Perspectives by Ruth Lea

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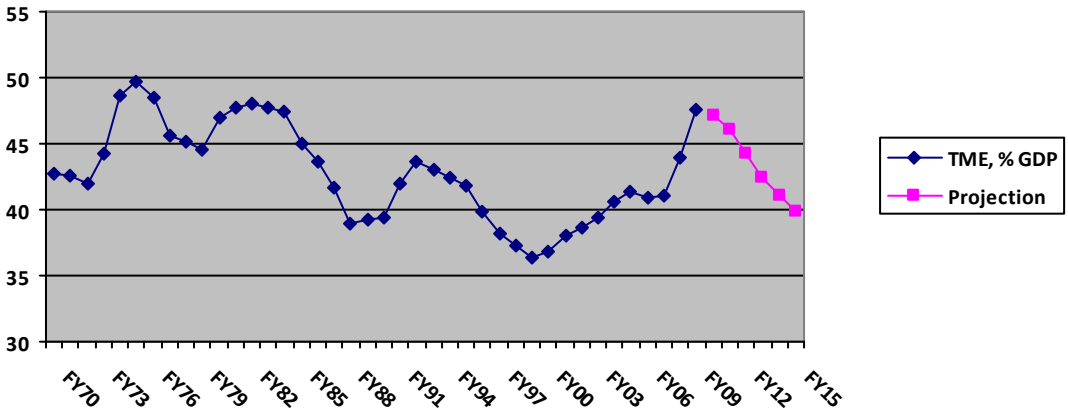
The public finances are forcing the Chancellor to shrink the public sector: it needs to shrink

Amidst all the talk of the Chancellor's public spending "cuts" in order to correct the appalling public sector deficits, one of the implications of his actions barely gets a look in. And that is that the public sector as a share of GDP is projected to fall back quite significantly over the forecast period. As can be seen from chart 1 below, the total public spending ratio (spending as a % of GDP) fell from nearly 50% in the late 1970s to about 37-38% in FY1997 and FY1998. It then rose rapidly throughout the 2000's, exacerbated by recession, and was nearly 48% in FY2009. The share of GDP accounted for by the public sector had risen by 10 percentage points in just over a decade. The public spending ratio was about 47% in FY2010 and is forecast to fall back to just under 40% by FY2015. These figures are not just dependent on the success of the spending reduction programme but also, of course, on the private sector delivering growth and driving GDP.

Chart 1 Total public spending ratio (TME as % of nominal GDP), FY1970 to FY2015



Sources: HM Treasury, *Budget 2010*, HC61, June 2010; HM Treasury, *Budget 2011*, HC836, OBR, *Economic and fiscal outlook*, Cm8036, March 2011. Total public spending is measured by the Total Managed Expenditure (TME).

International comparisons of the public sector's share of GDP

The UK's increase has moreover been far greater than any other developed economy over the past decade according to the OECD, as shown in table 1 below. But note that the OECD data refer to General Government outlays rather than total public expenditure:

- General Government (central and local governments) excludes public corporations.
- Outlays data cover items that are which are not covered in total public expenditure. These items include net lending to non-government sectors and the net acquisition of company securities. The latter has been especially significant in the UK in recent years reflecting the purchase of shares in the Royal Bank of Scotland and the Lloyds Banking Group.

Caveats apart, the figures are striking. In 2000 the UK had one of the smaller Government outlays ratios. The ratio was less than 37%, lower than the OECD average and significantly lower than the Eurozone average. Indeed of the countries quoted below only Korea, the US, Australia and Switzerland had more favourable ratios. By 2010 the UK had risen well up the "big state" league with a ratio of 51%, over 14 percentage points higher than in 2000. 51% was higher than the OECD average – and even higher than the Eurozone average.

It is interesting to note that even if the rise in the public spending ratio (10% points, see above) were taken as the measure of the increase in the size of the state rather than the Government outlays ratio (14% points), the UK would still head the league, ahead of the US, the Netherlands and Spain.

Table 1 General Government outlays ratio (outlays as % of nominal GDP), key OECD countries

	2000	2010	2012f	Change between 2000 and 2010
Australia	34.8 (14)	35.0 (14)	33.9	0.2
Belgium	49.1 (4)	53.9 (4)	53.1	4.8
Canada	41.1 (8)	43.5 (11)	41.0	2.4
Denmark	53.7 (2)	58.9 (1)	57.1	5.2
France	51.6 (3)	56.2 (2)	54.6	4.6
Germany	45.1 (6)	46.8 (8)	44.3	1.7
Italy	46.1 (5)	51.4 (5)	50.3	5.3
Japan	39.0 (10)	40.6 (13)	40.2	1.6
Korea	22.4 (16)	28.1 (16)	27.3	5.7
Netherlands	44.2 (7)	51.2 (6)	49.1	7.0
New Zealand	38.8 (11)	44.2 (10)	43.2	5.4
Spain	39.1 (9)	45.1 (9)	41.4	6.0
Sweden	55.1 (1)	54.5 (3)	53.0	-0.6
Switzerland	35.1 (13)	33.6 (15)	32.3	-1.5
UK	36.6 (12)	51.0 (7)	48.8	14.4
US	33.9 (15)	42.2 (12)	40.0	8.3
Euro area	46.2	50.7	48.3	4.5
Total OECD	38.9	44.6	42.6	5.7

Source: OECD, *Economic Outlook*, November 2010. Total outlays are defined as current outlays plus capital outlays.

Implications for growth

One of the major downsides of the rapid increase in UK public spending is the, inadequately discussed, damage to the long-term growth potential of the economy.[1,2,3] Large public sectors squeeze the more productive and dynamic private sector. Over the last few years one very obvious manifestation of this has been the quite shocking productivity performance in the unreformed and inefficient public sectors. Recent productivity data for healthcare and education are discussed below.

There are many international econometric studies that show negative correlations between GDP growth and the size of the state, whether measured in terms of spending or taxation. A particularly well known study was carried out by Robert Barro in 1997.[4] He estimated that, other things being equal, a 1 percentage point in the government consumption ratio (say from 40% to 41%) would reduce the annual GDP (real) growth rate of per head by 0.136%.[5,6,7] Given the UK's increase in the public spending ratio (mainly government consumption) by 10 percentage points between the late 1990s and the late 2000s this would, at face value, suggest that the increase in the size of the state over this period had reduced the potential annual GDP growth rate per head by 1.36%.

There are two caveats to this conclusion:

- The public spending ratio was swollen in the late 2000s by the recession, so the overall impact on GDP growth may be less than the simple calculation suggests.
- More recent research suggests that the coefficient on the "adverse government spending effect" could be significantly different from Barro's 0.136. It could be as small as 0.1 (negative) or even as large as 0.4 (negative).[8] But even taking minus 0.1 would have severe implications for the UK's potential annual growth rate, taking minus 0.4 would imply catastrophe.

David B Smith has produced several papers estimating the size of the depressing effect of high government consumption on GDP growth. His latest estimates, using a coefficient of minus 0.15, are shown in table 2.[9] His calculations suggest that the UK's GDP could have been nearly 250% higher than it was in "2010" (taken as an average of the last 5 years to make allowance for cyclical factors) if government spending ratio had been kept at 1960 levels. Even if Smith had taken a coefficient of minus 0.1 instead of minus 0.15, he concluded that the "cumulated GDP effect would still be large…given the massive rise in government spending ratios over this period".[10]

Table 2 Estimated effects on economic growth of increase in public spending

	Change in public spending burden 1960-"2010" (%)	Estimated impact on annual economic growth (%)	How much higher output would have been in "2010" with 1960 spending levels (%)
Australia	12.2	-1.8	144
Austria	10.1	-1.5	111
Belgium	21.2	-3.2	383
Canada	10.6	-1.6	121
France	19.8	-3.0	338
Germany	13.0	-1.9	156
Italy	19.8	-3.0	338
Ireland	16.6	-2.5	244
Japan	20.0	-3.0	338
Netherlands	14.4	-2.2	197
New Zealand	9.6	-1.4	100
Norway	13.5	-2.0	269
Spain	23.8	-3.6	486
Sweden	24.2	-3.6	495
Switzerland	19.8	-3.0	338
UK	16.5	-2.5	244
US	7.5	-1.1	73
Average (mean)	16.0	-2.4	251

Source: David B Smith, *Restructuring the UK tax system: some dynamic considerations*, IEA, March 2011.

So part of the Government's "plan for growth" should include a strategy for cutting back the public sector as a share of GDP. Coincidentally, because of the exigencies of dealing with the huge public sector deficits, this is already planned to happen.

Public sector productivity: a shocking record

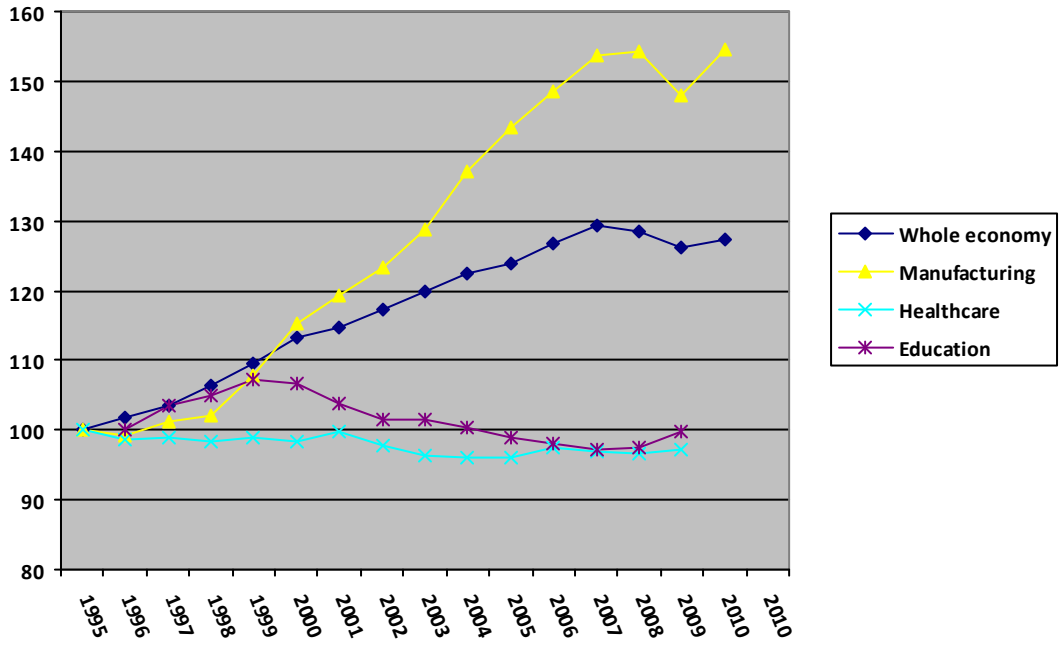
One aspect of the public sector's underperformance is its poor productivity record.[11,12] There are, however, major statistical difficulties in estimating public sector productivity. This is because output in the non-market parts of the public sector has no priced outputs. UK official statisticians consequently used to adopt the convention that government output

should be equivalent to its inputs (i.e. spending). Under these circumstances productivity changes could not be measured.

But in 2003 the ONS embarked on a ground-breaking programme when it began to estimate government outputs by "direct" measures, compared these output measures with inputs (spending) and calculated productivity. Simple examples of direct measures are the number of patient treatments for health service output and the number of benefit claimants for social security administration output. The ONS also makes adjustments for "quality changes", for example, improvements in educational standards (however measured) and reductions in waiting times for healthcare.[13]

Chart 2 compares the ONS's latest productivity data for healthcare and education with their standard estimates for the whole economy and the manufacturing sector. The productivity performance of the manufacturing sector since 1995 has been exceptional. But even for the whole economy, which is dominated by the services sector (75% of the economy), the increase in productivity, at least until the recession hit in 2008, was creditable. Between 1995 and 2008 it rose some 30%. In contrast productivity in healthcare actually fell during the period and, after showing some improvements in the late 1990s, productivity in education subsequently fell back. By any standards these results are disappointing.

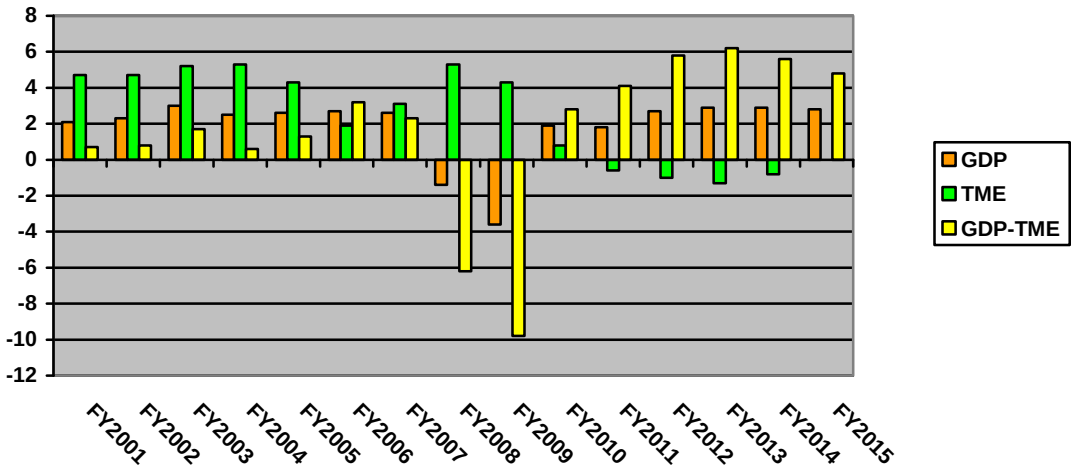
Chart 2 Whole economy & sectoral productivity, 1995=100, since 1995+



Sources: ONS data base for productivity (output per hour) for whole economy and manufacturing (2006=100, rebased onto 1995=100); ONS, "Public service output, inputs and productivity: healthcare", March 2011 (1995=100); ONS, "Public service output, inputs and productivity: education", November 2010.
+ note that data only start in 1996 for education and are based 1996=100.

Postscript: an update on the private sector growth challenge.
In our assessment of the OBR's November forecast we calculated the growth challenge to the private sector if the OBR's GDP forecasts were to be met.[14,15] In the wake of the March Budget, the revised data are shown in Chart 3. The overall conclusions are little changed. Growth generated by the private sector will have to be around 5-6% annually over the forecast period. This is not without precedent – the private sector grew very buoyantly in the mid-1990s when public spending was last restricted. But the global background was then more benign and the domestic economy more competitive. This suggests that the economy will struggle to achieve the GDP growth forecast by the OBR.

Chart 3 GDP, TME & "private sector" (GDP-TME), real terms, annual growth rates (%)



Sources: OBR, *Economic and fiscal outlook*, March 2011, author's calculations. TME=Total Managed Expenditure (total public spending).

Table 3 shows the challenge to the private sector in generating jobs if the OBR's employment forecasts are to be met. The OBR's projections for the loss of public sector (general government) jobs have been scaled back slightly since November. Whereas the OBR was forecasting 330,000 lost public sector jobs between FY2010 and FY2014 (and 400,000 between FY2010 and FY2015) in November the equivalent data are now 310,000 and 390,000. Please note only 20,000 government jobs are expected to be lost in FY2011 and 10,000 in FY2012.

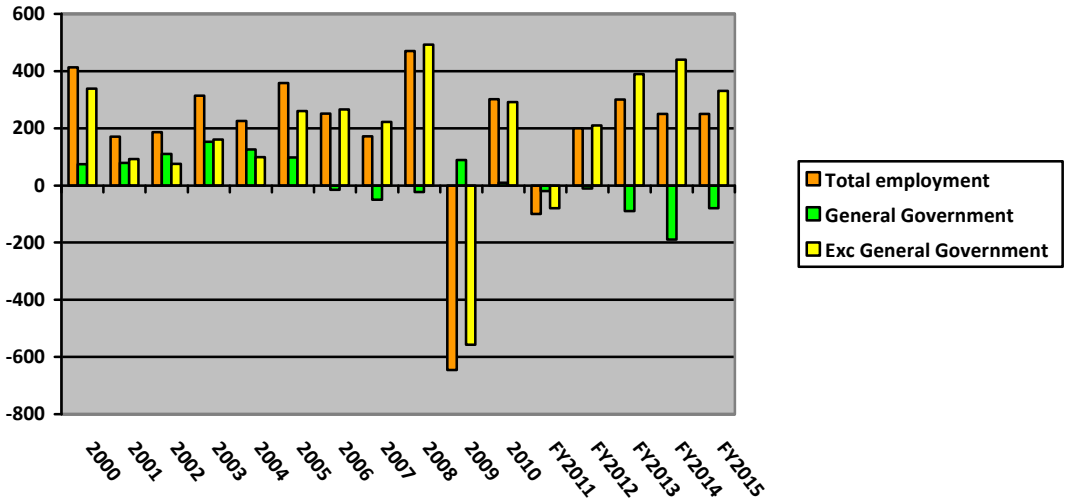
Table 3 OBR projections: employment, millions, Budget 2011

	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
Whole economy	29.20	29.10 (-0.10)	29.30 (0.20)	29.60 (0.30)	29.85 (0.25)	30.10 (0.25)
GG	5.67	5.65 (-0.02)	5.64 (-0.01)	5.55 (-0.09)	5.36 (-0.19)	5.28 (-0.08)
Exc. GG	23.53	23.45 (-0.08)	23.66 (0.21)	24.05 (0.39)	24.54 (0.44)	24.82 (0.33)

Source: OBR, *Economic and fiscal outlook*, March 2011. GG stands for General Government. The data reflect the ONS's reclassification of FE college employees from the private to the public sector. These are final quarter data (the whole economy employment data are interpolated from the annual averages by the author). The annual gains/losses are shown in brackets.

Even so the private sector will have to replace the jobs lost in the public sector and create significantly more if the OBR's employment growth forecast is to be achieved. Chart 4 shows this private sector "jobs creation challenge". Again this situation is not without precedent. There was strong private sector employment growth in the 1990s, but economic circumstances were then more benign.

Chart 4 Employment annual changes, head count, thousands



Source: OBR, *Economic and fiscal outlook*, March 2011

References

1. António Afonso, Ludger Schuknecht and Vito Tanzi, "Public sector efficiency: an international comparison", *European Central Bank, Working Paper Series number 242*, July 2003 presented some useful international findings. The authors found significant differences in public sector efficiency across countries for the year 2000 (Britain's relative position has almost certainly worsened since then). Japan, Switzerland, the USA, Australia and Luxembourg showed the best values for overall. The UK was 7th equal, well ahead of France (which was 20th equal) and Italy (which was 23rd). Small governments were the most efficient, large governments were the least efficient. These findings support the hypothesis of diminishing marginal returns to (i.e. diminishing marginal products of) higher public spending. One of their key findings was that, if the UK's public sector performance was as efficient as the best, UK public spending would only need to be 84% of current spend in order to maintain output.
2. Ruth Lea, "The "Big State" is back and undermining growth", Arbuthnot Banking Group, 18 February 2008.
3. Ruth Lea, *Tax 'n' spend: no way to run an economy*, Centre for Policy Studies, July 2004.
4. Robert J Barro, *Determinants of economic growth: a cross-country empirical study*, Cambridge, Massachusetts, MIT press, 1997.
5. Barro sought to explain the effects of a wide range of economic influences on the annual growth of real GDP per head. The influences included measures of educational attainment, life expectancy, fertility rates and inflation, as well as the government consumption ratio. The coefficient on the government consumption ratio was minus 0.136, indicating that every 1 percentage point increase in the government consumption ratio reduces the annual growth rate of real GDP per head by 0.136%. Barro also concluded that the rate of economic growth was negatively correlated with the level of output already achieved – in other words, economic maturity.
6. The government consumption ratio is government consumption as a % of GDP.
7. David B Smith, *Living with Leviathan: public spending, taxes and economic performance*, IEA, 2006.
8. David B Smith, *Restructuring the UK tax system: some dynamic considerations*, IEA, March 2011.
9. David Smith used information from (i) Vito Tanzi and Ludger Schuknecht, *Public spending in the 20th century*, Cambridge University Press (CUP), 2000, and (ii) OECD, *Economic Outlook*, June 2010. The "2010" spending ratio is an average of the 5 years 2006-2010. This is to remove the purely cyclical effects of the recent global recession (& other factors). A coefficient of minus 0.15 has been used for the adverse government spending effect.

10. David B Smith, *Restructuring the UK tax system: some dynamic considerations*, IEA, March 2011.
11. Ruth Lea, "Public sector productivity: a shocking record", Arbuthnot Banking Group, 17 March 2008.
12. Productivity is, of course, the measure of outputs over inputs. See ONS, *Productivity Handbook*, for details; available at www.statistics.gov.uk
13. See the Atkinson Review, *Final Report, Measurement of Government Output and Productivity for National Accounts*, January 2005, for more. This paper is seminal and available at www.statistics.gov.uk. Following the Atkinson Review, the ONS set up the UK Centre for the Measurement of Government Activity (UKCeMGA), in July 2005.
14. Ruth Lea, "The OBR's November forecast: so far, so good", Arbuthnot Banking Group, 6 December 2010.
15. In reality the private sector challenge is even greater than chart 3 suggests as some TME will "leak abroad", e.g. transfers to the EU. Debt interest paid overseas would however not affect GDP, but they would affect GNI. GNI=GDP + net income (investment & labour). Ireland's GNI is about 80% of GDP, because of the heavy investment income payments overseas.

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