

Scottish independence: the fiscal context

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Executive Summary

The UK public finances

The referendum on Scottish independence will take place in the following fiscal context (taking March 2012 OBR forecasts):

- UK public borrowing will still be at around £75 billion in 2014–15.
- 2014 will be in the middle of a prolonged period of spending cuts. The UK government will be planning at least two further years of cuts after the 2014–15 fiscal year.
- *If* things go according to plan, the UK's structural deficit should be closed by somewhere around 2017.
- On the other hand, accumulated national debt will be over 76% of national income in 2014–15 and still over 74% in 2016–17. It will not fall back to pre-crisis levels for a generation.

Spending in Scotland

- Public spending per head is about £1,200 a year higher in Scotland than in the UK as a whole (about £11,800 against £10,600 in 2010-11), and is higher across most areas of government activity. This is despite the fact that household disposable income per head in Scotland is very similar to the UK average;

¹ The authors thank Olga Gdula for invaluable research assistance and gratefully acknowledge funding from the Economic and Social Research Council (ESRC) through the Centre for the Microeconomic Analysis of Public Policy at IFS (grant reference ES/H021221/1). The ESRC is supporting a programme of work addressing issues around the future of Scotland. One of the strands focuses on supporting new work at current major ESRC investments before and potentially after the referendum.

Also with thanks to the [David Hume Institute](#) and the University of Edinburgh for supporting this research, providing helpful comments and for hosting its presentation on Monday 19th November as part of the first of their series of 'conversations' on constitutional change, also supported by the ESRC.

- Whilst uncertainty over how to allocate spending in some areas like defence might change the magnitude of the difference, it is not big enough to affect the broad conclusion that spending per head is substantially higher in Scotland.

Tax revenues in Scotland

- Ignoring North Sea oil and gas, Scottish tax revenues per head are almost the same as the UK average. The composition of Scottish tax revenues is, however, somewhat different. Taxes on income are less important than in the rest of the UK, taxes on spending are more important;
- Allocated on a geographic basis, North Sea oil and gas revenues would have accounted for over 15% of revenues in 2010-11 compared with 1.6% for the UK as a whole. Oil and gas revenues are, however, very volatile. On a geographic basis they were more than 20% of Scottish revenue in 2008-09 but just 12% in 2009-10. Looking back further they accounted for nearly half of all revenue in the mid 1980s, falling to just 3% in 1991-92.

The Scottish fiscal balance

- Without oil and gas revenues or, equivalently, assigning them on a population basis, there has been a bigger gap between spending and tax receipts in Scotland in recent years than in the UK as a whole;
- With a geographic assignment of oil and gas revenues, on the other hand, the gap between revenues and spending in Scotland and in the UK has been similar, indeed somewhat smaller in Scotland;
- Over recent years, tax revenues from the North Sea, if allocated on a geographic basis, would have slightly more than paid for the additional public spending per head that currently occurs in Scotland relative to the UK as a whole.

On the fiscal architecture and the longer run

- Although the exact numbers depend on the bargain struck with the rest of the UK, a newly independent Scotland is likely to inherit a debt level of at least a good two thirds of national income. To keep borrowing costs down it would need to establish a credible fiscal policy;
- The government of a newly independent Scotland would need to decide whether to have fiscal rules, and if so what they should be, as well as whether to appoint an independent fiscal arbiter in the mould of the UK Office for Budget Responsibility;
- An important decision would revolve around how to treat North Sea oil and gas revenues. One possibility would be to aim for budget balance, ignoring oil and gas revenues (as well as investment spending, as the UK Government currently does), several years down the road;
- Like the UK as a whole, and most other developed nations, an independent Scotland would face some tough long term choices in the face of spending pressures created by demographic change. If, as is likely, oil and gas revenues fall over the long run then the fiscal challenge facing Scotland will be greater than facing the UK.

Introduction

In making a decision over whether to seek independence from the rest of the UK, one of the many issues that the Scottish people will need to consider is the fiscal consequences.

The question is not whether an independent Scotland could survive from a fiscal point of view but rather whether, in the short term and in the longer run, the current pattern of taxes and spending is sustainable and hence what choices an independent Scotland might have to make. Would an independent Scotland require higher taxes to finance current levels of spending (or, equivalently, would it need to reduce spending in order not to raise taxes)? Or would the Scots enjoy a fiscal dividend in the form of lower taxes or higher spending?

These are not straightforward questions and this briefing note represents an initial foray rather than a comprehensive answer. It aims to do the following:

- provide an overview of the current fiscal position in the UK as a whole;
- set out the key facts on Scottish spending and Scottish tax revenues, and how they relate to those in the rest of the UK;
- illustrate how the short-run fiscal situation in an independent Scotland might relate to that in the rest of the UK, and how that depends upon the allocation of revenues from North Sea oil;
- indicate some of the longer-term issues and uncertainties;
- propose an agenda for further work in this area.

Note that, for the purposes of this paper, we make use of data from Government Expenditure and Revenue Scotland (GERS) and the Scottish National Accounts Project (SNAP). The revenues attributable to Scotland are not known for many taxes, and around 15% of spending cannot be directly attributed to a particular part of the UK (debt interest and spending on defence make up most of this). GERS and SNAP instead rely on estimates or assumptions about how much of these revenues and expenditures should be allocated to Scotland. There are real questions about whether the methods used in doing this are the most appropriate but, in this briefing note, we take the figures from GERS and SNAP as given.

1. The fiscal numbers

1.1 *The economic and fiscal situation in the UK*

The UK's fiscal position in 2014, the date of the independence referendum, is unlikely to be healthy. The UK economy shrank in real terms by 6.3% between the first quarter of 2008 and the second quarter of 2009. Growth since then has been anaemic and the Office for Budget Responsibility (OBR), in its forecast produced alongside the March 2012 Budget,² projected growth of just 0.8% in 2012; even this forecast is likely to be downgraded later this year. The average of independent forecasts made in October 2012 was for a contraction of 0.3%.³ This follows a 'double-dip' recession in the UK between the last quarter of 2011 and the second quarter of 2012, during which the economy shrank by a total of 1.1%. Although in the third quarter of 2012 there was a bounce-back with growth of 1%, much of this reflects one-off factors (such as the Olympics), and growth is expected to be much lower in the current quarter.⁴

Unfortunately, the recent poor performance is indicative of a more permanent problem. Back in March 2008 (i.e. before the financial crisis), the Treasury's 'cautious' projection was that potential national income – i.e. the level of national income that could be attained while keeping inflation and employment constant – would grow by 2.5% per year. However, the latest estimate from the OBR is that the potential capacity of the economy increased by an average of just 0.4% a year between 2007–08 and 2012–13 and that the long-run growth rate is likely to be just 2.25% from 2013–14 onwards. The implication of this is that potential national income is now estimated to be a full 13% lower in 2016–17 than was projected by the Treasury back in 2008. This means that despite a deep recession and weak recovery, there is (at least according to the OBR's analysis) little spare capacity in the economy and therefore little scope for above-trend rates of economic growth.

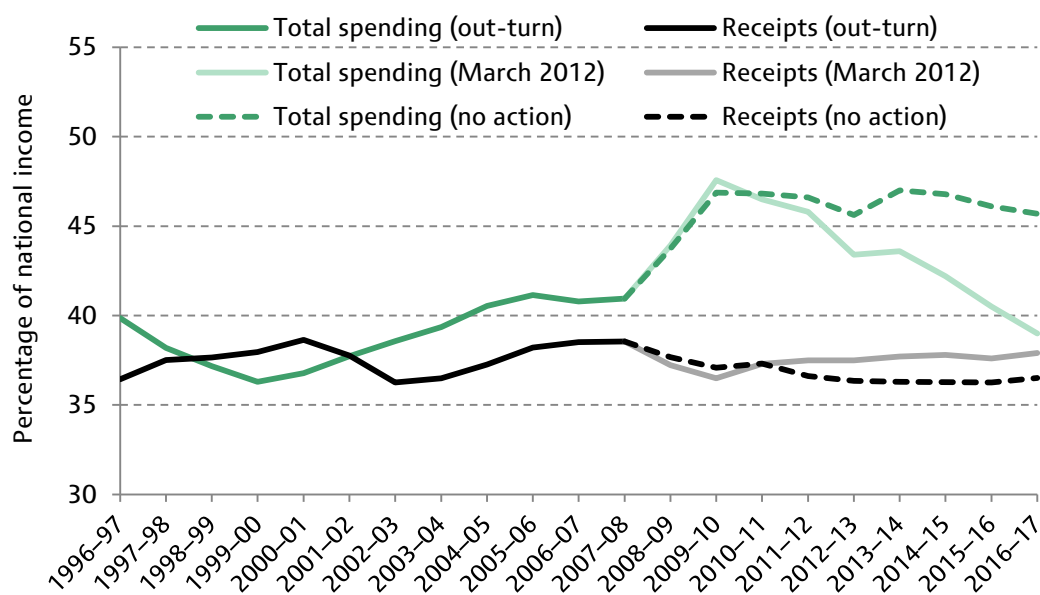
² OBR, *Economic and Fiscal Outlook – March 2012*, 2012, available at <http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-march-2012/>.

³ HM Treasury, *Forecasts for the UK Economy 17/10/12*, 2012, available at http://www.hm-treasury.gov.uk/data_forecasts_index.htm.

⁴ The medium-term outlook for the UK economy is somewhat better but is subject to significant uncertainty: if the OBR's latest forecast (March 2012) is as accurate as previous official forecasts have been, there is still a 10% chance that growth will be at most negligible in 2016.

During the recession, government spending increased rapidly as a share of national income as real spending rose and national income fell sharply. The spending increases reflect several factors: additional debt interest payments, increases in claims for means-tested and out-of-work benefits, and higher-than-planned real-terms spending on public services. In particular, public service spending had been set in *cash* terms pre-crisis and, following the contraction in the economy, inflation undershot forecasts. At the same time, there was a modest fall in tax receipts as a proportion of national income as tax-rich activities (such as property transactions and financial services) declined.

Figure 1. Forecasts for spending and receipts with and without policy action



Note: ‘No action’ ignores the direct impact of all fiscal policy measures that have been implemented since Budget 2008.

Sources: Out-turn figures for revenue and spending are from HM Treasury, Public Finances Databank, January 2012. Authors’ calculations using all HM Treasury Budgets and Pre-Budget Reports between March 2008 and March 2012 (up to the March 2010 Budget are available at http://www.hm-treasury.gov.uk/budget_archive.htm; June 2010 Budget onwards are available at <http://www.hm-treasury.gov.uk/budget.htm>) and all OBR Economic and Fiscal Outlooks between June 2010 and March 2012 (all available at <http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-march-2012/>).

The significant reduction in the long-term productive potential of the economy means that the gap between spending and taxes is likely to be permanent: in the absence of any policy action after March 2008, the UK government would have been borrowing 7.6% of national income (£115 billion in today's prices)⁵ more every year going forward than previously planned. This is illustrated by the gap between the dotted lines in Figure 1. The large budget deficits that this implies would, without policy action, have put public sector net debt (PSND) on an unsustainable path.

The UK government has responded by setting out plans for increases in taxes and reductions in spending, designed to eliminate the increase in borrowing by 2016–17. The forecast profiles for tax revenues and spending under current policy are also shown in Figure 1. Revenues are forecast to increase slightly as a share of national income, but the majority of the consolidation is on the spending side. The timing of measures also differs significantly. Most of the increases in taxes and reductions in investment spending are due to have happened by the end of the current financial year (2012–13), but the majority of the reduction in current spending on public services as a proportion of national income – over three-quarters – is still to come. Much of it is due after March 2014. The OBR's March forecast is that public sector net debt will peak at 76.3% of GDP in 2014–15 (up from 52.5% in 2009–10) and then begin falling.

The UK government set out its plans for spending on public services for the four years from 2011–12 to 2014–15 in the October 2010 Spending Review.⁶ Overall, departmental expenditure limits (DELs) – i.e. spending by Whitehall departments on the delivery and administration of public services – for current expenditure (excluding depreciation) in 2014–15 are planned to be 9.0% below the amount spent in 2010–11 after accounting for economy-wide inflation, with DELs for capital expenditure in 2014–15 24.9% below the amount spent in 2010–11 after accounting for inflation.⁷ The size of the cuts varies across departments (and,

⁵ R. Crawford, C. Emmerson and G. Tetlow, 'Fiscal repair: painful but necessary', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2012*, IFS Commentary 122, 2012, <http://www.ifs.org.uk/budgets/gb2012/12chap3.pdf>.

⁶ HM Treasury, *Spending Review 2010*, Cm 7942, 2010, available at http://www.hm-treasury.gov.uk/spend_index.htm.

⁷ Notice that these differ from the changes in real-terms expenditure planned in the Spending Review due to underspends in 2010–11, small changes in planned nominal expenditure in 2014–15 and changes in forecast inflation. Reported changes are based on tables 1.1, 1.3a and 1.6 in HM Treasury, *Public Expenditure Statistical Analysis 2012*, CM 8376 2012 (available

indeed, some – such as the NHS in England – are planned to see a (small) real-terms increase in spending). Changes in the amount allocated to the governments of the devolved nations (Northern Ireland, Scotland and Wales) are determined by the Barnett formula. This is designed so that a £1 per person change in spending in England on an area of spending devolved leads to a £1 per person change in the grant going to the devolved nation: the government of the devolved nation is then free to choose how to allocate that change in spending across services. It is planned that by 2014–15, the Scottish current DEL will be reduced by 8.6% and the Scottish capital DEL reduced by 32.1%, in real terms.

If all goes to (the most recent) plan, the structural deficit would have been eliminated by 2016–17 following an unprecedented seven years of cuts. At present, it doesn't look as if things will go to plan. We can expect poor growth this year to lead the OBR to suggest that there has been a further permanent hit to economic output and that at least another year's worth of spending cuts or tax rises will be required to reach cyclically-adjusted current budget balance. Even then, the national debt will not be at a comfortable level. The most recent OBR estimates suggest it will exceed 76% of national income in 2014–15 and still be at 74% in 2016–17, compared with a pre-crisis level of below 40% of national income. Again we expect that, in the absence of any additional fiscal consolidation, these estimates would be revised upwards in the Chancellor's Autumn Statement on 5 December.

So the referendum on Scottish independence will take place in the following fiscal context (taking March 2012 OBR forecasts):

- UK public borrowing will still be at around £75 billion in 2014–15.
- 2014 will be in the middle of a prolonged period of spending cuts. The UK government will be planning at least two further years of cuts after the 2014–15 fiscal year.
- *If things go according to plan*, the UK's structural deficit should be closed by somewhere around 2017.
- On the other hand, accumulated national debt will be over 76% of national income in 2014–15 and still over 74% in 2016–17.⁸ It will not fall back to pre-crisis levels for a generation.

at: http://www.hm-treasury.gov.uk/pespub_index.htm) and are adjusted for inflation using the September 2012 estimate of the GDP deflator.

⁸ Over 88% on a 'Maastricht' definition of gross (as opposed to net) debt.

1.2 Government spending in Scotland

The rest of this section makes use of official statistics on estimated public spending and revenues in Scotland and the rest of the United Kingdom – namely, the Scottish Government’s publications *Government Expenditure and Revenue Scotland (GERS)* and the *Scottish National Accounts Project (SNAP)* and the UK Government’s *Public Expenditure Statistical Analyses (PESA)*⁹ – to examine the state of the Scottish public finances. The analysis is retrospective: the last fiscal year captured by the data is 2010–11 and the time series run up to 30 years back. Although more recent data on spending, covering 2011–12 and budgets for 2012–13 and subsequent years, are available from the Scottish Government, they do not allow for comparisons with the UK on a wholly consistent basis.

In order to make comparisons, we express the amounts spent and raised as a share of GDP. This provides information on the size of the state relative to the economy, and an indication of the relative size of any fiscal deficit or surplus. In the case of Scotland, a difficulty arises in determining the level of GDP, as there is no agreed position on how large a share of output generated from offshore North Sea oil and gas resources should be treated as Scotland’s (nor, indeed, how large a share of the taxes generated via such activity should be treated as Scotland’s). Since we do not wish to take a stance on this issue, in the analysis below we allocate North Sea output and tax revenues on two bases, following the approach adopted by the GERS report. Box 1 provides further explanation and information on the levels of Scottish GDP per capita compared with the UK under the various approaches.

Figure 2 shows the evolution of overall total managed expenditure (TME) as a share of national income between 1980–81 and 2010–11 for both the UK and Scotland.

⁹ Scottish Government, ‘Government Expenditure and Revenue Scotland’, 2012, available at <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/GERS>.

Scottish Government, ‘Scottish National Accounts Project’, 2012, available at <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/SNAP>.

HM Treasury, ‘Public Expenditure Statistical Analyses’, 2012, available at http://www.hm-treasury.gov.uk/pespub_index.htm.

Box 1. Scottish GDP and the allocation of North Sea output

In regional accounts data prepared by the Office for National Statistics (ONS), the UK Continental Shelf (UKCS) is notionally treated as a separate region ('extra-regio') and its output is not allocated to any constituent country. Without supporting one method of apportionment or another (or, indeed, ruling out other methods), this briefing note draws on GERS 2010–11 and allocates North Sea output to Scotland in two ways. In the first instance, the revenues are apportioned on the basis of population size. The second allocation uses an illustrative geographical share, based on a study by Kemp and Stephen,^a who use the median line principle.

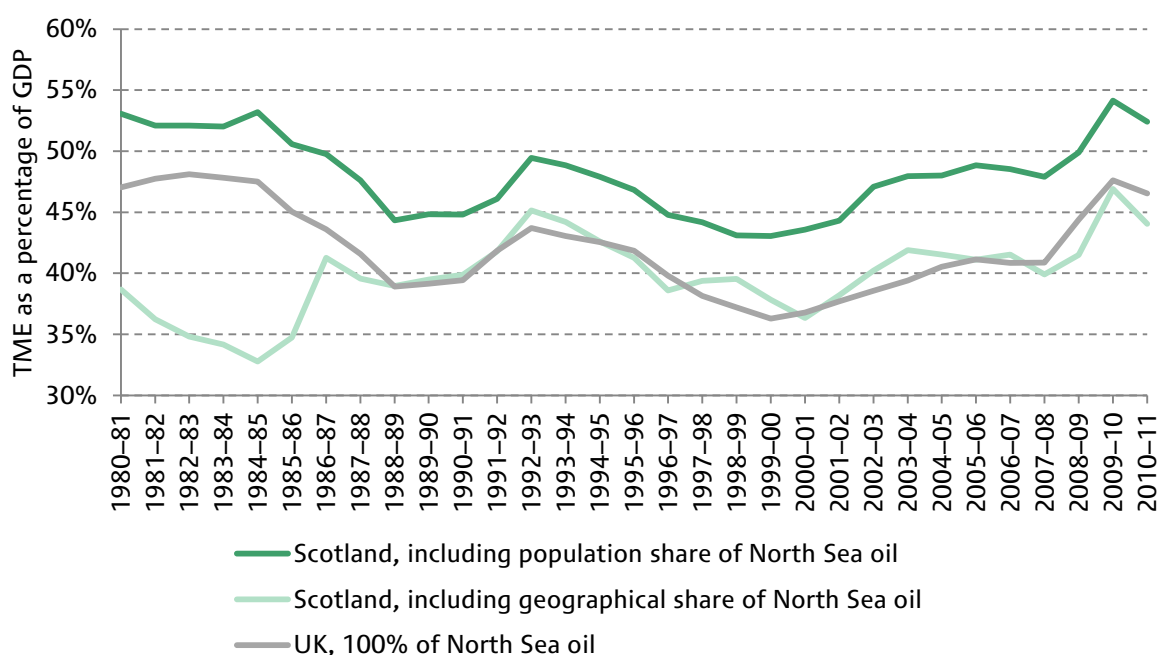
In 2010–11, onshore GDP (i.e. excluding any GDP generated in the North Sea) per capita was £23,242 for the UK as a whole, and £22,816 for Scotland, according to GERS. Scottish onshore GDP per capita was thus around 98% of the UK level. Allocating North Sea output on a population basis, per-capita GDP was around 2% higher for both the UK (at £23,732) and Scotland (at £23,311). Thus, excluding North Sea output or when allocating it on a population basis, GDP per capita was very similar in Scotland to that in the UK as a whole. This is similar to the picture for gross disposable household income, which was £15,342 per person in Scotland in 2010, equivalent to 98% of the UK average of £15,709 per person.

Allocating North Sea output on a geographic basis instead increases Scotland's GDP by 22% to £27,732 per capita, which was 117% of the UK level. Clearly, how North Sea output is allocated between Scotland and the rest of the UK has a major impact on the level of Scottish GDP.

Note also the distinction between GDP and gross national product (GNP). GDP measures the value of economic output produced in a geographic area – for instance, Scotland and its part of the North Sea – ignoring the fact that some of the fruits of this may accrue to those living outside Scotland (for instance, the profits of multinational oil companies, which have shareholders all over the world). GNP subtracts these flows of income to residents of other countries and adds in the overseas income of Scottish residents, to give a measure of output produced by Scottish labour and capital no matter where the production actually takes place. GDP and GNP can differ significantly (e.g. in Ireland) and, in some instances, GNP may give a more useful basis for analysis. Unfortunately, as far as we are aware, GNP figures are not available for Scotland.

a. A. G. Kemp and L. Stephen, 'The hypothetical Scottish shares of revenues and expenditures from the UK Continental Shelf 2000–2013', 2008, <http://www.scotland.gov.uk/Resource/Doc/133434/0061924.pdf>.

Figure 2. Total managed expenditure (TME) as a percentage of GDP: UK and Scotland



Sources: Government Expenditure and Revenue Scotland 2010–11; SNAP, Historical Fiscal Balance Calculations (Experimental); authors’ calculations.

If a population share of North Sea oil is apportioned to Scotland, it is clear that over the last 30 years the country has been spending more (as a share of GDP) than the rest of the UK. The difference was fairly stable in the 1980s and 1990s, averaging 5.4 percentage points for the 20 years. In the late 1990s and early 2000s, however, the gap increased, with public expenditure 8.6 percentage points higher as a proportion of GDP in Scotland than in the UK as a whole in 2003–04. The gap has recently narrowed, especially during the recession, averaging 6.0 percentage points in the last three years for which data are available.

The picture looks very different when a geographical share of North Sea oil is included in Scottish GDP. If this methodology is used, Scotland saw much lower levels of public expenditure as a proportion of GDP than the UK as a whole during most of the 1980s, with public spending averaging around 35% of GDP during the first half of the decade (more than 15 percentage points lower than if a population-based share of North Sea output is allocated to Scotland). This, of course, reflects both the scale of North Sea output in this period and the fact that non-oil GDP was performing badly in the early 1980s. On this basis, expenditure as a share of GDP looked similar in Scotland and the UK throughout the 1990s and 2000s. Scottish spending was slightly higher than that of the UK for the majority of the fiscal years in question, but the differences were small and did not

exceed 3 percentage points in any year. Higher oil prices in recent years mean that, since 2007–08, allocation of a geographical share of North Sea output leads to expenditure being a slightly lower fraction of GDP than in the UK as a whole.

Another, perhaps more direct, method of comparing public spending levels between Scotland and the UK as a whole is to look at public spending per capita. Spending is composed of that done directly by the UK government, by the Scottish government and by local government. According to GERS, spending by the UK government was the largest component of Scottish total expenditure on services (TES)¹⁰ in 2010–11 (£25.4 billion or 42% of TES in Scotland), with the largest component of this being spending on social security benefits, largely administered by the Department for Work and Pensions.

Spending managed by the Scottish government was £20.4 billion in 2010–11 (33% of TES in Scotland), the largest component of which is spending on the NHS (health). The remaining £15.5 billion of expenditure (25% of the total) is managed by local authorities (although most of this is funded by grants from the Scottish government), with the largest component being spending on schools.

Expenditure benefiting Scottish residents by all levels of government is estimated to total £11,801 per person in 2010–11, compared with £10,630 for the UK as a whole.¹¹ Note that this is in the context of average household disposable incomes in Scotland being very similar to those in the UK as a whole.

Spending is estimated to be higher in all categories included in GERS, with the exception of defence (which GERS allocated largely on a population basis to Scotland). Expenditure is especially high relative to the UK average in the following areas:

- enterprise and economic development (£157 per person vs £80 per person);
- agriculture, fisheries and forestry (£184 vs £84);
- transport (£521 vs £345);
- housing and community amenities (£340 vs £206);
- recreation, culture and religion (£301 vs £209).

¹⁰ Total expenditure on services consists of current and capital expenditure and is consistent with the departmental budgeting framework. It is generally around 95% of total managed expenditure, the measure of expenditure used in public finance statistics; the two are reconciled using an accounting adjustment including things such as depreciation.

¹¹ Based on mid-2010 population estimates (ONS, 'National population projections, 2010-based projections', available at <http://www.ons.gov.uk/ons/rel/npp/national-population-projections/2010-based-projections/index.html>).

In cash terms, however, the largest single component of the difference is higher expenditure on social protection (which includes benefits and tax credit expenditure, as well as spending on social services), at £4,030 versus £3,727 per person. Spending is especially high on personal social services for older people, probably reflecting, in part, the Scottish government's policy of free personal care for the elderly.¹² The other area where a clear policy difference has grown up since devolution is in tertiary education, where spending is about £70 a head higher in Scotland than in the UK as whole. Whilst it is tempting to see this as purely a result of differences in fees policies in Scotland and the rest of the UK, Scottish spending on tertiary education has significantly exceeded the UK average since at least 2002–03, prior to the introduction of top-up fees in England (and, if anything, the gap has shrunk since then).

Of course, there is some uncertainty over the allocation of some spending. The most substantial is in defence spending, which GERS essentially allocates such that per-capita spending appears, at about £630, the same in the UK and in Scotland. This reflects an assumption about where the benefit from national defence arises – the assumption made is that it is shared equally on a per-person basis. The allocation is not a measure of where defence spending actually occurs, nor of any benefit arising from employment, incomes and so on. In addition, of course, an incoming Scottish government might want to spend less. But it is important to put these uncertainties in context. Given that total spending per capita on defence is about half the difference in total per-capita spending between Scotland and the UK as a whole, different plausible ways of allocating defence spending would not qualitatively change the overall picture.

Overall, then, using GERS allocations, spending per capita is significantly higher in Scotland than in the rest of the UK, while household incomes are very similar. Public spending in Scotland as a proportion of its non-North-Sea GDP is also higher than UK public spending as a proportion of UK GDP. On the other hand, public spending as a proportion of GDP including North Sea output is similar in Scotland to that across the UK.

¹² However, because the Department for Work and Pensions has taken the decision that those in receipt of Scottish government funding to pay for personal care in a care home are not entitled to Attendance Allowance, the policy leads to somewhat lower spending on cash welfare benefits for older people, offsetting some of the additional spending on personal social services.

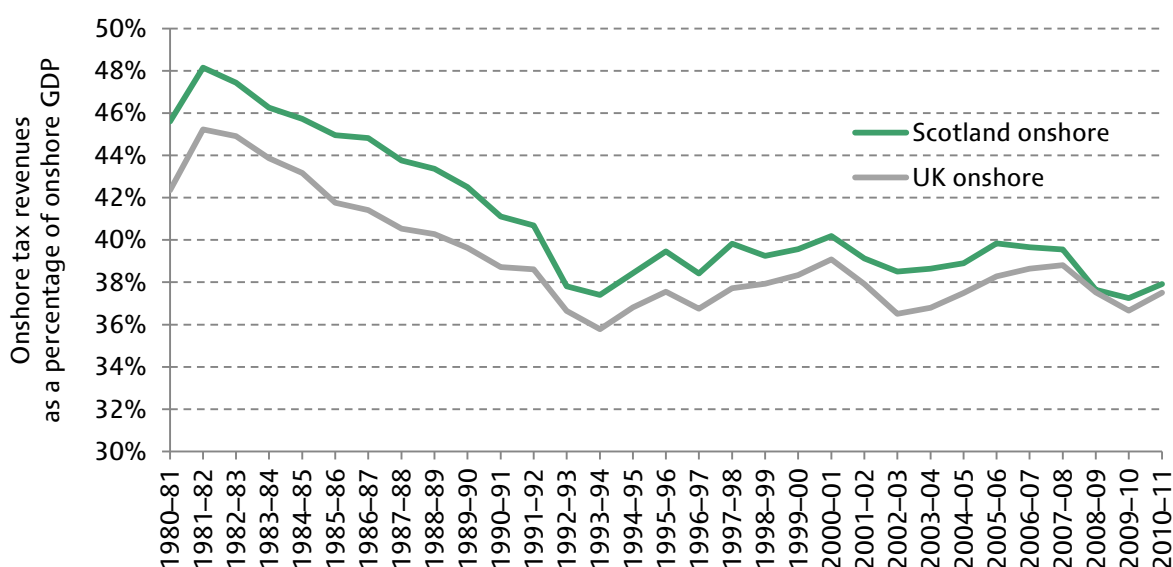
1.3 Tax revenues in Scotland

Government expenditure needs to be financed, either through taxation or other current revenues, or through borrowing (which adds to the stock of public debt and is paid back over time).

Ignoring North Sea taxes for now, 'onshore' tax revenues in 2010–11 were £45.2 billion (37.9% of Scottish onshore GDP) in Scotland compared with £542.9 billion (37.5% of onshore GDP) for the UK as a whole.¹³ This corresponds to £8,651 per capita for Scotland versus £8,719 per capita for the UK. That revenues per capita in Scotland are similar to those for the UK as a whole should not be surprising: overall levels of onshore economic output per capita – both gross domestic product (GDP) and gross value added (GVA) – are also similar (see Box 1 for GDP figures).

Although the figures for Scottish and UK non-North-Sea tax revenues relative to GDP are close to each other, they have not always been this similar. As Figure 3 illustrates, 30 years ago Scotland's onshore revenues as a share of onshore GDP were 3.3 percentage points higher than those in the UK. In 2010–11, this gap has shrunk to barely 0.4 percentage points. Part of the reason for this can be seen in Figure 4. Scottish GDP (excluding North Sea oil) has grown less quickly than UK

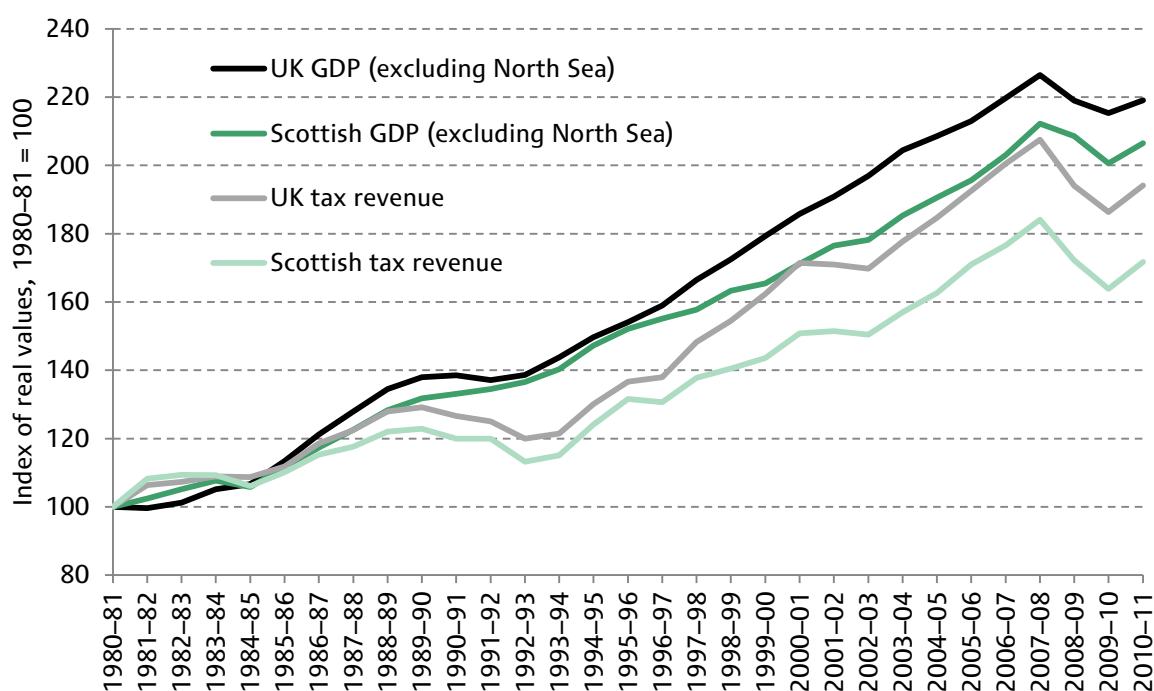
Figure 3. Onshore tax revenues as a percentage of onshore GDP, i.e. excluding North Sea



Sources: SNAP, Historical Fiscal Balance Calculations; tax revenue data from GERS 2010–11; authors' calculations.

¹³ Based on experimental data from the Scottish National Accounts Project and authors' estimations.

Figure 4. Onshore tax revenues and onshore GDP: index of real values, 1980–81 = 100

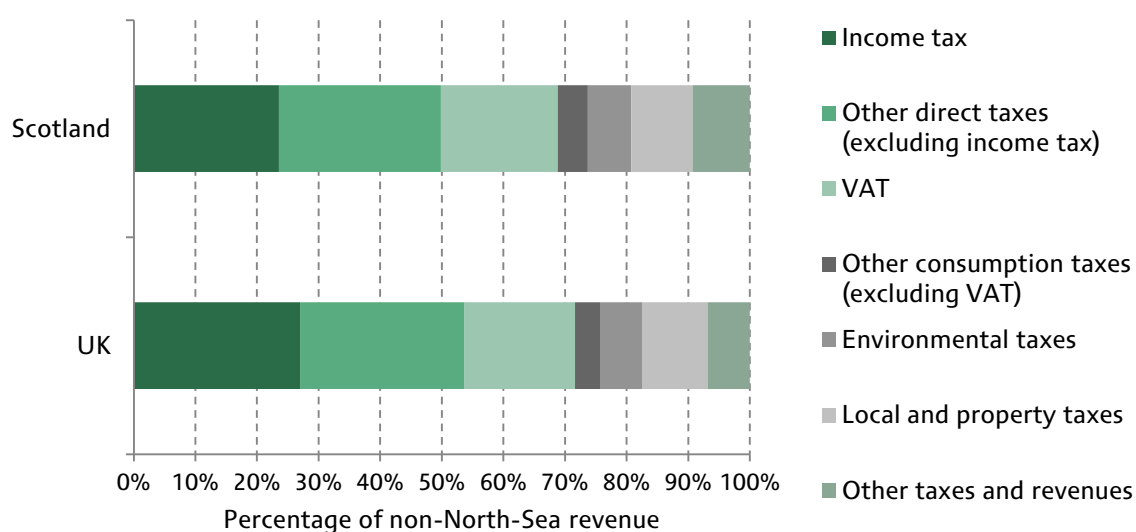


Sources: SNAP, Historical Fiscal Balance Calculations; North Sea revenue data from GERS 2010–11; authors’ calculations.

GDP over this period. With a tax system that is progressive overall, tax will be higher as a proportion of GDP when GDP is higher. Also apparent from Figure 4 is the faster growth in UK tax revenues in the late 1990s. This may be associated with growth in incomes of the very highest earners, notably in London-based financial services.

Figure 5 compares the make-up of non-North-Sea revenues in Scotland and the UK. The broad pattern is similar, with direct taxes forming the most important component in both Scotland and the UK. Income tax alone is responsible for approximately a quarter of onshore revenue, though its share of total non-North-Sea tax revenue is lower in Scotland (23.5%) than in the UK (27.0%), probably due to the greater incidence of individuals with very high incomes in England specifically. The other main direct taxes are National Insurance contributions and corporation tax. The former account for 17.7% of Scottish public revenue and a similar percentage in the UK. Corporation tax is more important for Scotland

Figure 5. Components of non-North-Sea tax revenue: UK and Scotland



Sources: Government Expenditure and Revenue Scotland 2010–11; authors’ calculations.

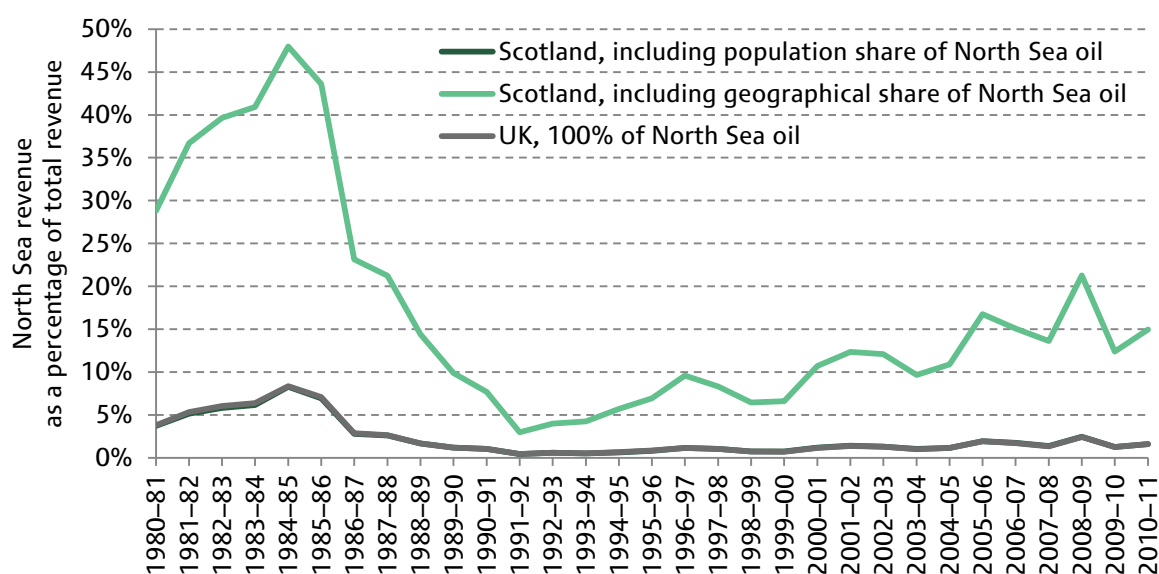
than for the UK, contributing to the total £596 and £557 per capita (or 6.9% and 6.4%) respectively.¹⁴

Overall, direct taxes other than the income tax are responsible for another quarter of onshore public revenue, bringing the total for this category to 49.9% and 53.7% for Scotland and the UK respectively. The second most important class of taxes is ‘consumption taxes’, which in 2010–11 were responsible for 23.8% of Scottish public revenue compared with 22.0% in the UK as a whole. Of these, by far the most significant is VAT, which alone generates 18.9% of Scottish public revenue – the second-highest share of all individual taxes. Environmental taxes add a further 7% to the total in both countries. While Scotland receives less of its revenue from local and property taxes (9.9% as opposed to 10.6%), the opposite is true for ‘other taxes and revenues’, for which the Scottish share exceeds that of the UK by 2.4 percentage points.¹⁵

¹⁴ Corporation tax revenues are estimated by applying the Scottish share of corporate profits in the ONS regional accounts to UK onshore corporation tax revenues, and adjusting for payments made by public corporations.

¹⁵ A large part of ‘other taxes and revenues’ is accounted for by ‘gross operating surplus’. For public sector corporations such as the Royal Mail, this is the difference between revenues and costs. For other parts of the public sector, such as the NHS, local government and schools, it is equal to estimated depreciation of capital. This is to balance depreciation included on the expenditure side of the government accounts.

Figure 6. North Sea revenue as a percentage of total revenue: UK and Scotland

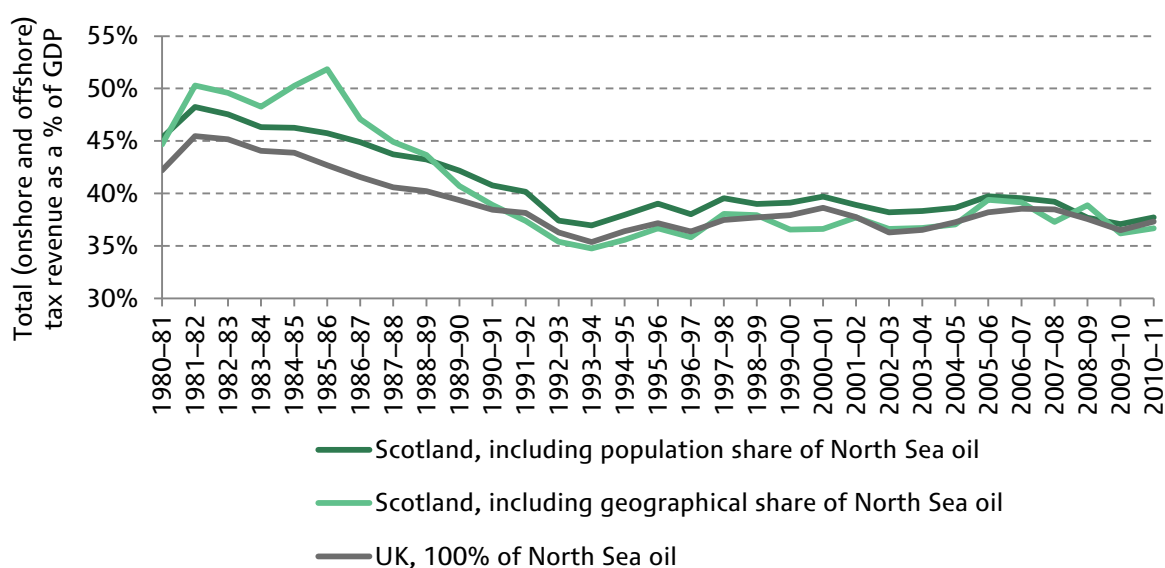


Sources: Government Expenditure and Revenue Scotland 2010–11; SNAP, Historical Fiscal Balance Calculations (Experimental); authors’ calculations.

The big difference between Scotland and the rest of the UK arises when considering taxes on the extraction of North Sea oil and gas, and allocating them geographically. On this basis, they accounted for 15% of Scottish and 1.6% of UK tax revenue in 2010–11, as shown in Figure 6. This is equal to £1,523 per capita in Scotland compared with £128 per capita for the UK as a whole.

Adding in output and revenues from the North Sea, Figure 7 shows total revenues as a proportion of GDP for Scotland and the UK. Of course, total revenues and revenues per capita are always greater when allocating a geographic share of North Sea revenues to Scotland. But, in interpreting this figure, it is important to note that changing how we treat the North Sea affects both the level of revenues and the level of output; therefore, attributing a geographic share of North Sea revenues and output to Scotland *increases* revenue as a proportion of GDP when the average tax rate on North Sea output exceeds that on onshore output, but *reduces* revenue as a proportion of GDP when the average tax rate on North Sea output is lower. It turns out that, with the exception of 2008–09 when high oil prices led to especially high profits and tax revenues from North Sea oil and gas, revenues as a proportion of GDP in Scotland have been lower on a geographic basis than on a population basis since 1989–90. On the geographic basis, revenues have been fairly similar proportions of GDP in Scotland and in the UK as a whole since 1990–91; revenues in 2010–11 were 36.7% of GDP in Scotland on a geographic basis versus 37.3% of GDP for the UK

Figure 7. Total tax revenues as a percentage of GDP: UK and Scotland



Sources: Government Expenditure and Revenue Scotland 2010–11; SNAP, Historical Fiscal Balance Calculations (Experimental); authors’ calculations.

as a whole. In contrast, in the 1980s – a long period of high profits and revenues from North Sea oil and gas – allocating a geographic share of North Sea output and taxes leads to revenues being much higher in Scotland than in the UK as a whole (with the difference peaking at over 9% of GDP in 1985–86).

1.4 The state of the Scottish public finances

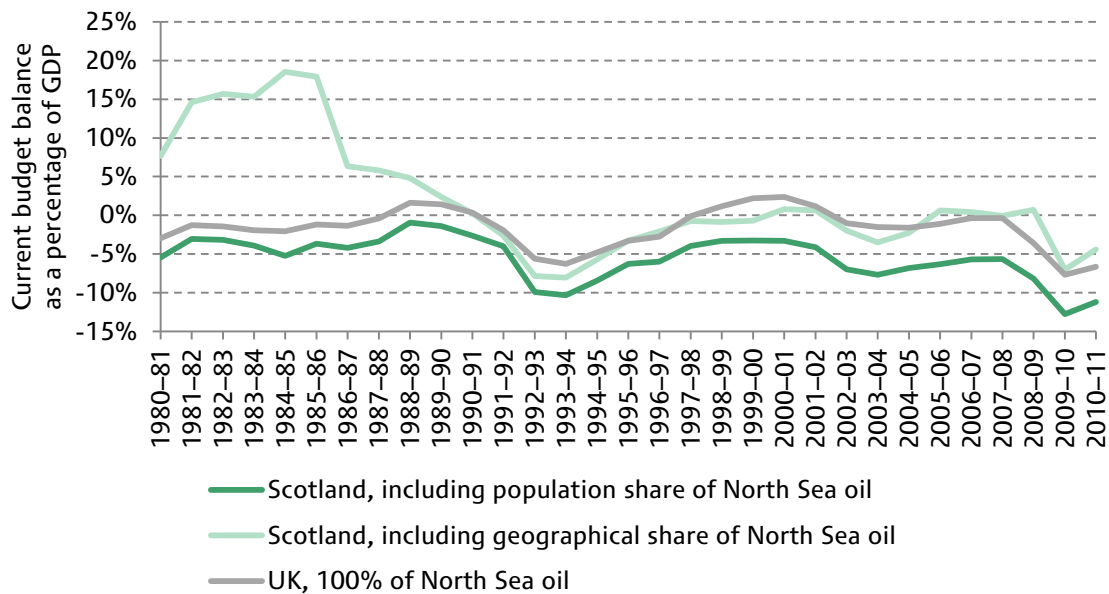
So what does this mean for Scotland’s notional fiscal position? We examine two commonly used measures of the fiscal position: the *current budget balance* and the *net fiscal balance*. The current budget balance refers to the gap between revenues and current expenditure (including depreciation). The net fiscal balance adds in net investment (i.e. capital expenditure minus depreciation) to obtain a more complete picture of how total spending compares with revenues (this is similar to what the UK government terms public sector net borrowing). What do Scotland’s public finances look like under these measures?

Figures 8 and 9 show the current budget balance and the net fiscal balance for Scotland (under the two assumptions about how North Sea revenues are treated) and the UK as a whole for the period 1980–81 to 2010–11.

Allocating a population-based share of North Sea revenues results in a position for Scottish public finances which (measured both by the current budget and by the net fiscal balance) has been weaker than that of the UK as a whole for the last 30 years, with the gap widening over time from around 2% of GDP in the early 1980s to around 5–7% by the mid-2000s. The gap exists because spending is

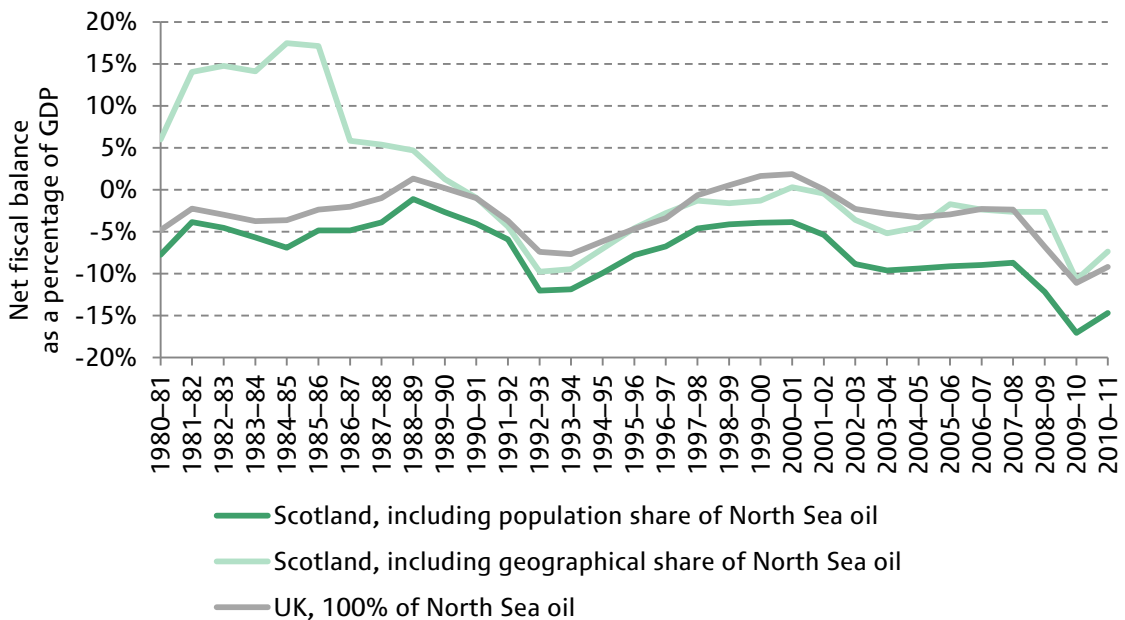
higher in Scotland. It has widened largely because, as we saw in Section 1.3, tax revenues have risen more slowly in Scotland.

Figure 8. Current budget balance as a percentage of GDP: UK and Scotland



Sources: Government Expenditure and Revenue Scotland 2010–11; SNAP, Historical Fiscal Balance Calculations (Experimental); authors’ calculations.

Figure 9. Net fiscal balance as a percentage of GDP: UK and Scotland



Sources: Government Expenditure and Revenue Scotland 2010–11; SNAP, Historical Fiscal Balance Calculations (Experimental); authors’ calculations.

Table 1. Current budget balance: UK and Scotland

Balance on current budget £ billion (% of GDP)	2006–07	2007–08	2008–09	2009–10	2010–11
Scotland, including North Sea revenue (population share)	–6.2 (–5.7%)	–6.6 (–5.6%)	–9.7 (–8.2%)	–14.6 (–12.8%)	–13.6 (–11.2%)
Scotland, including North Sea revenue (geographical share)	0.6 (0.4%)	–0.1 (–0.1%)	1.0 (0.7%)	–9.3 (–7.0%)	–6.4 (–4.4%)
UK	–5.0 (–0.4%)	–4.9 (–0.3%)	–50.5 (–3.6%)	–107.8 (–7.7%)	–97.8 (–6.6%)

Source: Government Expenditure and Revenue Scotland 2010–11.

Allocating Scotland a geographically-based share of North Sea revenues and output has a dramatic effect. Rather than looking worse than for the UK as a whole, Scotland’s public finances look to have been somewhat stronger than the UK’s in recent years. This is brought out more clearly in Table 1, which shows Scottish and UK current budget balances for the years 2006–07 to 2010–11 with the two different assumptions for how North Sea revenues are allocated. Where Scotland receives a geographical share of North Sea revenues, its fiscal position looked much stronger than that of the UK in 2008–09, fairly similar in 2009–10 and rather stronger again in 2010–11. Without the oil revenues, the Scottish fiscal situation would have looked substantially worse even than the UK’s own rather grim situation.

One can see from Figures 8 and 9, though, that, as with revenues, the difference made by the North Sea was much greater in the 1980s. With a geographical allocation, Scotland is estimated to have been in current budget and net fiscal surplus for each year between 1980–81 and 1989–90, with the current budget surplus averaging 10.9% of GDP per year and the net fiscal surplus averaging 10.1%. This was a much stronger position than for the UK as a whole, which had average current budget and net fiscal *deficits* of 1.0% and 2.1% of GDP, respectively, during the decade.

In the 1990s, however, lower oil prices and other factors led to lower North Sea revenues. This means that, even where allocated a geographical share, Scotland’s public finances were weaker than those for the UK as a whole: an average current budget deficit of 3.2% versus 2.1% for the UK as a whole (4.3% versus 3.3% net fiscal deficit). Since 2000, increases in oil prices mean that, on this basis,

Scotland's public finances are estimated to have been somewhat stronger than those of the UK: an average 1.5% versus 1.8% current budget deficit and an average 3.7% versus 3.8% net fiscal deficit).

2. The policy questions

The fiscal situation of Scotland over the short to medium run, then, can be summed up relatively straightforwardly. The UK as a whole is in a difficult fiscal position. Overall, Scotland has been in a slightly better, but broadly similar, position to that of the rest of the UK, if North Sea oil revenues are assigned to Scotland on a geographical basis. It reaches that position of broad equivalence with the rest of the UK through a combination of (non-North-Sea) GDP per capita, or income per person, very similar to that in the rest of the UK and (non-North-sea) tax revenues at a similar level per capita. Public spending per capita in Scotland is significantly higher than the UK average. This excess of spending is, in very broad terms and on average over recent years, slightly more than offset by additional revenues from the North Sea (if these are allocated on a geographical basis). Stripping out North Sea revenues, Scotland would be in a substantially more difficult fiscal situation than the UK as a whole.

So what questions might this analysis pose for the government of a newly independent Scotland? The following is a significant, but by no means comprehensive, list. And it is very much intended as just that – a list of questions. The idea is that these might form the focus of ongoing work over the next 18 months.

1. What sort of fiscal rules and institutions might a newly independent Scotland want to put in place?
2. Would a per-capita (or similar) share of the UK national debt alongside a budget deficit of a similar magnitude to that of the rest of the UK be sustainable for an independent Scotland?
3. What is the medium- to long-term outlook for Scottish public finances?
4. If a Scottish government wanted to run a tighter fiscal policy than it inherits, are there obvious areas for tax increases or spending cuts?

There are, of course, very many other issues that will matter for the Scottish economy, and ultimately for the health of its public finances: the conduct of monetary policy; the conduct of other aspects of economic policy including

regulation, not least of the financial sector; industrial policy; and so on. These are all outside the scope of this paper.

2.1 Fiscal rules and architecture

The UK government currently has two fiscal rules. The first – the forward-looking ‘fiscal mandate’ – states that the structural current budget must be forecast to be in balance or in surplus by the end of the rolling, five-year forecast horizon. In other words, after taking into account the estimated impact of the ups-and-downs of the economic cycle, total receipts should be projected to be equal to or greater than total non-investment spending. The second – the ‘supplementary target’ – states that public sector net debt as a share of national income should be falling at a fixed date of 2015–16. Compliance with these rules is adjudicated by the independent Office for Budget Responsibility. The government has required the OBR to publish (biannually) a judgement on whether current policy is consistent with these two fiscal rules.

Different governments have followed different fiscal rules. For example, until the crisis of 2008 hit, the previous Labour government also had two fiscal rules. The so-called ‘golden rule’ required that, *over the economic cycle*, the public sector borrow only what it needed to pay for capital investment, and finance its remaining current spending from tax and other revenues. Unlike the current government’s fiscal mandate, this was an essentially backward-looking rule – surpluses early in a cycle could be (and were) used to justify deficits later in the cycle. The second rule was the ‘sustainable investment rule’, which required the government to keep the public sector’s debt (net of its financial assets) at a ‘stable and prudent’ level. The Treasury defined this as less than 40% of national income (GDP) at the end of each financial year for the economic cycle that it believed began in 1999 (later revised back to 1997).

No practical fiscal rule will be optimal in all states of the world. And, as we saw in 2008 and may see again with respect to this government’s ‘supplementary target’, such rules are not necessarily adhered to when adverse economic conditions hit. But they do act both as a statement of intent and as a constraint on behaviour in ‘normal’ times. It is hard to imagine that a new Scottish government would not want to say something about its intent with respect to the public finances. There are (at least) four judgements that it would need to make. Three are about the overall fiscal architecture:

- What is its medium-term ambition with respect to the annual budget balance? This could look something like the current fiscal mandate or the last

government's golden rule. Unlike them, it need not refer only to current spending; it could include capital spending. It need not aim at balance but at some limited average deficit, particularly if capital spending is included. It could take its lead from rules set for eurozone countries. (The pros and cons of different types of rules in the UK context are set out in various IFS *Green Budget* documents.¹⁶)

- What is the limit of total debt that a Scottish government would be willing to accept and by when would it want to get there? The last Labour government targeted a maximum debt-to-GDP ratio of 40%. But there is nothing sacrosanct about 40% – it was essentially chosen as this was roughly the level the government inherited from the previous Conservative government on taking office in May 1997. The debt-to-GDP ratio is now rising towards 80% of GDP. It is higher in a number of other countries – particularly when the UK is compared with the wide set of leading industrial countries (rather than the narrower set of G7 economies).¹⁷ The current government is not targeting a particular level of accumulated debt – any particular number is inevitably somewhat arbitrary – but its current stated aim is that debt should be falling by 2015–16. There may also be good reasons to want to think about other liabilities – in particular, Private Finance Initiative (PFI) liabilities and Network Rail debts, but perhaps also public-service pension obligations – alongside public sector net debt. Government might want to consider a limit on the amount of future GDP that is pre-committed (which is ultimately what we care about). This would allow borrowing more to invest when long-term interest rates were low (since future debt interest payments, not the stock of debt, would be being targeted).
- Would a Scottish government set up a body with a similar role to that of the Office for Budget Responsibility? In the UK context, the OBR has brought welcome transparency to fiscal forecasts and has added credibility to government policy. If there are going to be fiscal rules, then an independent arbiter of whether policy is being set in a way that is consistent with them being adhered to is likely to be valuable. Certainly, it is far from clear that having the Chancellor make the economic and fiscal forecasts would be preferable to having independent experts make such judgements. On the

¹⁶ Available at <http://www.ifs.org.uk/budgets>. See, for instance, chapter 2 of Green Budget 2011, chapter 5 of Green Budget 2009 and chapter 3 of Green Budget 2008.

¹⁷ See Figure 10 later.

other hand, as it has turned out, the most difficult task facing the OBR has not been forecasting public finances as such, but rather forecasting the future path of the economy. It has not found this an easier task than any other forecaster has – and it is not the case that the official forecasts for the economy produced under the Labour government before the crisis struck were particularly overoptimistic (unlike its fiscal forecasts). There are also numerous questions around the precise scope for such a body. The OBR's terms of reference have been drawn relatively tightly (in contrast, for example, to the Swedish and Dutch equivalents). Would a Scottish government want a body with wider powers to evaluate the impact of government policies more widely, to consider the effects of different policy options and with a role with respect to the policies of opposition parties as well as those of the government of the day?

There is a fourth and fundamental question, though, about any fiscal rules implemented in a Scottish context: how should the revenue from North Sea oil be accounted for?

One could, of course, treat it the same as any other revenue stream. But in the context of fiscal rules, or clarity about the overall fiscal stance, there are at least two reasons for thinking that such revenue should be treated differently. In the first place, the revenues are volatile. They accounted for 21% of Scottish revenues in 2008–09 and 12% just a year later (on a geographical basis). Over a longer period, they have varied between a low of 3% of revenues in 1991–92 and a high of 48% in 1984–85. Secondly, best estimates are that revenues will decline over the longer run. For the UK as a whole, the OBR, in its latest fiscal sustainability report,¹⁸ expects revenues from oil and gas production to fall by over 80% between 2011–12 and 2022–23. Of course, there is a great deal of uncertainty around these projections, not least from the uncertain path of oil prices. And, in the context of an independent Scotland, there is uncertainty over where the costs of tax relief for decommissioning expenditure might be felt.

This is not the place to go into the details of the numbers, merely to ask how such revenues should be accounted for. The size and volatility of revenues would make any rule that counted them the same as other revenues very hard to adhere to every year. One could have a rule targeting a deficit which oil revenues would on average fill, ignoring fluctuations. This would certainly require a clearly and

¹⁸ OBR, *Fiscal Sustainability Report – July 2012*, 2012, available at <http://budgetresponsibility.independent.gov.uk/fiscal-sustainability-report-july-2012/>.

strongly independent body to provide a credible set of forecasts. One can see that such mechanisms could be designed to offset some of the effects of revenue volatility. But caution would need to be built into them and, since oil prices seem historically to have followed something closer to a random walk rather than oscillating around a well-defined trend, such a rule may be extremely hard to operationalise. And such rules would not account for the likely long-term downward path of revenues. Perhaps with even more importance than elsewhere, this would require credible long-term indications of how expected falls in revenue would be dealt with through tax increases or spending cuts. The alternative of saving oil revenues – not counting them at all in short-term budget calculations, and building up a fund (or lower debt) to cover, for example, later costs of ageing – does not seem to be an option in current fiscal circumstances. Even counting oil revenues, the best estimate is that Scotland in 2011–12 was running a significant deficit.

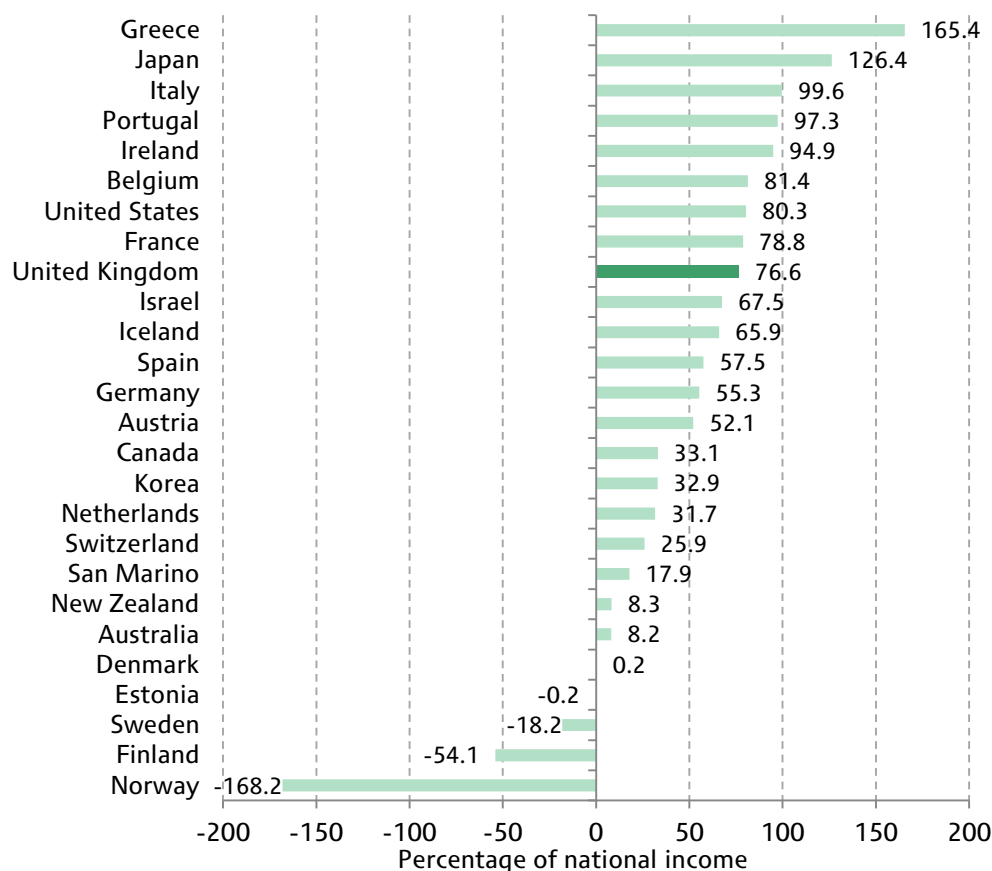
Given these constraints and uncertainties, one option might be to aim for cyclically-adjusted current budget balance ignoring oil revenues, at the end of a relatively long time horizon. It would certainly be very hard for Scotland to reach such a balance within, say, a five-year horizon. A long horizon may make credibility harder to achieve, making a strong independent arbiter of fiscal policy even more important. There is certainly scope for pursuing this sort of idea further and understanding what might be possible.

2.2 Debt sustainability

UK national debt is set to be approaching 80% of national income in 2015 and will be well over 70% of national income during the next few years. This is high by UK historical standards, and relatively high by current international standards as the IMF analysis presented in Figure 10 suggests. Annual borrowing also remains high. Nevertheless, the UK government is able to sell its debt unprecedentedly cheaply. The same is, of course, not true of a number of eurozone countries, for which the markets have more doubts about the sustainability of their fiscal stance.

The reasons for the UK's very low costs of borrowing appear to be threefold. One is the scale of the Bank of England's quantitative easing programme. A second is the high degree of credibility earned by this government and, over a long period,

Figure 10. General government net debt as a percentage of national income: all advanced economies, 2011



Source: IMF World Economic Outlook Database, October 2012, <http://www.imf.org/external/pubs/ft/weo/2012/02/weodata/index.aspx>.

by UK governments. The third is uncertainty in other countries and a flight of capital to the perceived safety of UK government debt.¹⁹

How debt would be apportioned between Scotland and the rest of the UK would be the subject of negotiations. Were public debt per head to be shared equally between Scotland and the rest of the UK, then given that income per head in Scotland including output from North Sea oil and gas is somewhat higher than the rest of the UK, an independent Scotland would inherit a somewhat lower debt to GDP ratio (but still a good two thirds of GDP). Apportionment on the basis of nation income would lead to Scotland inheriting a debt to GDP ratio equal to that of the UK. Given this, suppose a Scottish government were to inherit a debt-to-GDP ratio somewhat smaller or similar to that faced by the UK government.

¹⁹ For an extensive discussion, see S. Hayes, 'Fiscal vulnerability: a stocktake', in M. Brewer, C. Emmerson and H. Miller (eds), *The IFS Green Budget: February 2011*, IFS Commentary 117, 2011, <http://www.ifs.org.uk/budgets/gb2011/11chap3.pdf>.

Would the Scottish government face similar borrowing costs? This will be a very important question for the sustainability of the Scottish public finances. The answer will depend on a host of factors, including the announced fiscal stance of the government and the perceived credibility of this announcement, but crucially also on a host of other economic decisions.

If Scotland is to make the transition to independence, finding ways to minimise the costs of servicing this substantial debt burden will be crucial.

2.3 The medium- to long-term outlook

We have focused thus far on the fiscal situation and choices at, and in the first years after, independence. There is a sense in which this is of genuinely limited importance. It is long-term fiscal sustainability that really matters.

We know that long-term sustainability is a challenge in the UK context. The OBR has shown that demographic change alone will add 2.7% of GDP to the state pension bill and (at least) 2.3% of GDP to health costs.²⁰ This latter number assumes that health spending grows no faster than GDP other than as a result of ageing. It has grown faster than that over the past half century and longer. If the UK faces these pressures, then so will an independent Scotland. Indeed, current demographic projections suggest that Scotland will, if anything, face a more rapidly ageing population than will the rest of the UK.²¹

There remains work to be done to ascertain the scale of these challenges in a specifically Scottish context, but the choices facing an independent Scotland will be qualitatively similar to those facing the UK as a whole. The UK government has not yet said a great deal about how it would deal with these pressures. There are really only three choices. One is to increase the tax take as a proportion of national income. One is to cut and/or reform spending on pensions and health – the areas of spending where, inevitably, the largest increase in costs will occur as the population ages. The other is to cut or reform other areas of spending. An

²⁰ OBR, *Fiscal Sustainability Report – July 2012*, 2012, available at <http://budgetresponsibility.independent.gov.uk/fiscal-sustainability-report-july-2012/>.

²¹ ONS 2010-based population projections show an increase in the number of people of state pension age per 1,000 working-age adults from 316 in 2010 to 349 in 2035 and 372 in 2060 for the UK (accounting for the increases in the state pension age occurring during this period). In Scotland, it is projected to increase from 319 in 2010 to 376 in 2035 and 401 in 2060. (ONS, ‘National population projections, 2010-based projections’, available at <http://www.ons.gov.uk/ons/rel/npp/national-population-projections/2010-based-projections/index.html>.)

independent Scotland would be able to make these choices for itself – but make a choice it will need to do.

The other side of the long-term fiscal arithmetic is taxation. The OBR also draws attention to revenue risks to the UK, notably a likely loss from the taxation of petrol as cars become more efficient and eventually electric, as they will have to do if climate change targets are to be met. Given that Scotland looks likely to remain signed up to targets at least as challenging as UK targets, this revenue source is likely to fall in Scotland too. Risks to corporation tax and VAT receipts in the face of increased trade and competition also exist.

The big difference in the Scottish context is, once again, the importance of oil revenues to the Scottish budget and the likelihood that they will decline over time. It is on this side of the accounting ledger that Scotland's future may look more different from that of the rest of the UK. As we have seen, oil revenues are necessary at present to pay for current spending. So if they do fall significantly, the fiscal transition for Scotland may look more difficult than that for the rest of the UK. How much more difficult, how to account for the particular levels of uncertainty inherent in these revenue streams, and options for responding will need to be considered carefully.

2.4 Tax and spending options

If a Scottish government were to seek to address the relative imbalance between non-North-Sea-oil revenues and spending levels, it could of course make any number of decisions to raise taxes or cut spending. Independence would provide opportunities to make changes in areas hitherto reserved to the Westminster government – notably most of taxation, and major areas of spending including on social security and on defence.

We are not going to set out all the options here. We just note a few specific areas for consideration.

The biggest new area of responsibility in the fiscal firmament would, of course, be the design of the tax system. Were an independent Scotland to choose a long-term settlement with higher levels of (non-North-Sea) taxation than in the UK, then it would need to determine how to increase the tax take as efficiently as possible and in a way consistent with its distributional objectives. Even if looking only for current total revenues, substantial reforms are of course possible and, given the structure of the current system, some are certainly desirable. If the tax system is to do more work in terms of revenue-raising over the long run, then the

case for reform to increase efficiency becomes even stronger. Most of the issues facing a Scottish government in terms of improving the tax system would be similar to those facing the UK government. Numerous reform proposals, including those set out in the Mirrlees Review,²² exist. Independence could offer an opportunity for radical and effective tax reform, the long-term benefits of which could be substantial.

On the spending side, we have seen that per-capita spending is higher in Scotland than in the rest of the UK. The tax base is, in the long run, likely to be increasingly similar to that in the rest of the UK. If taxes are not raised, then some consideration will need to be given to the design and level of spending programmes. It is probably worth considering different types of programme in the context of independence:

- There are those, such as defence, where Scotland currently has no control over spending levels and where it is difficult to assign current spending between countries. An independent Scotland may feel that it has a different set of needs and priorities from the UK, which is a high spender by European standards.
- Spending on social security is also outside Scotland's current control, though it is easily assigned between countries. Again a Scottish government might have different priorities from a UK one and, at almost one-third of public spending, it is an area where significant changes could potentially raise large sums – or, indeed, cost significant amounts.
- There are some programmes, such as higher education and personal social services, where spending per capita is higher at least in part because of deliberate policy decisions made since devolution.
- For others, such as transport and economic development, spending may be higher partly as a matter of historical accident and partly reflecting greater needs.
- There are also cross-cutting areas of spending, notably on public sector pay, where independence might provide an opportunity to re-evaluate whether levels are appropriate.

The agenda for further work in all of these areas is extensive.

²² J. Mirrlees, S. Adam, T. Besley, R. Blundell, S. Bond, R. Chote, M. Gammie, P. Johnson, G. Myles and J. Poterba, *Tax by Design: The Mirrlees Review*, Oxford University Press for IFS, 2011, available at <http://www.ifs.org.uk/mirrleesReview/design>.

3. Conclusions

Independence would provide Scotland with an opportunity to set its own fiscal course. In common with all countries, it would face constraints and would have to make – sometimes uncomfortable – choices.

In broad terms, the short-run outlook for an independent Scotland looks as if it might be no more uncomfortable than that for the UK as a whole (assuming geographic assignment of oil revenues). The crucial unknown would be whether the financial markets might assess risk differently and thus raise the cost of the borrowing.

In the longer term, the choices may be starker. Spending in Scotland is higher, per capita, on many public services than is the case elsewhere in the UK. Onshore tax revenues per capita are very similar. The balance is, in very broad terms, made up by North Sea revenues. This balance may not be sustainable in the face of volatile and, over the long run, probably diminishing North Sea revenues. That, alongside the same sort of demographic pressures that are affecting the UK and most other European countries, will force some choices on an independent Scotland. These choices – over fiscal rules and architecture, about how to design an effective tax and spending system, about how to plan for long-term pressures – are the same ones that all countries need to make. The next step must be to set out and quantify them in the Scottish context.