

# Financial Scrutiny Unit Briefing

## The Size of the Public Sector

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On most measures the public sector comprises a larger share of the economy in Scotland than in the rest of the UK. However the size of the public sector can be measured in different ways including public expenditure expressed as a percentage of economic output, government current consumption as a share of all current consumption and public sector employment as a share of all employment.

This briefing explains these terms, provides Scottish data for each measure, shows how the data have changed over recent years, and provides comparisons with the whole of the UK.



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## EXECUTIVE SUMMARY

The scale of government involvement in the economy can be measured in a variety of ways. This briefing considers the merits and limitations of three such measures: public spending as a percentage of GDP; government consumption as a percentage of total consumption; and public sector jobs as a percentage of all jobs.

Data for each of these are presented for Scotland and the UK. In line with the convention adopted by the Treasury, the data have been adjusted to exclude the effect of the nationalisation of financial institutions.

The figures show that since 1999 and ignoring the output of North Sea oil and gas, public spending relative to GDP has been consistently higher in Scotland than in the whole of the UK but that the gap has been narrowing. When a geographic share of North Sea oil and gas is included in Scottish GDP then there is a much smaller difference relative to the UK and, since 2004-05, public spending in Scotland expressed as a percentage of GDP has been less than in the whole of the UK.

Government current consumption as a share of total current consumption in Scotland has risen over the period and has remained consistently above the figure for the whole of the UK.

Public sector jobs as a percentage of all jobs in Scotland is also consistently higher in Scotland than in the UK. Since 1999 the number of public sector jobs in Scotland increased slightly faster than the total number of jobs in Scotland but increased more slowly than public sector jobs in the whole of the UK.

## BACKGROUND

Public expenditure in the UK expressed as a percentage of Gross Domestic Product (GDP) increased from 37.2% in 1998-99 to 43.9% in 2008-09 and is forecast to be over 47% in the current financial year. Public expenditure in Scotland relative to GDP excluding North Sea oil and gas has also increased over this period but from a higher base. However, including North Sea and oil and gas in Scottish GDP has the effect of significantly reducing public expenditure relative to GDP.

This briefing does not discuss the merits of more or less public spending or a larger or smaller public sector but attempts to provide factual information on public expenditure, public consumption and public sector jobs in Scotland. It also shows how the figures have changed in recent years and provides comparisons with the UK. The effect of the partial nationalisation of the two major Scottish banks is also discussed.

## DEFINITIONS

In making comparisons, it is clearly important that the data being compared refer to the same thing. However, comments on the size of the public sector often quote different measures as though they were interchangeable.

The following are useful in describing different aspects of government activity:

- Public expenditure as a percentage of GDP measures how much is **spent** by government, funded either by taxes or by borrowing, expressed as a percentage of total domestic output
- Government consumption as a percentage of total final consumption measures how much of total final consumption is **consumed** by government acting on behalf of citizens, either individually or collectively
- Public sector employees as a percentage of all workers is an indication of the size of the public sector and hence, given certain assumptions about value added per employee in each sector, how much of total output is **produced** in the public sector

## PUBLIC EXPENDITURE AS A PERCENTAGE OF GDP

Public expenditure as a percentage of Gross Domestic Product is the most frequently quoted of the three measures. It has the merit that, for most countries, statistics on total government expenditure and GDP are readily available at the national level; statistics are collected and presented in a reasonably consistent manner through time and between countries; and the concept is widely used, if not always fully understood.

Public expenditure as a percentage of GDP purports to show the proportion of national output spent by government. But public expenditure covers the cost of providing services e.g. health, education, defence; and transfer payments e.g. pensions, job seekers allowance, interest payments. While the distinction may be immaterial to the taxpayer, the economic impact is different. Transfer payments leave the final spending decision with the recipient of the payment while provision of public services is decided on behalf of users with the service often provided by the public sector. Public expenditure as a percentage of GDP therefore invariably exceeds the proportion of national output consumed by government.

Because transfer payments are included in both public spending and private spending and because total spending in the economy is much more than total value added, public expenditure of, say, 40% of GDP does not imply that private expenditure or the size of the private sector is only 60%.

On the other hand, public expenditure does not include income raised through charges for goods and services provided by public corporations e.g. Scottish Water or the Post Office. Thus, public expenditure as a percentage of GDP differs from the proportion of national output produced by the public sector. It measures how much of national output is raised in taxes plus borrowed by government but it is only one measure of the scale of government economic activity.

Public expenditure as a percentage of GDP is most useful as a measure of the level of taxation (and public borrowing) relative to the output of the economy. However, due to the inclusion of transfer payments and the exclusion of the output produced and sold by publicly owned bodies, it is not of itself a good measure of the size of the public sector.

## **GOVERNMENT CONSUMPTION AS A PERCENTAGE OF TOTAL FINAL CONSUMPTION**

Government consumption as a percentage of total final consumption is a measure of how much of the domestic consumption of goods and services is determined by government. Government consumption covers the cost of goods and services provided by government to the citizen and paid for by taxation and, possibly, borrowing rather than by charges to the user. Examples are health services, education and defence. It excludes transfer payments and excludes services which are paid for directly by the user rather than funded by taxation, even though the goods or services may be produced by the public sector e.g. services provided by the Post Office. Total final consumption, i.e. the denominator in this calculation, excludes

- intermediate consumption by industry as the value is included in the final product
- expenditure by foreign tourists when in the host country
- capital expenditure by government and the private sector on the basis that capital is not consumed when the item is first purchased but used up gradually over the life of the item. Thus, the depreciation in capital values is included in the cost of consumption.

Government consumption as a percentage of total final consumption is, therefore, a good measure of the scale of government activity funded by taxes. However it gives no indication of the scale of transfer payments or level of taxation.

## **PUBLIC SECTOR JOBS AS A PERCENTAGE OF ALL JOBS**

The ratio of public sector jobs to all jobs is a truer indicator of the size of the public sector as it ignores the effect of transfer payments and takes account of market outputs produced by public corporations. Again, the concept is widely understood but it assumes that, on average, public sector and private sector jobs have equal economic weights.

The reason for using jobs rather than the value of the output is that, for outputs financed by taxation, there is usually no market price which can be used to convert outputs into money for comparison with the rest of GDP. And calculating value added is notoriously difficult to measure for services which are not widely traded such as health, education and defence. Work is being done by the Office of National Statistics to improve the measurement and valuation of public sector outputs (Atkinson, 2005) and the Office of the Chief Economic Adviser of the Scottish

Government has introduced output measures in its GDP estimates for education, health and care services. Such estimates have not been made for the whole of the public sector and therefore jobs are still used as an indicator of the size of the public sector.

## FINANCIAL SECTOR INTERVENTIONS

As a result of the financial crisis the UK government has taken a major stake in several banks including RBS and Lloyds Banking Group. At 31 March 2010, the government owned 83% of RBS, 41% of Lloyds Banking Group and 100% of Northern Rock. For national account purposes RBS and LBG have been classified as part of the public sector since October 2008 and Northern Rock since October 2007.

Public Expenditure Statistical Analysis 2010 (Treasury, 2010) treats the nationalisation of these financial institutions as temporary and excludes the effects on public expenditure aggregates. This convention has been followed in this briefing. For information, the nationalised banks employ about 1.5% of the total labour force in Scotland and 0.8% across the UK (Scottish Government, 2010c; ONS, 2010).

## TRENDS: SCOTLAND AND UK

### PUBLIC EXPENDITURE

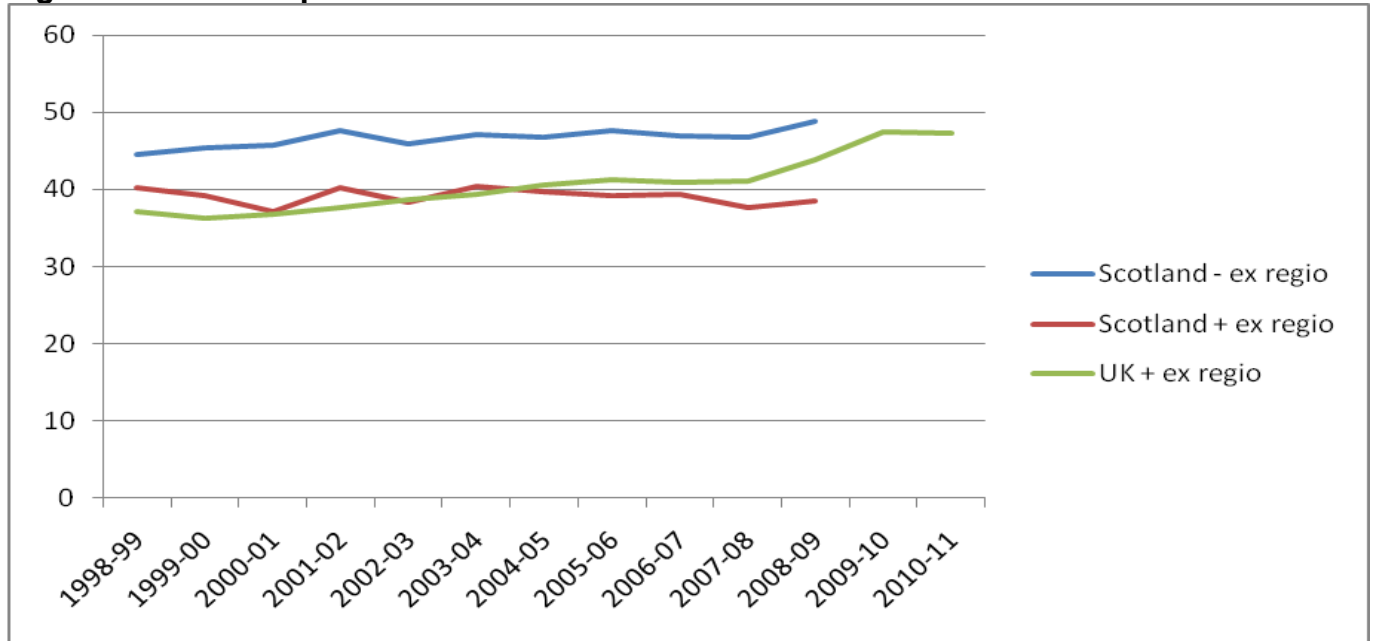
Table 1 and Figure 1 show Scottish Public Spending in cash terms and expressed as a percentage of Scottish GDP excluding and including the value added arising from activities associated with the production of oil and gas in the Scottish sector of the North Sea (referred to as extra regio in national accounts). UK figures are shown for comparison.

**Table 1: Public expenditure as a % of GDP: Scotland and UK**

	Scottish Public Spending £m <sup>1</sup>	Scottish GDP - ex regio £m <sup>1</sup>	Scottish GDP + ex regio £m <sup>1</sup>	Scottish Public spending as % of GDP - ex regio	Scottish Public spending as % of GDP + ex regio	UK Public spending as % of GDP +ex regio <sup>2</sup>
1998-99	32,316	72,420	80,092	44.6	40.3	37.2
1999-00	33,986	74,789	86,697	45.4	39.2	36.3
2000-01	35,641	78,033	95,850	45.7	37.2	36.8
2001-02	38,868	81,627	96,608	47.6	40.2	37.7
2002-03	38,912	84,864	101,436	45.9	38.4	38.6
2003-04	42,360	89,877	104,815	47.1	40.4	39.4
2004-05	44,518	95,297	112,262	46.7	39.7	40.5
2005-06	47,677	99,893	121,497	47.7	39.2	41.2
2006-07	50,093	106,844	127,611	46.9	39.3	40.9
2007-08	53,205	113,934	141,363	46.7	37.6	41.1
2008-09	55,761	114,184	144,658	48.8	38.5	43.9
2009-10						47.5
2010-11						47.3

Sources: 1 Scottish Government SNAP, 2 HM Treasury

**Figure 1: Public expenditure as a % of GDP: Scotland and UK**



Sources: 1 Scottish Government SNAP, 2 HM Treasury

Excluding North Sea oil and gas from Scottish GDP then public expenditure relative to GDP has been 5-10 percentage points higher in Scotland than in the UK. When North Sea oil and gas are included in Scottish GDP on a geographic basis then the difference has been in the range 3% more to 5% less than in the UK.

## GOVERNMENT CONSUMPTION

Table 2 and Figure 2 compares government current consumption as a percentage of total final current consumption for Scotland and the UK. Scottish figures are derived from the Scottish Input – Output tables.

Government consumption has been taken as the sum of central and local government final consumption expenditure. Total final consumption expenditure is the sum of current consumption by households, by not for profit institutions serving households e.g. charities and by central and local government. Consumption by foreign tourists is excluded.

**Table 2: Government consumption as a share of all consumption: Scotland and UK**

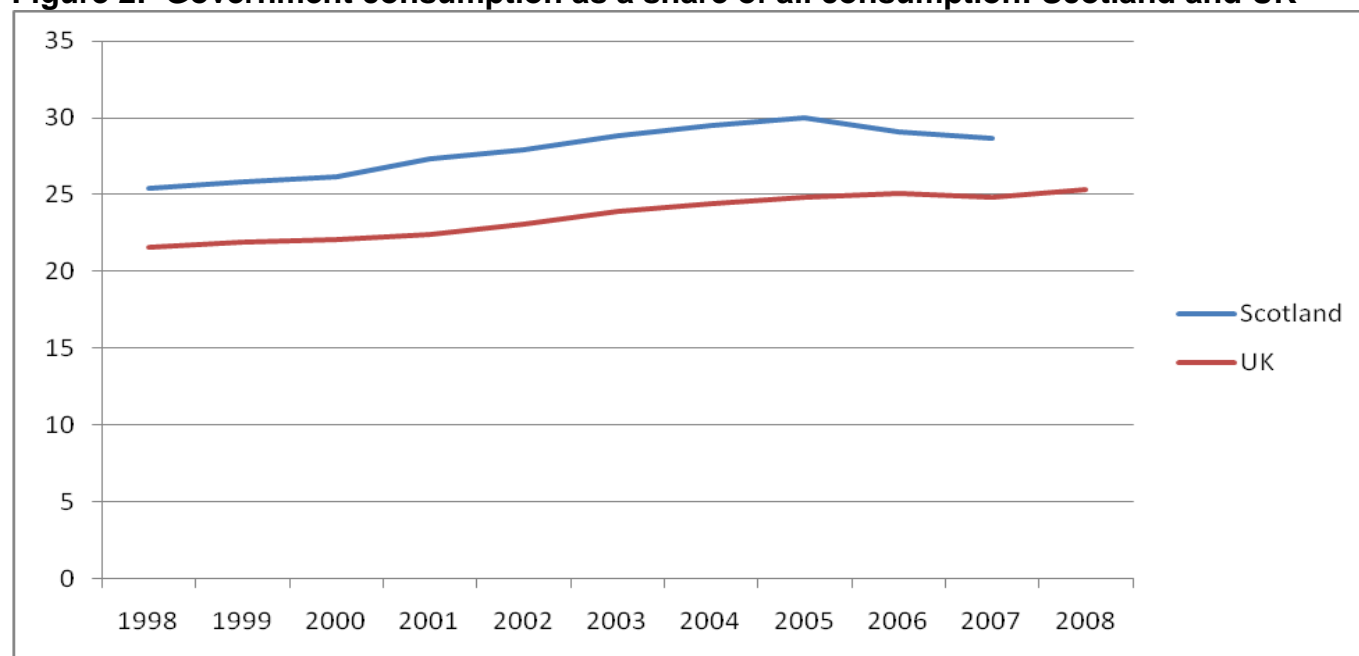
	Scotland			UK		
	Government consumption £billions <sup>1</sup>	Total final consumption £billions <sup>1</sup>	Government consumption as % of all consumption	Government consumption £billions <sup>2</sup>	Total final consumption £billions <sup>2</sup>	Government consumption as % of all consumption
1998	15.8	62.1	25.4	156.5	724.5	21.6
1999	16.8	65.1	25.8	169.7	774.3	21.9
2000	18.0	68.6	26.2	182.0	822.1	22.1
2001	19.9	73.0	27.3	194.6	867.5	22.4
2002	21.6	77.3	27.9	212.6	920.0	23.1
2003	23.5	81.5	28.8	232.8	975.1	23.9
2004	25.1	85.1	29.5	251.1	1030.2	24.4
2005	27.1	90.4	30.0	268.1	1083.0	24.8
2006	27.4	94.1	29.1	285.2	1137.2	25.1
2007	28.7	100.0	28.7	296.1	1192.1	24.8
2008				314.0	1242.1	25.3

Sources:

<sup>1</sup> Scottish Government (2010b). Input – Output Tables Combined Use Matrix

<sup>2</sup> Office for National Statistics (2010b) Input – Output Supply and Use Tables

**Figure 2: Government consumption as a share of all consumption: Scotland and UK**





## PUBLIC SECTOR JOBS

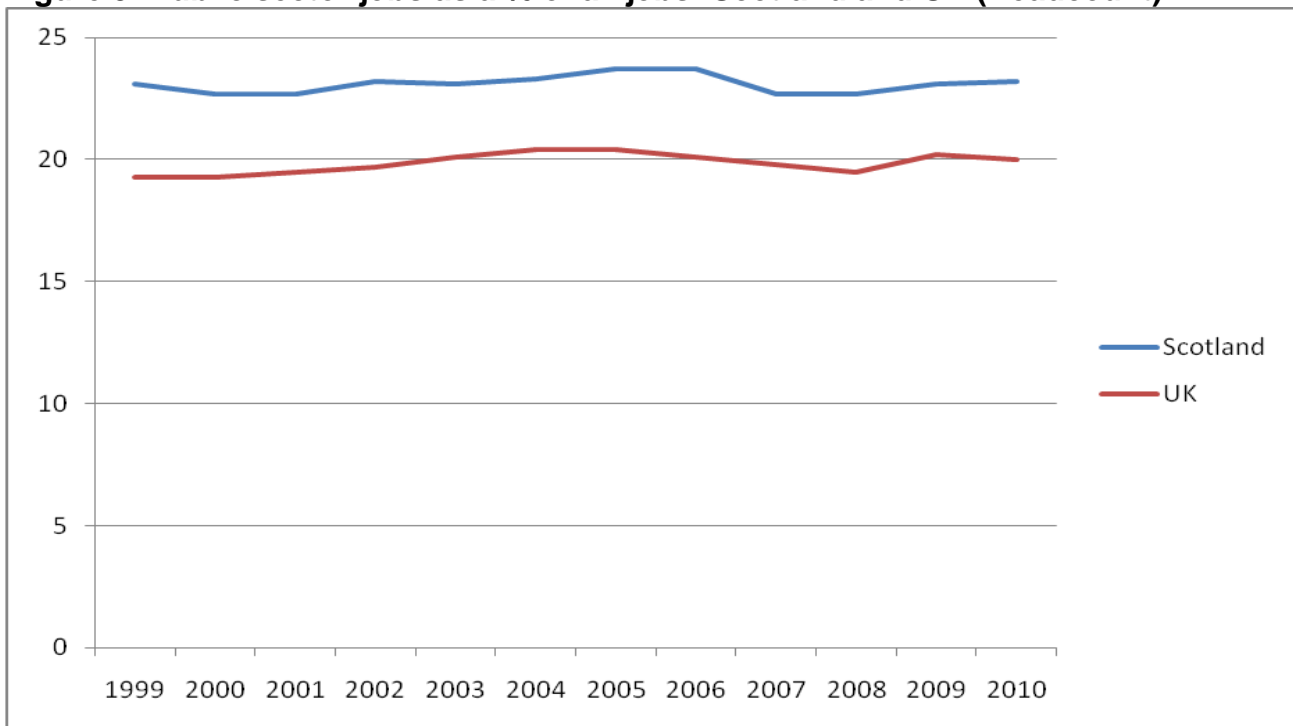
Table 3 and Figure 3 present data on public sector jobs (headcount) in Scotland and the UK. Figures are published quarterly. Quarter 2 figures have been used as a proxy for full year figures.

**Table 3: Public sector jobs as a share of all jobs: Scotland and UK (Headcount)**

	Scotland			UK		
	Public sector jobs '000s <sup>1</sup>	All jobs '000s <sup>1</sup>	Public sector as a % of all jobs	Public sector jobs 000s <sup>2</sup>	All jobs 000s <sup>2</sup>	Public sector as a % of all jobs
1999	527.3	2,284	23.1	5,221	27,115	19.3
2000	531.7	2,341	22.7	5,302	27,528	19.3
2001	534.6	2,353	22.7	5,394	27,699	19.5
2002	544.1	2,349	23.2	5,501	27,885	19.7
2003	557.0	2,407	23.1	5,665	28,199	20.1
2004	570.4	2,448	23.3	5,785	28,424	20.4
2005	580.6	2,454	23.7	5,883	28,782	20.4
2006	584.4	2,465	23.7	5,849	29,033	20.1
2007	577.6	2,545	22.7	5,797	29,205	19.8
2008	578.1	2,543	22.7	5,768	29,503	19.5
2009	575.1	2,492	23.1	5,834	28,857	20.2
2010	569.7	2,454	23.2	5,830	29,158	20.0
Change 1999-2010	+8.0%	+7.4%	+0.1%	+11.7%	+7.5%	+0.7%

Sources: 1 Scottish Government (2010c); 2 Office for National Statistics (2010)

**Figure 3: Public sector jobs as a % of all jobs: Scotland and UK (Headcount)**



Public sector jobs as a share of all jobs in Scotland has consistently been 3-4 percentage points above that for the UK. The gap narrowed up to 2007 but has since widened. In keeping with the convention adopted by the Treasury, jobs in nationalised financial institutions have been excluded. Including the nationalised banks would add 1.5 percentage points to the Scottish data and 0.8 percentage points to the UK data.

Between 1999 and 2010 the number of public sector jobs in Scotland increased by 8.0% and in the UK by 11.7%. The total number of jobs in Scotland increased by 7.4% and in the UK by 7.5%. As a percentage of all jobs, public sector jobs increased by 0.1 percentage points in Scotland and increased by 0.7 percentage points in the UK.

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