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HOW SUSTAINABLE IS SUB-NATIONAL PUBLIC DEBT IN AUSTRALIA?

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Abstract

Since the Global Financial Crisis the public indebtedness of Australia's States and Territories has risen significantly due to sizeable fiscal deficits. This paper examines the stability of sub-national governments' indebtedness before gauging the fiscal effort needed to scale back public debt to GSP ratios to ten-year average levels. To do this, we first derive key debt sustainability formulae which are then applied to relevant sub-national data. The analysis reveals that under macroeconomic conditions and fiscal settings in 2012-13, debt levels were unstable for all State and Territory general governments. Moreover, virtually all sub-national governments in Australia need to turn existing primary budget deficits into substantial surpluses to restore public debt to levels experienced on average over the previous decade. This is not in prospect without even more substantial fiscal consolidation than currently envisaged in State and Territory budgets.

JEL: H62, H63

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HOW SUSTAINABLE IS SUB-NATIONAL PUBLIC DEBT IN AUSTRALIA?

1. Introduction

The sustainability of public debt has assumed greater significance as an economic policy issue since the 2008-09 Global Financial Crisis. In the wake of that crisis, budget deficits and public debt levels rose sharply as governments around the world increased budget spending as a countercyclical measure. Meanwhile, sources of government revenue collapsed due to the widespread downturn in economic activity (IMF 2013). Two key questions inevitably arise for any government whose stock of public debt keeps growing: is the public debt trajectory stable or unstable and, if unstable, what budgetary stance is required to bring public debt under control?

Many authors have examined the issue of government debt sustainability, mainly with reference to developing and emerging economies, based on the relationship between budget deficits and public debt accumulation (see for instance Buiter 1985, Fischer and Easterly 1990, Frederickson 2001, Hemming, Kell and Schimmelpfennig 2003, Reinhart, Rogoff and Savastano 2003, Bohn 2008, Budina and Van Wijnbergen 2009, Escolano 2010, IMF 2010, Hernandez and Gamarra 2011, Rangarajan and Srivastava 2012, Ghosh, Ostry and Qureshi 2013, and Tanner 2013). In light of the large increases in the public indebtedness of most OECD member countries post-crisis, debt sustainability analysis has also become increasingly relevant to advanced economies.

To date, research addressing the above questions has mainly centred on public debt sustainability at the national level. Yet in many economies, fiscal positions have also seriously deteriorated at sub-national level, including in Australia's States and Territories which are the focus of this paper. There is a surprising dearth of academic literature

examining sub-national public debt in Australia, despite the extensive data provided by the Australian Bureau of Statistics and in State budgets, which are published in accordance with the Loan Council Uniform Presentation framework (Commonwealth of Australia 2008, p v) established after the May 1991 Premiers' Conference and updated in subsequent agreements of 2002, 2003 and 2008.

The higher public debt levels of Australia's States and Territories not only imply an increased burden for the future taxpayers of those jurisdictions, but also raise economic risks in the present. For instance, according to standard macroeconomic models, the demand for domestic funds from sub-national governments, when aggregated, puts upward pressure on domestic interest rates and appreciates the economy's exchange rate. This crowds out private investment and net exports via worsened industry competitiveness, which limits growth in the wider economy.

A sub-national government's public debt becomes unstable when it continues to increase as a proportion of that jurisdiction's production, or Gross State Product (GSP), because interest payments on the debt keep adding to budget deficits, and hence the public sector borrowing requirement without limit. The probability of default rises as public debt escalates, as recognised by the major credit rating agencies, Standard and Poor's (2010) and Moody's (2013). These agencies monitor a range of institutional and financial measures, including the ratio of debt to tax revenue, that are closely related to the debt/GSP ratio (in part because there are economic and political constraints on the share of tax revenue to GSP). Downgrades to creditworthiness that reflect this risk raise the interest premium that lenders

require as compensation which further swells public debt interest obligations, leading to a vicious circle of deficits and debt¹.

In this paper we show that the capacity of sub-national governments in Australia to meet their debt obligations essentially depends on the following factors – the size of public debt relative to GSP, the effective servicing cost of that debt relative to GSP and the size of the primary budget balance. The primary budget balance is defined as the conventional fiscal cash surplus (+) or deficit (-) but excludes the impact on the balance of public debt interest payments².

The primary balance is central to debt sustainability analysis since, together with interest payments on previously accumulated debt, it governs the rate at which public debt accumulates. Governments directly control the primary fiscal balance through discretionary fiscal measures that alter either public spending, revenue-raising, or both. Unlike at federal level, there is no scope for monetising budget deficits at State level, so no financing via seigniorage occurs.

A state's budgetary stance becomes untenable if its public debt to GSP ratio (and associated debt to tax revenue ratio) exceeds a level lenders will support at prevailing interest rates.

Exactly what this level is can vary from state to state, depending on the nature of the government spending or transfers being funded and how quickly debt has accumulated. If public debt escalates rapidly, sub-national governments need to decide whether merely stabilising debt to GSP is sufficient. If not, then a lower debt to GSP target has to be set.

¹ The Queensland Commission of Audit (2012, p16) estimated for instance that the Queensland government's debt servicing costs were approximately \$100 million per annum higher than if the state had a AAA credit rating.

² The conventional balance equals Taxes (T) less Government Spending (G). The Primary Balance (PB) = T – (G – PDI) where PDI is interest paid on government debt. Because the analysis is focused on the determinants of government borrowing and the associated call on financial markets, Government Spending (G) includes capital expenditure.

2. Sub-national Public Sector Borrowing and Debt: Recent Trends³

As the States and Territories incurred substantial budget deficits from the mid to late-2000s, sub-national sector debt to GSP ratios rose accordingly. Of the States, Queensland had the largest rise in State general government debt as a percentage of GSP to over 12% of GSP in 2012-13, the highest of all the States (see Chart 1A). The Territories followed a different pattern with the NT having relatively high though falling debt to GSP up to 2008/9, while the ACT had broadly stable general government debt to GSP until 2010/11. Since then debt/GSP has increased for both Territories.

Total public sector borrowings include borrowings of local government, public financial corporations and public non-financial corporations, in addition to State and Territory general government borrowings. As occurred for the general government sector, the swing to sizeable deficit for the total public sector has generally resulted in rises in total public sector debt to GSP, with Queensland recording the largest rise of any of the State and Territory governments to record the highest debt/GSP ratio of all States and Territories⁴ (see Chart 1B).

³ The analysis used here focuses on gross debt rather than net debt (i.e. gross debt less financial assets). In very summary terms, this is our preferred treatment on the basis that financial assets are required to meet the large unfunded liabilities of the public sector superannuation schemes. Indeed, for three States and both Territories, unfunded superannuation liabilities exceed financial assets. This issue is discussed further in the Appendix.

⁴ Tasmania was the exception to the upward trend from the mid-2000s since it had high prior debt due to large borrowing by electricity and forestry entities.

Chart 1A: General Government Borrowings - % of GSP

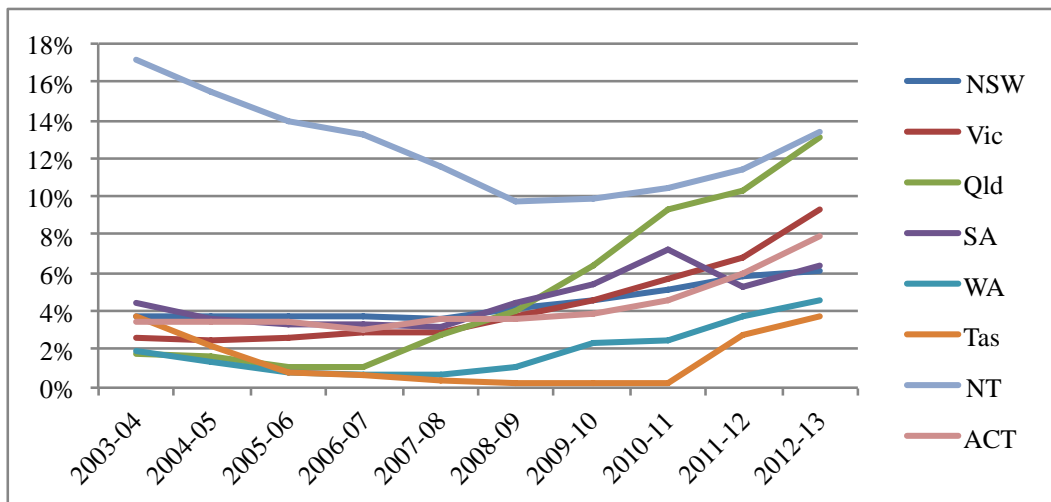
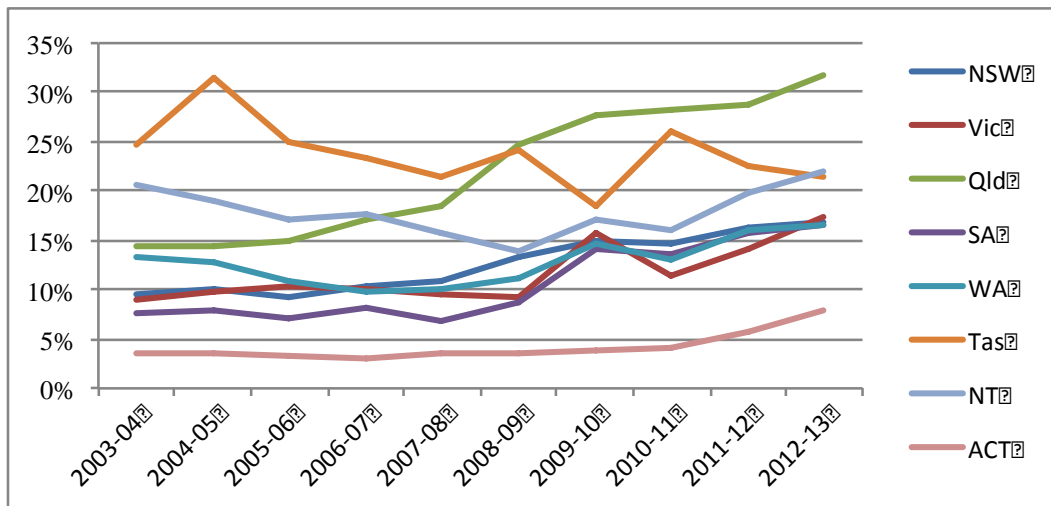


Chart 1A: Total Public Sector Borrowings - % of GSP



Source: ABS, Government Finance Statistics, Australia, 2012-13, 5512.0; ABS Australian National Accounts: State Accounts, 2012-13, 5220.0

3. *Stabilising Sub-national Public Debt*

In this section we examine the stability of public debt with reference to a formula relating key variables which is first derived and then empirically applied to the relevant sub-national data.

3.1 Arithmetic Foundations

The government budget constraint provides the basis for conveying public debt dynamics and for determining the fiscal response needed for debt stabilization. This constraint simply states that public debt (D) in the present period equals previously accumulated debt, plus public debt interest, paid at an effective interest rate of i , plus the Primary Deficit (or less the PB). In discrete time, this can be expressed as

$$D_t = D_{t-1} + iD_{t-1} - PB_t \quad (1)$$

Dividing by nominal GSDP (or Y_t)

$$\frac{D_t}{Y_t} = (1+i) \frac{D_{t-1}}{Y_t} - \frac{PB_t}{Y_t} \quad (2)$$

or alternatively, this can be rewritten as

$$\frac{D_t}{Y_t} = \frac{(1+i)}{(1+g)} \frac{D_{t-1}}{Y_{t-1}} - \frac{PB_t}{Y_t} \quad (3)$$

where g is the nominal rate of economic growth.

Taking the change in the public debt to national income ratio

$$\frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}} = \frac{(1+i)}{(1+g)} \frac{D_{t-1}}{Y_{t-1}} - \frac{D_{t-1}}{Y_{t-1}} - \frac{PB_t}{Y_t} \quad (4)$$

Setting

$$\Delta\left(\frac{D}{Y}\right) = \frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}} \quad (5)$$

and simplifying

$$\Delta\left(\frac{D}{Y}\right) = \left[\frac{i-g}{1+g} \right] \frac{D_{t-1}}{Y_{t-1}} - \frac{PB_t}{Y_t} \quad (6)$$

Equation (6) shows that public debt to GSDP rises, as the primary deficit and interest rate rise and as the rate of nominal economic growth (g) falls. To stabilize public debt to national income,

$$\frac{PB_t}{Y_t} = \left[\frac{i-g}{1+g} \right] \frac{D_{t-1}}{Y_{t-1}} \quad (7)$$

or simply

$$pb = \mu \left[\frac{i-g}{1+g} \right] \quad (8)$$

where pb is the primary balance to income ratio and μ is the previous period debt to income ratio.

The relationship between nominal and real interest rates is

$$i = (1+r^*)(1+\pi) - 1 \quad (9)$$

where r^* is the real interest rate and π is the inflation rate, and the relationship between nominal and real growth is

$$g = (1+g^*)(1+\pi) - 1 \quad (10)$$

Hence, through substitution, and assuming small product terms are negligible, (8) can also be written as

$$pb = \mu \left[\frac{r^* - g^*}{1 + g^* + \pi} \right] \quad (11)$$

If the interest rate exceeds the growth rate, a primary surplus is required for debt stabilization, whereas if the growth rate exceeds the interest rate, a primary deficit is possible. Hence, we have shown that in estimating the requisite primary balance, it makes no significant

difference if nominal or real values are used for the interest and growth rates, the key driver being the difference between these respective values.

This derivation abstracts from ‘seigniorage’ which occurs when budget deficits are money financed by central banks. Seigniorage effectively provides an additional source of ‘revenue’ to national governments and, if used in a limited way, is not necessarily inflationary if increased real money demand associated with buoyant economic growth matches the money supply expansion due to the money financing of budget deficits. At state level however, seigniorage is in any case irrelevant, since state governments are unable to money finance their budget deficits.

3.2 Empirical Results

Relation (8) is now combined with recent data on budget deficits, debt levels, prospective GSP growth rates and effective interest rates to estimate the primary balances required to stabilise sub-national public debt levels. Public debt, budget deficit and interest rate data for the state governments is available from *Government Finance Statistics* (ABS 2012-13) and state domestic product data from *Australian National Accounts: State Accounts* (ABS 2012-13). As prescribed by equation (8), this data yields values for state government primary balances that stabilise debt levels expressed as a proportion of GSP. These values can then be compared to actual primary balances. If the actual values exceed the stabilising values, public debt ratios are falling whereas if actual values are less than stabilising values, public debt ratios are rising. Using the concepts in the preceding section and equation (8) we can derive the data in Tables 1A and 1B (in which red shows debt/GSP is unstable).

Table 1A: Actual versus stabilising primary budget balances - General Govt 2012-13

	Public Debt/GSP (a)	Nominal effective interest rate (b)	Nominal GSP growth (3 year av) (c)	Actual primary balance (d) % of GSP	Required primary balance (e) % of GSP
	%	%	%		
NSW	6.1%	5.81%	4.81%	-0.28	0.06
Vic	9.3%	6.34%	4.50%	-0.42	0.16
Qld	13.1%	5.76%	4.90%	-2.33	0.11
SA	6.5%	7.12%	4.36%	-1.30	0.17
WA	4.6%	4.40%	10.36%	-0.67	-0.25
Tas	3.8%	1.74%	1.31%	-0.43	0.02
NT	13.4%	7.60%	7.28%	-0.36	0.04
ACT	7.9%	4.92%	6.11%	-0.94	-0.09

Table 1B: Actual versus stabilising primary budget balances: Total public sector 2012-13

	Public Debt/GSP (a)	Nominal effective interest rate (b)	Nominal GSP growth (3 year av) (c)	Actual primary balance (d) % of GSP	Required primary balance (e) % of GSP
	%	%	%		
NSW	16.8%	4.60%	4.81%	0.86	-0.03
Vic	17.3%	4.77%	4.50%	-3.51	0.05
Qld	31.8%	4.60%	4.90%	-3.28	-0.09
SA	16.5%	9.30%	4.36%	-0.12	0.78
WA	16.6%	4.37%	10.36%	-0.85	-0.90
Tas	21.3%	5.85%	1.31%	0.97	0.96
NT	22.1%	6.07%	7.28%	-1.12	-0.25
ACT	7.8%	4.96%	6.11%	-1.19	-0.08

Denotes that actual primary balance is insufficient to stabilise debt.

(a) Public debt includes borrowings only.

(b) Derived by dividing interest paid by the average of public debt at 30 June of the prior year and current year.

(c) Arithmetic average of the percentage growth in nominal GSP over the three years to the year shown.

(d) Primary balance is derived as Surplus less Interest paid

(e) Derived as $((\text{col 2}) - (\text{col 3}) / (1 + (\text{col 3})) \times (\text{col 1}))$. Refer equation (8) in the text.

Sources ABS, Government Finance Statistics, Australia, 2012-13, 5512.0

ABS, Australian National Accounts: State Accounts, 2012-13, 5220.0

These results can be represented graphically whereby only those states and territories which have a budget outcome above the 45 degree line in the following chart have budget position consistent with stable debt/GSP. This does not occur for any State or Territory general government sector implying that on 2012-13 budget settings debt was unstable relative to GSP. At total public sector level, Tasmania and WA are close to the debt stability line, while NSW recorded a primary (and total) budget surplus due to sales of non-financial assets. All other States and Territories failed to record a primary surplus sufficient to stabilise debt/GSP (see Charts 2A and 2B).

Chart 2A: General Government - Actual vs Required Primary Balance 2012-13

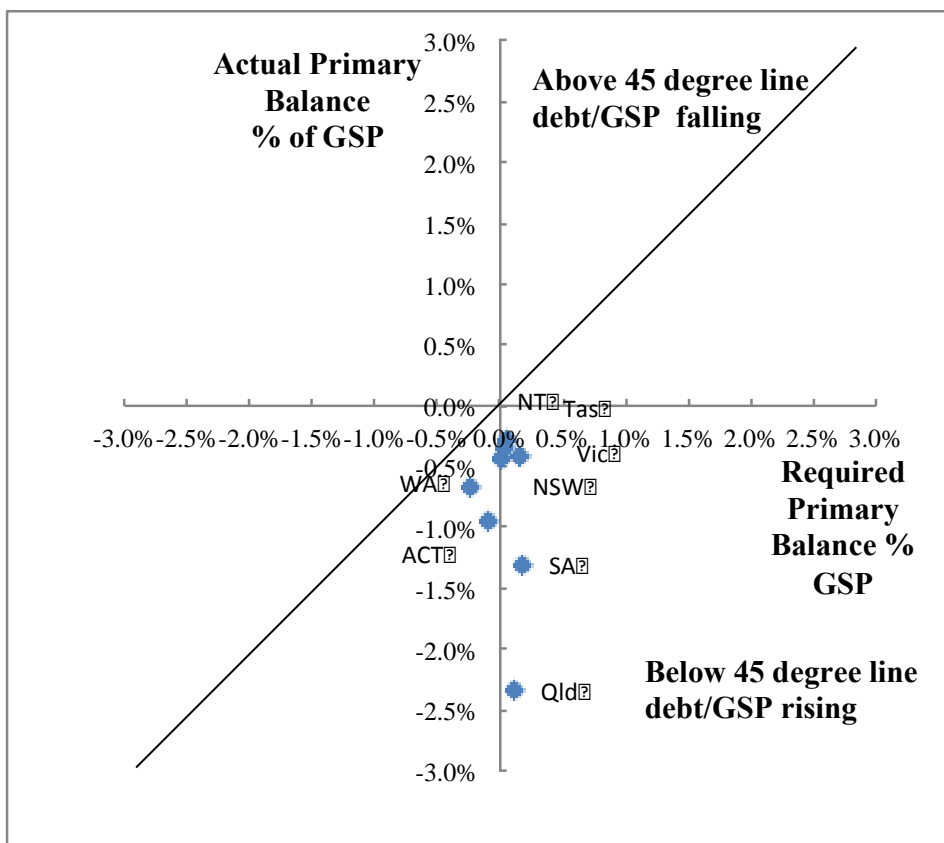
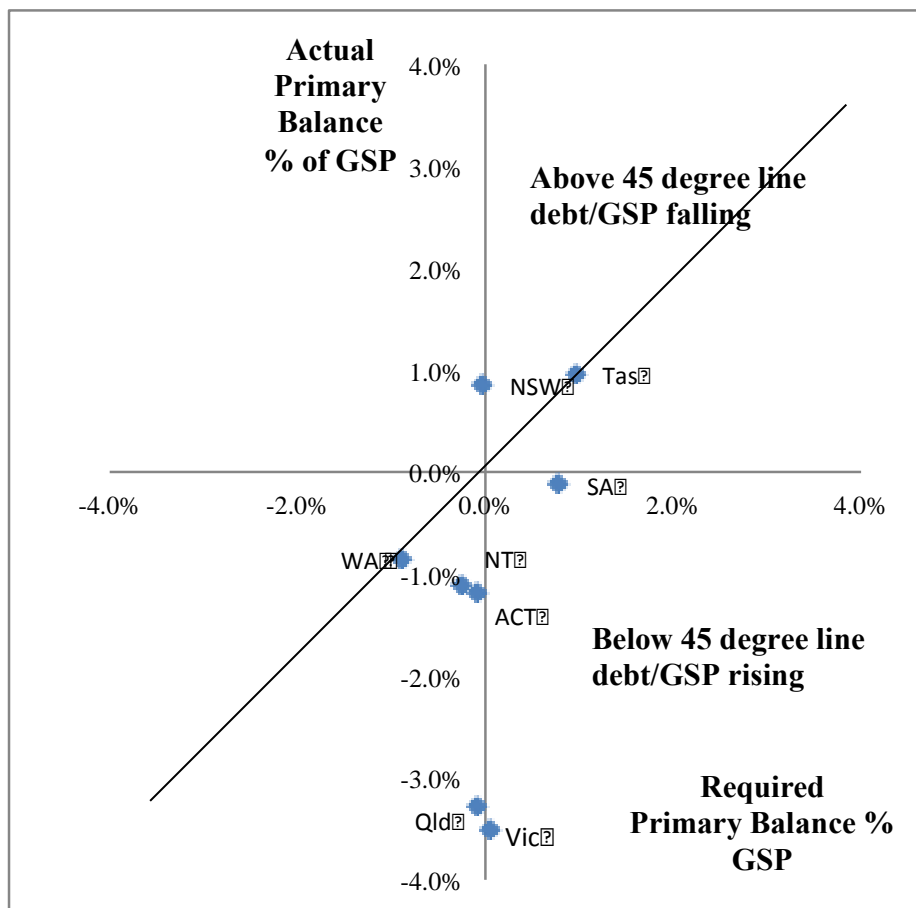


Chart 2B: Total Public Sector - Actual vs Required Primary Balance 2012-13



The above analysis is based on current interest rates and estimated future growth in nominal GSP based on the three-year average to 2012-13. For a number of States and Territories, nominal GSP growth over the three years to 2012-13 exceeds nominal interest rates (for example in WA due to historically high state terms of trade). Over the long term, the real interest rate (and the nominal interest rate) is expected to exceed the real growth rate (and the nominal growth rate)⁵. Equation (11) implies that, in this circumstance, primary budget surpluses are required to stabilise debt/GSP ratios (or, expressed in another way, any budget deficit must be solely the result of interest payments on government debt). At general government level in 2012-13 no State or Territory met this requirement for long-term stability. Only Tasmania and NSW recorded a primary surplus in 2012-13 at total public sector level (NSW due to sale of non-financial assets).

4. Reducing Sub-national Public Debt

The foregoing analysis has estimated the primary balances necessary to stabilise debt ratios at existing levels. However, if very high, a level that has been stabilised may not necessarily be sustainable into the future. Instead, a lower target value may need to be achieved by a certain time, for example within three years, five years or ten years. If so, the fiscal consolidation has to be greater. The following derives a key formula for estimating the primary balance required to achieve targeted debt levels at some time in the future.

4.1 Arithmetic Foundations

Solvency requires that present debt, D_t can eventually be repaid at some time in the future, $t + n$, such that $D_{t+n} = 0$. This means that the present value of budget surpluses over the period must equal the debt stock at t .

⁵ For further discussion see Escolano (2010), pp8-9.
<http://www.imf.org/external/pubs/ft/tnm/2010/tnm1002.pdf>.

Informally, if the real growth rate exceeds the real interest rate over the long run, then the present value of output and income would be infinite which violates various boundary conditions for stability.

Hence,

$$D_t = \frac{PB_{t+1}}{(1+i)} + \frac{PB_{t+2}}{(1+i)^2} + \frac{PB_{t+3}}{(1+i)^3} + \dots + \frac{PB_{t+n}}{(1+i)^n} \quad (12)$$

or

$$D_t = \frac{\sum_{j=1}^n (1+i)^{n-j} PB_{t+j}}{(1+i)^n} \quad (13)$$

Solving for the constant primary balance \overline{PB} to achieve solvency,

$$\overline{PB} = \frac{D_t (1+i)^n}{\sum_{j=1}^n (1+i)^{n-j}} \quad (14)$$

Now the stock of public debt at some time hence will depend on the pre-existing debt less the discounted sum of future primary surpluses, such that

$$D_{t+n} = D_t (1+i)^n - \sum_{j=1}^n (1+i)^{n-j} PB_{t+j} \quad (15)$$

Dividing (15) by Y_{t+n} and noting that

$$(1+g)^n Y_t = Y_{t+n} \quad (16)$$

Yields

$$\frac{D_{t+n}}{Y_{t+n}} = \frac{D_t (1+i)^n - \sum_{j=1}^n (1+i)^{n-j} PB_{t+j}}{(1+g)^n Y_t} \quad (17)$$

If the debt to income ratio is reduced to a proportion v of the existing ratio between t and $t+n$

$$\frac{D_{t+n}}{Y_{t+n}} = v \left(\frac{D_t}{Y_t} \right) \text{ where } 0 \leq v \leq 1 \quad (18)$$

Hence, substituting in (17)

$$v \left(\frac{D_t}{Y_t} \right) = \frac{D_t (1+i)^n - \sum_{j=1}^n (1+i)^{n-j} PB_{t+j}}{(1+g)^n Y_t} \quad (19)$$

Solving for D_t and re-dividing by Y_t , it follows that

$$\frac{D_t}{Y_t} = \frac{-\sum_{j=1}^n (1+i)^{n-j} \overline{PB}_{t+j}}{[v(1+g)^n - (1+i)^n]} \cdot \frac{1}{Y_t} \quad (20)$$

Solving (20) for the constant primary balance (\overline{PB}) as a proportion of national income that would satisfy condition (18)

$$\frac{\overline{PB}}{Y_t} = \frac{D_t}{Y_t} \cdot \frac{[(1+i)^n - (1+g)^n v]}{\sum_{j=1}^n (1+i)^{n-j}} \quad (21)$$

or

$$pb = \psi \cdot \frac{[(1+i)^n - (1+g)^n v]}{\sum_{j=1}^n (1+i)^{n-j}} \quad (22)$$

where pb is the primary balance to income ratio and ψ is the current period public debt to income ratio v is the proportion of the targeted debt to GDP ratio to the current ratio and n is the number of years allowed to achieve the target ratio.

4.2 Empirical Results

Given the substantial escalation in debt/GSP ratios over the past decade, it can be argued that stabilising debt at its current higher level is an inadequate goal for sub-national fiscal policy. Alternatively, State and Territory governments could aim to restore their public debt/GSP ratios to previous 10 year average levels. Estimates of the primary balances required to achieve such a target based on equation (22) are shown in Charts 3A and 3B. In general, the more time sub-national governments have to achieve this target, the smaller their annual primary surpluses need be.

Table 3A: Actual vs target primary budget balances: General govt sector
Target debt/GSP equals 10 year average to 2012/13

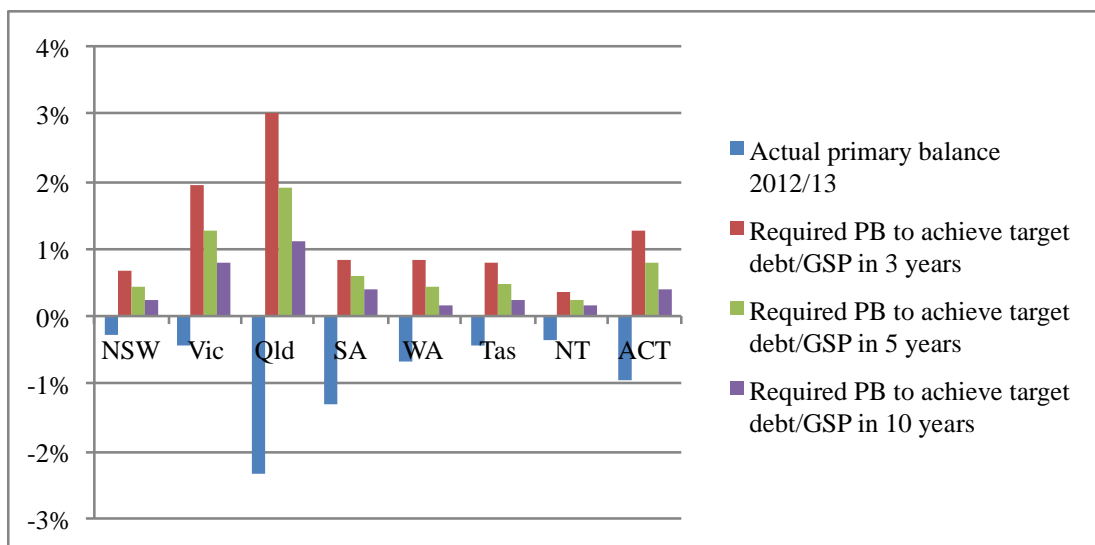
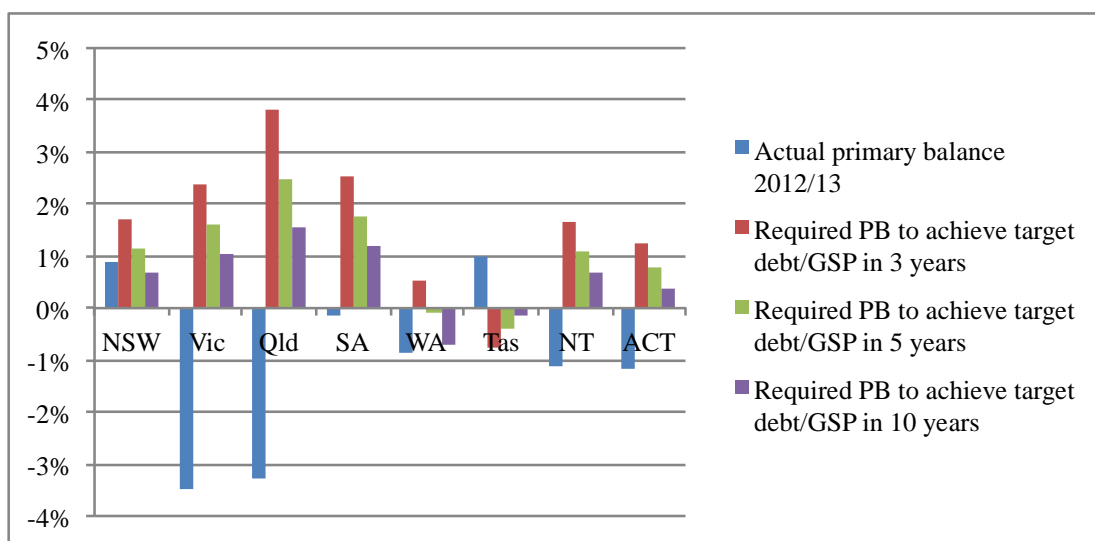


Table 3B: Actual vs target primary budget balances: Total public sector
Target debt/GSP equals 10 year average to 2012/13



Source: ABS, Government Finance Statistics, Australia, 2012-13, 5512.0; ABS, Australian National Accounts: State Accounts, 2012-13, 5220.0; Table 1 above and authors' calculations from Equation 22.

The analysis shows that no sub-national government had a general government primary balance in 2012-13 sufficient to bring general government debt/GSP back to its 10 year average in either 3, 5 or 10 years assuming the balance outcome in 2012-13 is sustained for the period. With the exception of Tasmania, the total public sector primary balance for all

States and Territories was insufficient to bring public sector debt/GSP back to its 10 year average in either 3 or 5 years, while only NSW and Tasmania recorded a primary surplus sufficient to achieve the target in 10 years⁶.

The above analysis has used the ten year average of general government or total public sector debt to GSP as a suitable “target”. There have been policy recommendations that the appropriate target for general government debt is lower than this “target”. Prior to the rapid growth in State debt in Queensland from the mid 2000s, the Queensland government was committed to what was called the “trilogy”. The part of the trilogy relevant to debt policy was variously described, but can be summarised as a requirement that “borrowings be restricted to assets that generated their own revenue stream to service the debt”⁷. This is equivalent to saying that the general government sector should not borrow and that general government debt should be zero. The Victorian Independent Review of State Finances (2011) recommended that: “General Government net debt is equal to zero on average over a 10-year rolling period”⁸. Based on the financial assets and liabilities of Victoria in 2012-12 (ABS, *Government Finance Statistics*, 2012-13), this is consistent with gross debt of 3% of GSP, lower than the 10 year average of 4% and the 2012-13 level of 9%.

⁶ For Tasmania, this outcome arises because its total public debt/GSP in 2012-13 is below the 10 year average. The 10 year average debt/GSP for Tasmania is nearly twice the national average and therefore an inappropriate target. For NSW the primary surplus arises due to sale of non-financial assets and the surplus may not therefore be sustained.

⁷ Queensland Commission of Audit (2102) *Interim Report*, Brisbane, p53. More recently the Queensland Government has committed to maintaining a general government fiscal balance (which includes capital purchases) and hence, by implication, maintaining a primary budget surplus. See Queensland Government, *Budget Strategy and Outlook*, Budget Paper No 2, 2014-15, p 6.

⁸ Independent Review of State Finances (2011) *Interim Report*, Victorian Government, Melbourne, p14.

If the target debt/GSP for the general government sector was set in line with these more restrictive prescriptions, then the required level of general government balance over a 3, 5 or 10 year period would be even larger than estimated above.

Primary Balances Based on Budget Forward Estimates

The above analysis has illustrated some important underlying dynamics of debt stabilisation. However, there are some inevitable limitations in the numerical analysis because the average growth in nominal GSP over the prior three years may be a poor predictor of future growth and there are approximations in the estimates of the interest rate paid (eg the method underestimates the interest cost of new debt if debt is rising and overestimates the cost of new borrowings if the general interest rate structure is falling).

To supplement the above analytical approach, this section draws on sub-national budgets for 2014-15 and budget forward estimates, together with projections of GSP in budget documents, to examine the primary balance and debt/GSP trends for the State general government sector⁹. The analysis is confined to the general government sector as not all States and Territories provide forward estimates of the consolidated public sector. Data for Tasmania is based on the State's 2013-14 budget as the current year budget had not been delivered at time of writing.

⁹ The measure of budget balance used in the analysis is based on ABS Government Financial Statistics (GFS) cash surplus (+)/deficit (-) including finance leases and similar arrangements (a finance lease in SA for the Royal Adelaide Hospital has a major impact on SA data for 2015-16 including subsequent debt levels). NSW and Victorian budget papers provide estimates or projections of nominal GSP. For other States and Territories nominal GSP was calculated using the relevant budget papers estimate or projection of real GSP growth and inflation (typically CPI growth) as a proxy for growth in the GSP deflator, together with nominal GSP in 2012-13 from ABS, *Australian National Accounts: State Accounts, 2012-13*, 5220.0.

Chart 4A: General Government Sector Primary Balance - % of GSP

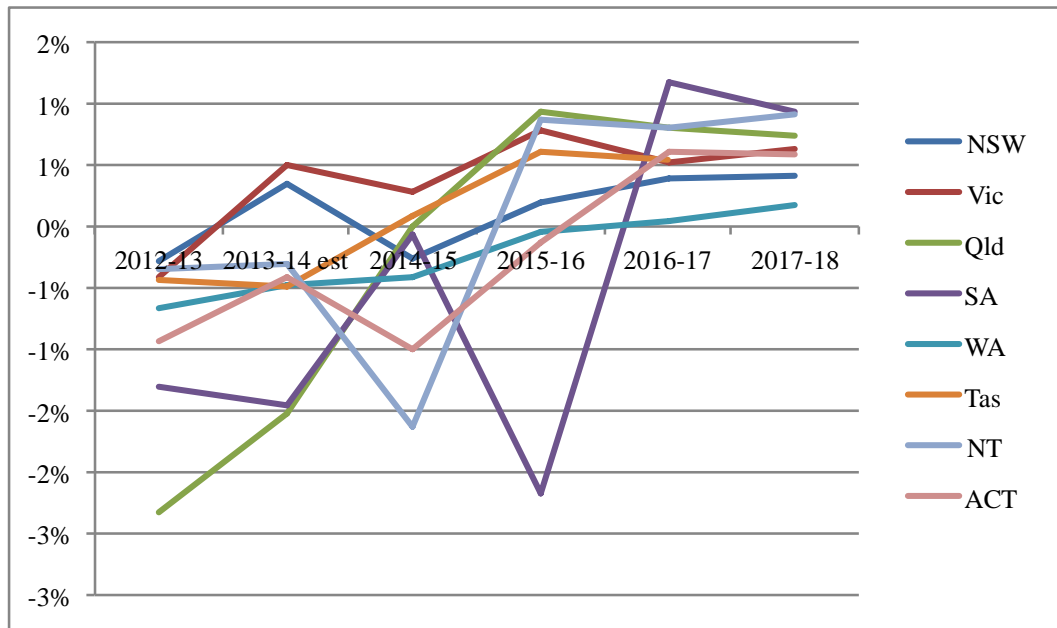
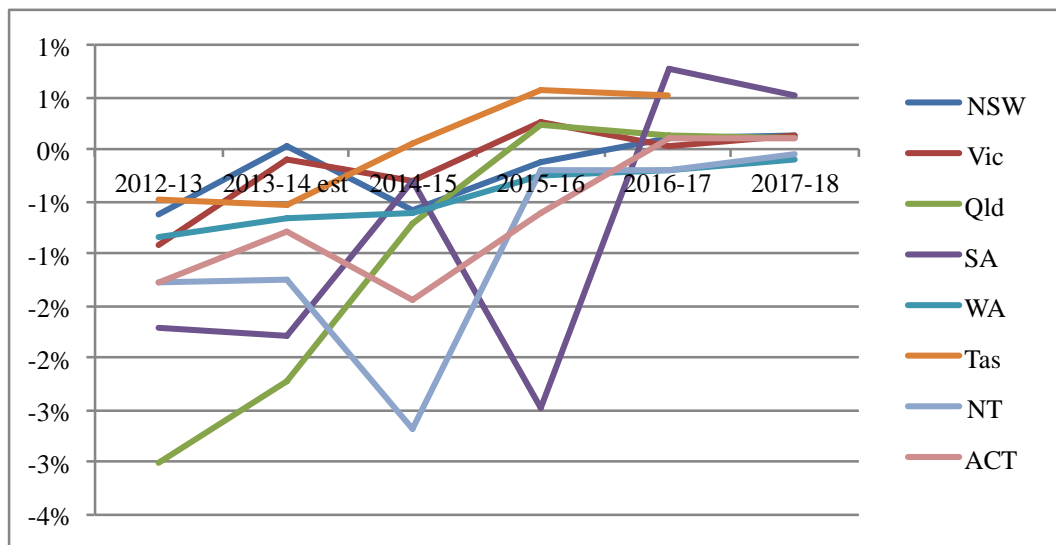


Chart 4B: General Government Sector Total Balance - % of GSP

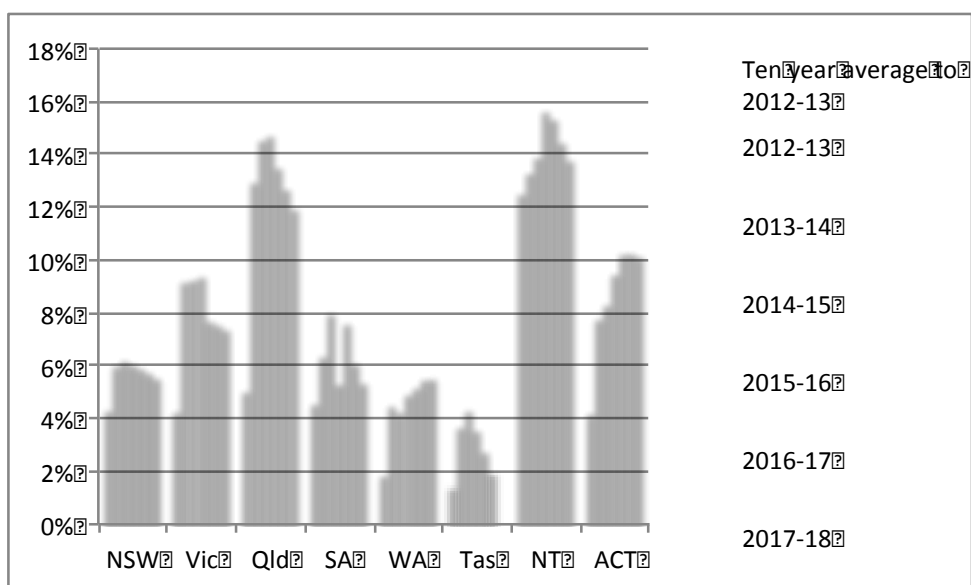


Source: State and Territory Budget Papers, 2014-15; Tasmanian budget data is from 2013-14 Budget papers; ABS, Australian National Accounts: State Accounts, 2012-13, 5220.0; ABS, Government Finance Statistics, Australia, 2012-13, 5512.0

Chart 4A shows that some States and Territories have budgeted for a primary budget surplus in 2014-15. However, most States and Territories forecast gross debt to GSP to continue to rise over 2014-15 (see Chart 5). (NSW and SA forecast a fall in debt/GSP but this occurs partly as a result of running down financial assets.)

By 2016-17 and 2017-18, most States and Territories are projecting primary surpluses sufficient to be reducing debt/GSP, although the reduction is marginal in the ACT and WA's debt/GSP is still rising very slightly. Even after substantial fiscal consolidation by most States and Territories, general government debt/GSP in 2017-18 remains well above the 10 year average to 2012-13, especially in Qld, WA and the ACT which are more than twice the 10 year average and Victoria which is 1.7 times the 10 year average.. Ongoing primary surpluses will be required to stabilise debt at these higher levels and even higher primary surpluses (and corresponding higher taxes or lower expenditure to GSP) necessary if debt/GSP is to be reduced to long-term averages.

Chart 5: General Government Sector Borrowings - % of GSP



Source: State and Territory Budget Papers, 2014-15; Tasmanian budget data is from 2013-14 Budget papers; ABS, Australian National Accounts: State Accounts, 2012-13, 5220.0

5. Summary and Policy Implications

This paper has first advanced and then applied some principles for assessing the sustainability of public debt at sub-national level in Australia. Examining public debt ratios at this level is important because excessive debt levels can threaten sub-national governments' creditworthiness with adverse consequences for future budgets. Public debt interest obligations on the outlays side of budgets can rise suddenly, leading to a vicious debt-deficit cycle in the event of credit-rating downgrades, or due to heightened exposure to a generalised rise in interest rates.

Over the longer run, when the interest rate can be expected to exceed the growth rate, stabilising the debt/GSP ratio will require permanently achieving a primary budget surplus, with the required primary surplus being higher the higher is the current debt/GSP ratio (refer equation 11). This shows very starkly that, to achieve stable debt/GSP over time, incurring deficit and debt in the current period will require permanently higher primary budget surpluses, which in turn require higher taxes or lower expenditure relative to GSP. If the policy objective is to reduce debt/GSP to long term averages even more restrictive tax or expenditure policies are required.

The foregoing has identified the size of primary budget balances required to stabilise and reduce State and Territory public debt levels. However, it has remained silent on the normative question of how best to achieve the required primary balances through expenditure restraint, improved revenue raising, or some combination of the two. Circumstances for each sub-national government obviously differ and the scope for cutting public expenditure more

limited for some sub-national governments than others due to large non-discretionary elements for essential services and the need for growth enhancing infrastructure development. Restraining public expenditure can limit economic growth at sub-national level if productive infrastructure spending rather than more politically sensitive current expenditure is cut.

Meanwhile, sub-national tax revenues as a proportion of GSP, at 5 per cent on average, compared to 22 per cent for the federal government (and sub-national general government expenditure to GSP of 16 per cent of GSP)¹⁰ reflect a degree of vertical fiscal imbalance in Australia which is high by the standards of other federal systems. This suggests ample scope exists for widening the tax revenue base at sub-national level including via the introduction of a new sub-national value-added tax or sub-national income taxes, as well as through improved tax administration.

¹⁰ Australian Bureau of Statistics, *Government Finance Statistics, Australia, 2012-13*, 5512.0 and Australian Bureau of Statistics, *Australian National Accounts: State Accounts, 2012-13*, 5220.0.

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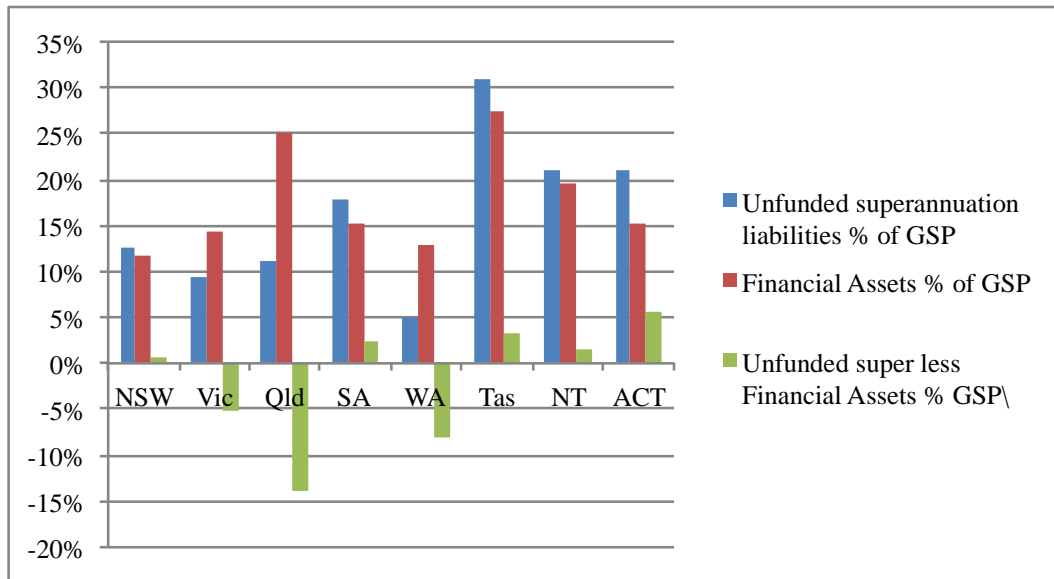
APPENDIX: Choosing the Most Appropriate Public Debt Measure

The Loan Council Uniform Presentation framework (2008, p19) defines net debt as the sum of deposits held, advances received and borrowing, less the sum of cash and deposits, advances paid, and investments, loans and placements. Net debt is often used as one of the indicators of financial health of a State or Territory and is given prominence in State and Territory budget papers. This contrasts with the approach used here which focuses on gross debt. Our approach is therefore in line with Queensland Commission of Audit *Interim Report* June 2012, p20:

“As the net debt measure includes investments, it takes account of the large investments Queensland uses to offset its superannuation liability, but it does not take account of the liabilities. Under existing Government policy, these investments are held to meet the State’s superannuation liability. Because these investments are not available to reduce gross debt, net debt is not a suitable metric to target in setting an appropriate fiscal strategy, and is therefore not used further in this Report.”

For all States and Territories large holdings of financial assets are required to provide cover large unfunded superannuation liabilities. Indeed for three States and both Territories financial assets are insufficient to cover unfunded superannuation liabilities, which in the NT and ACT exceed 20% of GSP and in Tasmania 30% of GSP (see Chart 6).

Chart 6: State Total Public Sector Unfunded Superannuation Liabilities and Financial Assets, June 2013 % of GSP



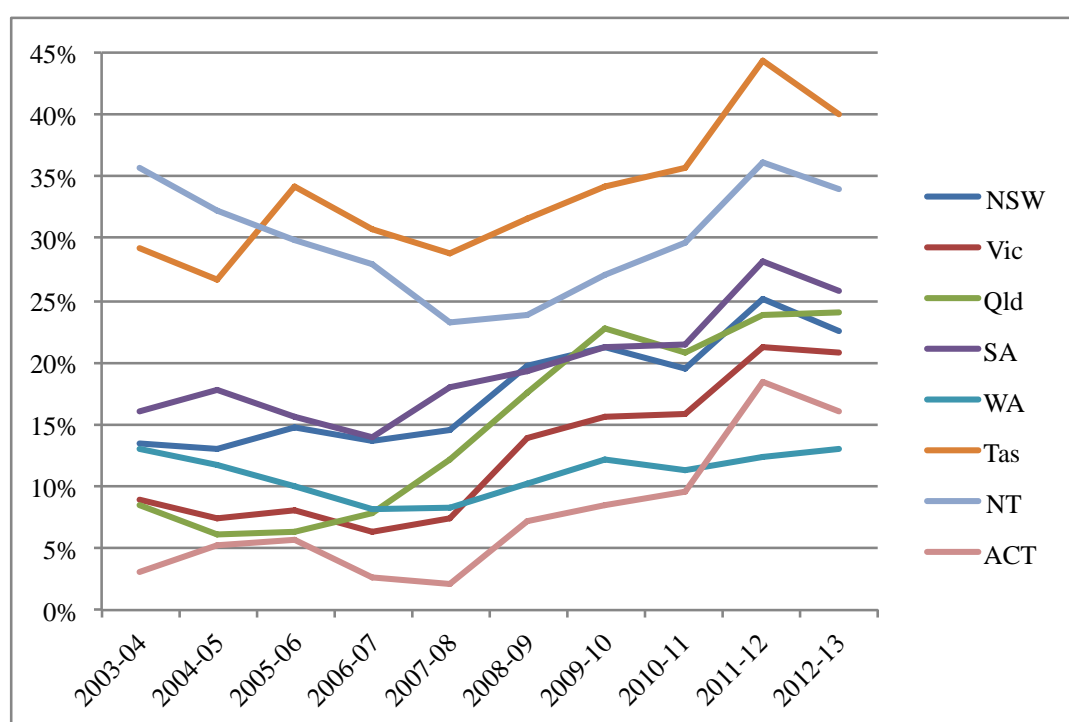
Source: ABS, Government Finance Statistics, Australia, 2012-13, 5512.0; ABS, Australian National Accounts: State Accounts, 2012-13, 5220.0

At the same time, we acknowledge that no single measure provides a complete picture and that the surplus of financial assets over unfunded superannuation liabilities is relevant in interpreting the debt position of Qld, WA and Victoria. One alternative measure to the gross debt measure used here is net financial liabilities i.e. the all financial liabilities including unfunded superannuation liabilities less all financial assets. This shows that all States and Territories have experienced a substantial rise in net financial liabilities to GSP since 2008-9 (see Chart 7). Tasmania, the NT and SA have the highest net financial liabilities to GSP in part due to the high levels of unfunded superannuation liabilities to GSP which are poorly covered by financial assets.

In addition, the debt measures used in this paper exclude deposit liabilities held by State public sector entities which are small (less than 0.5% for all State and Territories in aggregate) and comprise deposits from other public sector or private sector bodies and trust accounts held on behalf of other public sector or private bodies. These deposits do not

actively fund the borrowing requirements of public sector entities. Moreover, proceeds from advances received are not included, as these include loans received from government authorities for policy purposes rather than income generation/liquidity management (refer Australian Bureau of Statistics, *Australian System of Government Finance Statistics, Concepts, Sources and Methods*, 2005, 5514.0 p189).

Chart 7: Total Public Sector Net Financial Liabilities, June 2013 % of GSP



Source: ABS, Government Finance Statistics, Australia, 2012-13, 5512.0; ABS, Australian National Accounts: State Accounts, 2012-13, 5220.0