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ESTIMATING THE STRUCTURAL BUDGET BALANCE OF THE AUSTRALIAN GOVERNMENT: AN UPDATE

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 - 2 The views expressed in this paper are those of the authors and do not necessarily reflect those of the Australian Government.



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ABSTRACT

Structural budget balance estimates adjust for temporary factors that have a significant impact on the underlying cash balance. Considered in conjunction with other measures, structural budget balance estimates can provide an insight into the sustainability of current fiscal settings. In order to draw the appropriate conclusions, though, it is critical that the limitations of these estimates are acknowledged — in particular, the fact that structural balance estimates can be revised dramatically as new data emerges means they have limited use as a tool to fine tune fiscal policy from year to year. Structural budget balance estimates are also sensitive to the assumptions and parameters used. For Australia, these pre-existing limitations are exacerbated by the difficulty in identifying the structural (or long-run) level of the terms of trade, with a range of plausible assumptions producing significantly different structural balance estimates.

This Working Paper presents an overview of structural budget balance models and the adjustments most relevant for Australia. Three models (the OECD model, the IMF model and Treasury's previously published model in the Australian Government's 2009-10 Budget and McDonald et al (2010)) are discussed. Updated estimates of the Australian Government's structural budget balance are presented alongside analysis showing the sensitivity of the results to plausible changes in key parameters. The updated structural budget balance estimates are based on the model used by McDonald et al (2010) and updated for the Australian Government's 2013-14 Budget.

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1. INTRODUCTION

Estimates of the structural budget balance adjust for temporary factors that have a significant impact on the budget balance. For the Australian Government, these factors include cycles in the real economy, and deviations in the terms of trade and capital gains tax (CGT) receipts from their estimated long-run, or 'structural', levels. Considered alongside underlying cash balance estimates and balance sheet indicators, structural budget balance estimates can provide broad guidance on whether current fiscal policy settings are sustainable over the medium term.

While structural budget balance measures are conceptually appealing, they are sensitive to the assumptions and parameters underpinning the estimates. Following a decade in which Australia's terms of trade has doubled, to reach the highest level in at least 150 years, identifying the structural or long-run level is conceptually challenging — using different assumptions for the terms of trade leads to substantial differences in structural balance estimates. In addition, the relationship between tax receipts and economic activity is a complex one that varies through time as the structure of the economy changes. Finally, international experience has demonstrated the difficulties in disentangling temporary from permanent economic factors, especially in real time.

For these reasons, it is best to consider a range of structural budget balance estimates based on plausible assumptions for the underlying parameters as one element of a broader assessment of fiscal sustainability. The budget balance, balance sheet indicators, projections of the fiscal costs of demographic change and assessments of contingent liabilities each provide a different perspective on fiscal sustainability over time. *Budget Statement 4 2013-14* presents a range of such indicators for the Australian Government.

This Working Paper presents an overview of structural budget balance estimates and the adjustments most relevant for Australia. Three models (the OECD model, the IMF model and Treasury's previously published model in the Australian Government's 2009-10 Budget and McDonald et al (2010)) are explored. Updated estimates of the Australian Government's structural budget balance are presented using the preferred approach in McDonald et al (2010) under a range of plausible assumptions for the terms of trade. Lastly, sensitivity analysis is conducted on key parameters, illustrating that parameter uncertainty has less impact on structural budget estimates than varying the assumption for the structural level of Australia's terms of trade.

2. TEMPORARY INFLUENCES ON THE UNDERLYING CASH BALANCE

Structural budget balance estimates are produced by adjusting the budget balance for influences that are considered to be temporary. These adjustments should have regard for, and differ depending on, the economic structure, tax system and fiscal settings of individual countries (IMF, 2011). For example, in addition to adjusting for the economic cycle (automatic stabilisers), the IMF adjusts Chile's and Peru's budget balances for commodity price developments, while Hong Kong's budget balance is adjusted for land revenues and investment income (IMF, 2013). This section outlines adjustments most relevant in the Australian context and concludes that adjustments for the economic cycle, the terms of trade and CGT collections are most appropriate.

A key element of the Australian Government's medium-term fiscal strategy is that the budget balance should be allowed to vary in the short term with economic conditions, accommodating the operation of automatic stabilisers. During an upswing in the economic cycle, tax receipts will rise automatically with income and assist in containing inflationary pressures. On the expenditure side, unemployment-related benefit payments tend to fall during upswings in activity, again helping to moderate aggregate demand and inflationary pressures. The converse occurs when the economy moves below its productive potential. With around 70 per cent of Commonwealth Government tax receipts attributable to personal income and corporate taxes (which are sensitive to economic conditions), and unemployment benefits roughly 2 per cent of government expenditures, adjusting for the impact of the economic cycle on the budget balance is therefore relevant when considering the structural position of the budget.

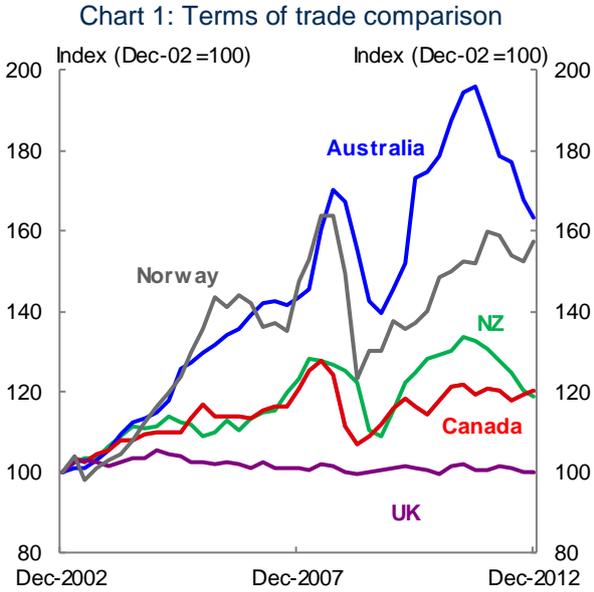
As a major commodity exporter, another relevant consideration is the impact of the terms of trade on the Commonwealth Government's budget balance. Australia has experienced a very large surge in the terms of trade over the past decade, even compared with other commodity exporting countries (Chart 1). The terms of trade directly affects the Commonwealth Government budget through the influences of commodity prices on company and resource rent tax receipts.³ In the decade to 2010-11, the proportion of total income tax paid by mining companies rose from around 3 per cent to 7 per cent, while resource rent taxes grew to be roughly 0.3 per cent of Government's tax receipts.

Lastly, the Australian Government's CGT receipts are strongly pro-cyclical, driven primarily by house and equity prices. CGT receipts peaked at around 1½ per cent of GDP prior to the global financial crisis (GFC) (Chart 2). The decline in global equity prices during the GFC and the associated capital losses, coupled with weak asset price growth since, has reduced CGT receipts to less than ½ per cent of GDP, a fall of around 70 per cent from the peak in 2007-08.

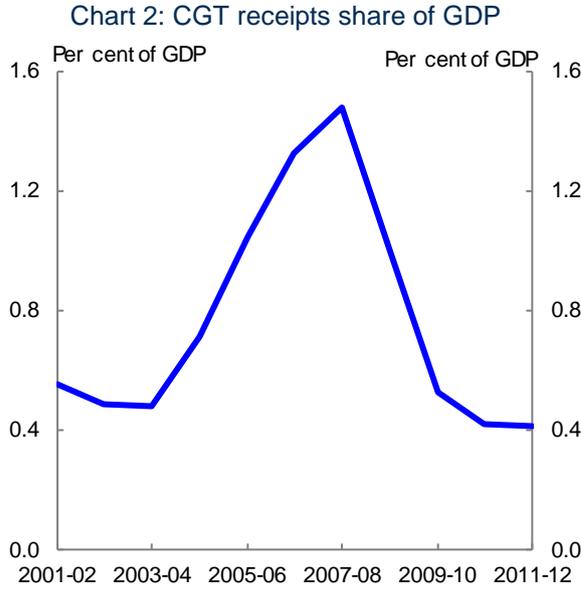
Other factors can also have a large temporary influence on the Australian Government's budget balance, including natural disaster relief and temporary policy measures, such as the fiscal stimulus put in place by the Australian Government during the GFC. The structural budget balance estimates in

3 Indirect effects on the Government budget from the terms of trade may also be significant, because companies that supply goods and services to the mining industry also benefit from stronger earnings, while other companies (and employees) gain indirectly as incomes flow through to other parts of the economy (see *Budget Statements 2 and 5 2008-09*).

Part 4 do not adjust the budget balance for these other temporary factors, instead focusing on economic drivers. This is consistent with the approach taken by the IMF and OECD in deriving their estimates of the structural budget balance for Australia. However, sensitivity analysis in Part 5 shows the impact on the structural budget balance estimates of adjusting for the Government’s fiscal stimulus measures, as shown in the 2009-10 Budget and by McDonald et al (2010).



Source: ABS cat. no. 5206.0, National statistics agencies and Treasury.



Source: Treasury

3. ADJUSTMENT METHODOLOGIES

Adjustments to the underlying cash balance for the economic cycle, CGT and terms of trade can be implemented in different ways. This section outlines three adjustment methodologies: the previously published Treasury model (McDonald et al (2010)), and the OECD and IMF models for Australia. This section concludes that the model presented in McDonald et al (2010) is the preferred model because it has the advantage of allowing sensitivity analyses for different assumptions for the structural terms of trade to be done relatively easily and transparently, as well as explicitly modelling cyclical expenditure and CGT receipts.

2009-10 Budget and McDonald et al (2010)

Estimates of the structural budget balance were previously published in the 2009-10 Budget and in McDonald et al (2010). Both sets of estimates are based on the same methodological approach, detailed in McDonald et al (2010). What follows is a brief summary.

The foundation of the approach taken in the 2009-10 Budget and by McDonald et al (2010) is to estimate a nominal GDP gap comprising two components:

1. a gap between real GDP and its structural level (the output gap), which is based on assumptions for the structural levels of the components of real GDP (productivity, working age population, participation and employment rates and average hours worked); and
2. a gap between the GDP deflator and its structural level, which is based on an assumed long-run level for the terms of trade and a path for domestic prices consistent with the Reserve Bank's inflation target.⁴

The cyclical component of total receipts is calculated by multiplying the estimated nominal GDP gap by government receipts as a share of the economy and an elasticity of government receipts to nominal GDP of 1¼, consistent with the historical average elasticity of tax receipts as reported in Girouard and André (2005).

The long-run terms of trade assumption was constructed in three parts. Prior to 2002-03 the structural level of the terms of trade was calculated as the average from 1972-73 to 2001-02. For the period 2002-03 to 2004-05, the structural level of the terms of trade was assumed to match the actual terms of trade. From 2005-06, the structural terms of trade was assumed to be 20 per cent higher than the average prior to 2002-03.

CGT receipts were modelled separately. While there is a theoretical relationship between asset prices and incomes in the long run, there is no direct link over shorter time horizons. Therefore, CGT receipts were adjusted directly, with any divergence of actual or projected CGT receipts from its ten-year average share of GDP assumed to be cyclical.

Unemployment benefits were the only payments item assumed to be sensitive to the economic cycle. The structural level of unemployment benefit payments was assumed to be the level that would occur if unemployment was at its assumed non-accelerating inflation rate (NAIRU) of 5 per cent. This is consistent with the assumption used in the Government's medium-term budget projections.

OECD and IMF adjustment methods

Both the IMF and the OECD publish structural budget balance estimates for Australia at the general government level, which comprises the Commonwealth, State and local governments. They apply estimates of the sensitivity (elasticity) of the combined general government budget to a deviation of either actual output or actual income from a measure of potential.

4 Conceptually, there is no 'structural' level of domestic prices. The Reserve Bank of Australia targets future growth in consumer prices (that is, the rate of inflation) rather than the level of prices and – unlike the real economy, which cycles around full employment – there is no underlying path for domestic prices that the economy will revert to over time. As such, there is also no underlying path for nominal GDP, which is the volume of economic activity multiplied by the prices received for those activities.

The IMF estimates 'potential nominal GDP' by detrending nominal GDP using a Hodrick-Prescott filter, implicitly detrending the aggregation of real output, domestic prices and the terms of trade. An elasticity is then applied to the deviation of nominal GDP from this estimate of potential to estimate the cyclical component of government receipts. This cyclical component is removed from total receipts to estimate the structural component. Expenditures are not adjusted under the IMF methodology for Australia.

The OECD estimates the sensitivity of government revenues to the economic cycle by applying an elasticity to estimates of a real income gap (Turner, 2006). The real income gap is constructed using real gross domestic income (GDI), where GDI is equal to GDP at constant prices plus a trading gain (or loss) resulting from changes in the terms of trade, weighted by the export share of GDP in an index year. The estimated 'gap' element of real income is constructed in two steps: first, the OECD's long-run terms of trade assumption is applied to obtain an estimate of potential real GDI; and second, real GDI is adjusted so that the estimated real income gap has the same mean as the OECD's real GDP output gap for Australia.⁵

Preferred adjustment method

There are broad similarities between the model outlined in McDonald et al (2010) and the IMF and OECD models. All three models attempt to capture the impact of the economic cycle as well as the terms of trade deviation from its assumed structural level, and use similar estimates of the sensitivity of government revenues to the economic cycle.⁶

Although the OECD and IMF models have the advantage of being straightforward to implement, the model presented in McDonald et al (2010) has the advantage of incorporating an assumption of the structural level of the terms of trade in a transparent manner. This is critical in light of the uncertainty around Australia's structural or long-run terms of trade, as it allows sensitivity analyses using a range of plausible assumptions (see Box 1). The model presented in McDonald et al (2010) also has the advantage of a direct adjustment for cyclical movements in CGT revenues.

The rest of this Working Paper presents updated estimates of the structural budget balance for Australia, using the preferred method outlined in McDonald et al (2010) and conducts sensitivity analyses around key assumptions.

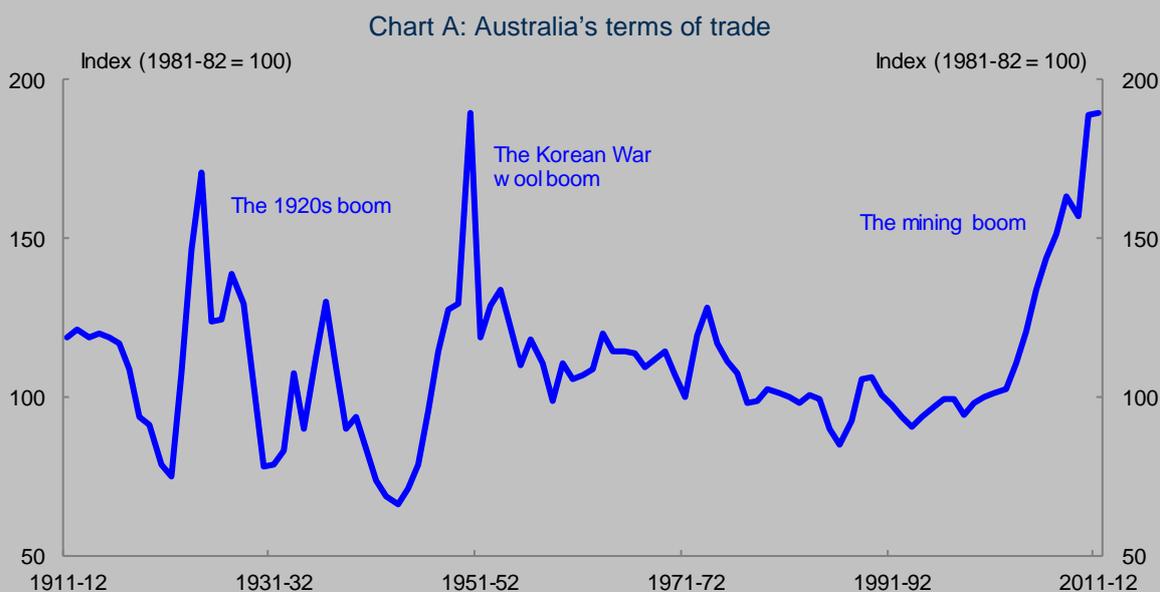
5 This implies that the terms of trade fluctuates around a constant mean (similar to the output gap, which fluctuates around a mean of zero). In contrast, McDonald et al (2010) assume a higher mean for the structural terms of trade from 2002-03.

6 The OECD uses an elasticity of the budget balance to nominal GDP of 0.3, the IMF uses an elasticity of around 0.25 and McDonald et al (2010) uses a parameter of $1\frac{1}{4}$, which is multiplied by the receipts to GDP ratio of around 25 per cent, resulting in an elasticity of around 0.3.

Box 1: Terms of trade assumptions

To adjust the underlying budget balance for the effects of the terms of trade, an assumption is required about the structural (or long-run) terms of trade level. Knowing where to set this assumption is difficult in practice. While the current terms of trade boom is supported by strong demand from China and other emerging economies for Australia's non-rural commodities (including iron ore and coal), history has shown that the path to development is rarely smooth, and the profile of global commodities demand over the coming decades is difficult to predict. On the supply side, the long-run price of commodities is underpinned by the marginal cost of their extraction, which is also subject to considerable uncertainty.

Australia has experienced two episodes of sharp rises in the terms of trade of similar magnitude to the current resources boom over the past 100 years. These past booms were not sustained, with the terms of trade quickly falling back towards pre-boom levels (see Chart A). If the current mining boom were to follow the same pattern, this would be broadly consistent with the assumption used by the OECD for the construction of their structural budget balance estimates, which assume our terms of trade will stabilise at their 25-year average (OECD, 2012).



Source: ABS cat. no. 5206.0 and RBA.

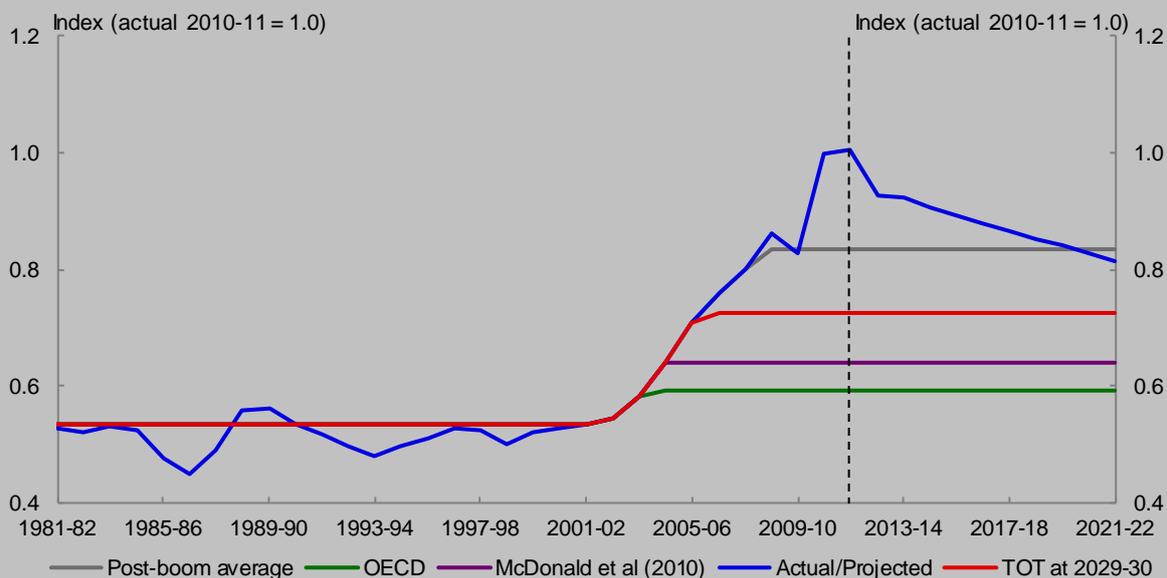
For an alternative perspective, a lengthy process of urbanisation and industrialisation in emerging market economies and associated demand for our commodities could see Australia's terms of trade remain elevated by historical standards for a long time. From this perspective, a plausible assumption for the long-run terms of trade would be to use the post-boom average from 2003-04 until the end of Treasury's forecast period in 2015-16. This level is around 40 per cent higher than the OECD assumption and is consistent with the assumption methodology used by Deloitte-Access Economics in the construction of their structural budget balance estimates for Australia.

Box 1: Terms of trade assumptions (cont.)

At around the midpoint of these two alternatives is the long-run terms of trade assumption used by Treasury in the projections that underpin the Commonwealth Government Budget. Following the 10 per cent fall in the terms of trade forecast from 2012-13 to 2014-15, the terms of trade is projected to fall 20 per cent over the 15 years from 2015-16 to 2029-30. This projection balances two factors: the prospect that demand for Australia’s non-rural commodity exports has undergone a structural shift due to the growing need for steel and energy to support development in emerging Asia; and the outlook for a significant increase in global supply of non-rural commodities in response to significant increases in prices over the past decade. The Treasury projections are consistent with long-run projections produced by the Bureau of Resources and Energy Economics and the Consensus of market commodity analysts, which suggest that prices of Australia’s key non-rural commodity exports are likely to fall further, but not to pre-boom levels — in part due to rising extraction costs. This suggests that the level of the terms of trade reached in 2029-30 (that is the end point of the medium term projections) under the assumption used in the Commonwealth Government’s Budget Papers is another plausible assumption for the new structural (or long-run) level of Australia’s terms of trade.

Chart B presents the range of structural terms of trade assumptions discussed above and also shows the terms of trade assumption used by McDonald et al (2010). From 2002-03, while the terms of trade was below the relevant long-run assumption, the structural level of the terms of trade is assumed to match the actual terms of trade. Prior to 2002-03 the structural level of the terms of trade is assumed to be the long-run average between 1972-73 and 2001-02.

Chart B: Structural terms of trade assumptions

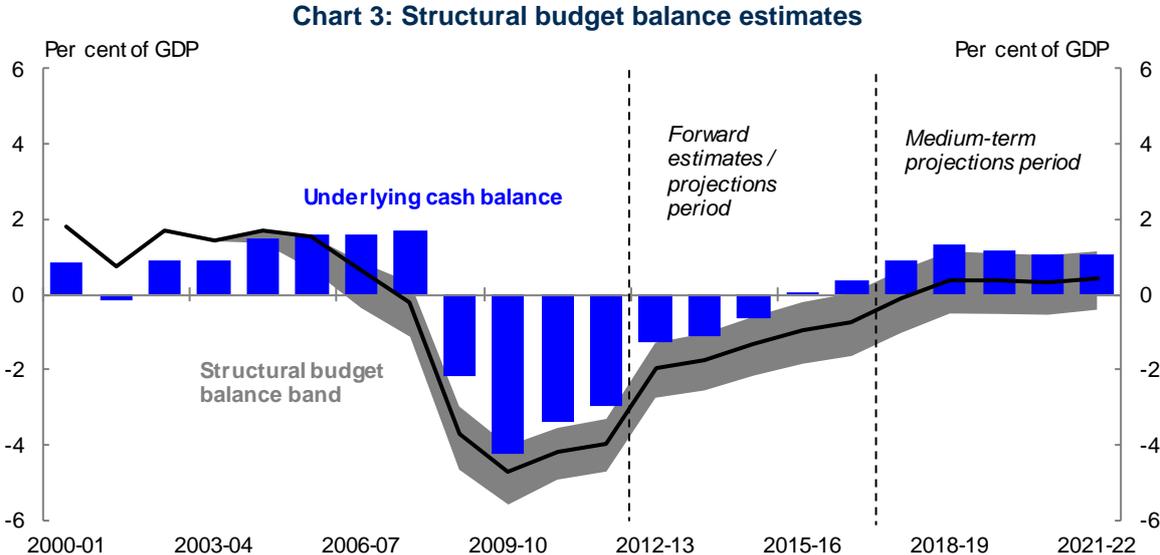


Note: Post-boom average incorporates forward estimates. It is the average level of the terms of trade from 2003-04 to 2015-16. The terms of trade at 2029-30 is the level projected in the Government’s medium-term projections.
Source: ABS cat. no. 5206.0, McDonald et al (2010), OECD (2012), and Treasury.

4. UPDATED ESTIMATES OF THE STRUCTURAL BUDGET BALANCE FOR THE AUSTRALIAN GOVERNMENT

This section presents a range of estimates of the structural budget balance for the Australian Government, based on outcomes, forecasts and projections of the underlying cash balance as published in the 2013-14 Budget and the methodology in McDonald et al (2010). It also discusses movements in these estimates over time.

The point estimates presented in Chart 3 are based on Treasury’s long-run terms of trade assumption as described in Box 1. Chart 3 also shows a range of estimates for the structural budget balance using the same methodology, but incorporating the terms of trade assumptions currently used by the OECD (the lower bound) and the post-boom average (the upper bound).



Note: The grey range represents the range of structural budget estimates using the OECD’s assumption for the structural level of the terms of trade (average between 1986-87 and 2010-11), and using the average from 2003-04 to 2015-16. Source: ABS cat. no. 5206.0, 5302.0, 6202.0 and 6401.0 and Treasury.

The structural budget balance estimates shown in Chart 3 indicate that, prior to the GFC, underlying cash surpluses were supported by temporary (cyclical) factors, including the high terms of trade, an economy operating above its long-run potential and strong growth in asset prices. The estimates suggest that the structural budget balance deteriorated from the mid-2000s, with the point estimate of the structural budget balance falling into deficit just prior to the GFC.

The underlying cash balance moved further into deficit with the onset of the GFC, as the sharp fall in nominal GDP growth and asset prices reduced tax receipts significantly. This coincided with a widening of the structural budget deficit, largely attributable to the Government’s temporary fiscal stimulus measures and some of the factors that drove the large fall in the tax share of GDP in this period. These include the increased share of profits coming from the resources sector (which pays less tax per dollar of economic income than other sectors), and the implementation of policy measures announced

earlier, particularly successive large cuts in personal income taxes.⁷ The fiscal stimulus measures have since been unwound; however, the factors that have reduced the tax share of GDP continue to weigh on the structural budget position.

As mentioned earlier, a key feature of the methodologies underpinning the structural budget balance estimates used by McDonald (2010), the IMF and the OECD is that the relationship between nominal GDP and tax receipts (the aggregate elasticity) is assumed to be constant over time, consistent with the average relationship over the sample period. In reality, however, the tax elasticity changes over time, and is positively correlated with both economic and asset price cycles. For example, while difficult to estimate precisely due to the small sample, the tax elasticity appears to have been considerably lower since the GFC than the average over the full sample period. If this is the case, then the estimates shown in Chart 3 will overstate the structural budget deficit since 2007-08. The next section shows a sensitivity analysis that corrects for this.

While the level of activity in the real economy remains close to its potential and CGT receipts have fallen to below-average levels, the terms of trade remain above their assumed structural level. Empirically, the effect of the higher terms of trade dominates, which explains why the structural balance shown in Chart 3 remains below the underlying cash balance over the medium term. The terms of trade are projected to decline steadily from their 2011-12 peak, but to remain above the range of structural terms of trade assumptions over most of the period shown, driving a persistent but gradually declining gap between the underlying cash and structural budget balances over the next decade.

The point estimates in Chart 3 show the structural budget position returning to surplus in 2018-19, although the range indicates that the precise year that structural balance is reached is sensitive to the terms of trade assumption. The improvement in the structural budget balance over the forward estimates period is assisted by the structural savings measures detailed in the 2013-14 Budget. Over the medium term, the improvement in the structural budget balance reflects the Government's commitment to limit real spending growth and allow tax receipts to recover naturally, as reflected in the medium-term fiscal projections.⁸ The key point to draw from the analysis is not the specific year in which the budget returns to structural surplus, but the steady improvement over time. Indeed, international experience has illustrated the difficulties in disentangling temporary and permanent economic influences on the budget, which cautions against overreliance on point estimates of the structural budget balance (see Box 2).

7 The relatively low effective tax rate for the mining sector reflects a range of factors, including royalty deductions, the capital-intensive nature of mining and the accelerated rates at which investment can be written off for tax purposes. Further details on the decline in the tax to GDP ratio since the GFC can be found in Budget Statement 4 2013-14.

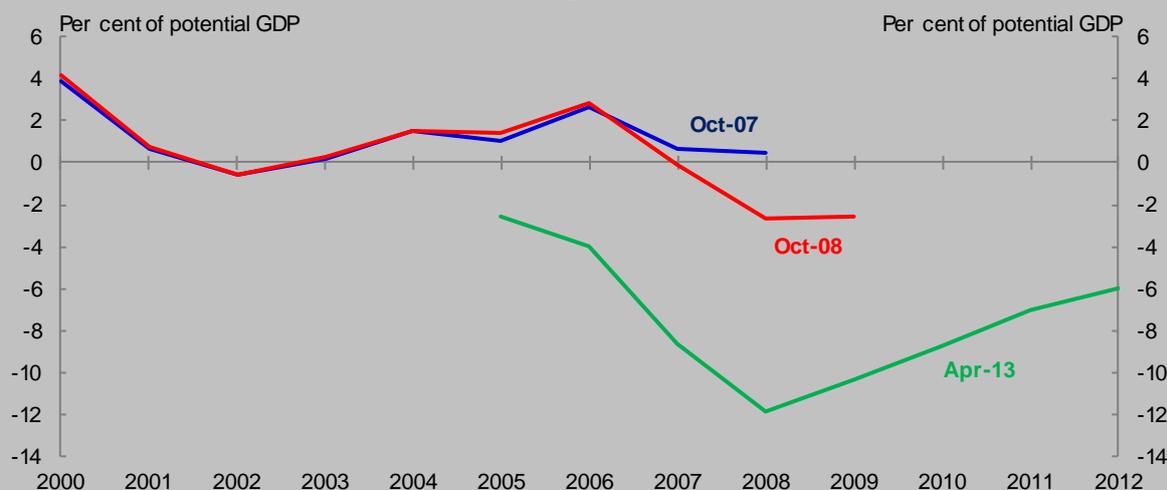
8 The medium-term fiscal projections for the underlying cash and structural balance reflect the Government's fiscal strategy. Real growth in spending is assumed to be held to 2 per cent a year, on average, until the underlying cash surplus is at least 1 per cent of GDP (2018-19) and while the economy is growing at or above trend. The level of tax receipts is allowed to return naturally as the economy grows until it reaches 23.7 per cent of GDP (2018-19), after which it is held constant.

Box 2: Ireland's structural budget balance

Changing estimates of Ireland's structural budget balance provide a cautionary tale, highlighting the difficulty of estimating structural budget balances in real time.

Since the onset of the GFC, the IMF's estimates of Ireland's pre-crisis structural budget balance have been revised down significantly. While the IMF initially estimated that Ireland had been close to structural budget balance in 2007, its latest (April 2013) estimate now suggests a structural deficit of around 8½ per cent of potential GDP in 2007 (Chart A).

Chart A: IMF structural budget balance estimates over time



Source: IMF World Economic Outlook October 2007, October 2008 and April 2013.

While part of the revision to the IMF's pre-crisis estimates of the structural budget balance is due to a lower estimate of potential GDP, the main reason for the change is that these estimates failed to capture the dependence of the fiscal position on an unsustainable boom in the housing sector (Kanda 2010). With residential investment and house prices soaring, property-based taxes grew at a pace well above GDP growth. Failure to recognise at the time that the bulk of these revenues were cyclical led to significant tax cuts and expenditure increases, which created a large structural hole in Ireland's public finances.

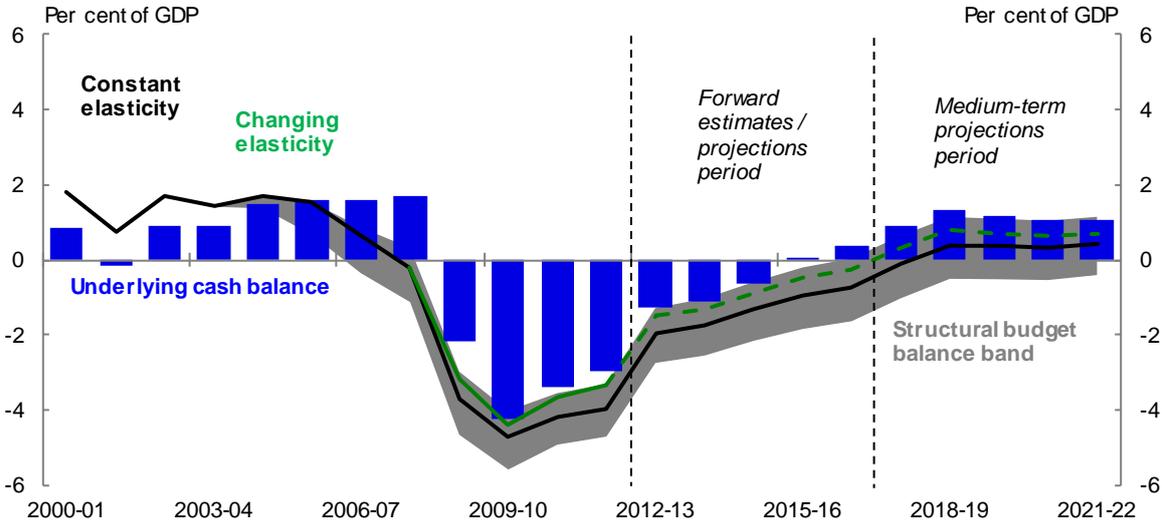
5. ADDITIONAL SENSITIVITY ANALYSIS

The preceding analysis showed the sensitivity of the structural budget balance estimates to a range of plausible assumptions for the terms of trade. This section presents additional sensitivity analysis relating to the elasticity of taxes to economic activity and concludes that the impact of changing this elasticity is less than the sensitivity to plausible structural terms of trade assumptions. This section also shows estimates of the structural budget balance abstracting from the fiscal stimulus measures put in place by the Australian Government in response to the GFC.

As mentioned earlier, in considering the structural balance estimates presented in Chart 3, it is important to recognise that the use of a constant historical average tax elasticity to nominal GDP for calculating the cyclical component of government receipts means that movements in the tax share of GDP are largely treated as structural. In practice, the relationship between nominal GDP and revenue can vary considerably over time. In recent years, tax receipts as a share of total income fell 3.7 percentage points of GDP (around 16 per cent) from the pre-GFC level of 23.7 per cent of GDP in 2007-08 to 20.0 per cent in 2010-11. Among other factors, this reflects changes in the composition of activity and profits across sectors since the GFC; in particular, the increased profit and lower effective tax ratio of the mining sector. Our estimates suggest that the cyclical contribution to receipts might be underestimated in the pre-GFC period (implying that structural surpluses are overestimated) and overestimated in the post-GFC period (implying that structural deficits are overestimated).

Estimating a new elasticity to capture the weaker relationship between the tax receipts and GDP since the GFC is empirically challenging given the small number of observations. One way to approximate this changed relationship is to examine the difference between Treasury’s forecasts of tax receipts and actual tax collections (forecast errors) assuming that forecasts of underlying economic variables (such as nominal GDP) had been accurate. This adjustment indicates residual forecast errors in company tax collections of around ½ per cent of GDP between 2008-09 and 2011-12. Assuming that this captures the changed relationship between the economy and tax receipts, the implied elasticity since the GFC is 0.7, which is significantly less than the 1.25 estimated over the whole sample period. Chart 4 shows that applying a tax elasticity of 0.7 from 2008-09 onwards raises the structural budget balance estimates to around the upper bound of the range shown in Chart 3. This extreme case of a permanent reduction in the elasticity of tax to nominal GDP is shown for illustrative purposes only and is not the basis used by Treasury to construct revenue forecasts.

Chart 4: Structural budget balance with changing assumption on elasticity of tax to nominal GDP

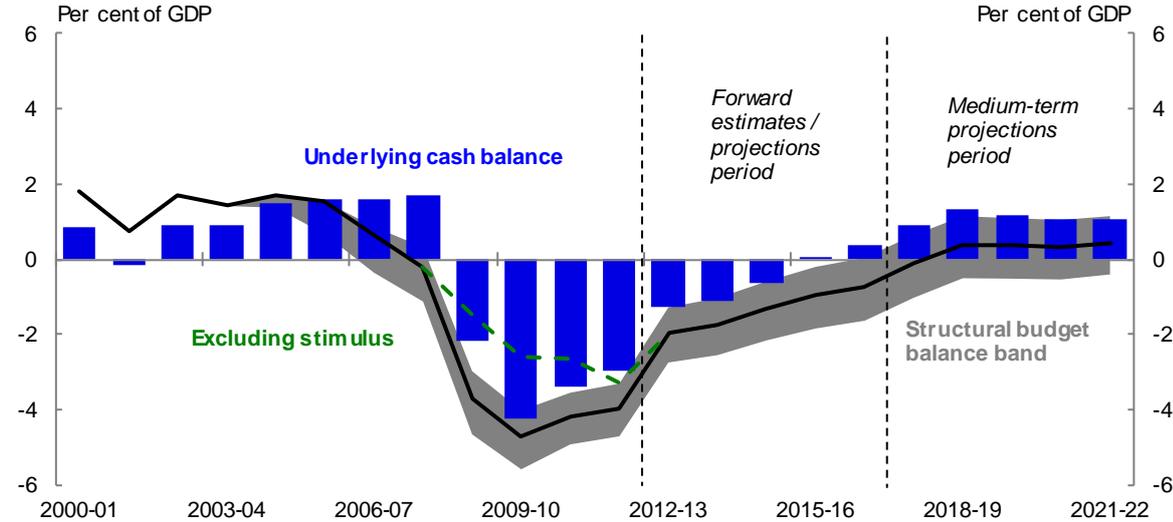


Note: For the sensitivity test presented above (green line), the elasticity is set to 1.25 prior to the GFC (before 2008-09), and 0.7 from 2008-09 onwards.
 Source: ABS cat. no. 5206.0, 5302.0, 6202.0 and 6401.0 and Treasury.

In addition to adjusting for temporary economic drivers, adjustments can also be made for other temporary factors that have a significant impact on the underlying cash balance to gauge the medium-term sustainability of more permanent fiscal settings. These adjustments can include abstracting from policy changes that are expected to be temporary, or adjusting for significant changes

in the underlying cash balance caused by short term exogenous factors, such as natural disasters. Chart 5 adjusts the structural budget balance estimates shown in Chart 3 for the impact of the fiscal stimulus put in place by the Australian Government in response to the GFC, consistent with estimates shown in the 2009-10 Budget and McDonald et al (2010).⁹ The effect is to reduce the estimated size of the structural budget deficit between 2008-09 and 2011-12, while also highlighting the contribution of other influences on movements in the structural budget balance during this period, including the decline in the tax to GDP ratio described earlier.

Chart 5: Structural budget balance abstracting from fiscal stimulus



Source: ABS cat. no. 5206.0, 5302.0, 6202.0 and 6401.0 and Treasury.

6. CONCLUSION

Structural budget balance estimates are useful tools for assessing fiscal sustainability over time, if considered in conjunction with a range of other fiscal indicators. Different insights on fiscal sustainability are provided by balance sheet indicators, projections of the fiscal impacts of demographic change and assessments of contingent liabilities, as well as the underlying budget balance.

While structural budget balance estimates are conceptually appealing, they are sensitive to the assumptions and parameters underpinning them. This cautions against an overreliance on point estimates of the structural budget balance. Instead, ranges for the structural budget balance based on plausible assumptions are more useful than point estimates.

This Working Paper presents updated estimates of the structural budget balance using the preferred approach in McDonald et al (2010) under a range of plausible assumptions over the medium term.

9 The adjustment that has been made is consistent with the estimates of the underlying cash balance impact of the fiscal stimulus provided by Treasury to the Senate Economics References Committee Inquiry into the Government’s Economic Stimulus Initiatives, available at http://www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=economics_ctte/completed_inquiries/2008-10/eco_stimulus_09/submissions.htm.

The results suggest that the structural budget balance deteriorated from the mid-2000s and fell further with the onset of the GFC, due to temporary fiscal stimulus measures deployed by the Australian Government at the time and some of the factors that have led to the significant reduction in the tax to GDP ratio. The fiscal stimulus measures have since been unwound; however, the factors that have reduced the tax share of GDP continue to weigh on the structural budget position.

The estimates over the forward estimates and the projection periods suggest a steady improvement in the structural balance over time, reflecting over the forward estimates, the Government's structural savings measures and, over the medium term, its commitments to limit real spending growth and allow tax receipts to recover naturally.

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