

**Scotland Office Background Paper
Time Series Analysis of Government Expenditures and Revenues in Scotland.
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Time Series Analysis of Government Expenditures and Revenues in Scotland

1) Introduction

This short background paper draws on estimates from the Scottish Executive/Government's '*Government Expenditure and Revenue Scotland*' (GERS) publication to look at Scotland's fiscal balance over time.

Over its 15 years of existence, the *Government Expenditure and Revenue in Scotland* data has been steadily improved, especially so in the past two editions. The GERS data places Scotland in a unique position within the United Kingdom, as estimates of tax receipts on a geographical basis are not derived for any other country or region.

The main findings from this analysis of a time series of GERS data are:

- Fiscal transfers from the rest of the UK to Scotland in the period from when devolution began in 1999-2000 to 2007-08 are estimated to total £75.8 billion. This represents a benefit of the pooling of risks and resources across the United Kingdom.
- Scotland's public finances exhibit a structural fiscal deficit, having not been in surplus since 1980-81.
- Even adding all tax revenues from oil and gas production for *all* of the UK reduces but does not eliminate this deficit over time. For the period 1980-81 to 2007-08, the cumulative net deficit, after adding tax receipts from *all* UK offshore oil and gas production, amounts to £23.5 billion.
- Notwithstanding the success of devolution, the UK Government retains a large and direct role in the provision of public services in Scotland. Spending by the UK Government on reserved matters, either directly in Scotland (such as on pensions, tax credits or research council funding) or on behalf of Scotland at the UK level (for example defence and overseas representation) amounts to 40% of the total of all Government expenditures in or on behalf of Scotland.
- The largest single item of expenditure in Scotland each year by either the UK or Scottish Governments is on social protection - such spending by the UK Government amounted to £12,647m in 2007-08.
- The scale and importance of UK Government social protection expenditure to Scotland is emphasised by comparing it to the total expenditure by the Scottish Parliament. In the past 6 years, UK Govt social protection expenditure corresponds to between 45% and 39% of the total expenditure by the Scottish Parliament.
- Total spending by the UK and Scottish Governments in Scotland currently amounts to 145% of the total of Scottish tax receipts. Hence a fiscally autonomous Scotland would be dependant on the continuance of a fiscal transfer from the UK to maintain current levels of public spending. Equally, a fiscally autonomous Scotland could not make any contribution towards the provision of goods provided at the national level, such as defence, the regulation of markets or overseas representation whilst maintaining current levels of public expenditure.
- The deficit between Scottish tax receipts and the sum of UK Government expenditure on social protection payments plus the entire budget of the Scottish Parliament was around £6.2 billion on 2007-8, equivalent to around £2,700 per household.

2) Scotland's Fiscal Balance Over Time

Table 1 presents the GERS results since devolution. Under the GERS methodology, expenditures include those by the UK Government, the Scottish Parliament and Ministers and Local Government. The UK Government expenditure includes spending determined as "identifiable" and also that considered as "non identifiable". The former relates to direct expenditure by the UK Government in Scotland, for example by the DWP on social protection payments. The latter (non identifiable) expenditure relates to a proportionate share of spending by the UK Government which relates to all of the UK, for example on defence or overseas representation.

(£ millions)	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	total
Aggregate Govt Receipts in Scotland	29,570	30,386	31,186	32,664	35,022	37,369	40,095	42,674	45,191	324,157
SG estimate of Geographical share of UKCS (pre-2002 based on 82.5%)	2,182	3,791	4,618	4,232	3,522	4,329	7,861	7,664	7,320	45,519
Total Receipts with UKCS estimate	31,752	34,177	35,804	36,896	38,544	41,698	47,956	50,338	52,511	399,935
Aggregate Govt Expenditure in Scotland (inc GERS accounting adjustments)	33,986	35,641	38,868	40,711	44,227	46,917	50,232	53,068	56,285	399,935
Net fiscal balance	-4,416	-5,255	-7,681	-8,046	-9,206	-9,548	-10,137	-10,394	-11,094	75,777
Net fiscal balance including SG estimate of UKCS oil receipts	-2,234	-1,464	-3,064	-3,815	-5,683	-5,219	-2,276	-2,730	-3,774	30,259

Source: Annual GERS publication

Table 1: Scotland's Fiscal Balance since devolution

Overall, this table indicates that the totality of government expenditure in or on behalf of Scotland consistently exceeds the estimates of all government receipts. Indeed, the arithmetic summation of Scotland's fiscal balance since devolution shows an accrued deficit of £75.8 billion. That is to say, there appears to be a structural fiscal deficit in Scotland.

In accordance with established practice, these receipts exclude tax revenues relating to offshore oil and gas production. Including estimates of a geographical share of these taxes prepared by Aberdeen University for the Scottish Government reduces the accrued fiscal deficit since devolution to £30.3 billion. The relationship of offshore oil and gas production in the UK Continental Shelf (UKCS) on Scotland's fiscal balance is further explored in section 4 below.

Scottish Public Sector Expenditure and Revenue and Social Protection

The GERS estimates, especially those incorporating the most recent methodological improvements, incorporate the UK Government resource accounting methodologies. Hence both the revenues and the expenditures allow for a number of non cash items such as depreciation. Whilst not necessarily more accurate, it can be instructive to isolate tax receipts accruing to central government from the other revenues estimated in GERS to identify Scotland's fiscal capacity to finance public services. This is especially relevant when considering some form of fiscal autonomy which would see taxes devolved to the Scottish Parliament and public services in Scotland becoming dependant on the associated receipts.

Again, whilst not strictly comparable, an assessment of a fiscally autonomous Scotland's capacity to deliver public services and maintain current levels of social transfer payments can be reached by comparing this estimate of tax receipts with the expenditure of the Scottish Parliament and the reserved element of Social Protection payments made in Scotland. Table 2 presents this, and related analyses, for the past 6 years.

£ million	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Estimated Scottish Receipts of UK Taxes¹	27,680	29,788	32,003	34,152	36,558	38,692
Scottish Government Expenditure	22,485	24,697	25,837	28,192	30,245	32,322
Total UK Govt Expenditure in Scotland	16,427	17,663	18,788	19,554	20,022	21,013
GERS Accounting adjustment	1,798	1,868	2,292	2,486	2,801	2,949
Total Govt Expenditure Scotland	40,711	44,227	46,917	50,232	53,068	56,285
<i>Of which: UK Govt Expenditure on Social Protection</i>	<i>10,033</i>	<i>10,983</i>	<i>11,534</i>	<i>11,829</i>	<i>12,120</i>	<i>12,647</i>
UK Govt Expenditure as % of Total Government Expenditure in Scotland	40%	40%	40%	39%	38%	37%
UK Govt Social Protection Spending as % of Scottish Government Expenditure	45%	44%	45%	42%	40%	39%
(Scottish Govt Expenditure + UK Govt Social Protection Spending) as % of Scottish tax receipts	117%	120%	117%	117%	116%	116%
Total Govt Expenditure as % of Scottish Tax receipts	147%	148%	147%	147%	145%	145%

Sources: Scottish Government GERS 2006-7 and 2007-8

Table 2: Comparison of Selected Scottish Expenditures and Revenues

¹ This is the sum of the GERS estimates of receipts from all HMRC collected taxes in Scotland, plus Vehicle Excise Duty. It excludes resource accounting items such as depreciation and gross operating surplus and UKCS tax receipts, but includes income from Non Domestic Rates as these are part of the Scottish Parliament's budget.

A number of particular points might be highlighted from table 2:

- Notwithstanding the success of Devolution, the UK Government retains a very large and direct role in the provision of public services in Scotland. Whilst the Scottish Parliament is accountable for around 60% of the total of Government spending in or for Scotland, the UK Government is responsible for the remaining 40%.
- the largest element of identifiable expenditure by the UK Government in Scotland relates to Social Protection. This includes spending by the DWP on pensions, disability allowance, Job Seekers Allowance and other benefits and spending by HMRC on, for example, Child Benefit and Trust Fund payments and child and working tax credits.
- The scale and importance of UK Government social protection expenditure to Scotland is emphasised by comparing it to the total expenditure by the Scottish Parliament. In the past 6 years, UK Govt social protection expenditure has corresponded to between 45% and 39% of the total expenditure by the Scottish Parliament.

The results from table 1 and table 2 illustrate how a fiscally autonomous Scotland would be dependant on the continuance of a fiscal transfer from the UK to maintain current levels of public spending. At the same time, a fiscally autonomous Scotland could not make any contribution towards the provision of goods provided at the national level, such as defence, the regulation of markets or overseas representation, whilst maintaining the same levels of public expenditure.

The scale of social protection payments made by the UK Government in Scotland is of particular note, especially given that there is some correspondence between certain social protection measures and National Insurance Contributions (NICs). NICs in Scotland were the 3rd largest tax revenue stream in 2007-8, worth an estimated £7.8 billion, significantly less than the £12.6 billion payments made. This underlines that social protection spending is one of the principal tenets of the economic union between Scotland and the rest of the UK.

Maintaining a nationwide UK social security system facilitates the sharing of risks and resources across the economy. It automatically transfers resources from the more prosperous localities to the more needy. The alternative would see any increased demands on social protection funding within a smaller economy to be more directly linked to the very time tax receipts in that locality are diminishing. By way of example, the deficit between Scottish tax receipts and the combined expenditure by the Scottish Parliament and UK Government social protection payments was around £6.2 billion on 2007-8, equivalent to around £2,700 per household.

Social protection spending on pensions and pensioner tax credits will become increasingly important to Scotland, given the increasing dependency ratio within Scotland. This contrasts to elsewhere in the UK, and one would therefore expect these social transfers to become more significant given the relative age profiles of the Scottish and UK populations.

3) Scotland and Oil

The Scotland Office paper *Scotland and Oil*, published in June 2009, concluded that Scotland had a public sector deficit in every year since 1980-81 if no Scottish share of oil revenues are included in estimates of taxes raised in Scotland. Section 1 of this paper provided further analysis of this in the period since devolution.

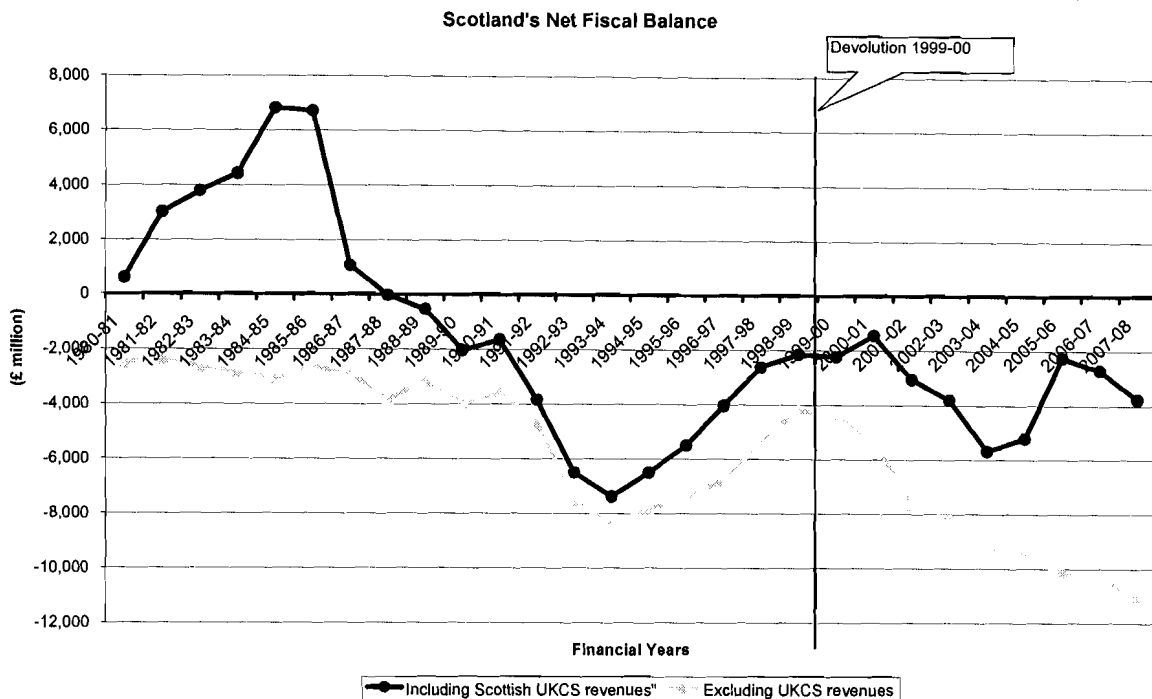
This analysis reflects that the oil and gas resources in the UK's waters (the UK Continental Shelf or UKCS) are considered to be national assets. This is in turn consistent with the UK practice of collecting all tax receipts (excepting local property taxes) centrally and then allocating resources nationally. Operating a national tax system enables a unified tax system to operate within the UK which in turn, is a fundamental feature of the single market within the United Kingdom. Indeed assessments of Scotland's fiscal balance within the Scottish Government's *Government Expenditure and Revenue in Scotland* (GERS) publication are largely based on estimated tax receipts in Scotland as revenues from national taxes are not ascribed on a regional basis.

The *Scotland and Oil* paper provided estimates of Scotland's fiscal balance if *all* UK oil and gas taxation revenues were added to the estimate of tax revenues in Scotland. This illustrative analysis can now be extended to cover a further year of data (2007-08) published in GERS 2007-08. A arithmetical estimate of the cumulative Scottish fiscal deficit for the period 1980-81 to 2007-8 would now be £23.5 billion.

However, the GERS publication now includes estimates of a geographical share of UKCS revenues. This percentage share will not be constant over time, and it reflects that not all UKCS activity is in what might be termed as "Scottish" waters. Adding this geographical share of oil and gas tax receipts has an impact on the estimates of Scotland's fiscal balance (depicted in Chart 1 overleaf) in that it would have changed Scotland's fiscal balance to a surplus during the period 1980-81 to 1986-87, and the outstanding deficit for every year since 1988-89 would have been reduced.

Whilst the GERS results allows this modelling to be performed to consider Scotland's fiscal balance under various scenarios, the apportioning of oil and gas taxation revenues to the Scottish budget would represent not just a substantial change from the present centralised collection of taxes within the UK, but would also have a fundamental constitutional implication. The Independent Expert Group supporting the Commission on Scottish Devolution reflected this when they observed:

"The assignment of a Scottish share of UK oil taxation revenues might be expected to have major implications for the grant from the UK Government which currently forms the basis for the Scottish Government's budget. The [current block grant] from the UK Government [to the Scottish Parliament] could clearly be reduced".



Source: GERS 2003-04 to 2007-09

Chart 1: Scottish Estimated Net fiscal balance, excluding and including estimates of Scottish geographical share of UKCS tax receipts²

Chart 1 confirms that assigning tax receipts from UKCS oil and gas production to the Scottish budget would reduce but not eliminate the Scottish fiscal deficit. But as both the Commission on Scottish Devolution's Independent Expert Group and the *Scotland and Oil* paper noted, it would also introduce a very large level of revenue risk to the Scottish budget. Even when *all* oil and gas revenues are fully allocated to Scotland (which is erroneous given the extent of production off The Wash, Humber Estuary, Morecambe Bay etc) the result would change only marginally, i.e. Scotland would have had a net fiscal surplus for one additional year, in 1988-89.

Oil and gas receipts are equivalent to between a quarter and a third of the entire budget of the Scottish Parliament. Indeed year on year differences in the past three years have corresponded to 20% of the Scottish Parliament's budget. This contrasts with the entire UK's oil and gas taxation revenues corresponding to 2.5%, 1.5%, and 1.7% of UK tax receipts in the same period.

Chart 1 also clearly demonstrates the difficulty in establishing an oil fund should the Scottish budget become directly dependant on UKCS receipts. Scotland's fiscal balance is such that the oil and gas receipts would be needed to maintain a fiscal balance, leaving none to be invested in the fund.

² Illustrative geographical share GERS and 82.5% of CS revenue for pre-1999-01