

# Scotland's Balance Sheet

April 2013



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## Executive Summary

This report provides detailed analysis of Scotland's public finances under the current fiscal framework. The analysis encompasses total public spending, public sector receipts, the net fiscal balance and an implied share of UK public sector net debt. It does not consider wider assets and liabilities.

The table below summarises the analysis contained in this report for 2011-12, the most recent year for which detailed estimates of Scotland's public finances are available.

<b>Public Finance Summary: Scotland and UK 2011-12</b>		
	<b>Scotland</b>	<b>UK</b>
<b>Public Spending</b>		
£ Billions	£64.5	£693.6
% GDP	42.7%	45.5%
Of which Social Protection	14.4%	15.9%
Of which Health	7.3%	7.9%
Of which Education	5.1%	6.0%
<b>Tax Receipts</b>		
£ Billions	£56.9	£572.6
% GDP	37.7%	37.5%
Of which Onshore Revenues	30.7%	36.8%
Of which Offshore Revenues	7.0%	0.7%
<b>Net Fiscal Balance</b>		
£ Billions	-£7.6	-£121.0
% GDP	-5.0%	-7.9%
<b>Relative Net Fiscal Balance (Scotland compared to the UK)<sup>1</sup></b>		
% GDP (Percentage Points)	+2.9%	N/A
£ Billions	+£4.4	N/A
<b>Public Sector Net Debt<sup>2</sup></b>		
Per Capita Share - £ Billions	£92	£1,103
Per Capital Share - % GDP	62%	72%
Historic Share - £ Billions	£56	£1,103
Historic Share - % GDP	38%	72%
<small>The analysis assigns Scotland an illustrative geographical share of both North Sea tax receipts and GDP  <sup>1</sup>Scotland's estimated relative net fiscal balance is calculated as the difference between the Scottish and UK net fiscal balances as a share of GDP. The estimated relative net fiscal position in cash terms is then derived by multiplying this figure by the cash value of Scottish GDP in 2011-12. Further details are provided in Chapter 4.  <sup>2</sup>Scotland's notional historic share of UK public sector net debt is estimated based on Scotland's historic estimated annual net fiscal balances since 1980-81 within the UK. Further details are provided in Chapter 4.</small>		

## 1. Introduction and Overview

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1.1 This report provides a detailed assessment of Scotland's public finances under the current constitutional framework.

1.2 The report is structured as follows. Chapter 2 sets out both the overall size and structure of public spending for Scotland. Chapter 3 then outlines the estimated composition of public sector revenues in Scotland. Specific focus is given to the contribution that tax receipts from oil and gas production make to Scotland's public finances. Chapter 4 discusses Scotland's estimated overall fiscal balance, the difference between public sector revenue and expenditure, and provides illustrative estimates of Scotland's share of UK public sector net debt.

1.3 Unless otherwise noted, the analysis in this report is undertaken in the context of Scotland's current fiscal framework. It therefore does not consider, for example, the options for taxation and public expenditure under independence.

### Key Points

1.4 The key points made in the report are summarised below. In producing the analysis, Scotland is assigned an illustrative geographical share of both offshore oil and gas tax receipts and GDP.

### Scottish Public Spending

1.5 Public spending for Scotland was estimated to be £64.5 billion in 2011-12. Responsibility for approximately 60% of the public spending undertaken for Scotland is devolved to the Scottish Government and Scottish local authorities.

1.6 In 2011-12, estimated public spending was equivalent to 42.7% of GDP in Scotland. This is estimated to be lower than in both the UK as a whole (45.5%), and the majority of EU-15 countries. Over the period 2007-08 to 2011-12 as a whole, the ratio of public spending to GDP was estimated to be 43.0% in Scotland, compared to 45.0% in the UK.

	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Scotland	40.1%	41.7%	46.0%	44.5%	42.7%
UK	40.7%	44.4%	47.4%	46.8%	45.5%

Source: GERS 2011/12

## Scottish Tax Receipts

1.7 Total tax revenue in Scotland was estimated to be £56.9 billion in 2011-12. This includes an illustrative geographical share of North Sea tax revenue, equivalent to £10.6 billion.

1.8 It is estimated that 7% of current total Scottish tax receipts are devolved. Most tax powers, such as corporation tax and national insurance, are reserved to the UK Government

1.9 Total Scottish tax receipts in 2011-12 were equivalent to £10,700 per person. This compares to a figure of £9,000 per person in the UK as a whole. On a per capita basis, total tax receipts in Scotland have been higher than in the UK in each of the past five years.

	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Scotland	£10,000	£10,600	£9,100	£9,900	£10,700
UK	£8,900	£8,600	£8,200	£8,800	£9,000

Source: GERS 2011/12 and Scottish Government analysis

## Scotland's Overall Fiscal Balance

1.10 Over the past five years Scotland and the UK have both run a fiscal deficit (a shortfall between government revenue and expenditure). This is not unusual. Between 1980 and 2014 there has been only one year when the 35 countries in the OECD as a whole have run an overall fiscal surplus.

	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Scotland	-2.9%	-2.6%	-10.7%	-8.1%	-5.0%
UK	-2.6%	-6.9%	-11.2%	-9.5%	-7.9%

Source: GERS 2011/12

1.11 Scotland's estimated fiscal deficit was smaller than the UK's over the period 2007-08 and 2011-12 as a whole. When expressed in cash terms, this relatively stronger fiscal position was equivalent to £12.6 billion over this period.

1.12 This means that over the past five years, holding everything else constant, Scotland could have had higher spending, for example on infrastructure investment, and/or lower taxation and still had a smaller estimated fiscal deficit than the UK.

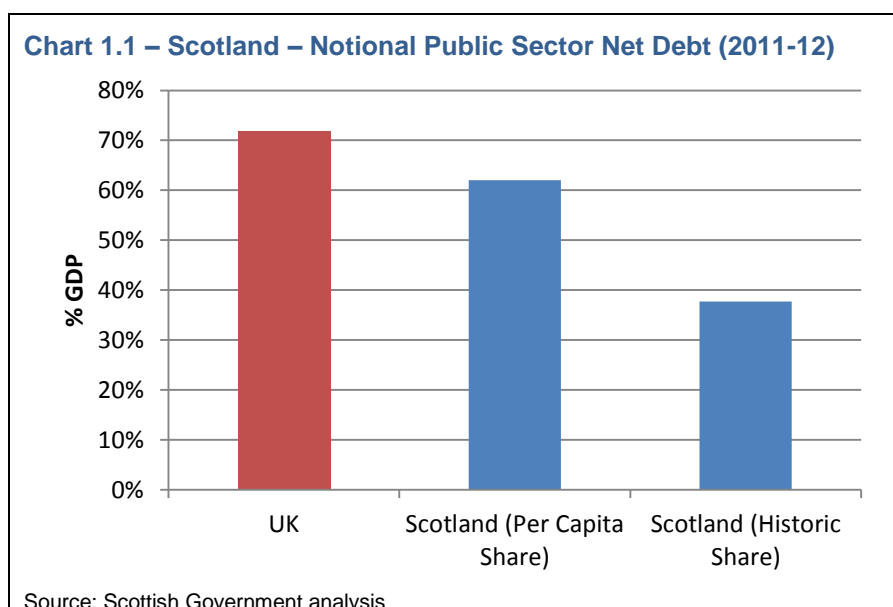
1.13 North Sea revenues account for approximately 16% of Scottish tax receipts between 2007-08 and 2011-12, with onshore receipts accounting for the remaining 84%. Whilst North Sea receipts represent an important revenue source in Scotland, between 2007-08 and 2011-12, they would have had to have been 29% lower than outturn receipts, for Scotland's fiscal deficit to be larger than the UK's.

## Scotland's Share of UK Public Sector Net Debt

1.14 UK public sector net borrowing is not incurred for any one country or region in the UK. Therefore, there are no specific outturn figures for Scotland's share of UK public sector debt (i.e. the cumulative stock of public sector net borrowing). Chapter 4 provides two methods of estimating Scotland's notional share of UK public sector net debt, a per capita share and a share based on Scotland's historic fiscal position.

1.15 UK public sector net debt at the end of 2011-12 stood at £1.1 trillion (72% of GDP). Scotland's per capita share would have been equivalent to £92 billion (62% of GDP). This reflects the fact that Scotland has a higher level of GDP per capita (including North Sea oil) than the UK.

1.16 Between 1980-81 and 2011-12, Scotland is estimated to have run a cumulative net fiscal deficit of £49 billion. This equates to 5.1% of the cumulative UK deficit over the same period (£968 billion). Applying this ratio to UK public sector net debt in 2011-12 would result in a notional share for Scotland of £56 billion, equivalent to 38% of Scottish GDP.



## 2. Public Spending

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2.1 This chapter analyses the overall level and composition of public spending in Scotland. The analysis also places the level of public spending in Scotland in the context of other EU countries. Specific focus is given to the aspects of public spending which are reserved to the UK Government. This includes the social security system, defence and debt interest payments.

### Public Spending for Scotland

2.2 For 2011-12, the latest year for which detailed statistics are available, total public spending for Scotland by all parts of the public sector (Scottish Government, UK Government and local authorities) was estimated to be £64.5 billion. This includes all spending undertaken by the UK Government on behalf of Scotland, including a share of UK wide public spending such as defence and debt interest. The manner in which total public spending is estimated for Scotland is discussed further in Box 2.1.

2.3 The Scottish Government and Scottish local authorities are responsible for allocating over half (£38.6 billion) of estimated public spending undertaken for Scotland. The UK Government is responsible for the remaining expenditure. Whilst responsibility for allocating over half of public expenditure is devolved, responsibility for setting the overall budget for the Scottish Government is largely reserved to the UK Government and is determined by the Barnett Formula.

#### Box 2.1 – Quantifying Scottish Public Spending

This report uses data published in the annual Government Expenditure and Revenue Scotland (GERS) report, and adopts the same approach to measuring Scottish public spending.

When quantifying public spending for Scotland, all spending undertaken directly for Scottish residents and businesses by every tier of government, including the UK Government, the Scottish Government and Scottish Local Authorities is included.

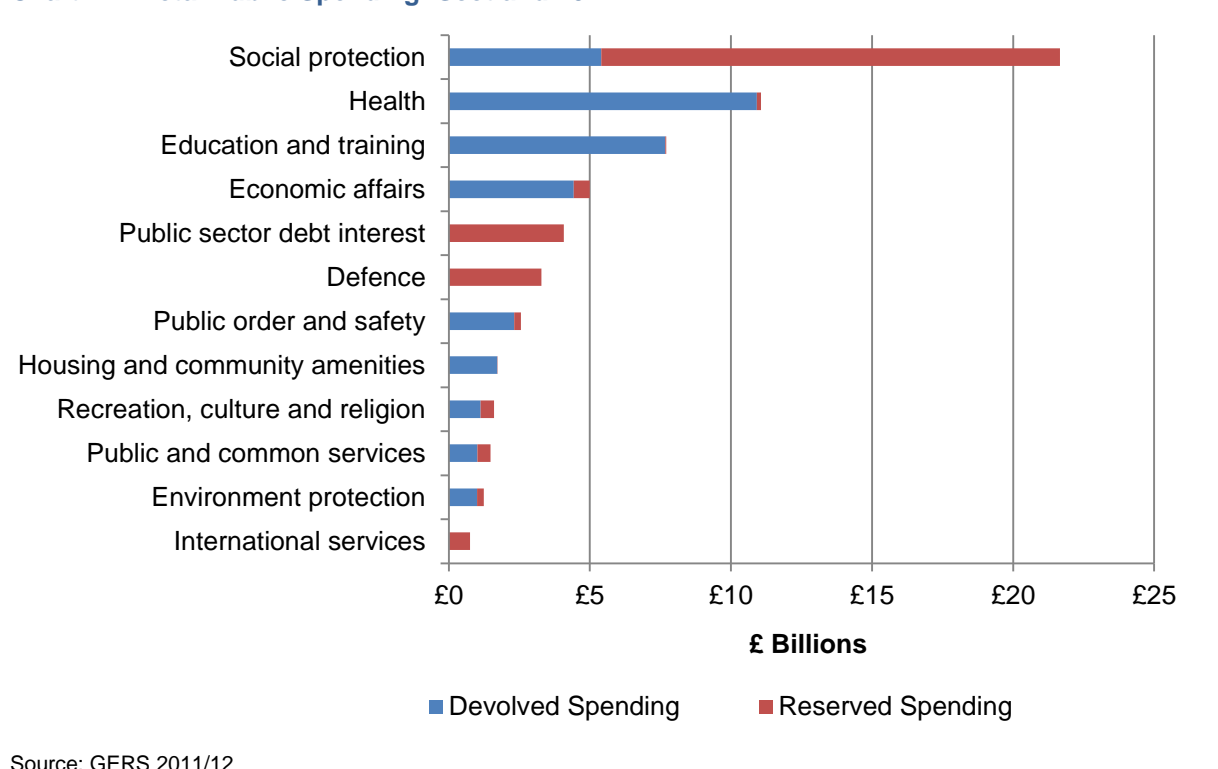
This includes a share of UK wide public spending which cannot be easily identified as benefiting any one specific part of the country. For example, Scotland is allocated a population share of UK defence expenditure, on the basis that all areas of the UK benefit equally from the provision of a national defence service. Likewise, Scotland is assigned a population share of UK debt interest payments and the net cost of the UK Government's financial sector interventions in 2008.

The estimates therefore provide a complete picture of the public spending undertaken for Scotland under the current fiscal framework.

2.4 The chart below details the key categories of public spending for Scotland and the split between devolved and reserved spending. The key areas of public spending which are reserved are aspects of welfare, including the social security system, defence and debt interest payments. Further discussion of each of these areas is provided below. Responsibility for the majority of other areas of public spending is devolved.

2.5 Social protection (which includes social security benefits such as pensions<sup>1</sup>) is the largest single aspect of Scottish public spending, accounting for a third of the total. Health and Education are the second and third largest elements of public spending, accounting for 17% and 12% of the total respectively. Collectively these three categories account for nearly two thirds of overall public spending in Scotland.

**Chart 2.1: Total Public Spending: Scotland 2011-12**



2.6 The composition of public spending for Scotland has remained broadly stable in recent years. However, one notable change has been the increase in spending attributable to debt interest payments.

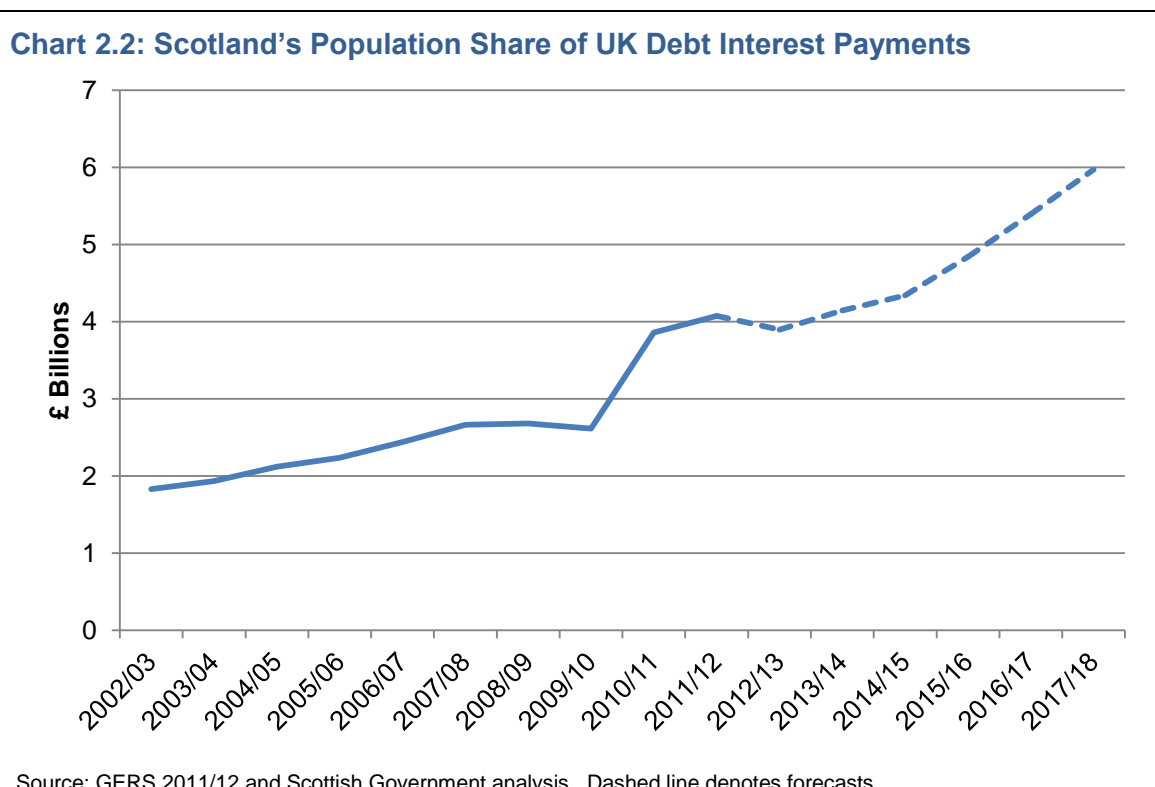
2.7 The analysis in this report assigns Scotland a population share of UK debt interest payments, irrespective of the relative strength or otherwise of Scotland's fiscal position. This is consistent with the approach taken in GERS. The recent deterioration in the UK public finances has increased the expenditure on debt interest payments assigned to Scotland from £1.8 billion in 2002-03 to £4.1 billion in 2011-12, as summarised in Chart 2.2. This represents a real terms increase of 79%.

2.8 UK debt interest payments are forecast to rise further in the coming years as a result of the increase in UK public sector net borrowing which has occurred since the recession.

<sup>1</sup> In this report the term social security benefits refers to all cash benefits provided to individuals including the state pension, tax credits and working age benefits.



As illustrated in Chart 2.2, Scotland's per capita share of UK debt interest payments is estimated to rise to approximately £5.4 billion by 2016-17 based on current forecasts for the UK public finances.



### Public Spending as a Share of GDP

2.9 When comparing the level of aggregate public spending across countries or over time, the standard approach is to compare the ratio of public spending to GDP.<sup>2</sup> This allows the size of the public sector to be compared whilst controlling for the size of the economy.<sup>3</sup>

2.10 In 2011-12, total public sector expenditure for Scotland was estimated to be equivalent to 42.7% of GDP. In comparison, for the UK as a whole public spending was equivalent to 45.5% of GDP. This means that relative to the size of the economy, public spending was estimated to be lower in Scotland than in the UK. To put this into context, the amount allocated by the UK Government for Scottish public spending in 2011-12 would have to have been £4.1 billion higher for the ratio of spending to GDP to match the UK.

2.11 As outlined in the table below, public spending as a share of GDP in Scotland has been lower than in the UK in each of the past five years. Over the period 2007-08 to 2011-12 as a whole, the ratio of public spending to GDP was 43.0% in Scotland, compared to 45.0% in the UK.

<sup>2</sup> The estimates of Scottish GDP used in this publication are produced as part of the Scottish National Accounts Project and assign Scotland an illustrative geographical share of North Sea oil and gas production

<sup>3</sup> This measure does not provide an indication of the contribution that the public sector makes to the economy. This is instead captured through the share of gross value added which can be attributed to the public sector.

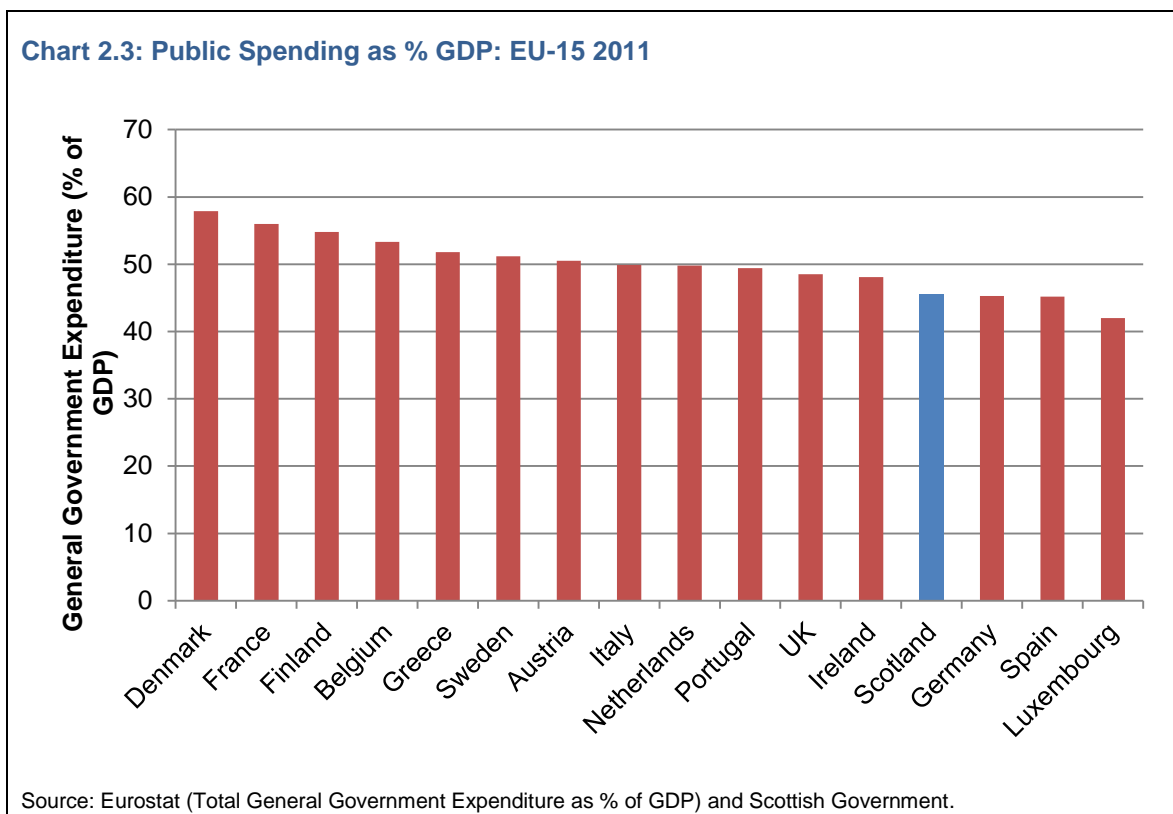
**Table 2.1: Public Spending as a share of GDP: Scotland and UK (2007-08 to 2011-12)**

	2007-08	2008-09	2009-10	2010-11	2011-12
Scotland	40.1%	41.7%	46.0%	44.5%	42.7%
UK	40.7%	44.4%	47.4%	46.8%	45.5%

Source: GERS 2011-12 and Scottish Government analysis

2.12 Chart 2.3 illustrates the ratio of public spending as a share of GDP in Scotland and the EU-15 countries. As the chart illustrates, on an internationally comparable basis the ratio of public spending to GDP in Scotland was estimated to be lower than in the majority of EU-15 countries in 2011<sup>4</sup>.

**Chart 2.3: Public Spending as % GDP: EU-15 2011**



Source: Eurostat (Total General Government Expenditure as % of GDP) and Scottish Government.

### Social Protection Expenditure for Scotland

2.13 Social protection is the single largest category of public spending for Scotland. It encompasses a range of spending functions that are devolved including social services. However, the largest single element of expenditure in this category is spending on social security benefits, which is reserved to the UK Government.

2.14 Total spending on social protection in Scotland during 2011-12 was estimated to be £21.7 billion, of which the UK Government was responsible for £15.9 billion. As outlined in Table 2.2, expenditure on social protection as a share of GDP is estimated to have been lower in Scotland than in the UK in each of the past five years. As a share of total tax

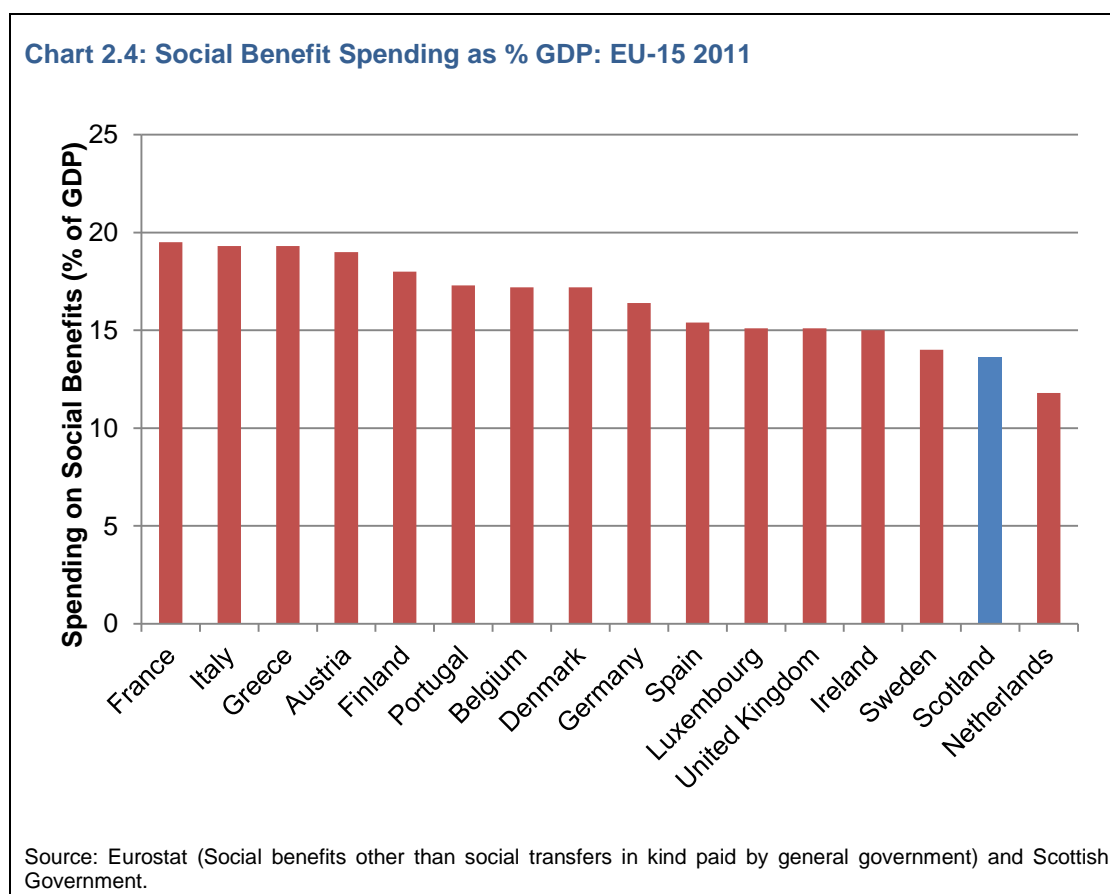
<sup>4</sup> The ratios of Scottish public spending to GDP in Table 2.1 and Chart 2.3 are calculated on a different basis to ensure that the latter is directly comparable with other EU-15 countries. Eurostat does not produce figures for Scotland. As such the figure for Scotland in Chart 2.3 is based on the ratio of UK public spending as calculated by Eurostat and the comparable figure for the UK as published in GERS.

revenue, spending on social protection in Scotland was also lower than the UK average in each year between 2007-08 and 2011-12.

	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Scotland	12.4%	13.2%	15.0%	14.5%	14.4%
UK	13.2%	14.4%	15.9%	15.7%	15.9%

Source: GERS 2011/12 and Scottish Government analysis

2.15 Comparing spending on social protection across countries is complicated by differences in the structure of government and the provision of welfare transfers. However, combining the results in Table 2.2 with internationally comparable data from Eurostat suggests that spending on social benefits in Scotland is estimated to have been lower, as a share of GDP, than in the majority of EU-15 countries during 2011.

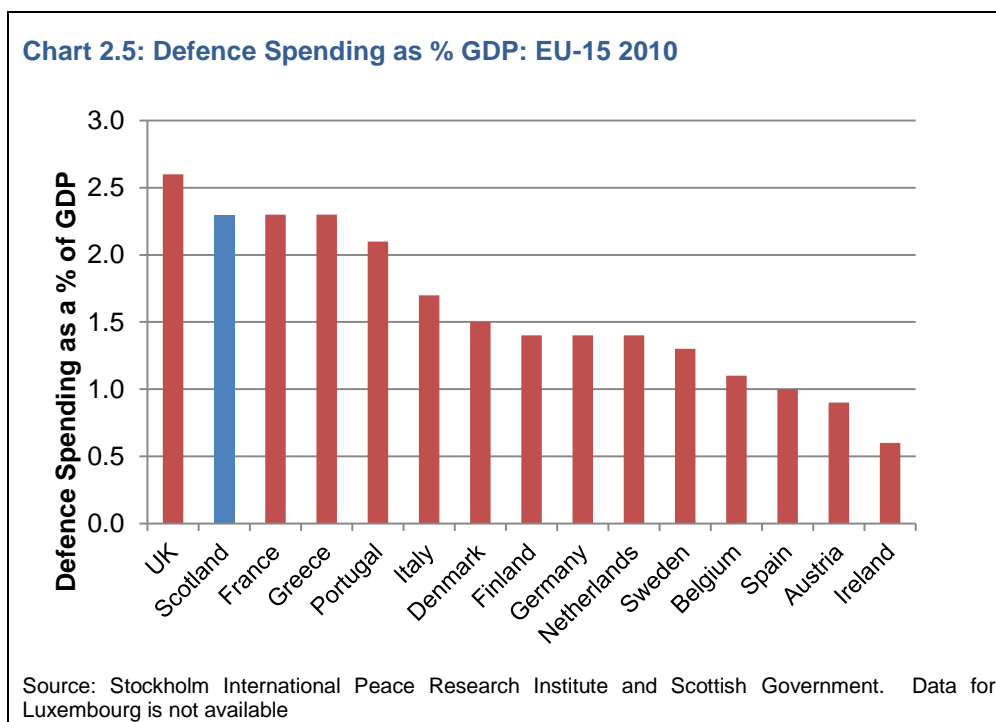


## Scotland's share of UK Defence Expenditure

2.16 Defence is the second major aspect of Scottish public spending which is reserved to the UK Government. GERS assigns Scotland a population share of UK wide expenditure on defence on the basis that spending on UK defence facilities benefits all residents of the UK equally, regardless of where the expenditure actually occurs. For consistency the same approach is taken in this report.

2.17 Scotland's population share of UK defence expenditure is equal to £3.3 billion in 2011-12. This is higher than the estimated level of defence expenditure which occurs directly in Scotland<sup>5</sup>. When measured as a share of GDP, it is also high by international standards.

2.18 Chart 2.5 provides estimates of defence expenditure as a share of GDP across the EU-15 in 2010, the most recent year available. Scotland's population share of UK defence expenditure is equal to 2.3% of GDP. As Chart 2.5 highlights, this is higher than all other EU-15 countries, with the exception of the UK as a whole. It is also higher than the ratio of defence expenditure to GDP in many countries of a comparable size to Scotland. For example, in Ireland and Denmark defence expenditure accounts for approximately 0.6% and 1.5% of GDP respectively. As an illustration, if defence spending for Scotland was in line with the EU-15 average (1.5% of GDP) it would suggest defence expenditure of approximately £2.2 billion in 2010-11, £1.1 billion lower than Scotland's current population share of UK spending, rising to approximately £2.5 billion by 2016.



<sup>5</sup> Previous Scottish Government analysis has shown that Ministry of Defence expenditure in Scotland over the five years to 2006-07 was £4.3 billion less than its population share of defence spending to Scotland over the same period. See for example Your Scotland Your Voice Pg 121 <http://www.scotland.gov.uk/Resource/Doc/293639/0090721.pdf> More recent analysis shows that between 2007-8 and 2011-12, Scotland received £3.17 billion of the defence contracts which are protected from European Union competition rules – approximately £1.9 billion lower than a population share

## Conclusion

2.19 Total public spending for Scotland was £64.5 billion in 2011-12. This includes all spending by the Scottish Government, Scottish Local Authorities and the UK Government undertaken on behalf of Scotland, including a share of spending on public services for the benefit of the UK as a whole, such as defence.

2.20 As a share of GDP, public spending is estimated to be lower in Scotland than in the UK as a whole, and in many other EU-15 countries. Social protection, which includes spending on the benefit system, is also lower, as a share of GDP, in Scotland than in the UK, and most other EU-15 countries.

2.21 The analysis in this chapter assigns Scotland a population share of UK spending on defence. The UK has the largest defence budget in the EU-15, as a share of GDP. Scotland's population share is equivalent to £3.3 billion. If defence spending in Scotland was aligned to the EU-15 average, it would be approximately £2.2 billion.

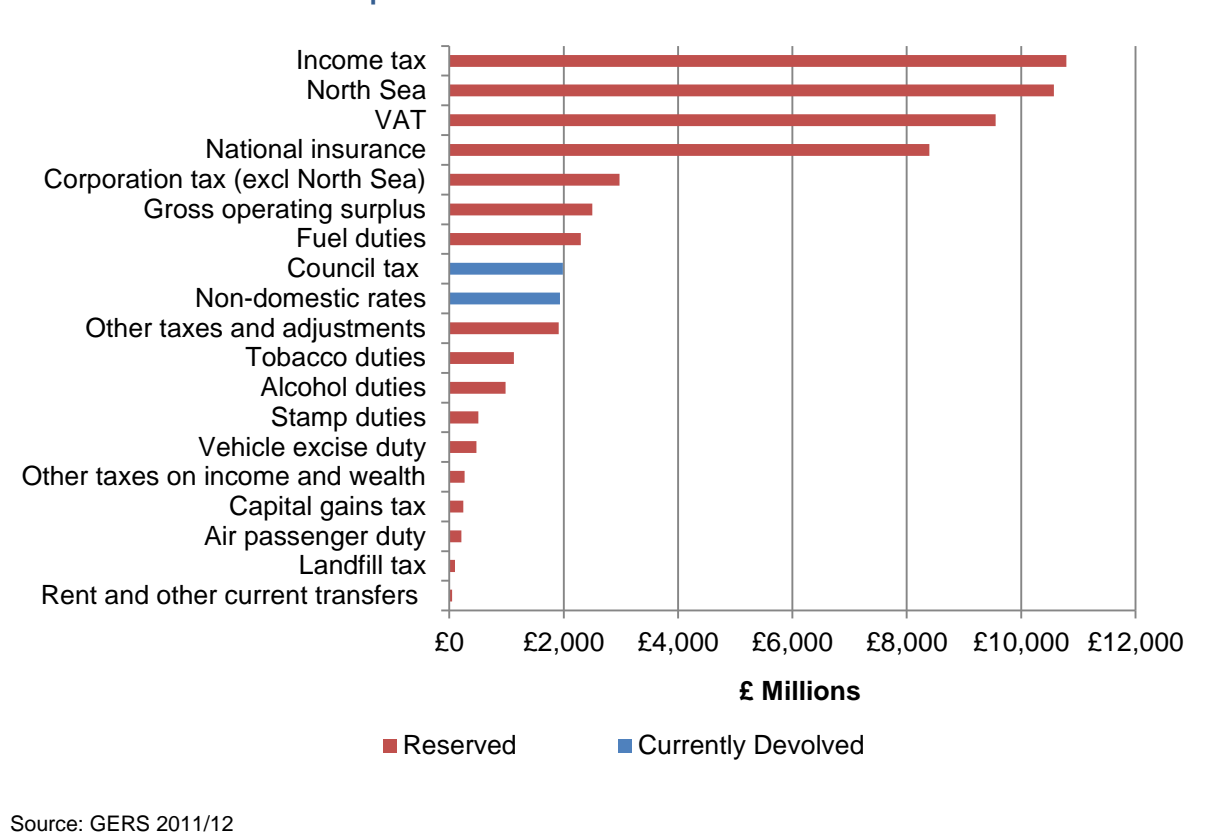
### 3. Scottish Tax Revenue

3.1 This chapter assesses the composition of tax receipts in Scotland. Particular focus is given to the contribution made by tax receipts from oil and gas production. As outlined in Chapter 1, the analysis assigns Scotland an estimated geographical share of North Sea revenues.

#### Scottish Tax Receipts

3.2 In 2011-12, total tax revenue generated in Scotland (onshore and offshore) was £56.9 billion.<sup>6</sup> Chart 3.1 provides a breakdown of revenue by source. Income tax is estimated to be the largest onshore source of tax revenue in Scotland, raising £10.8 billion in 2011-12, 19% of the Scottish total. VAT and National Insurance Contributions were the second and third largest sources of onshore revenue, generating 17% and 15% of total estimated Scottish receipts respectively.

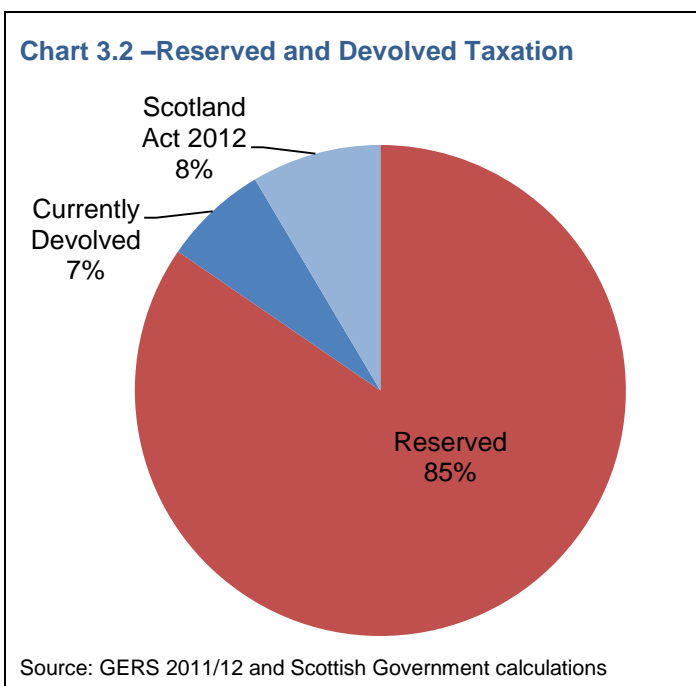
**Chart 3.1: Total Public Receipts: Scotland 2011-12**



3.3 Chart 3.1 also outlines the proportion of tax revenue which is currently devolved and reserved. At present, responsibility for council tax and non-domestic rates are devolved. Collectively these two taxes accounted for 7% of total Scottish receipts in 2011-12.

<sup>6</sup> The analysis in this report assigns Scotland an illustrative geographical share of North Sea revenue. For a further discussion of this issue see Chapter 4 of Government Expenditure and Revenue Scotland <http://scotland.gov.uk/Resource/0041/00415871.pdf>

3.4 The Scotland Act 2012 will devolve responsibility for Landfill Tax and Stamp Duty Land Tax from April 2015. It will also introduce, under the current constitutional framework, the Scottish Rate of Income Tax from April 2016 which will devolve some responsibility for aspects of income tax. However, even once the taxes devolved via the Scotland Act are implemented, it is estimated that responsibility for 85% of Scottish tax receipts will remain reserved to the UK Government as outlined in Chart 3.2. Moreover, key tax levers, such as corporation tax, capital gains tax and national insurance, will remain reserved to the UK Government.



3.5 Total Scottish tax receipts can be disaggregated into onshore and offshore revenue. In 2011-12, onshore taxes generated an estimated £46.3 billion in revenue. This is equivalent to 8.2% of total onshore UK tax receipts, which is broadly in line with Scotland's share of the UK population.

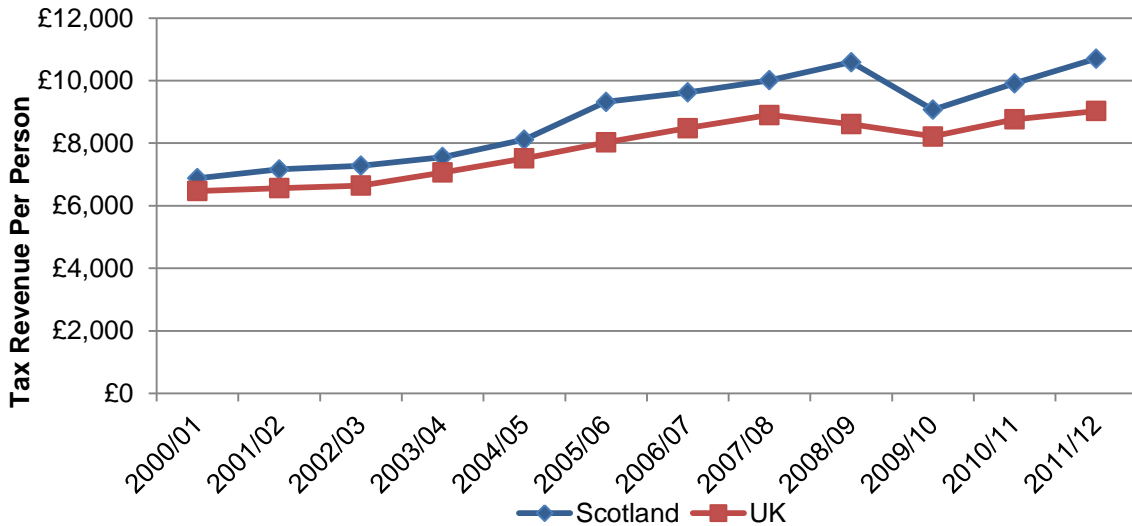
3.6 Offshore tax revenue refers to the taxes levied on the profits generated by offshore oil and gas producers in UK waters. The North Sea oil and gas industry represents an important source of tax revenue. In 2011, approximately 78% of combined UK oil and gas production is estimated to have occurred in Scottish waters<sup>7</sup>. Scotland's share of offshore tax revenue is estimated to have been larger, reflecting the relative profitability of fields within the Scottish boundary. In 2011-12, oil and gas production in Scottish waters is estimated to have generated £10.6 billion in tax revenue, 94% of the UK total.

3.7 Total tax revenue (onshore and offshore) in Scotland was equivalent to £10,700 per person in 2011-12, compared to £9,000 in the UK as a whole. As Chart 3.3 illustrates, whilst tax revenue per head in Scotland has varied year on year, it has been consistently higher than the UK average over the past decade.

3.8 Longer term analysis estimates that total tax revenue per person in Scotland was higher than the UK average in each year between 1980-81 and 2011-12. Since 1980-81, total tax revenue per capita in Scotland has been on average £800 a year higher than in the UK as a whole. Adjusted for inflation, the gap has averaged £1,350 over this period. This reflects the relative contribution of offshore revenues to the Scottish and UK public finances.

<sup>7</sup> The estimates draw on analysis by Professor Alex Kemp from the University of Aberdeen to apportion oil and gas production to Scotland. The analysis base the Scottish boundary of the UK Continental Shelf on the median line principle. This is the same approach that was used in 1999 to determine the boundary between Scotland and the UK for fishery demarcation purposes. Other alternative methods of demarcation are possible.

**Chart 3.3: Tax Revenue Per Person: Scotland and UK**



Source: GERS Historic Time Series Dataset and Scottish Government Calculations

**North Sea Revenue**

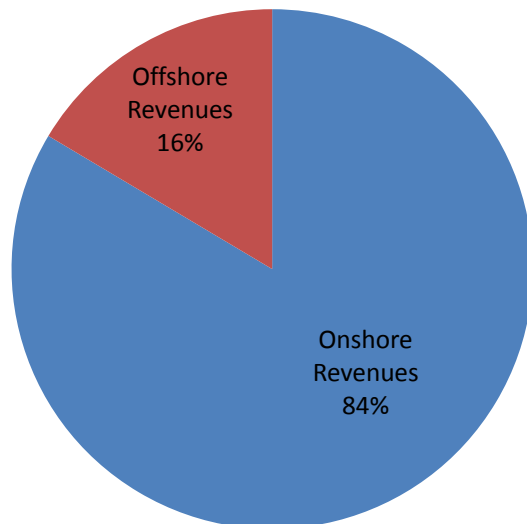
3.9 Scotland is a major oil and gas producer. In 2010 Scotland was the largest combined producer of oil and gas in the EU.

3.10 Oil and Gas UK estimate that there are up to 24 billion recoverable barrels of oil equivalent remaining in the North Sea<sup>8</sup>. Scottish Government analysis suggests that remaining oil and gas reserves could have a wholesale value of up to £1.5 trillion. This implies that, by value, more than half of the oil and gas reserves in the North Sea could yet be extracted.

3.11 Analysis by Wood McKenzie suggests that approximately 85% of remaining UK oil and gas reserves lie in Scottish waters<sup>9</sup>. The oil and gas sector will therefore remain an important part of the Scottish economy for decades to come.

3.12 As outlined above, it is estimated that 94% of UK oil and gas tax revenue was generated from production in Scottish waters during 2011-12. In recent years, Scotland’s share of North Sea revenues is estimated to have ranged

**Chart 3.4 –Scottish Tax Receipts 2007-08 to 2011-12 (Onshore/Offshore Split)**



Source: GERS 2011/21

<sup>8</sup> Oil Gas UK – Economic Report 2012

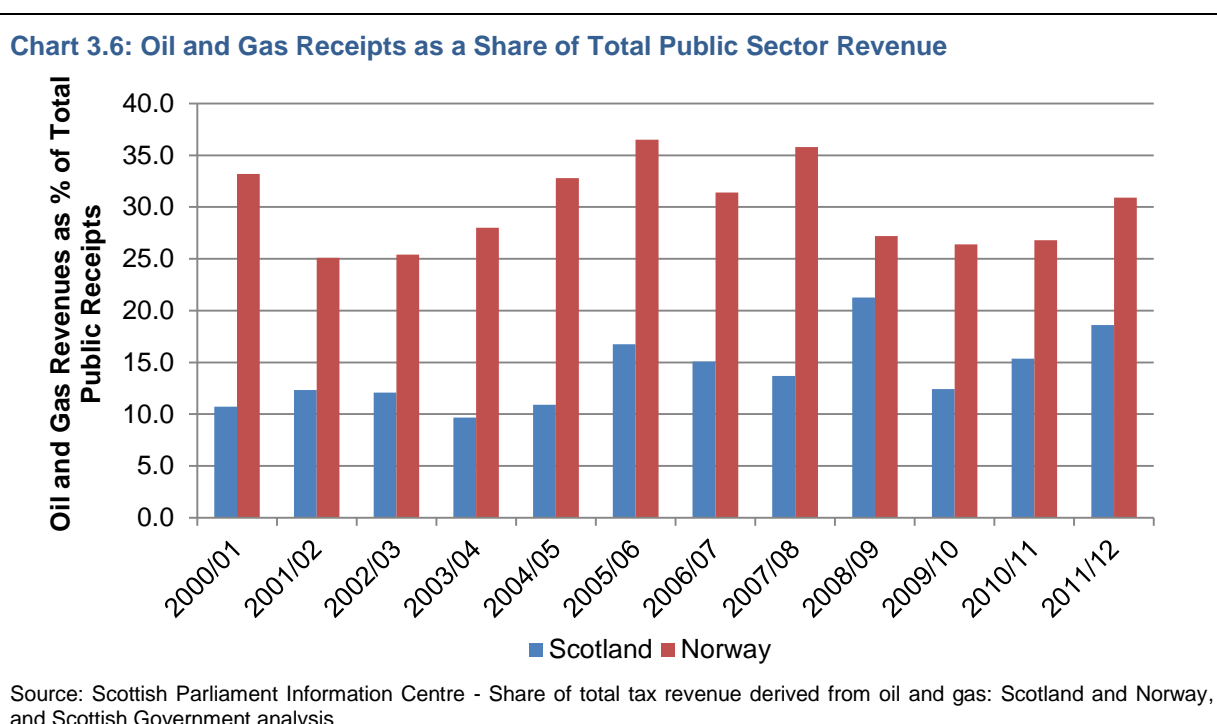
<sup>9</sup> Wood McKenzie (2012) - Scottish Independence and the Oil & Gas Industry Key Considerations



from £11.8 billion in 2008-09 to £5.9 billion in 2009-10. However, despite the fall in revenues between these years, Scotland remained in a relatively stronger fiscal position than the UK. This is discussed further in Chapter 4.

3.13 Over the period 2007-08 to 2011-12 as a whole, oil and gas revenues from Scottish waters amounted to £43.4 billion. This is equivalent to 16% of total Scottish tax revenues over the period.

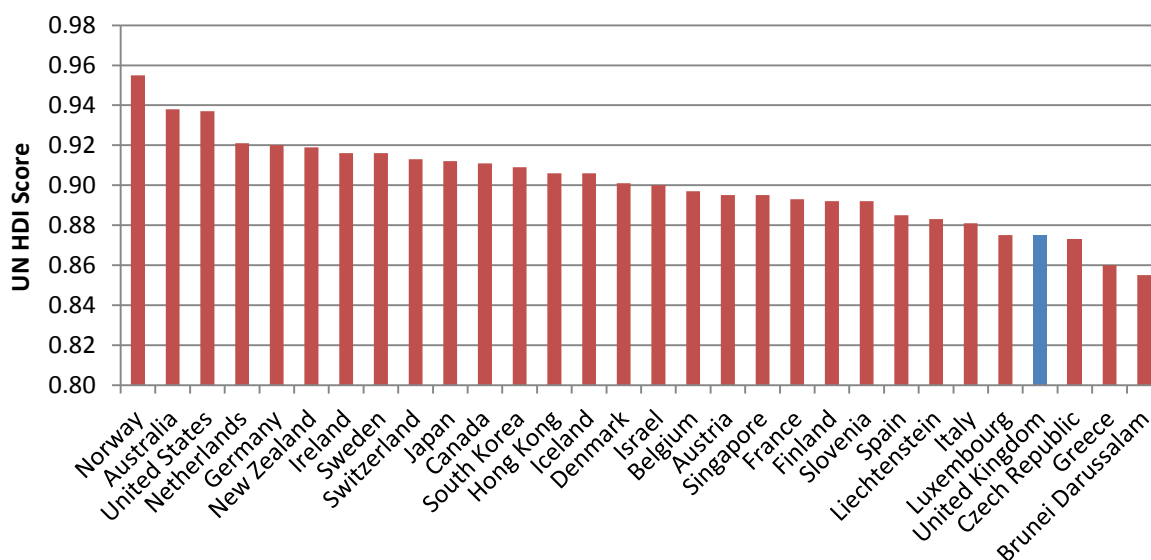
3.14 Whilst oil and gas receipts represent an important source of Scottish tax revenue, they account for a smaller proportion of revenue than in some other major oil and gas producing countries. As an illustration, Chart 3.6 shows the proportion of total public sector revenue attributable to oil and gas production in Scotland and Norway, the largest oil and gas producer in Europe. As the chart demonstrates, oil and gas production accounts for a higher proportion of public sector receipts in Norway compared to Scotland.



3.15 Norway is an interesting case study of the choices that can be made with regard to managing oil and gas revenues.

3.16 GDP per capita in Norway is among the highest in the world. The country is also ranked top of the UN Human Development Index, which provides a broader measure of standards of living, as outlined in Chart 3.7. Norway has also established an oil fund to ensure that its oil and gas resources provide a long term benefit. This issue is discussed further in Box 3.1.

**Chart 3.7: UN Human Development Index: 2013 Top 30 Countries**



Source: UN Human Development Index

### Box 3.1 - Management of Oil and Gas Revenues

A number of countries with substantial finite natural resources have established some form of wealth fund to manage these assets.

The UK and Norway are the largest oil and gas producers in Europe. However, they have taken different approaches to managing the revenue received from the oil and gas industry.

Since 1996 the Norwegian Government has invested a proportion of the revenue received from offshore production in an oil fund. The fund is now worth £450 billion, equivalent to £90,000 per person in Norway, and is the largest Sovereign Wealth Fund in the world. The aim is to ensure that the depletion of Norway's natural assets via oil and gas production are, in part, offset by an increase in its long term financial assets.

In contrast, successive UK Governments have used the revenue generated from oil and gas production to fund current general government expenditure<sup>10</sup>. This approach has been contrasted with the Norwegian model. For example, Professor Joseph Stiglitz has argued that the UK "squandered" its oil wealth<sup>11</sup>, and that UK Governments' economic policies reflected "false prosperity where they took all the income coming in from the North Sea but rather than investing that in enhancing the human capital, the fiscal capital and the technical skills, a disproportionate amount of that went elsewhere"<sup>12</sup>.

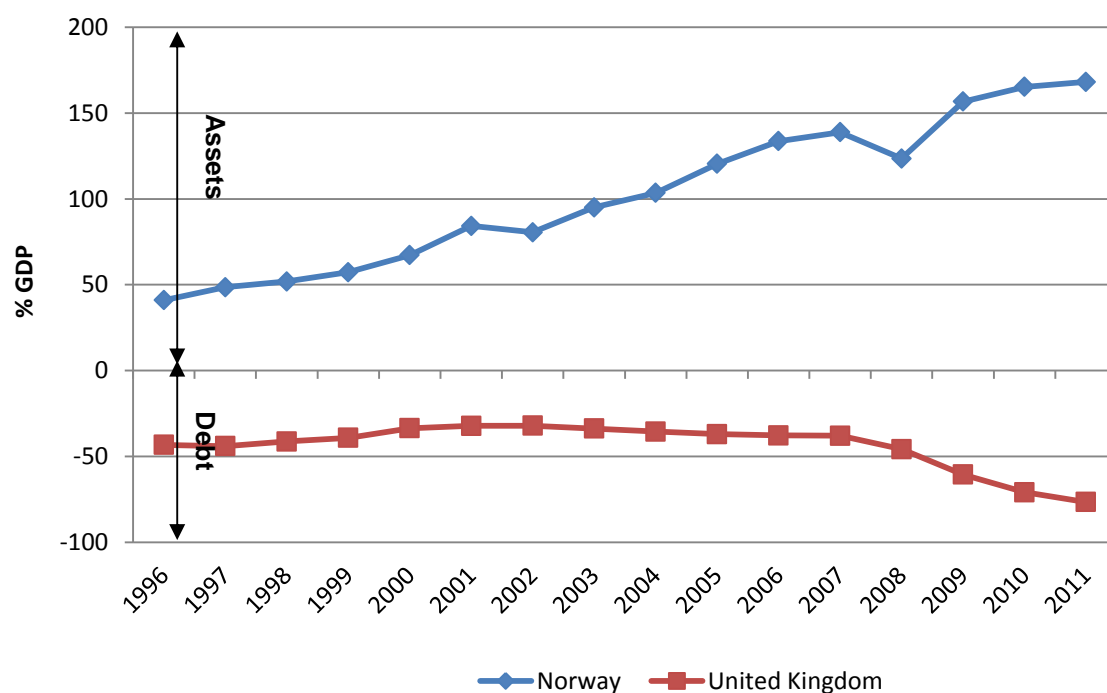
One long term implication of this different approach has been that whilst the IMF estimates that UK general government net debt now stands at around 75% of GDP, Norway has accumulated public sector net assets equal to 168% of GDP, as outlined in Chart 3.8.

<sup>10</sup> Analysis of the extent to which the depletion of a country's natural resources is offset by investment in other types of assets has been provided as part of the World Bank's Genuine Savings analysis and the UN Inclusive Wealth Report.

<sup>11</sup> Newsnight Scotland – 24 August 2010

<sup>12</sup> Taken from Professor Stiglitz's evidence of the Scottish Parliament's Economy Committee (28 February 2013) as reported by the Scottish Press Association.

Chart 3.8: General Government Net Debt: % of GDP Norway and UK



Negative values indicate that public sector liabilities exceed assets. Source: IMF World Economic Outlook Database

## Conclusion

3.17 In 2011-12, total tax revenue generated in Scotland (onshore and offshore) was £56.9 billion. At present, responsibility for council tax and non-domestic rates are devolved. Collectively these two taxes accounted for 7% of total Scottish receipts in 2011-12.

3.18 Total Scottish tax receipts can be disaggregated into onshore and offshore revenue. In 2011-12, onshore taxes generated an estimated £46.3 billion in revenue. This is equivalent to 8.2% of total onshore UK tax receipts, which is broadly in line with Scotland's share of the UK population

3.19 Including an illustrative geographical share of oil and gas revenues, total Scottish tax receipts were estimated to be £56.9 billion in 2011-12. This equates to £10,700 per capita, compared to £9,000 in the UK as a whole.

3.20 Total tax revenue per person in Scotland is estimated to have been higher than the UK average in each year between 1980-81 and 2011-12. Since 1980-81, total tax revenue per capita in Scotland has been on average £800 a year higher than in the UK as a whole. Adjusted for inflation, the gap has averaged £1,350 over this period. This reflects the relative contribution of offshore revenues to the Scottish and UK public finances.

## 4. Overall Fiscal Position and Public Sector Debt

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4.1 This chapter assesses Scotland's overall fiscal position. The focus of the chapter is on Scotland's estimated net fiscal balance (the difference between tax revenue and government expenditure) and Scotland's notional share of UK public sector net debt.

### Assessing the Sustainability of the Public Finances

4.2 There are two primary indicators of the sustainability of a country's public finances, the annual budget balance and the overall stock of public sector debt.

4.3 The budget balance measures the difference between public spending and tax revenue in a given year. It therefore determines the government's annual borrowing requirement. The stock of public sector debt is the cumulative value of all outstanding debts owed by the government. It is also a factor in determining the amount that a government has to pay each year in interest payments. Both indicators are generally measured as a share of GDP to provide an indication of the scale of debt or deficit relative to the size of the economy.

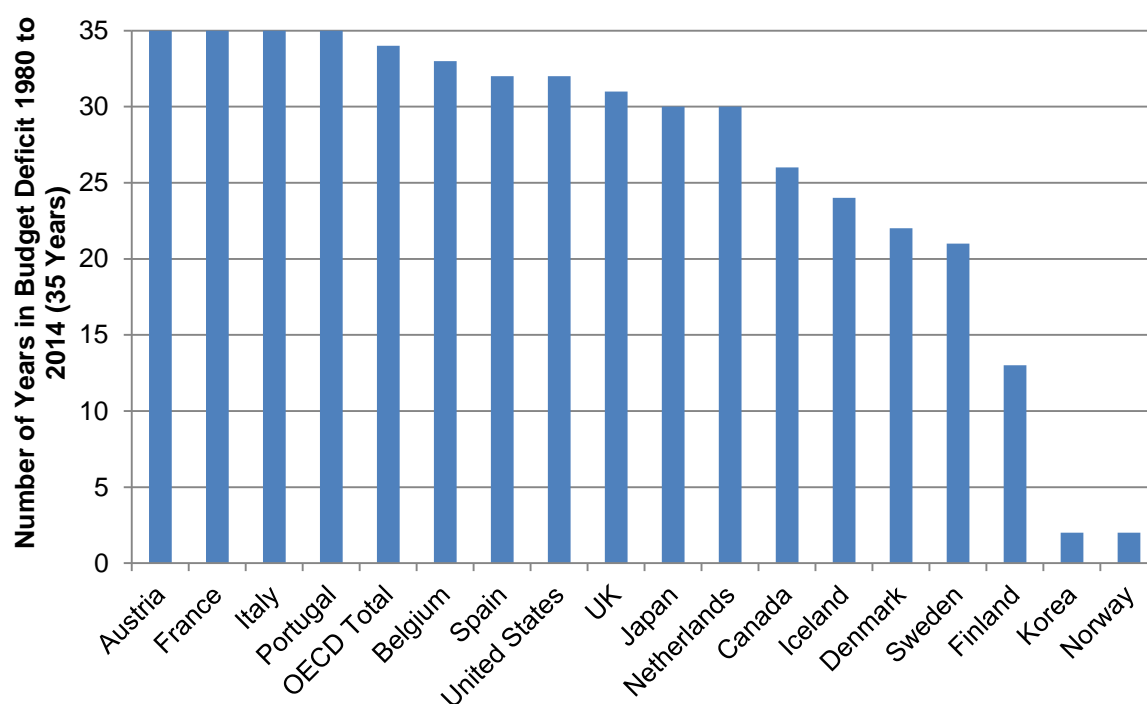
4.4 It is possible for a government to run an annual budget deficit (a shortfall between income and expenditure) in a manner which is sustainable. This is because if the economy is growing quicker than the rate of debt accumulation, the debt to GDP ratio will still fall. As such, the burden of the debt will be reduced, relative to the country's ability to service it.

4.5 The sustainability of a country's public sector debt therefore depends on the rate at which the stock of debt is increasing relative to the growth of the economy. If debt is stable or falling as a share of GDP it is generally sustainable. However, if debt is increasing as a share of GDP this is unsustainable in the long run.

4.6 The prevalence for countries to run net fiscal deficits is reflected in the public finance data collected by the OECD. The OECD provides estimates of the annual budget balances for seventeen of its members for each year between 1980 and 2014. This shows that a number of countries, including France and Austria, are estimated to have run a fiscal deficit in every year during this period. Likewise, the USA and UK have only run budget surpluses on three and four occasions respectively during this period. South Korea and Norway were in deficit for the fewest number of years. In the case of Norway this reflects, in part, their effective use of the tax revenues received from oil and gas production.

4.7 Looking at the aggregate public finances of all OECD countries shows that over the 35 year period between 1980 and 2014 there has been only one year when the group as a whole has not run an overall budget deficit.

**Chart 4.1 - OECD Countries: Number of Years in Deficit: 1980-2014 (35 Year Period)**



Source: OECD Economic Outlook Database

### Scotland's Net Fiscal Balance

4.8 The primary estimate of Scotland's overall annual budget balance is the net fiscal balance. The net fiscal balance measures the difference between total public sector expenditure and revenue. It is comparable to the estimates of UK public sector net borrowing published by the Office for National Statistics. An alternative measure of Scotland's fiscal position is the current budget balance, which is also published by the ONS for the UK. This measures the difference between current expenditure and current receipts and is discussed further in Box 4.1.

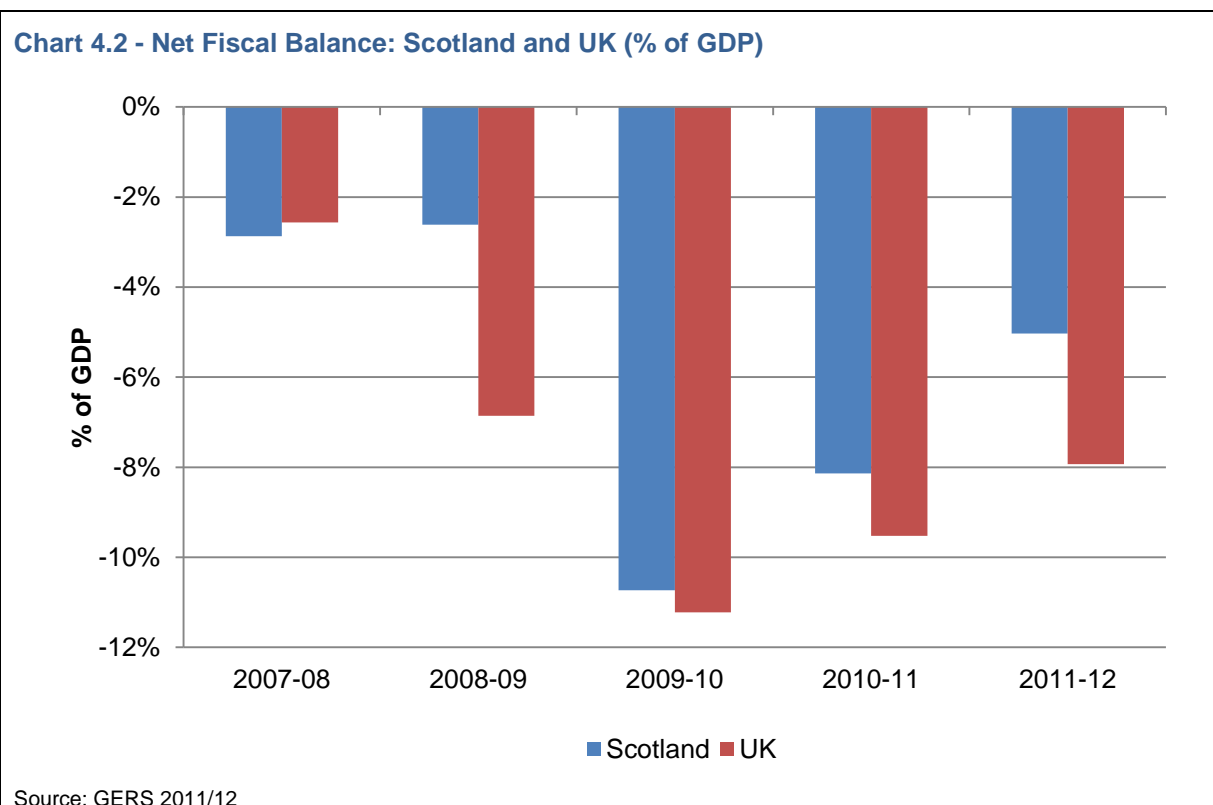
4.9 Scotland's net fiscal balance as a share of GDP in each year from 2007-08 to 2011-12 is outlined in the chart below. The equivalent UK figures are also provided. Two trends are evident from the data.

4.10 Firstly, over the five years to 2011-12 as a whole, whilst in deficit, Scotland was estimated to be in a relatively stronger fiscal position than the UK. Since 2007-08, Scotland has run an average net fiscal deficit of £8.3 billion (5.9% of GDP). During the same period, the UK ran an average annual deficit of £111 billion, equivalent to 7.6% of GDP.

4.11 Secondly, the results in Chart 4.2 demonstrate the impact that the recession has had on Scotland's public finances. In line with many other countries, Scotland has observed a large increase in its net fiscal deficit after 2008-09 as a result of the global recession. This trend is reflected across virtually all advanced economies. Among the 35 members of the OECD, only Norway and Switzerland did not run a fiscal deficit in 2009.

4.12 Box 4.1 provides estimates of Scotland's current budget balance (the difference between current revenue and current expenditure) in the five years from 2007-08 to 2011-

12. The results show that over this period Scotland is estimated to have run an average current budget deficit equivalent to 2.9% of GDP whilst the UK ran an average current budget deficit equivalent to 5.0% of GDP.



#### Box 4.1 - Current Budget Balance

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 and 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 can be expected to increase the economy's productive capacity in future years. In effect, no borrowing is being used to fund day to day government services.

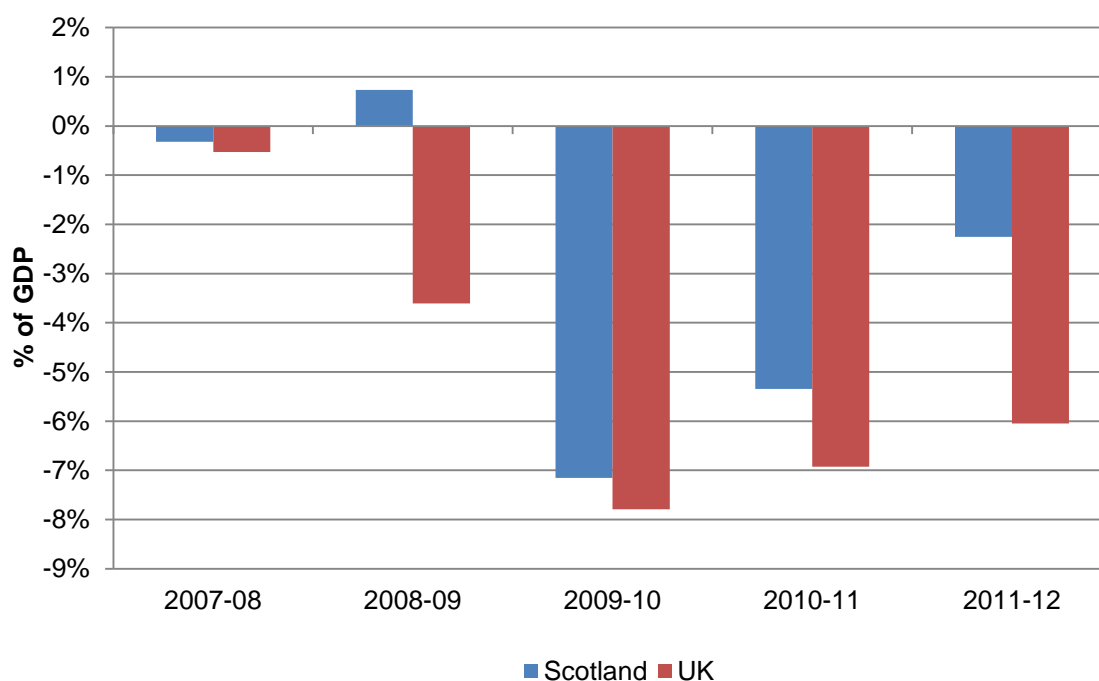
The chart below shows Scotland's estimated current budget balance as a share of GDP since 2007-08. In 2007-08 and 2008-09 Scotland was either running a current budget surplus or a small deficit. In comparison, the UK was in deficit in both years. Looking at earlier years shows that Scotland also ran a current budget surplus in 2005-06 and 2006-07. In comparison, the UK has not run a current budget surplus since 2001-02

Since 2009-10 Scotland and the UK's fiscal positions have deteriorated. This has resulted in both countries running comparatively large current budget deficits in 2009-10 and 2010-11 compared to historical averages. However, as Chart 4.3 illustrates, Scotland continued to run a smaller current budget deficit than the UK. Scotland has also seen a more rapid

recovery in its current budget than the UK. By 2011-12, Scotland's current budget balance was estimated to have fallen to 2.3% of GDP, compared to 6.0% of GDP in the UK.

Looking at the period 2007-08 to 2011-12 as a whole, Scotland ran an average current budget deficit equivalent to 2.9% of GDP. Over the same period, the UK ran an average current budget deficit equivalent to 5.0% of GDP.

**Chart 4.3 - Current Budget Balance: Scotland and UK (% of GDP)**



Source: GERS 2011/12

### Scotland's Relative Fiscal Position

4.13 Under the current constitutional framework aggregate levels of public spending and taxation in Scotland and the UK are inherently linked. Therefore, when analysing Scotland's public finances it is informative to consider Scotland's net fiscal balance relative to the rest of the UK.

4.14 Looking specifically at 2011-12, the most recent year for which data and estimates are available, shows that the UK had a deficit equivalent to 7.9% of GDP. In comparison, Scotland ran a net fiscal deficit equivalent to 5.0% of GDP.

4.15 One way in which the relative financial positions of Scotland and the UK in 2011-12 can be illustrated is by analysing the difference in net fiscal balances 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. In 2011-12 Scotland's estimated deficit was 2.9 percentage points smaller, as a share of GDP, than the equivalent UK deficit. When expressed in cash terms, this difference is equivalent to £4.4 billion, or £824 per person in Scotland.

4.16 Extending this analysis over the past five years shows that Scotland has been in a relatively stronger fiscal position than the UK over this period. When expressed in cash terms, Scotland's relatively stronger fiscal position over this period as a whole is equivalent to £12.6 billion. This equates to £2,375 per person. This means that over the period 2007-08 to 2011-12 as a whole, Scotland could have had higher spending, for example on infrastructure investment, and/or lower taxation and still had a smaller estimated fiscal deficit than the UK.

#### Box 4.2 - Sensitivity to North Sea Revenue

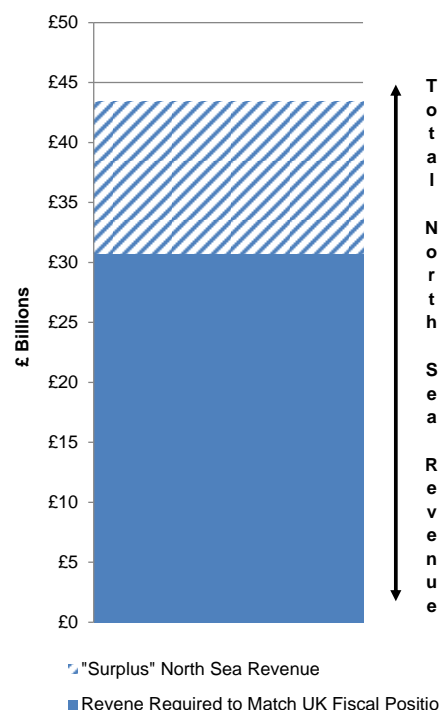
As outlined on Chapter 3, a key difference between the Scottish and UK public finances is the proportion of tax revenue accounted for by oil and gas production.

The primary determinants of offshore tax receipts are the level of production, oil and gas prices and operating and exploration costs. Whilst production has followed a fairly consistent trend in recent years, prices have been more volatile. Oil prices increased from \$55 a barrel at the start of 2007 to a peak of \$140 in July 2008. They subsequently fell to \$35 before returning to over \$100 a barrel in 2012.

These price changes have affected the tax revenue generated by the industry. For example, between 2008-09 and 2009-10 Scottish offshore receipts fell from £11.8 billion to £5.9 billion as oil prices fell following the onset of the global recession. However, despite the 50% fall in North Sea revenues during 2009-10, Scotland continued to have a smaller fiscal deficit, as a share of GDP, than the UK. Scottish oil and gas revenues would have had to have fallen by a further £660 million (11%) for Scotland to have had a larger fiscal deficit than the UK during 2009-10.

Between 2007-08 and 2011-12 as a whole the North Sea contributed £43.4 billion in tax revenue to Scotland, as illustrated in Chart 4.4. Even if North Sea revenues had actually been 29% lower than the outturn, Scotland would still have had a smaller cumulative deficit over the past five years than the UK.

**Chart 4.4 Cumulative North Sea Revenue: 2007-08 to 2011-12**



Source: GERS 2011/12 and Scottish Government analysis



## Public Sector Net Debt

4.17 When considering the sustainability of a country's public finances, it is important to consider the overall stock of debt, as well as the level of borrowing in a specific period.

4.18 Under the current fiscal framework, UK public sector net debt is incurred for the country as a whole, and not directly for Scotland or any other part of the UK. As such, there are no outturn figures for Scotland's share of UK net debt. Two approaches which can be used to allocate a notional share of UK net debt to Scotland are presented below.

### Population Share

4.19 GERS allocates Scotland a per capita share of UK debt interest payments. The same approach could therefore be used to allocate Scotland a share of the corresponding debt.

4.20 UK public sector net debt at the end of 2011-12 stood at £1.1 trillion. Scotland's per capita share would have been equivalent to £92 billion (62% of GDP). This would represent a lower debt to GDP ratio than for the UK as a whole (72%), reflecting the fact that Scotland has a higher level of GDP per capita (including North Sea oil) than the UK.

4.21 Scotland's notional public sector net debt in 2011-12 would have to have been £15 billion higher than its per capita share for Scotland to have the same debt to GDP ratio as the UK.

### Historic Share

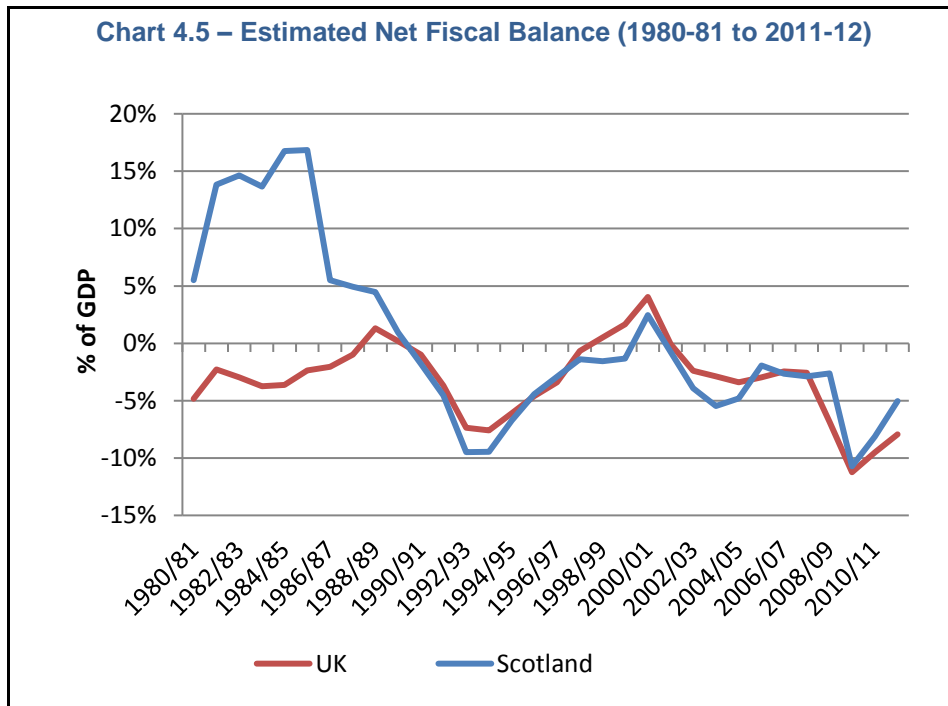
4.22 A country's public sector net debt can be viewed as the sum of its historic annual borrowing, minus any debt repayment. Therefore, an alternative way to calculate Scotland's notional share of UK public sector debt is to base it on Scotland's historical fiscal position.

4.23 Information on aggregate Scottish public spending and tax receipts from 1980-81 onwards on a consistent basis is published on the Scottish Government website<sup>13</sup>. Chart 4.5 provides estimates of Scotland's overall net fiscal balance as a percentage of GDP from 1980-81 onwards using this data. The results show that during the early 1980s, Scotland ran a substantial net fiscal surplus, driven by the significant growth in North Sea revenues. Scotland's fiscal position weakened through the 1990s but since 2001-02 has been broadly in line with that of the UK.

4.24 Over the period 1980-81 to 2011-12 as a whole, Scotland is estimated to have run an average annual net fiscal surplus equivalent to 0.2% of GDP. The UK is estimated to have run an average annual net fiscal deficit worth 3.2% of GDP.

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<sup>13</sup> The dataset is available from <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/GERS/RelatedAreas/LongRunGERS201011> The dataset is classified as experimental

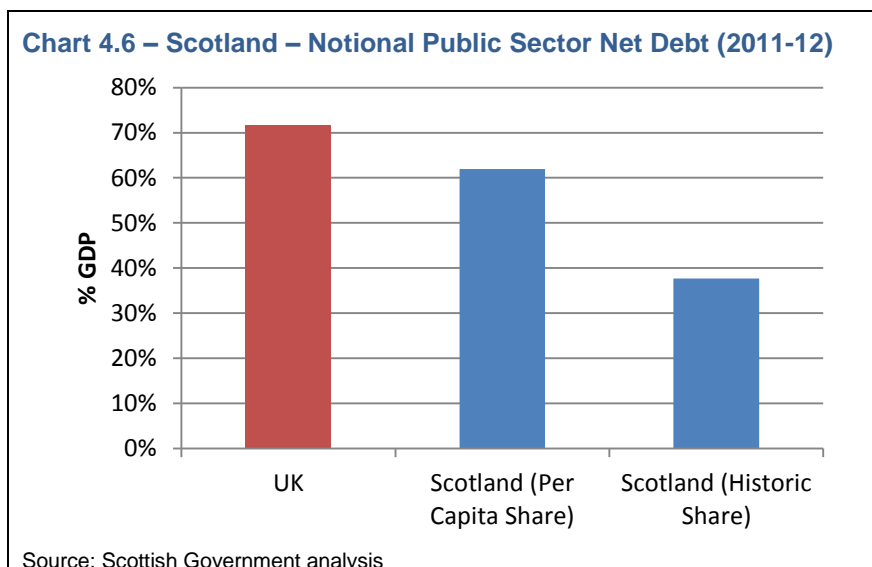


4.25 As approximately 90% of UK public sector net debt has been incurred since 1980, assessing Scotland’s fiscal position over this period gives an indication of the amount of UK net debt which has been incurred on behalf of Scotland.

4.26 Between 1980-81 and 2011-12, Scotland is estimated to have run a cumulative net fiscal deficit equivalent to £49 billion. This means that over this period as a whole, total public spending for Scotland exceeded tax revenue by £49 billion. This equates to 5.1% of the cumulative UK deficit over the same period (£968 billion).

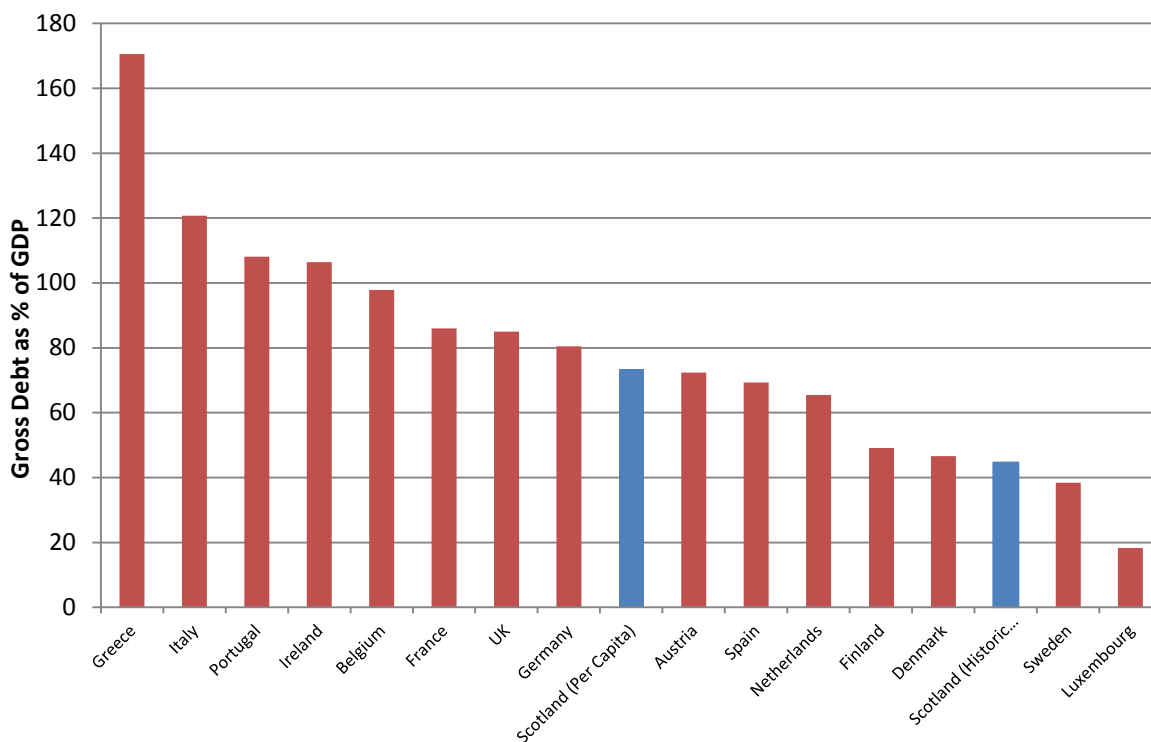
4.27 Applying this ratio to UK public sector net debt in 2011-12 would result in a notional share for Scotland of £56 billion, this is equivalent to 38% of Scottish GDP.

4.28 Chart 4.6 compares the above estimates of Scotland’s share of UK public sector net debt for 2011-12 as a share of GDP. The equivalent UK figure is also included for reference.



4.29 Chart 4.7 shows Scotland's notional share of UK public sector gross debt in 2011 on an internationally comparable basis using the above methodologies. Using either a per capita or historic share of UK debt, Scotland's notional debt to GDP ratio is estimated to be lower than in half the EU-15 countries, including the UK, Germany and France.

**Chart 4.7 - General Government Gross Debt: EU-15 (% of GDP)**



Source: Eurostat – General Government Gross Debt and Scottish Government analysis

## Conclusions

4.30 In summary, Scotland has run an overall net fiscal deficit in recent years, as has the UK. This is common among national governments.

4.31 Despite being in deficit, between 2007-08 and 2011-12 Scotland has been in a relatively stronger fiscal position than the UK. When expressed in cash terms, Scotland's relatively stronger fiscal position compared to the UK during this period is estimated to be equivalent to £12.6 billion. This means that over the past five years, Scotland could have had higher spending, for example on infrastructure investment, and/or lower taxation and still had a smaller fiscal deficit than the UK.

4.32 UK public sector net debt stood at £1.1 trillion (72% of GDP). Two methodologies are set out in this chapter to allocate Scotland a notional share of this debt. Scotland's per capita share of UK net debt is estimated to be £92 billion (62% of GDP). When Scotland's notional share of UK debt is estimated based on Scotland's historical net fiscal balance it is estimated to be worth £56 billion (38% of GDP).

## 5. Conclusion

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5.1 This report has provided a detailed assessment of Scotland's public finances under the current constitutional framework. The key points made in the report are summarised below.

- Public spending for Scotland was estimated to be £64.5 billion in 2011-12, equivalent to 42.7% of GDP in Scotland. This is estimated to be lower than in both the UK as a whole (45.5%), and the majority of EU-15 countries.
- Social protection is the single largest category of public spending for Scotland, and includes spending on social security benefits. Expenditure on social protection as a share of GDP is estimated to have been lower in Scotland than in the UK in each of the past five years
- Total tax revenue in Scotland was estimated to be £56.9 billion in 2011-12. This includes an illustrative geographical share of North Sea tax revenue, equivalent to £10.6 billion. Total Scottish tax receipts in 2011-12 were equivalent to £10,700 per person. This compares to a figure of £9,000 per person in the UK as a whole. On a per capita basis, total tax receipts in Scotland have been higher than in the UK in each year since 1980-81.
- Scotland's ran a net fiscal deficit worth 5% of GDP in 2011-12, lower than the equivalent UK deficit of 7.9% of GDP. Over the five years to 2011-12, Scotland is estimated to have run a smaller overall fiscal deficit than the UK. When expressed in cash terms, this relatively stronger fiscal position was equivalent to £12.6 billion over this period.
- North Sea revenues accounted for approximately 16% of Scottish tax receipts between 2007-08 and 2011-12, with onshore receipts accounting for the remaining 84%. North Sea receipts represent an important revenue source in Scotland. However, between 2007-08 and 2011-12, they would have had to have been 29% lower than outturn receipts, for Scotland's fiscal deficit to be larger than the UK's.
- UK public sector net debt at the end of 2011-12 stood at £1.1 trillion (72% of GDP). Two methods of assigning a notional share of this debt to Scotland are provided in this report. Scotland's per capita share would have been equivalent to £92 billion (62% of GDP). When Scotland's notional share of UK debt is estimated based on Scotland's historical net fiscal balance it is estimated to be worth £56 billion (38% of GDP).