David B. Smith

The UK Government Spending Ratio:

Back to the 1930s?

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Public Spending: Whom Should we Believe?
Sheila Lawlor*

Foreword: The debate over public spending is set to play an increasing part in Britain's political debate in the run up to the 2015 general election as the economy takes centre stage.

Battle lines have been drawn over the main parties' spending plans. Labour, if returned to power, now promises to cut the deficit every year of the next Parliament. The Conservatives have been 'accused' of cutting more than is necessary for 'ideological' reasons. Britain, it is alleged, will be returned to the hair shirt levels of 1930s public spending. The line, perpetrated by the media, is evocative of dole queues, cloth caps and a country scarred by unemployment.

It is not only the political spin that is misleading. One look at the historic data reveals that the Chancellor's official spending plans would bring us nowhere near the spending levels of the 1930s, even when expressed as a share of GDP. Public spending levels for this country remained well under c. 30 per cent of GDP throughout most of the 1920s and 1930s. Moreover, what is not widely known is that, if measured on a more accurate basis than that used officially today, general government spending is likely to represent an even higher proportion of GDP than is officially reported.

In this Politeia Commentary, David B. Smith shows that the changes to accounting procedures and the measures officially used to report public spending ratios tend to underestimate levels of public spending. In particular, the new European rules which have just come into force (ESA-2010) make a like for like comparison difficult to establish. To this problem must be added the further complication of what is, or is not, included by government for calculating public spending. The analysis gives a picture of the government's spending plans which shows how far they are from the 1930s. Taking the chancellor's current proposals, UK public spending in 2020 will be 8 per cent higher than in 1938 when the pre-war re-armament programme was already well under way.

This finding may take the sting out of Labour's attack. But the Chancellor has still some distance to travel. The evidence is that the UK would be in a better economic situation if public spending and taxes fell more, and more quickly, than is planned. Other successful western economies, such as Switzerland and Australia, often enjoy far better public services than those for which UK tax payers pay too dearly.

In fact, as Smith reminds us the levels of government spending at which economies appear to grow most rapidly is the quarter or so of GDP typically found in the South East Asian 'Tiger' economies, while there appears to be no discernible improvement in welfare once government spending exceeds one third of national output. At the same time - and pertinent to the current debate which pitches spending cuts against tax rises as the preferred way to fiscal stability - the evidence is that the limits of taxable capacity mean that the maximum sustainable spending ratio is something under 40%. This suggests that if Mr Osborne is to be criticised, it should not be because his plans will return Britain to the 1930s. They will not. Rather, it is because he must be more ambitious, if the UK economy is to compete globally.

* Sheila Lawlor, Director, Politeia

I
Introduction:*

Partly because of a tendentious spin on the 3rd December *Autumn Statement* by a BBC reporter, an 'urban myth' appears to have arisen that the Chancellor, George Osborne's plans would take government spending by 2019-20 to its lowest share of GDP since the 1930s.[2] One justification for this claim appears to have been Chart 4.8 in the Office for Budget Responsibility (OBR) analysis which accompanied the Autumn Statement. This chart showed the ratios of Total Managed Expenditure (TME) and current receipts to Gross Domestic Product (GDP) back to 1948-49 – i.e., not the 1930s – and the implied official projections to 2019-20. The OBR's chart 4.8 does indeed show a steep nosedive in the TME spending ratio to the lowest level on the chart right at the very end of the *Autumn Statement* forecast period. However, the TME concept is of limited use for the purposes of economic analysis because it excludes so-called Annually Managed Expenditure (AME) which is mainly composed of demand-determined welfare benefits.

More generally, however, measuring the government spending and tax burdens is an area in which it is easy to draw erroneous conclusions for three main reasons. Firstly, there are numerous alternative definitions of government spending and the measures used for financial control are not particularly appropriate for wider economic purposes. Second, there are at least three ways by which GDP – which is normally used to scale spending and receipts – can be measured. These different GDP measures can make a

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[2]Despite the Orwellian myth to the contrary, it is now widely accepted by economic historians that the later 1930s were a very successful period where Britain was concerned. For example, see the author's Britain in the 1930s: Lessons for Today, *Britain & Overseas*, Summer 2012, Vol. 42 No. 2. (www.ercouncil.org)

substantial difference to both the level and trend in the calculated tax and spending burdens. Third, the introduction of the new 2010 European Standard Accounts definitions (ESA-2010) in September 2014 has substantially altered previous definitions of national output and the governmental accounts. This means that it is no longer possible to compare *Autumn Statement* figures on the new definitions with earlier figures calculated using noticeably different conventions.[3] In particular, the latest definitions of tax and spending burdens seem to be running some 2 percentage points (or more) below those calculated using the previous figures.

[3] It seems that the Office for Budget Responsibility may have made this error, and started the misunderstanding, because it used a historic back run of data from the Bank of England website that was originally mounted in 2010 and so defined quite differently to the current figures. They also seem to have used the national accounts definition of general government current expenditure, which is about half total spending.

II
How to Define the Government Spending Ratio:

The more detailed measurement issues involved have been addressed elsewhere and this earlier analysis will not be repeated here.[4] However, one important conclusion is that, if one wants consistent measures over time, it is best to use the concept of 'general government'. This definition includes central government and local authorities but excludes the public corporations and state-owned (or part owned) banks whose vagaries distort the underlying figures. The general government concept is also preferred by the Organisation for Economic Co-operation and Development (OECD) for international comparisons. Likewise, the most appropriate measure of GDP for historic comparisons is the factor cost measure which excludes indirect taxes and subsidies. The officially preferred market-price measure (which includes indirect taxes and subsidies) makes the reported ratios look smaller – which is why it appeals to politicians and bureaucrats. However, the market-price definition is not suitable for long-term comparisons because it is heavily distorted by changes in the indirect tax burden. One complication is that there also exists a basic-price measure of GDP (sometimes referred to as Gross Value Added or GVA by official statisticians) that excludes most, but not all, indirect taxes and subsidies.

Table 1 compares the government spending and tax burdens in 2013-14 that have been calculated using the new ESA-2010 national accounts with their ESA-95 predecessors using all three measures of GDP described above.

The first noteworthy point is that all three measures of national output have been boosted by something over £100bn as a result of the new European Union (EU) accounting conventions introduced by the Office for National Statistics (ONS) on 30th September. This upgrading is equivalent to an increase of 6.2 per cent in the market-price measure of GDP and 7 per cent or just over in the other two measures. The main reasons for the change are

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[4] For example see: *Living with Leviathan: Government Spending, Taxes and Economic Performance*, Institute of Economic Affairs, London (2006) where Chapter 2 is entirely devoted to the measurement problem.

large upwards adjustments to capital formation and non-profit institutions serving households and, to a lesser degree, the inclusion of the illicit drugs trade and prostitution in household consumption. Since these items are substantially immune from taxation, there is no reason to believe that the taxable capacity of the economy has been increased by the higher figure for reported GDP. Rather, the size and persistence of the budget deficit suggests that the nation is at the outer limits of 'real-world' taxable capacity and may be, arguably, on the wrong side of its aggregate Laffer curve.

Table 1: Government Spending and Tax Ratios Pre- and Post-ESA-2010 in Financial 2013-14

	New ESA-2010 Measure	**Old Pre-ESA-2010 Measure**	**Difference**
£'s Million			
GDP at Market Prices	1,732,426	1,631,389	101,037
GDP at Factor Cost	1,518,392	1,417,792	100,600
GDP at Basic Prices	1,541,056	1,440,118	100,938
Government Spending	726,902	707,683	19,219
Non-Oil Taxes	571,037	568,920	2,117
Ratios to GDP at Market Prices (%)			
Government Spending	42.0	43.4	-1.4
Non-Oil Taxes	33.0	34.9	-1.9
Ratios to GDP at Factor Cost (%)			
Government Spending	47.9	49.9	-2.0
Non-Oil Taxes	37.6	40.1	-2.5
Ratios to GDP at Basic Prices (%)			
Government Spending	47.2	49.1	-1.9
Non-Oil Taxes	37.1	39.5	-2.5

Source: UK Office for National Statistics *Quarterly National Accounts Statistical Bulletins* 27th June 2014 and 26th November 2014 and ONS data bank.

The second noteworthy feature of table 1 is that the general government spending ratio is 5.9 percentage points higher using the new factor cost measure of GDP than if the new market price measure of national output is employed. Using the old figures, the gap was a not too dissimilar at 6.5 percentage points. Both figures confirm the earlier conclusion that the precise definition of national output being employed makes a significant difference to the estimated tax and spending burdens.

The third, and highly important, aspect of Table 1 is that the switch to ESA-2010 has cut the various measures of the government spending burden by roughly 1.5 to 2 percentage points and the tax burden by some 2 to 2.5 percentage points. This decrease in the government spending / GDP ratio is despite a definitional upgrading of £19.2bn or 2.7 per cent to general government expenditure in 2013-14, while non-oil taxes have been revised up by £2.1bn (0.4 per cent).

The changes to reported government expenditure and receipts have resulted from a whole host of adjustments to individual components. However, one important reason for the changed aggregates was that UK taxes were reported net of payments to the EU previously, while the money handed over to the EU was reported net of transfers coming the other way. These EU transactions are now reported on a gross basis and a new item has appeared in the general government spending identity ‘VAT and Gross National Income based EU contributions’ which picks up the money paid directly to Brussels. This transfer amounted to £16.2bn in 2013-14.

III
Mr Osborne's Spending Plans

It is not difficult to manipulate the figures provided by the Office for Budget Responsibility (OBR) alongside the Autumn Statement so as to calculate the planned shares of general government spending in both market-price and factor-cost GDP for each financial year up to 2019-20 (table 2). The latter is calculated by adding the OBR's projections for subsidies back onto the OBR's published forecasts for market-price GDP and then subtracting 'taxes on production and imports' (the figures can be found in the OBR's Table 2.29 General Government Transactions by Economic Category). Some of the critics of Mr Osborne's plans seem to be unsure whether they are complaining about cash reductions, cuts in real price-deflated expenditures, or a reduction in the share of national output devoted to government spending. However, only the latter makes any sense if one is trying to make comparisons with the 1930s. The calculations in table 2 are clearly only possible using the new ESA-2010 national accounting conventions, as employed by the OBR, so all the ratios concerned are lower compared with what would have happened using the old ESA-95 national accounts. In addition, there appear to be some discrepancies in the historic data between the OBR figures and the very latest ONS data released on 23rd December. However, these are too small to affect the broad conclusions.

Table 2: General Government Expenditure as a Share of UK GDP Measured at Market Prices and at Factor Cost

	2013-14	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**
£'s billion							
Total General Government Expenditure	726.5	743.4	751.0	748.4	751.3	764.4	777.6
GDP at Market Prices	1,732.4	1821.2	1888.0	1956.0	2037.3	2122.3	2215.0
GDP at Factor Cost	1517.9	1600.1	1660.4	1720.4	1793.9	1870.5	1954.1
Spending Ratios to GDP							
Market Price Measure	41.9	40.8	39.8	38.3	36.9	36.0	35.1
Factor Cost Measure	47.9	46.5	45.2	43.5	41.9	40.9	39.8

Source: Office for Budget Responsibility and author's calculations.

IV
Is it Really Back to the 1930s?

In the past, figures have been published for the share of general government expenditure in factor cost UK GDP back to 1870 using historic sources and calendar year rather than fiscal year data.[5] This was done using the old pre-ESA-2010 definitions and also ahead of a major upwards revision to GDP introduced in 2013 as a partial and preliminary implementation of ESA-2010. The subsequent changes to the official statistics mean that it is not possible to compare previous historic figures to the current ones. However, the historic GDP figures can be rendered more consistent with the current definition by rescaling the pre-1948 figures. One surprise was that the new estimate of GDP was some 3 or more percentage points below the pre- ESA-2010 values in the late 1940s, while the recent numbers show the post-ESA-2010 figures noticeably higher. This had the effect of pushing up the government spending ratio in the earlier years and scaling it down more recently.[6] The effect is small early on, when the spending ratio was low, but it can make a difference of a couple of percentage points in periods when the spending ratio has been 40 per cent or more (e.g., the 1914-18 War). In the case of total general government expenditure, the official data from 1946 to 1962 have not been revised.[7] This meant that there was no need to re-scale the earlier historic figures, while the latest official estimates have been employed from 1963 onwards.

On the basis of these reworked figures, the general government spending ratio was apparently 13.5 per cent of the factor-cost measure of GDP in 1913, peaked at 48.3 per cent in 1917 at the most costly phase of the Great

[5] For example, see *How Should Britain's Government Spending and Tax Burdens be Measured? A Historic Perspective on the 2009 Budget Forecasts,* Economic Affairs, Volume 29, No 4, December 2009.

[6] It also largely explains why the figures quoted here differ from those in the previous draft.

[7] When the ONS introduce a major change such as ESA-2010, it does not appear to make any great efforts to ensure that earlier periods are re-worked onto a consistent basis. The figures from 1997 onwards have been re-worked fairly conscientiously by the ONS. The earlier figures are much more of a lottery.

War, was 29.3 per cent in 1936 – when Keynes published his *General Theory* – and then rose to almost 73 per cent at the wartime peak in 1944. Following the Butler-Churchill reforms in the 1950s[8] the general government spending ratio had eased to 35.8 per cent in 1960. However, the mid-1960s Labour Government then saw an increase of 9 percentage points in the government spending ratio between 1964 and 1969, when the International Monetary Fund (IMF) was forced to bail out the British economy for the first time.[9] Following some reductions in the early 1970s, the government spending ratio was subsequently taken onto a permanently higher plateau by the mid-1970s Labour Government, around which there were marked cyclical fluctuations in the subsequent decades. However, this ratio was brought down to 40.9 per cent in 2000, when Gordon Brown was in his 'Prudence' phase, and implementing the previous Conservative government's spending plans. The recent recession-induced peak of 51 per cent was reached in 2010, the 2013 outcome was 48.4 per cent and the 2014 outturn seems to have been 47.4 per cent based on the figures for the first three quarters. The latter represents a figure a mere 0.9 percentage points lower than the peak cost of World War 1 and 1.6 times the ratio prevailing when the *General Theory* was published.

The equivalently-defined government spending ratio in 1938, just before the outbreak of World War II, was 31.8 per cent. However, this figure was rising sharply because of the British government's re-armament programme.[10] These numbers suggest that the *Autumn Statement* is aiming for a government spending ratio in 2019-20 that is some 8 percentage points higher than was recorded in 1938, using the most consistent yardstick available. The target for 2019-20 is also higher than the spending ratio

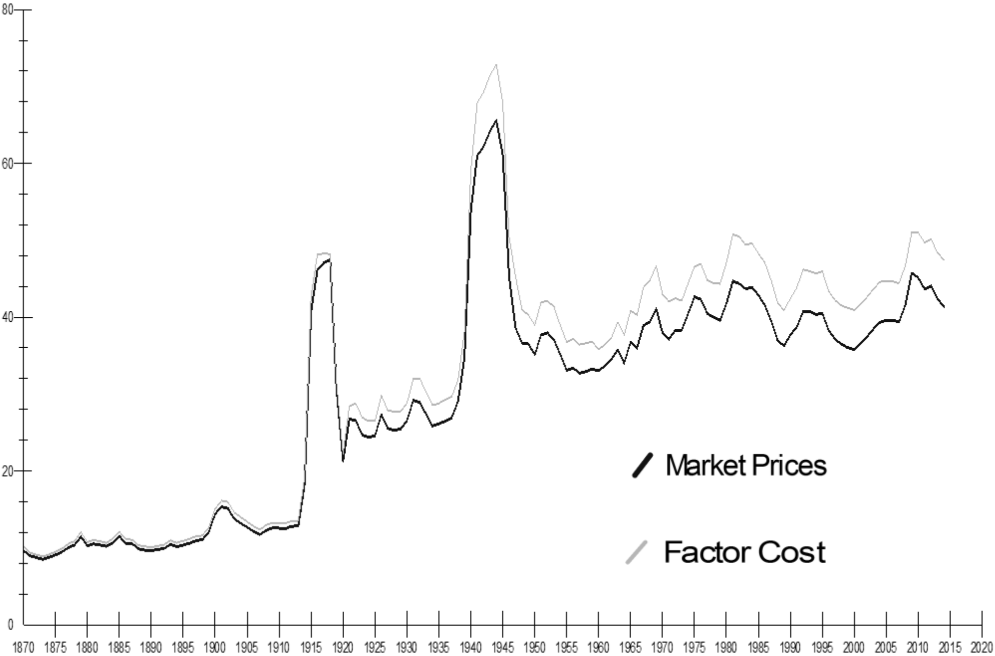
[8] See the author's 'Britain in the 1950s: the Butler/Churchill Reforms', *Britain & Overseas*, Autumn 2012, Vol. 42 No. 3 for more on this unduly neglected, and extremely successful, supply side reform.

[9] There was also a second, better known, IMF bailout under a Labour administration in 1976.

[10] Debt interest payments were 5.8% of GDP in 1938, having peaked at 9.4% in 1926, compared with a projected 3.2% in 2014. This means that the gap between the 'primary' expenditure ratios (i.e., excluding debt interest) was even more marked. The total spending ratio had been 28.5% in 1934 before re-armament commenced.

recorded in every year between 1954 and 1964 and only some 1 percentage point higher than in 2000 under the previous Labour government.[11] These figures make it clear that the suggestion that Mr Osborne is aiming for the lowest government spending ratio of the post-war period and intends to takes the ratio back to the levels of the late 1930s is a pure ‘canard’.

Chart 1: Ratio of UK General Government Expenditure to GDP Measured at Factor Cost and at Market Prices 1870-2014



[11] The average spending ratio during the first eleven years of the Labour government before the 2008 financial crash was 42.9% on this definition, 4.5 percentage points below the projected figure for 2014.

V
Implications of the New Data for the Tax and Spend Debate

This is not the place to speculate whether the Chancellor was deliberately setting a highly ambitious spending target, in the hope of achieving more limited gains thereby, or to assess the realism of Mr Osborne's projections. However, the *Autumn Statement* measures have been simulated on the Beacon Economic Forecasting (BEF) macroeconomic forecasting model with the result that general government spending is expected to be some 39.4 per cent of the new definition of market price GDP (45.5 per cent on the factor cost measure) in 2019-20 rather than the officially projected 35.1 per cent, while Public Sector Net Borrowing (PSNB) is expected to be around £50bn, or some 2.2 per cent of ESA-2010 market-price GDP, rather than the £23bn PSNB surplus for which the Chancellor is aiming. This projected borrowing ratio for 2019-20 would probably be sustainable, even if it might be disappointing, and our longer-term forecasts show a further diminution subsequently.

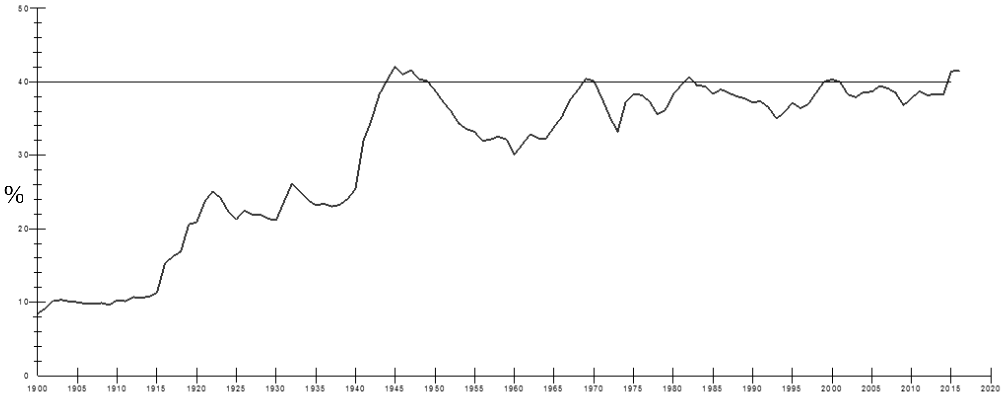
However, that achievement relies on holding the growth in the volume of general government current expenditure to *plus* 1 per-cent per annum, which is roughly what has happened since 2010 (i.e., there have been no overall cuts in practice).[12]

It is worth concluding by noting the implications of the new ESA-2010 accounting conventions for the longstanding, and politically highly-charged, debate on 'tax and spend' issues since the 1970s. During this debate certain rules of thumb have become widely accepted by people who have worked in this area. The first is that economies normally grow most rapidly in the long term when government spending is between 20 per cent and 25 per cent of

[12] In 2014 Q3 the volume of general government current expenditure was 3.7% higher than in 2010 Q2. However, the volume of government investment was down by 15.8%. For forecasting purposes, we have adopted the OBR forecasts for the volume of government investment but ignored the equivalent government current expenditure figures because they are considered unrealistic.

GDP (the 'growth maximising' government spending share).[13] Second, the level of public spending beyond which further increases in spending bring no further discernible improvement in social welfare is under 35 percent of GDP (the 'welfare maximising' share).

Chart 2: Ratio of UK Non-Oil Taxes to Non-Oil GDP at Factor Cost 1900-2014



Finally, the upper limit on taxable capacity is around 38 per cent of GDP. Beyond that point, hikes in tax rates usually lead to slower growth and falling receipts.[14]

[13] As an aside, it is worth noting that the international growth literature suggests that the long-term growth rate of the UK economy would accelerate by some 0.5 to 1 percentage points, if Mr Osborne achieved his spending targets. This would enable a virtuous circle to develop. Britain's real GDP grew at an annual average rate of 4.2% in the five years between 1933 and 1937 and averaged 3.6% between 1953 and 1964, compared with the 1.7% average between 2010 and 2014. In addition, a spending ratio of 35% on the market price measure would provide room for a major simplification and reform of the current tax system. See Sinclair M (ed.) (2012) *The Single Income Tax: Final Report of the 2020 Tax Commission*, Tax Payers' Alliance and Institute of Directors, London, May 2012.

[14] For example, chart 2 suggests that the sustainable share of non-oil taxes in non-oil GDP measured at a factor cost is around 37.9 % with an upper limit of 40 per cent.

Nearly all of these ratios, which are derived from studies for a wide range of countries over many years, refer to shares of the market-price measure of GDP – usually as compiled by the OECD – and inevitably have been calculated employing earlier generations of data. These rules of thumb now need to be lowered by some 2 percentage points if they are to be applied to today's ESA-2010 definitions where the UK specifically is concerned. However, the entire European Union (EU) was obliged to adopt ESA-2010 in the autumn of 2014, so the consequences of ESA-2010 are by no means just a British concern. Incidentally, the OECD's December 2014 international comparison of government spending ratios suggest that in the (unlikely?) event that Mr Osborne did achieve his spending goal by 2019-20 he would still be spending slightly more than Switzerland and Australia do currently. Some countries simply seem to achieve a lot more, with significantly less, than Britain when it comes to their government sector's provision of value for money.

This would correspond to a range of between 33.2% and 35% of the market price GDP measure. However, the government has other revenue sources amounting to 3% to 3.5% of GDP. The implication is that the fiscally sustainable spending ratio is under 40% on the market price measure, even if small permanent budget deficit is considered acceptable.

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The future of Britain's economy is once again the focus for political debate. The question now and for the coming years is how best to balance the fiscal books. If returned to power, the Labour Party promises to eliminate the deficit in the course of the next parliament, Conservative plans go further and would return the public finances to a surplus - a pledge which has been much criticised for the alleged harshness it implies. In particular it is alleged that Britain's public spending would, be at levels last seen in the 1930s by the fiscal year 2019-20.

In this *Commentary*, the economist, David B. Smith, considers the true position behind the figures. He explains how changes to accounting procedures and the measures officially used to report public spending ratios tend to underestimate levels of public spending. In particular, the new European national accounting rules which have just come into force (ESA 2010) make a like for like comparison difficult to establish. Moreover, matters are further complicated by the difficulties over what is, or is not, included when calculating public spending.

Not only does the author propose a more accurate model for measuring public spending. He also shows that the government's projections show spending plans to be nowhere near the levels of the 1930s. Rather, the chancellor's current projections, if met, would mean that UK spending would be around 8 per cent higher than in the 1930s, at just under 40 per cent of GDP.

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