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The impact of the GFC on tax revenue in Australia

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Summary

This paper looks at the effect that the fall in tax revenue post Global Financial Crisis (GFC) had on the Commonwealth's budget. It does this by modelling what would have happened if revenue had instead remained at the government's tax revenue target of 23.9 per cent of GDP. The difference between what actually happened and what the model shows would have happened helps reveal the impact of tax revenue falling below 23.9 per cent of GDP had on the budget.

The government announced in the 2014-15 MYEFO that it was targeting a tax to GDP ratio of 23.9 per cent. The budget papers reveal that it plans to let the tax to GDP ratio rise to 23.9 percent of GDP before allowing "future tax relief once the tax‑to‑GDP ratio reaches 23.9 per cent".[1] The most recent 2016-17 budget papers show that only after tax revenue returns to that level is the budget predicted to return to surplus.[2]

The model shows that if tax revenue had not fallen post GFC then there would have been only two years where the budget was in deficit during the term of the previous Labor government. These deficits in the model are caused mainly by the stimulus spending. It also shows that the accumulated deficit, which is roughly equal to government debt, would have been almost non-existent today.

This shows that the main factor leading to the post GFC deficits and the accumulation of government debt has been the fall in tax revenue. The budget papers project that economic growth will return to its long run average and as it does rates of tax revenue are expected to rise. As this happens the deficit is projected to decrease. A surplus is projected in 2020-21 at the same time the tax to GDP ratio returns to 23.9 per cent.

The economies influence on tax revenue

The previous Treasurer Joe Hockey and the current Treasurer Scott Morrison have both claimed the budget has a spending problem, not a revenue problem. [3] More recently Scott Morrison has conceded the budget has an earning problem.[4] Precisely what the difference is (if any) between an earnings problem and revenue problem is not explained by the Treasurer.

As the Australian economy goes through booms and busts the amount of tax as a percentage of GDP varies. The three biggest taxes are income tax, the GST and company tax and the sources of these taxes change over time. It rises during boom times as incomes, spending and company profits all rise. It then falls during a bust as income, spending and company profits all fall.

The government announced in the 2014-15 Mid-Year Economic and Fiscal Outlook (MYEFO) that it was imposing a tax revenue cap of 23.9 per cent of GDP.[5] This cap appears to be the amount of tax revenue the coalition government is aiming to collect. After this point, according to the MYEFO papers, it will pursue tax cuts which the MYEFO papers refer to as "tax relief". The 23.9 per cent tax

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[1] Commonwealth of Australia (2014) *MYEFO 2014-15*
[2] Commonwealth of Australia (2016) *Budget paper no1, Statement 3* p 3-1
[3] Clarke (2015) *Treasurer Scott Morrison says Federal Government has 'spending problem'; expenditure the same as during GFC*
[4] Gribbin (2016) *Scott Morrison to warn of 'earnings problem', advocate for private investment in economic speech*
[5] Commonwealth of Australia (2014) *MYEFO 2014-15*

to GDP ratio can therefore be seen as the government's tax target. The 23.9 per cent of GDP tax target seems to be the average tax rate from 2000-01 to 2007-08.

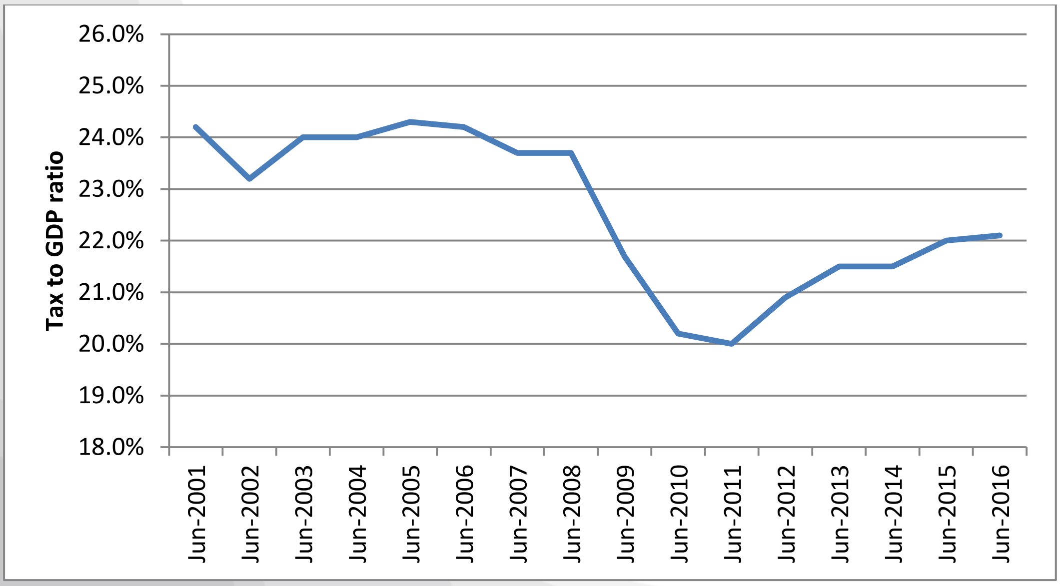
But the government's target tax rate of 23.9 per cent of GDP is a good opportunity to look at the impact that changes in tax revenue have had on the budget bottom line. It does this by modelling what would have happened if revenue had remained at the government's tax revenue target of 23.9 per cent of GDP. This removes the influence of the tax revenue fall post GFC and helps reveal the size of its impact.

Economic theory suggests the budget outcome, whether it was in deficit or surplus, will change through the economic cycle of booms and busts without offsetting discretionary changes. During booms the increase in tax revenue should move the budget into or towards a surplus and during times of economic downturn the lower tax revenue should move the budget into or towards a deficit.

It should be noted that this paper is not suggesting that any government should target a tax to GDP ratio during an economic downturn. Such an action would be economically unadvisable as lower rates of economic output would lower rates of tax collection. To pursue a tax to GDP target at this time could be contractionary which could make the economic downturn worse and in turn reduce taxation rates even further. Rather than target a tax to GDP ratio this paper is using such an exercise to highlight what impact the fall in tax to GDP ratio had on the budget post GFC.

Figure 1 shows what has happened to the tax to GDP ratio since 2001. After a dip in the early 2000s because of the economic slowdown, tax to GDP quickly recovered and remained about the 23.9 per cent target. It fell rapidly after the GFC and has recovered somewhat but has still not returned to pre-GFC levels.

Figure 1 – Tax to GDP ratio 2001-2016



Source: Commonwealth of Australia (2016) Budget paper no1, Statement 10, Table 3

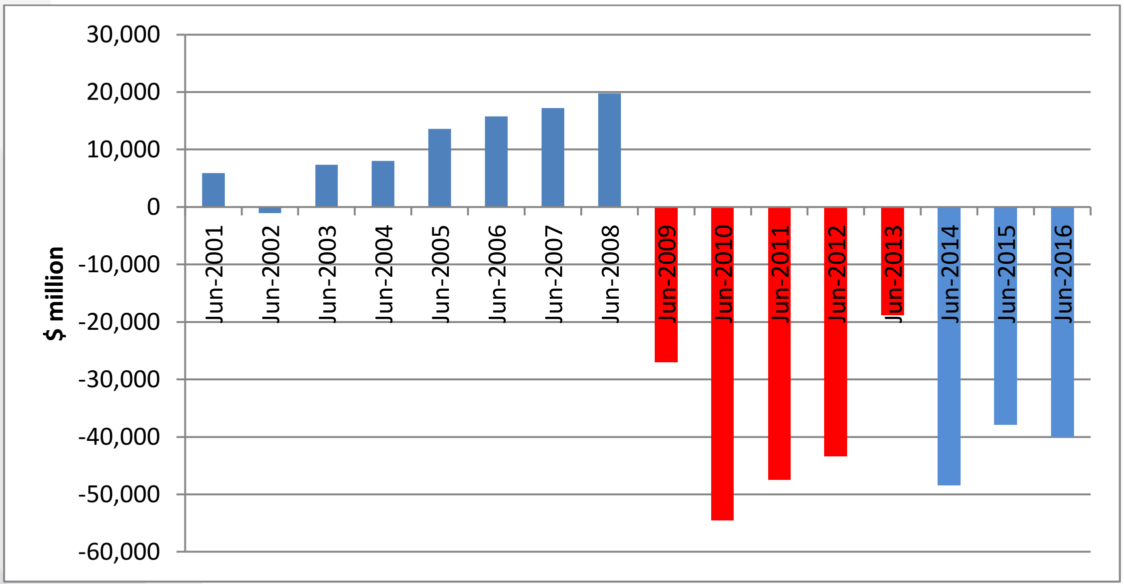
Tax drop and the impact on the budget

Using the government's tax target we can model the post GFC budgets and compare what would have happened if the government had been able to collect the amount of tax they are now targeting. This will highlight the impact that the fall in tax revenue has had on the budget.

The model fixes the tax revenue to 23.9 per cent of GDP and leaves all other budget variables unchanged. This will allow us to look at the impact of the change in tax revenue on the budget outcome.

Figure 2 shows the budget outcomes since the 2000-01 budget. The first run of blue lines shows the Howard coalition government budgets. The red lines are the Labor party budgets and the last few blue lines are the Abbott/Turnbull coalition budgets.

Figure 2 – Budget outcomes 2001-2016[6]



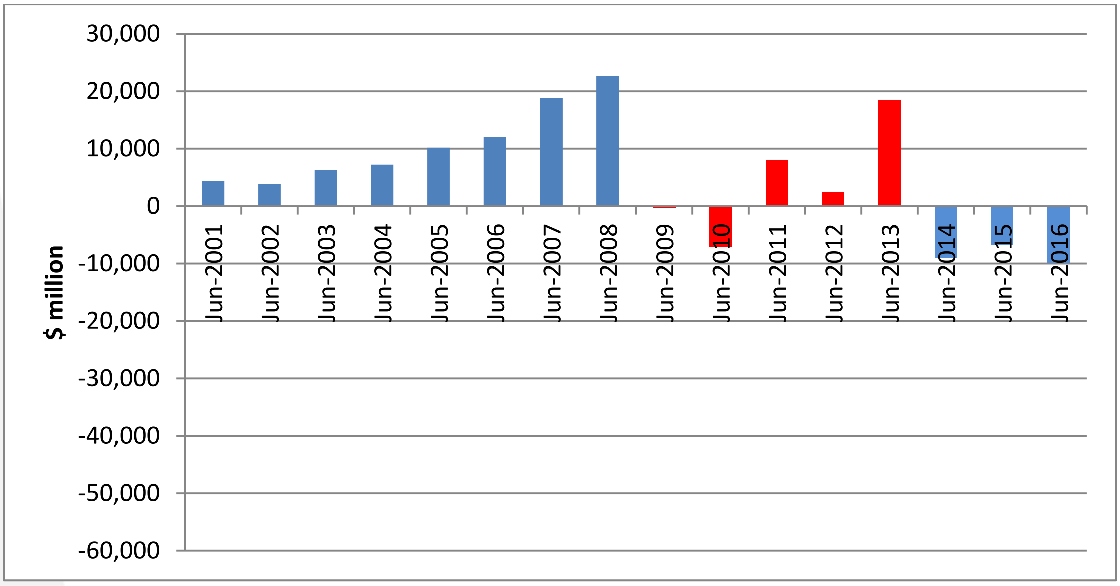
Source: Commonwealth of Australia (2016) Budget paper no1, Statement 10, Table 1

After the economic slowdown in the early 2000s the budget position moved to surpluses during the boom years in the mid-2000s. Then the budget position shifted to deficits after the GFC. This is broadly consistent with what the economic theory would expect to happen.

Figure 3 shows the modelled budget outcomes over the same period. The modelling assumes a fixed tax take of 23.9 per cent of GDP.

[6] The 2013-14 budget is problematic since it is a mixture of both the Labor party and Coalition. While the budget was brought down by the Labor party in May 2013, the Coalition added substantial new spending to that year's budget in the December 2014 MYEFO. This increase was enough to move the modelled budget outcome (in figure 3) from surplus to deficit. For the purposes of this paper the 2013-14 budget is assigned to the Abbott Coalition government. The 2007-08 budget is assigned to the Howard government since it was brought down by the Howard government in May 2007 and was not substantially changed after the Rudd Labor government won office in November 2007.

Figure 3 – Budget outcome if tax revenue fixed to 23.9% of GDP 2001-2016



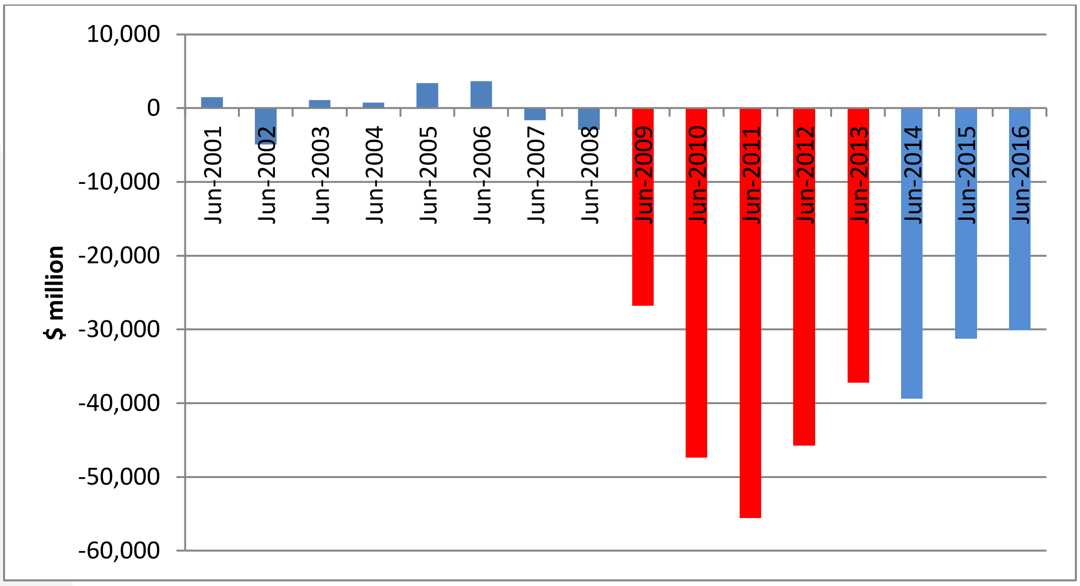
Source: Commonwealth of Australia (2016) Budget paper no1, Statement 10 and authors calculations

We can see surpluses in the lead up to the GFC. Then the budget shifted to a deficit as spending increased because of the stimulus program. Once the stimulus money had been spent the budget shifted back to a surplus by the 2012-13 budget, before moving back into deficit under the Abbott/Turnbull government.

It should be noted that the model assumes no interaction between higher amounts of tax revenue being collected and the amount of government spending. It reality this would not be the case for a number of reasons. Firstly higher amounts of tax revenue are usually associated with higher rates of income and hence lower spending on welfare payments. Also the smaller accumulated deficits, because of the larger tax revenues, would mean lower rates of debt and hence less government spending on interest repayments.

The difference between the modelled outcome and the actual outcome is the effect the fall in taxation revenue had on the budget outcome. This is shown in figure 4. Before the GFC the tax to GDP ratio was very close to 23.9 per cent and so it had little impact on the budget. After the GFC tax revenue fell and this fall had a large impact on the budget outcome, pushing it towards a deficit.

Figure 4 – Difference between actual and modelled budget outcome 2001-2016

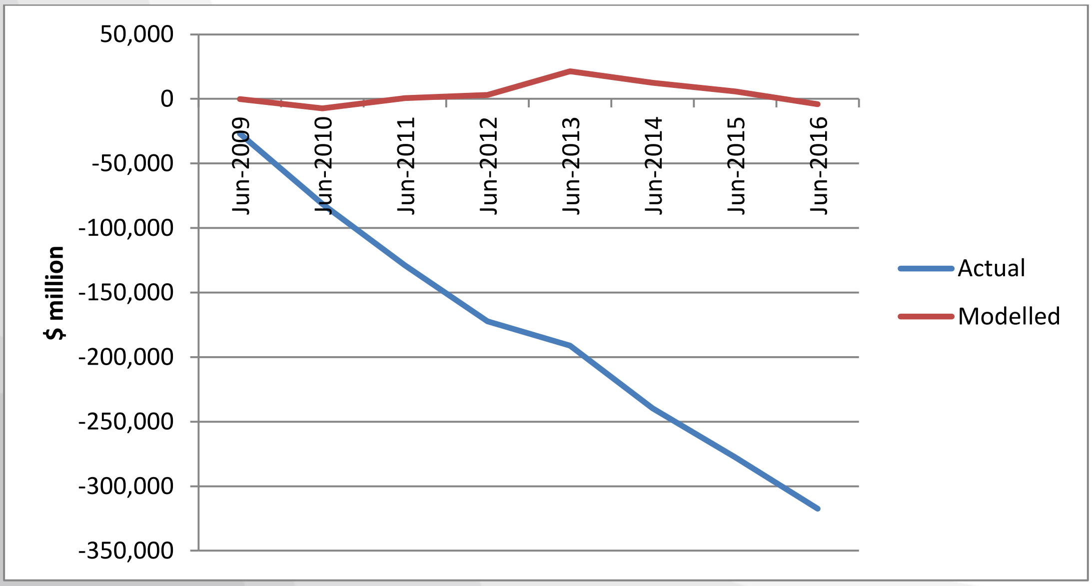


Source: Commonwealth of Australia (2016) Budget paper no1, Statement 10 and authors calculations

Finally the size of the accumulated deficit also gives an indication of what the fall in tax revenue has done to the size of the debt. The accumulated deficit is the sum of all the deficits after the GFC. The accumulated deficit is similar but not the same as the size of the debt.

Figure 5 shows the actual accumulated deficit (blue line) and the modelled accumulated deficit (red line). The actual accumulated deficit grows over the whole time period, but under the modelled scenario we see an initial deficit but this quickly vanishes with the final outcome almost in balance by 2015-16. This highlights that the current debt is mainly driven by the fall in tax revenue.

Figure 5 – Actual and modelled accumulative deficit 2009-2016



Source: Commonwealth of Australia (2016) Budget paper no1, Statement 10 and authors calculations

Effectively the blue line is the accumulated deficit accruing from Figure 2 post GFC (2008-09) while the red line is the accumulated deficit accruing from Figure 3 post GFC.

Conclusion

This exercise shows that the fall in tax revenue after the economic downturn post GFC had a large impact on the budget outcome. The fall in tax revenue after the GFC moved the budget into deficit, which is what economic theory suggests would happen. This seems to have been initially helped by the stimulus spending program.

The budget forecasts show that rates of tax revenue are expected to increase back towards 23.9 per cent of GDP. As this happens the budget is expected to move back towards a surplus. This occurs because economic growth is forecast to return to its long run average. If economic growth does not return to long run levels then tax revenue will not move back towards 23.9 per cent of GDP and a budget surplus is unlikely to occur.

While the Treasurer is keen to focus on the spending side of the budget with many proposals to cut spending particularly to low income households, the main cause of the current budget outcome is the fall in revenue. Hopefully the Treasurer's recent comments that the budget has an earning problem are a belated recognition of this.

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