# SUNDAY TIMES REPORT

Analysis of the fiscal balance of an independent or fiscally autonomous Scotland.

CPPR, December 2009

# **Executive Summary**

1. As the debate on Scotland's fiscal challenges grows, understanding what additional fiscal autonomy might mean for Scotland's citizens similarly grows. Unfortunately, the official data that is available to help assess the potential pros and cons remains seriously limited. As a means of helping to identify just what data now needs to be made available, this brief report calculates the fiscal prospects of a more autonomous Scotland. In deriving the provisional estimates of Scotland's fiscal balance up to 2011-12 the report also highlights the major uncertainties underpinning them.

The calculations show that, post 2007-08<sup>1</sup>:

- **excluding** North Sea revenues, Scotland has a higher fiscal deficit than the rest of the UK (RoUK), amounting to around an extra 6-7 % of GDP
- **including** North Sea revenues, Scotland's position reflects the shifting fortunes of the oil price; the high price of 2008 results in a relatively lower Scottish fiscal balance; but with lower oil prices in late 2008 this positive differential disappears in 2009-10 only to re-emerge, to a lesser extent, from 2010-11 onwards. However, in general, Scotland is forecast to be in relatively the same, poor, position as the RoUK.
- 2. In addition, if 50% of North Sea revenues were saved as part of an 'Oil Fund' and 50% used in the budget of the same year, the short-term impact would be a considerable worsening of the deficit from 2010-11 onwards, worth around another  $2\frac{1}{2}$  % of GDP.
- 3. The 'static' position analysed above could be changed considerably if (a) a more autonomous Scotland decided to alter the revenue and or expenditure side of the equation, or (b) the economy grew more quickly/slowly than the RoUK.
- 4. The situation is further complicated by great uncertainty over future Scottish debt, in terms of (a) how Scotland's share of existing UK debt would be calculated, (b) the status of the large government bail-outs to the financial sector in the UK that are on-going, and (c) how international markets would react to 'Scottish' originated debt.
- 5. As a result of such uncertainties it would be desirable if, prior to any referendum for example, each political party proposing major changes to the existing set-up, either through independence or full fiscal autonomy, set out what major policy changes it foresees as happening in relation to:

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<sup>&</sup>lt;sup>1</sup> 2007-08 is the latest date for which approved Scottish Government data exist on both government revenues and expenditures (see GERS, 2009).

- the share of oil revenues which would be diverted into an 'Oil Fund', and how any resulting short-term revenue gap would be dealt with
- any major changes to revenue tax rates, that could affect the residency decisions of individuals and companies
- any major changes to expenditure spending patterns, especially in terms of benefit levels.
- 6. The fewer major changes planned to the existing fiscal structure in Scotland, the more that the calculations made in this report are likely to reflect the future fiscal fortunes of a more autonomous Scotland and the RoUK.

#### Introduction

This report looks at what the possible fiscal balance of an independent or fully fiscally autonomous Scotland might be, along with the corresponding fiscal balance for the remainder of the UK. Although the debate on greater fiscal powers for Scotland grows, the evidence to illustrate whether or not this shift would be to Scotland's advantage does not yet exist.

Definitive evidence may not be forthcoming due in part to the potential for changes to Government policy in both Scotland and the Rest of the UK (RoUK), and in part to the uncertainty over who owns North Sea oil production and the path for international oil prices. Indeed, the future is even more uncertain at present on account of the global economic distress and consequent ballooning fiscal deficit and debt levels in most countries<sup>2</sup>.

The following calculations aim to offer a useful insight into what the relative fiscal balances of Scotland and the RoUK might be given the currently available supporting evidence.

The short report looks at the fiscal balance<sup>3</sup> (i.e. including capital) for the UK, Scotland and the RoUK rather than the current balance, as the former is the more relevant measure and reflects better the international measure that is typically used in this area of analysis. It looks at both the absolute and relative positions of Scotland in comparison to the RoUK up to 2011-12.

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<sup>&</sup>lt;sup>2</sup> The worsening of the Fiscal Balance's shown for the later years of this report is in part due to an initial increase in benefits related expenditure (e.g. associated with higher unemployment) and increased debt interest payments but is principally caused by the recessionary impacts on government revenues, particularly in relation to reduced receipts associated with the financial services and housing markets.

<sup>&</sup>lt;sup>3</sup> The fiscal balance is the net financial position of the government after gross expenditure is taken away from gross revenues, i.e. if gross revenues are greater than gross expenditure then there is a fiscal surplus, if expenditure is greater than revenues then there is a net deficit.

## <u>Position up to 2007-08 (i.e. based on the Scottish Government's latest</u> Government Expenditure and Revenue Statement (GERS))

Tables 1a, 2a and 3a show the net balance between total government revenue and expenditure (ie, the fiscal balance) for the UK, Scotland and the RoUK respectively, from 2003-04 to 2007-08. The main features of these tables are summarised in Table A below:

Table A: UK, Scotland and Rest of UK fiscal balances (including North Sea revenues) as a share of GDP, 2007-08 to 2011-12<sup>1</sup>

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
UK	-2.9%	-3.3%	-3.0%	-2.3%	-2.4%	-6.6%	-12.6%	-12.0%	-9.1%
Scotland <sup>2</sup>	-5.4%	-4.6%	-1.8%	-2.1%	-2.7%	-3.3%	-12.5%	-11.4%	-8.8%
Scotland (K-S) <sup>2</sup>								-11.6%	-9.2%
Scotland inc Oil Fund <sup>2</sup>									-11.3%
Rest of the UK	-2.6%	-3.2%	-3.1%	-2.3%	-2.4%	-7.0%	-12.6%	-12.0%	-9.1%

<sup>1</sup> Data up to 2007-08 consistent with published GERS. Data after 2007-08 are forecasts based on PBR09 data.

#### Table A shows that:

- even including North Sea revenues, the fiscal balance of all three has been negative throughout the period 2003-04 to 2007-08;
- whilst the deficit as a % of GDP for the UK and the RoUK varied between -2.4% and -3.2%, the Scottish deficit has been markedly more variable, ranging from a low of -5.4% of GDP in 2003-04 to a high of -1.8% in 2005-06;

Including North Sea revenues<sup>4</sup> highlights the significant variability of government revenues that are reliant on the fortunes of international oil prices. When prices were relatively low in this period i.e. in 2003-04 and 2004-05, Scotland's fiscal balance was worse than the UK's by 1½ to 2½ percentage points of GDP. However, as the oil price rose subsequently this differential disappeared and in 2005-06 Scotland was in a relatively better position than the RoUK by over 1 percentage point of GDP.

As Figure 1 shows, the real price of oil has varied significantly in the last 40 years, reaching its all time high of an average of \$130 per barrel in 1979. Its annual average peak in sterling of £60.50 per barrel was achieved in 1984 and the average for 2009 is less than £40 per barrel, boosted in part by the collapse of the £ against the dollar in 2009 but largely reduced by the 40% fall in the

<sup>2</sup> Data for 'Scotland' and for 'Scotland inc Oil Fund' is consistent with HMT PBR'09, while oil revenue data used for 'Scotland K-S' is consistent with the Kemp-Stephens forecasts (see Annex for details).

<sup>&</sup>lt;sup>4</sup> See Annex for details on how such revenues are assumed to be distributed across the UK.

world dollar oil price between 2008 and 2009. Relying on a revenue stream that can be this variable would need careful planning.

Excluding North Sea revenues, Scotland has a noticeably higher fiscal deficit than the RoUK, worth around an extra 6-7% of GDP (see Tables 2a and 3a).

#### Position post 2007-08

Tables 1b, 2b and 3b show estimates of the fiscal balance position for the UK, Scotland and the RoUK respectively, from 2007-08 to 2011-12. (Details on how these figures are arrived at can be found in the Annex.)

The summary results in Table A above show that:

- including oil revenues, the relatively better Scottish fiscal deficit position in 2008-09 reflects higher oil prices. When such prices were very high Scotland's fiscal deficit was over 3 percentage points of GDP lower than the RoUK but, as the oil price fell in late 2008, this differential disappears, only to re-appear in later year (but at less than 1% of GDP);
- two different estimates of North Sea revenues post 2009-10 have been used. The former (table 2b) is taken from the latest H.M. Treasury forecasts, while the latter (table 2c) is consistent with those made in 2008 by Kemp-Stephens and based on different assumptions for the oil price and for the £-\$ exchange rate. The latter estimates for oil revenues are slightly lower than the HMT ones but do not significantly change the overall results;
- the importance of North Sea oil revenues to these future relative positions is highlighted by two factors. The first is changes in oil price assumptions. Had the Budget Report projections from April 2009 been used, instead of December's PBR projections, then the small relative advantage Scotland achieved would have been reversed to be in the RoUK's favour. The second is that oil revenues are projected to decline as a share of GDP in the PBR'09 which could mean that by 2014-15, the relative advantage would revert back to the RoUK;
- excluding oil revenues, the Scottish position continues to be relatively worse than for the RoUK, by over 7% of GDP post 2008-09.

### **Creating a Scottish Oil Fund under current circumstances**

The previous calculations have assumed that all North Sea revenues are used contemporaneously to help balance the government's fiscal budget. However, the Scottish Government has discussed the possibility of saving a proportion of each year's North Sea revenues to build an "Oil Fund". The intention being that this would grow over time and that more and more of the government's North Sea related revenues would then come from interest on these savings rather than directly from taxed output.

Table 2d shows the short term impact on Scotland's fiscal balance assuming 50% of North Sea revenues were to be allocated to such an Oil Fund, with the remaining 50% being used to support annual public sector spending.

Not surprisingly, such an allocation of North Sea revenues of this amount leads to a worsening of Scotland's fiscal balance, in 2011-12 for example from -8.8% to -11.3% of GDP<sup>5</sup>.

In the longer term, it is anticipated that such a decline in fiscal fortunes would be offset by increasing interest income from the Oil Fund. However, it is difficult to imagine anything other than an awkward period for the fiscal balance in the transition phase as the Fund grows. To maintain existing spending levels the Scottish Government could perhaps seek to fill any funding gap through a temporary recourse to greater borrowing. However, such an approach would need to be carefully assessed given the likelihood that interest payments on any borrowings might be higher than what was received on the savings in the Fund.

Alternatively, the 50% allocation to a Fund could be accommodated by cutting back, initially, on public services until such times as the interest received on the Fund grew to permit increased public spending.

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<sup>&</sup>lt;sup>5</sup> Note: the impact of an Oil Fund has only been considered from 2011-12 onwards as this seems likely to be the first possible year that such an arrangement might come into being.

## Revenue and Expenditure choices and Static vs Dynamic analyses

The previous calculations have assumed that the fiscal balance of a fiscally autonomous or independent Scotland could be calculated by disaggregating the existing UK fiscal balance. However, this 'static' analysis could be altered for two major reasons.

First, a more autonomous Scotland could decide to alter the revenue and /or expenditure side of the equation.

For example, on the expenditure side<sup>6</sup> it might amend its implied share of the UK's defence spending. Removing Trident is an obvious area where this might happen, but other more conventional defence spending could also be scaled down, or equally scaled up to compensate for the removal of Trident. The other most obvious potential change here would be to future benefit levels (pensions, unemployment etc).

On the revenue side, all of the major tax sources (income tax, corporation tax, hydrocarbons tax, VAT etc) are open for reassessment in terms of the rates at which they are levied.

As a result, there would be scope for considerable variation in both the revenue and expenditure side which could either widen or narrow the existing fiscal deficit or change the make-up of it.

Second, the relative fiscal fortunes of a more autonomous Scotland would be affected by whether the economy grew more quickly or more slowly than the RoUK. If it grew more slowly this would restrict the funds available for public spending (assuming they remained at the current share of GDP), or would require additional levels of borrowing. Alternatively, if Scotland grew more quickly this would increase the funds available for public spending (again assuming public spend as a share of GDP remains fixed), or allow for a faster reduction in public debt levels.

The effect of these different economic 'dynamics' could be considerable over time and the compound impact of even small changes in the (faster/slower) growth rates could be significant. However, it is not clear exactly what changes to public spending or tax rates would induce a higher growth rate.

Overall, changes to the dynamics of growth can impact seriously on the future fiscal balance of Scotland, but it is not possible to unequivocally discern in

<sup>&</sup>lt;sup>6</sup> These expenditure changes ignore the possible one-off and on-going expenditure pressures resulting from the need to set up separate Scottish institutions in the event of independence or the on-going loss of economies of scale.

advance of greater autonomy what the scale, direction or timing of that impact might be.

#### **Scottish Public Sector Debt issues**

There has always existed a fair degree of uncertainty over what size of public debt an independent or more fiscally autonomous Scotland would inherit.

Would this be simply its population share of UK debt? If so, then in 2011-12 it might be around £125bn (i.e. 8.4% of the UK public sector net debt total of around £1500bn projected in the PBR 2009).

However, the UK and Scottish Governments might argue that this share should be adjusted either upwards, due to the higher than population share of expenditure traditionally spent in Scotland, or downwards, in order to take into account the oil revenues from Scottish waters aggregated over the past. This then begs the question of how far back into the past any such recalculation should go?

The situation is further complicated at present by the, not insignificant, government support to the financial sector in the UK that are on-going and which involve two 'Scottish' or part-'Scottish' banks – RBOS and Lloyds-HBoS.

Such a situation makes it very difficult to disentangle the debt components of the UK into anything like neat geographical packages. Furthermore, in the event of a fiscally autonomous or independent Scotland it is not clear which jurisdiction any UK-wide organisation, like RBOS for example, would wish to be considered for tax, and support, purposes.

Another aspect of this question involves how Scottish debt would be treated in the international markets. In particular, what terms and conditions would apply to Scottish debt, principally the associated interest rate attached? This, in turn, would be associated with a Scottish currency's provenance, be it independent, within the euro or continue to be pegged to the £-sterling.

Furthermore, the existing Treasury projections for public sector net borrowing as a % of GDP imply that both the remainder of the UK and an independent or fiscally autonomous Scotland would have very high deficits in comparison with other countries. Whether the markets would respond in a similar fashion to debt issuance by the resultant relatively large and small states is again uncertain.

This is, therefore, both a very important element of any future financial set up but also not one where much independent evidence exists to help in any judgement at present.

#### **Knowns and Unknowns**

The previous calculations have highlighted a number of elements that are important in the understanding of this subject.

On the 'Knowns' side:

- the greater variability in Scotland's net fiscal position should it rely on North Sea revenues to part fund its current public spending
- the relatively poorer fiscal balance in Scotland (versus the RoUK) without North Sea revenues
- the trade-off between using current North Sea revenues to help narrow the fiscal deficit versus investing them in an Oil Fund for future generations

However, these 'Knowns' are clearly dominated by the 'Unknowns':

- the (dollar and sterling) oil price as well as levels of output from the North sea
- Scotland's share of such North Sea oil (and gas) production
- the size of Scotland's share of UK public debt, with or without the current Bank bailouts included
- the future performance of a more autonomous Scottish economy
- the shape/pattern of Scottish Government revenues and expenditures

# **Summary and Conclusions**

This brief report has illustrated the many difficulties inherent in calculating the fiscal prospects of a more autonomous Scotland. Bearing these difficulties in mind, Table A illustrated the implications for the fiscal balances of the UK, Scotland and the Rest of the UK under full fiscal autonomy or independence.

The table highlights the similarities of the relative fiscal deficits forecasts as a share of GDP. Only when an Oil Fund is inserted for Scotland does a noticeable differential appear. However, as past years show these results can be highly dependent on oil prices.

To understand better what this state of being might mean requires much greater detail than currently exists. As a result, prior to any possible referendum, each political party proposing major changes to the existing fiscal arrangements,

either through independence or full fiscal autonomy, should set out what major policy changes it foresees as happening.

In particular this would apply to:

- the share of oil revenues which would be diverted into an 'Oil Fund', and how this revenue gap would be dealt with (in terms of lower expenditure or higher taxes or higher borrowing)
- any major changes to revenue tax rates that could affect the residency decisions of individuals and companies
- any major changes to expenditure spending patterns, especially in terms of benefit levels
- what debt levels would be required and how these would be funded

The fewer major changes planned to the existing fiscal structure in Scotland, the more that the calculations made in this report are likely to reflect future fiscal fortunes of a more autonomous Scotland and the RoUK.

# APPENDIX

# **UK's Fiscal balance**

Table 1a: United Kingdom fiscal balance, ACTUAL, £billion, nominal prices

	2003-04	2004-05	2005-06	2006-07	2007-08
Government Revenues	422.4	452.6	486.5	519.3	548.0
Government Expenditure	455.6	492.5	524.2	550.1	582.7
Balance inc North Sea revenues*	-33.2	-39.9	-37.7	-30.8	-34.7
North Sea revenues	4.3	5.2	9.4	9.1	7.8
Balance exc North Sea revenues	-37.5	-45.1	-47.1	-39.9	-42.5
Balance inc North Sea revenues as a % of GDP	-2.9%	-3.3%	-3.0%	-2.3%	-2.4%
Balance exc North Sea revenues as a % of GDP	-3.3%	-3.8%	-3.8%	-3.0%	-3.1%

<sup>\*</sup> net borrowing from UK Pre Budget Report 2009

Table 1b: United Kingdom fiscal balance, FORECAST, £billion, nominal prices

	2007-08	2008-09	2009-10	2010-11	2011-12
Government Revenues	548.0	532.4	498.1	530.0	576.0
Government Expenditure	582.7	627.8	675.7	706.0	716.0
Balance inc North Sea revenues*	-34.7	-95.4	-177.6	-176.0	-140.0
North Sea revenues	7.8	12.9	7.0	8.4	8.8
Balance exc North Sea revenues	-42.5	-108.3	-184.6	-184.4	-148.8
Balance inc North Sea revenues as a % of GDP	-2.4%	-6.6%	-12.6%	-12.0%	-9.1%
Balance exc North Sea revenues as a % of GDP	-3.1%	-7.7%	-13.4%	-12.8%	-9.9%

<sup>\*</sup> net borrowing from UK Pre Budget Report 2009

# Scotland's Fiscal balance

Table 2a: Scotland fiscal balance, ACTUAL, £billion, nominal prices

	2003-04	2004-05	2005-06	2006-07	2007-08
Scottish Government Revenues	35.0	37.4	40.1	42.7	45.2
Scottish Government Expenditure	44.2	46.9	50.2	53.1	56.3
Balance exc North Sea revenues	-9.2	-9.5	-10.1	-10.4	-11.1
North Sea revenues	3.5	4.3	7.9	7.7	7.3
Balance inc North Sea revenues	-5.7	-5.2	-2.3	-2.7	-3.8
Balance EXC North Sea revenues as a % of GDP	-10.1%	-9.9%	-10.0%	-9.6%	-9.8%
Balance INC North Sea revenues as a % of GDP	-5.4%	-4.6%	-1.8%	-2.1%	-2.7%

Table 2b: Scotland fiscal balance, FORECAST, £billion, nominal prices

	2007-08	2008-09	2009-10	2010-11	2011-12
Scottish Government Revenues	45.2	43.5	41.1	43.7	47.5
Scottish Government Expenditure	56.3	60.5	65.1	68.0	69.0
Balance EXC North Sea revenues	-11.1	-17.0	-24.0	-24.3	-21.5
North Sea revenues	7.3	12.3	6.3	7.6	7.9
Balance INC North Sea revenues	-3.8	-4.7	-17.7	-16.8	-13.6
Balance EXC North Sea revenues as a % of GDP	-9.8%	-14.8%	-21.3%	-20.7%	-17.4%
Balance INC North Sea revenues as a % of GDP	-2.7%	-3.3%	-12.5%	-11.4%	-8.8%

Table 2c: Scotland fiscal balance using Kemp-Stephen oil estimates, FORECAST, £billion, nominal prices

	2007-08	2008-09	2009-10	2010-11	2011-12
Scottish Government Revenues	45.2	43.5	41.1	43.7	47.5
Scottish Government Expenditure	56.3	60.5	65.1	68.0	69.0
Balance EXC North Sea revenues	-11.1	-17.0	-24.0	-24.3	-21.5
North Sea revenues	7.3	12.3	6.3	7.3*	7.3*
Balance INC North Sea revenues	-3.8	-4.7	-17.7	-17.0	-14.2
Balance EXC North Sea revenues as a % of GDP	-9.8%	-14.8%	-21.3%	-20.7%	-17.4%
Balance INC North Sea revenues as a % of GDP	-2.7%	-3.3%	-12.5%	-11.6%	-9.2%

Table 2d: Scotland fiscal balance with 50% OIL FUND, FORECAST, £billion, nominal prices

	2007-08	2008-09	2009-10	2010-11	2011-12
Scottish Government Revenues	45.2	43.5	41.1	43.7	47.5
Scottish Government Expenditure	56.3	60.5	65.1	68.0	69.0
Balance EXC North Sea revenues	-11.1	-17.0	-24.0	-24.3	-21.5
North Sea revenues	7.3	12.3	6.3	7.6	4.0*
Balance INC North Sea revenues	-3.8	-4.7	-17.7	-16.8	-17.5
Balance EXC North Sea revenues as a % of GDP	-9.8%	-14.8%	-21.3%	-20.7%	-17.4%
Balance INC North Sea revenues as a % of GDP	-2.7%	-3.3%	-12.5%	-11.4%	-11.3%

<sup>\*</sup> North Sea revenues are only 50% of the total Scottish share from 2011-12 onwards

# Rest of UK's Fiscal balance

Table 3a: Rest of UK fiscal balance, IMPLIED ACTUAL, £billion, nominal prices

	2003-04	2004-05	2005-06	2006-07	2007-08
Government Revenues	383.1	410.1	437.0	467.6	495.0
Government Expenditure	411.4	445.6	474.0	497.0	526.3
Balance exc North Sea revenues	-28.3	-35.5	-36.9	-29.5	-31.4
North Sea revenues	0.8	0.9	1.5	1.4	0.5
Balance inc North Sea revenues	-27.5	-34.7	-35.4	-28.1	-30.9
Balance exc North Sea revenues as a % of GDP	-2.7%	-3.2%	-3.2%	-2.4%	-2.5%
Balance inc North Sea revenues as a % of GDP	-2.6%	-3.2%	-3.1%	-2.3%	-2.4%

Table 3b: Rest of UK fiscal balance, IMPLIED FORECAST, £billion, nominal prices

	2007-08	2008-09	2009-10	2010-11	2011-12
Government Revenues	495.0	476.0	450.0	477.9	519.7
Government Expenditure	526.3	567.3	610.6	638.0	647.0
Balance exc North Sea revenues	-31.4	-91.3	-160.6	-160.1	-127.3
North Sea revenues	0.5	0.6	0.7	0.8	0.9
Balance inc North Sea revenues	-30.9	-90.7	-159.9	-159.2	-126.4
Balance exc North Sea revenues as a % of GDP	-2.5%	-7.1%	-12.7%	-12.1%	-9.2%
Balance inc North Sea revenues as a % of GDP	-2.4%	-7.0%	-12.6%	-12.0%	-9.1%

#### Annex - Details on data and calculations for Tables 1-3.

#### A. UK

#### 2003-04 to 2007-08

- UK Government revenue total taken from ONS data series
- UK Government expenditure (TME) total taken from PESA table 1.1
- GDP (including extra regio) taken from ONS data series
- North Sea Revenues taken from (i) GERS 2009 and (ii) Kemp-Stephens report
- Extra-regio GDP provided by Scottish Government statisticians

#### 2008-09 to 2011-12

- UK Government revenue total taken from PBR'09 table B13
- UK Government expenditure (TME) total taken from PBR'09 table B13
- GDP (including extra regio) taken from PBR'09 table B1
- North Sea Revenues taken from PBR09 tables B10 and B11
- Extra-regio GDP estimated by CPPR as a constant (2.23%) share<sup>7</sup> of UK GDP

#### B. Scotland

#### 2003-04 to 2007-08

All Scottish Government revenue and expenditure data taken from Government Expenditure and Revenue Statement (GERS) 2009

#### 2008-09 to 2011-12

- Scottish Government revenue total calculated as a constant share (8.37%) of UK revenues (excluding North Sea revenues)
- Scottish Government expenditure total calculated as a constant share (9.63%) of UK expenditure
- GDP (excluding extra regio) calculated using same growth as for UK GDP (excluding extra regio). GDP (including extra regio) estimated by adding on a constant (90%) share of UK extra regio GDP
- North Sea revenue calculated as constant share (90%) of UK total from 2009-10 onwards, in line with the Kemp-Stephens report. For 2008-09 the ratio is higher, at 95% again in line with K-S and due to the impact of the higher oil price at that time.

<sup>&</sup>lt;sup>7</sup> Note: all of the constant shares (with respect to extra regio GDP and the Scottish share of UK revenues, expenditure and NS revenue) used for projections post 2007-08 are based on an average of the shares over the period 2003-04 to 2007-08. These shares show a relatively small degree of variation over this period so using a central estimate should provide a good guide to future shares. The only exception to this general rule is North Sea GDP forecasts, which are difficult to predict. The impact of this uncertainty on the fiscal balance as a share of GDP will be negligible for the UK but could have a greater impact on Scotland, particularly in high oil price years. However, the impact on later years, with a lower oil price, are unlikely to be very large.

# C North Sea revenues

## 2010-11 to 2011-12

The Kemp-Stephen estimates have been used.

# **D Oil Fund estimates - 2011-12 only**

50% of the Scottish share of oil revenues only are used to calculate the fiscal balance, the other 50% going towards the start of the building up of an Oil Fund.

## E Rest of the UK

#### 2002-03 to 2011-12

Data calculated as UK minus Scotland

#### **Glossary and Definitions**

North Sea/Continental Shelf/Extra Regio

Discussion of oil revenues is complicated by the different terms used.

The North Sea is the source of most of the UK's hydrocarbon related revenues but is only part of the Continental Shelf (which also includes, for example, small oil resources in the Irish Sea). Extra Regio is a term that incorporates all output and income related to offshore activity. This includes both Continental Shelf activity as well as some Public Administration and Defence (PAD) activity. However, for most intents and purposes all the three can be used interchangeably as they are all dominated by the oil and gas output and revenue related to the North Sea.

Full Fiscal Autonomy (also known as 'Devolution Max')

This relates to the full and complete devolution of tax raising powers to Scotland. This is different to the partial devolution of such powers as put forward by the Calman Commission or by Reform Scotland.

#### Hydrocarbon Revenue Forecasts

Forecasts for revenues from oil and gas relating to North Sea activity are included in the Budget and Pre-Budget Reports. A recent (2008) estimate was also made by Kemp-Stephens (K-S) of Aberdeen University. This paper concentrates on showing estimates based on the HMT forecasts, as they are consistent with the latest HMT forecasts for other revenue and expenditure totals. However, the K-S data is also used and results reported in the accompanying tables.

# References

GERS 2009
Budget Report 2009
Pre Budget Report 2009
Scottish Economic Statistics 2009
Kemp-Stephens Report, 2008, 'The Hypothetical Scottish Shares of Revenues and Expenditures from the UK Continental Shelf 2000-2013'



