THE DAVID HUME INSTITUTE

Issues Facing an Independent Scotland

- Scotland's Share of UK Public Debt

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The David Hume Institute
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Foreword

I am pleased to commend to you this research paper, prepared by our Research Manager Lesley Sutton, as an accessible examination of an important topic.

The genesis of this paper was a suggestion by our former Chair of Trustees Sir Ian Byatt. The task of examining Scotland's possible share of UK public debt, post independence, proved somewhat more complex than we had expected. The data are difficult to find and complex to analyse. The caveats to data and analysis are many and varied. Nevertheless I believe that this paper does cast some light on an important topic and we hope that making this paper available will inform one element of a continuing and crucial debate. We are grateful for input from a number of informed parties but final responsibility is ours.

As Lesley makes clear in her paper, she has attempted to avoid any final figure regarding inherited debt. There is no one answer and placing particular emphasis on any of the calculations that follow would be inappropriate. Also, as Lesley states 'debt sustainability dynamics' are of crucial importance rather than just level of debt or debt/GDP ratios. Nevertheless, the core data should be of interest, along with the structure describing elements of debt to be considered.

Because there is no simple answer, it is as ever right to say that the David Hume Institute, as a charity, is wholly non-political and has no views of its own to offer. However, as Director, and along with the Trustees, I would suggest that this is another evidence-based and informed contribution. We will continue to engage in matters related to potential constitutional change, and are delighted that we have – along with Edinburgh University – received funding from the Economic and Social Research Council for four 'conversations' on relevant issues over the months ahead. We expect there to be other papers on related topics and as ever would welcome suggestions from our members and others.

Jeremy Peat
Director
David Hume Institute
March 2012

Issues Facing an Independent Scotland

– Scotland's Share of UK Public Debt

Since the turn of the year the press, both north and south of the border, has been infected with 'referendum fever'. Not a day has passed without one commentator or another discussing at length the possible referendum process and/or some of the various issues that would face Scotland following a yes vote in the independence referendum. This discussion ranges from speculation on process issues, such as the date of the referendum itself and which questions should be asked, to even weightier policy topics such as the currency to be adopted post independence and the impact of this on fiscal policy.

One of the background issues is how much debt the newly independent country would inherit from the UK and the ability to service this without resorting to deep cuts in public spending. One commentator indicated that Scotland could inherit £110bn worth of debt from the UK, resulting in Scotland's finances being on a par with Greece and Portugal.[1] There is no mention of what proportion this debt would be of GDP and, therefore, how this compares with the UK. Whilst, the level of debt is important, debt sustainability dynamics i.e. growth and real interest rates are key to servicing debt. It is difficult to forecast these factors for an independent Scotland so we are left to consider indicators such as the percentage of debt to Scottish GDP as a starting point to establish Scotland's position relative to the rest of the UK. Whilst this issue continues to be mentioned in various press articles, we have seen no substantive attempts at assessment of the size of the debt/GDP ratio.

This paper attempts to work through the various aspects of UK government borrowing and highlight the issues faced when trying to quantify these same aspects for an independent Scotland.

It should be noted at this point that the David Hume Institute is wholly independent and non party political. We simply seek to facilitate transparent, evidence-based and sceptical (in the spirit of Hume) discussion. We do not seek to make judgement. The information contained in this paper and the conclusions arising from it should be read in that context. If any views are seen to be expressed, they are the views of the author and not the Institute.

[1] The Institute for Economic Affairs, in the Scotsman June 2011.

Measuring Scotland’s Debt

To quantify Scotland’s share of UK debt the following factors must be established:

- The current size of UK debt.
- How to measure fairly Scotland’s share of this.
- The size of UK assets and the Scottish share of these.
- The ‘Scottish’ Banks’ debts and their post-independence treatment.
- Forecasts of the above, given that the picture could change significantly by 2014/15.

Taking these in turn:

Size of UK debt – Public Sector Net Debt

The Public Sector Net Debt (PSND) figure is the best starting point for this exercise. It is the simplest way to consider UK debt and is the figure widely quoted in the press. This records most financial liabilities issued by the public sector less its holdings of liquid financial assets, such as bank deposits. It is a **narrow** measure of debt as it excludes future liabilities from past governments’ actions e.g. pensions, PFI liabilities etc.

In January 2012, excluding financial intervention, UK PSND was £988.7bn – 63.0% of UK GDP.

Measuring Scotland’s share

Having established the size of the UK debt, there are a number of ways in which one may calculate Scotland’s share e.g. by population or GDP or Scotland’s share of either UK public sector spending or employment. Scotland accounts for 8.4% of the UK population and 8.3% of UK GVA; but 9.5% of UK public spending and 9.9% of UK public sector employment. For simplicity we will consider the population share. Thus, if this 8.4% were applied to the £988.7bn, Scotland’s share would be **£83.1bn**. This in itself doesn’t tell us too much as it is not the level of debt that matters. What is important is the ability of a country, like any household, to service its debt. However, as stated earlier, it is difficult to forecast key factors such as real interest rates and growth going forward. The best means of comparison with the UK is to consider how the debt/GDP ratio for Scotland differs to that for the UK as a whole. Whilst we have up-to-date debt figures, we have no readily available Scottish GDP data for 2011. There is also the issue of what measure of Scottish GDP should be used: onshore GDP; GDP including a population share of oil or GDP including a geographic share of oil. In the run up to the referendum, the share of the oil sector GDP inherited by Scotland will be subject to much debate. Inclusion of this or not alters the figures considerably.

The most recent UK PSND data are for January 2012 and the ONS utilise a forecast for UK GDP in order to provide a 'point estimate' debt/GDP ratio[2]. It is difficult to replicate this GDP calculation for Scotland. However, the Scottish Government produce Scottish GDP data up to the second quarter of 2011 as part of the Scottish National Accounts Project (SNAP).

We have projected this forward[3] using the ONS methodology as appropriate given the availability of Scottish GDP data. We have also used the same methodology to recalculate a UK GDP figure to allow for a fully consistent comparison. **By this measure the UK debt/GDP ratio is 64.6%** and it is this figure which the Scottish debt/GDP ratio can be compared against. On this basis:

- Scottish GDP including a geographical share of oil would be £159bn resulting in a net debt/GDP ratio of 52.2%.
- Taking onshore GDP (without North Sea oil) indicates a net debt/GDP ratio of 66%.
- Calculating the ratio using Scottish GDP including a population share of oil GDP results in a net debt/GDP figure of 64.3%.

The Whole of Government Accounts

As highlighted above, the PSND is a fairly narrow measure of indebtedness. In November of last year HM Treasury published the 'Whole of Government Accounts' (WGA) which provides a fuller measure of UK debt by accounting for future pensions liabilities, PFI liabilities, etc. It also considers assets. These data provide an insight into the full extent of UK liabilities and illustrate how the addition of factors such as pensions impacts debt totals. Whilst this may be of less interest to the press, it is important to understand the broader liability levels for which an independent Scotland could be accountable. The WGA data are for the year to end March 2010; therefore, the PSND noted in this set of accounts is lower than that noted above, which is from the latest data set (January 2012).

[2] For the net debt ratio, the GDP denominator covers the 12 months centred around the observation, e.g. six months before and six months after it.

[3] To establish the Scottish GDP figure, a quarterly moving average growth rate has been applied to Q2 GDP at current market prices, not seasonally adjusted to establish the same 'point estimate' as for the UK.

Table 1 provides an overview of the key UK liabilities and assets as provided by the Whole of Government Accounts. From this it can be seen that net UK debts amounted to £2,033bn at the end of March 2010 (excluding financial sector intervention). The WGA data include estimates of all public sector assets (in particular the physical assets and illiquid financial assets not included in PSND). These are included in Table 1. Net debt was £1,212bn.

Table 1

UK Government Liability and Asset Figures end March 2010

Liabilities £bn		**Assets £bn**	
Public Sector Net Debt.	760	Tangible & intangible fixed assets	759
Future public sector pension liabilities[4]	1,132	Working capital	40
Provisions[5]	102	Investments	16
PFI	23	Other	6
Unamortised premium or discount on gilts[6]	16		
Total	**2033**	**Total**	**821**
Net Debt	**£1,212bn**		

Source: HM Treasury, Whole of Government Accounts, Year Ended 30th March 2010.

[4] This figure excludes the present value of future state pension payments to the population in general. It focuses on the pensions of some groups of public sector employees – NHS, teachers, police, fire-fighters, civil service.
[5] Provisions represent the best estimate of the liability for an expected future expense, arising from events that have happened in the past, that have been discounted to present value. Examples are nuclear decommissioning and clinical negligence payments.
[6] Gilt-edged securities, or gilts, are UK Government sterling denominated listed bonds that are fixed rate or index-linked with the return linked to movements in the Retail Prices Index. As the Government's debt manager, the Debt Management Office (DMO) sells gilts to the market to ensure sufficient funding is available to meet the Government's financial commitments

Table 2 provides a breakdown of **potential** Scottish liabilities. These are derived from either published sources or by taking a relevant share of the UK liability (we have used the Scottish share of the UK population as the basis for the calculation, although, as discussed above, other possible ratios could be used with differing results). This exercise shows that Scotland could inherit liabilities of £152.5bn. Using the updated figure for the PSND would bring this total to £171.8bn.

Table 2

Scottish Share of UK Liabilities

Liability	**Ratio used to calculate Scottish share of UK liability – where necessary**	**Scottish Liability £bn**
Public Sector Net Debt.	Population (8.4%)	63.8 (83.1bn using Jan. 2012 data)
Liabilities of the five main unfunded pension schemes*	-	69.0
Local Government Pension Scheme (councils only) deficit*	-	8.9
Provisions	Population (8.4%)	8.6
PFI**	-	0.9
Unamortised premium or discount on gilts	Population (8.4%)	1.3
Total		**£152.5bn (£171.8bn)**

* **Source: The Cost of Public Sector Pensions in Scotland, Audit Scotland, February 2011**

** **Source: Scottish Government Budget, Annex F, 'Estimated Payments under PPP Contracts' Oct 2011**

Measurement of Assets

Based on Table 1, the Scottish share of UK **assets** could be in the region of £69bn (Scottish population share of total UK assets). Although, it can be argued that Scotland has made a historic contribution to UK assets from North Sea oil revenues, the scope for discussion on that issue lies far outwith the remit of this paper. Therefore we stick with the share based upon population for illustrative purposes but noting the caveat. Based purely on these data, an independent Scotland would be accountable for net liabilities of circa £83.5bn based on the above data (£102.8bn if using the latest PSND data). As noted above, this excludes the impact of financial sector intervention.

It is important to note that these data are indicative. Others may add to the list below but reasons for this include:

1. The data do not all relate to the same time period. That which is calculated from the UK WGA was correct at the end of March 2010, whilst the pensions and PPP data relate to February and October 2011 respectively. The difference is unlikely to be so great as to render the exercise meaningless, but it is worth noting. The difference between the PSND figures for March 2010 and December 2011 also highlights how sensitive the numbers are to change over short time periods; and we must repeat that the data will change going forward.

2. The pensions' data relate to the five main unfunded pension schemes in Scotland and those in the local government pension schemes but are not complete for all Scottish public sector workers as they **exclude** pensions of those Scottish members of the armed forces, Scottish government civil servants working in England and unfunded local government employees. It would be possible to capture all Scottish public sector workers by pro rating the UK figure. However, this creates its own problems and would be likely to overestimate the pension liability as the salary structure of the public sector in England and Wales differs from that in Scotland i.e. there are more highly paid public sector workers outside Scotland. But this is speculation in a complex and uncertain area. The Scottish total for pensions' liabilities would be £112bn if the Scottish share of UK public sector workers (9.9%) was used to pro rata the pensions' liability total for the UK as a whole (£1,132bn as shown in Table 1).

3. Importantly, the discount rate used to discount future financial payments to the current value can significantly affect the pension liability total. The current discount rate used is very low due to particularly high bond prices. It is more than possible that, as these bond prices fall and the discount rate rises, pension liabilities will actually fall, all other things being equal. They are highly unlikely to increase any further. Also, government policies, such as increasing the pension age and indexing pension growth from the Consumer Price Index to the Retail Price Index, will result in falling pension liabilities going forward.

4. The pensions' data do not include future state pensions due to the population in general. This would be another liability a future Scottish government would need to consider following independence.

5. The PPP liability highlighted in the Scottish Government budget paper differs considerably from the calculated total if the WGA data are used as the basis for Scotland's share of UK liabilities (the latter shows Scotland as inheriting £1.9bn of the UK PFI debt). This compares with a figure above of £0.9bn. There are probably definitional issues here.

6. If the data were disaggregated further, there would be cause for discussion around individual debt incurring expenditures e.g. Trident.

7. £60.6bn of the UK Provisions highlighted in Table 2 accounts for nuclear decommissioning. Five of the UK's 18 power stations are in Scotland – 28% of the total, which is far in excess of the Scottish share of UK population which was used as the basis for calculating Scotland's share of the debt. Two added complications are that power from these stations was sold across the UK; and the present Scottish Governments attitude to nuclear power. Clearly, there will be much to negotiate.

8. A final point concerned with debt management is that the latest Debt Management Office report (Oct. – Dec. 2011) shows that the mean duration of UK debt last September was 14.5 years. This is a long average maturity, meaning that the UK does not need to go to the markets significantly to roll over existing debt. Thus, skilful management of debt maturity will reduce debt servicing costs for the UK. If Scotland took over its share of the debt, would it subcontract to the DMO, or set up its own office and, if so, would it perform as well? Clearly, it is not just the size of the debt which matters but also how it is treated going forward.

The Scottish Banks - Royal Bank of Scotland (RBS) and HBoS

Having made an estimate of current Scottish liabilities, a question remains over the treatment of the Scottish banks and whether or not their liabilities should be considered to be Scottish debt. As a Scottish headquartered institution, it could be argued that those UK liabilities arising from the bail-out of RBS should be transferred to the Scottish Government following independence (and also HBoS/Lloyd's since the problems arose at the then Scottish-headquartered Bank of Scotland). However, it could be argued that the failure of RBS and HBoS was down to Treasury failure of oversight and regulatory failure by the UK Financial Services Agency (FSA) and, as such, is not a Scottish problem. In addition, although headquartered in Scotland, RBS business was spread throughout the UK (and elsewhere).

It is very difficult to establish the true nature of liabilities arising from financial sector intervention. Above we have shown UK PSND as at January 2012 at £988.7bn or 63% of GDP.

If all financial intervention were to be included – i.e. the maximum RBS and Lloyds liabilities + Northern Rock intervention and others – then this rises to £2,311.6bn – 147.3% of UK GDP according to Office for National Statistics data. Much of this £2.3bn is denoted as '**temporary**' effects of the financial sector interventions and is excluded from the official statistics due to the volatility of the data and the fact that, once the Government sells its equity stakes in the banks, there will be no lasting impact from this on the public finances. The data are not disaggregated to show the liabilities of the individual banks and in any case, they are highly volatile and unlikely to shed any light on liabilities in 2015 and beyond. Thus, we need to consider the banks debts in a different way.

There were three elements to the debt arising from rescuing the banks:

1. The sum spent directly to recapitalise the banks. In the narrowest terms, the UK government purchased equity in the crisis hit banks amounting to £65.8bn - £45.5bn to RBS and £20.3bn to HBoS/Lloyd's TSB in 2008. The extent to which the UK government recoups these amounts depends on the prices it secures when it sells its stakes.

2. The amount pledged to the banks through the Asset Protection Scheme to help with any further difficulties they may experience. A National Audit Office report (July 2011) shows that at the peak of the crisis, £464.6bn was pledged to the two banks through the Asset Protection Scheme and Contingent capital in RBS – clearly cash was pledged but not drawn down (Lloyds has subsequently left the scheme). The APS works like a conventional insurance policy. RBS pays an annual fee to participate in the APS (like the "premium" in a standard insurance policy), in return for which the Government insures the value of certain assets that RBS owns. If those assets fall in value, RBS will absorb the first £60 billion of losses (like the "excess" in a standard insurance policy). Any losses beyond the first £60 billion will be shared by RBS and the Government at a ratio of 1:9 (i.e. RBS taking 10 percent of the loss and the government taking 90 percent). However, RBS has announced its intention to exit the APS this year, subject to FSA agreement. Hence, while there is some potential liability remaining, the probability attached to that eventuality has decreased and looks set to decline further. To exit the Scheme, RBS will make a payment of a minimum of £2.5bn minus any fees already paid

3. A further element of the rescue package for the UK financial sector was government guaranteed loans from the Bank of England under the Credit Guarantee Scheme. This is likely to be terminated this year i.e. all of the monies borrowed will have been repaid this year.

This suggests that, beyond the end of 2012, the main direct exposures of the UK government to the banks will arise through its equity holdings. The government would book a loss, adding to debt, if it sold its holdings at less than the price it paid for them. It would book a profit, cutting debt, if it sold at a price higher than it paid.

Secondly, while the government retains a large holding in the banks, their assets and liabilities appear as temporary items on the public balance sheet. Focussing only on the liabilities seems to be unduly limited a perspective on the issue.

Indeed, the Scottish Government has recently published its 'Government Expenditure and Revenue Scotland 2010-2011 document[7] which estimates a set of public sector accounts for Scotland through detailed analysis of official UK and Scottish Government finance statistics. This contains a section on the UK government's financial sector interventions and provides information on Scotland's share of the **permanent** effects of the interventions, excluding temporary effects. The statistics are derived from the UK published PESA data (Public Sector Statistical Analysis) which classifies the permanent effects of the UK Government's financial interventions as UK non-identifiable expenditure i.e. the cost cannot be assigned to particular countries or regions. This is clearly the situation under the current constitutional arrangement. However, the numbers are interesting and are shown in table 3.

As stated in an explanatory note to the GERS publication, permanent impacts of the interventions included in the public sector finances are:

- Fee income or loss payments from the Asset Protection Scheme and the Credit Guarantee Scheme.
- Interest payments from the public sector banks to the Government and interest flows from the Asset Purchase Scheme.
- Capital injections from Northern Rock.
- Depositor compensation from the Government's support for Bradford and Bingley.
- Equity injections into the Royal Bank of Scotland and Lloyds Banking Group.

Temporary impacts have the potential to be large and volatile as they include the public owned banks gross operating surpluses, their transactions with the private sector and their net liabilities. Once the banks are transferred back to the private sector, these effects will have no lasting impact on the public sector finances.

Table 3

Scotland's Estimated Share of UK Government's Financial Stability Expenditure £m

	2008-09	**2009-10**	**2010-11**
Current	-88	-30	-154
Capital	788	380	0
Total	**699**	**351**	**-154**

Source: GERS 2010-11

In Table 3, net outlays associated with the UK government's financial interventions are recorded as a capital expenditure, whilst the fees received from the various schemes are recorded as a negative current expenditure.

[7] Government Expenditure and Revenue Scotland 2010-11, Scottish Government, March 2012

Thus, this suggests that during the period 2010-11, Scotland received a population share of fees amounting to £154m. There were no outlays.

Forecast Net Debt

A referendum is expected in the autumn of 2014. By this time, UK PSND is forecast to grow from the current figure to 78% of GDP - £1.4trillion by 2014-15[8]. The PSND element for Scotland would, on the basis of the latter figure, increase proportionately to £118bn. Other aspects of inherited debt may be higher or lower - the Office for Business Responsibility's Economic and Fiscal Outlook has forecast that by 2011-12, assets will be negative, but pensions' liabilities may be lower. Some of the RBS/HBoS debt could be recouped or (less likely but feasible) the banks' situation may have deteriorated depending on trading conditions over the next three to four years.

Conclusion

This paper has discussed the various elements to consider when trying to establish Scotland's potential debt figure post independence. We have declined to create a final total of possible inherited debt. There are simply too many uncertainties and too many scenarios - most of which could change significantly by the time of the referendum - to provide sensibly any single figure that would be 'Scotland's debt total'.

The complexities of the situation will be fertile ground for political and economic debate going forward. It is hoped, however, that this note will provide some information on some of the issues and the associated numbers. We would welcome comment and further insight.

Lesley Sutton

David Hume Institute, March 2012

[8] Office for Budget Responsibility (OBR), November 2011