rates with the top performing countries in the OECD, it would boost tax revenues year on year. After thirteen years it could provide an additional boost to tax receipts of over £5 billion a year.