



31 October 2023

# National fiscal outlook 2023-24: Technical appendix

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This appendix provides a glossary (pages 1 to 4), as well as the outline of the data and methodology used to prepare this report (pages 5 to 9), including our fiscal sustainability methodology. It supports the *National fiscal outlook 2023-24* publication as well as the complementary *National fiscal outlook 2023-24: interactive charts*.

## National Fiscal Outlook Glossary

**For expanded definitions of these and other budget-related terms, please see the PBO's [Online Budget Glossary on our website](#).**

### *Expenses*

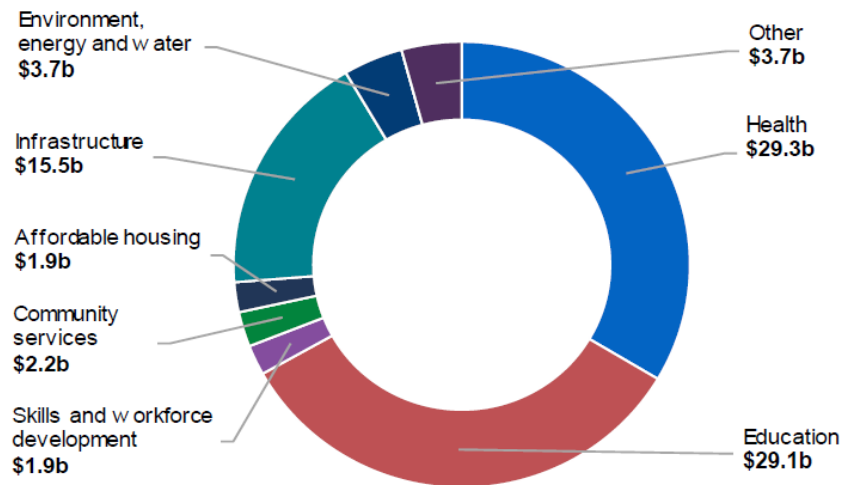
Expenses in the budget context refers to the cost of providing government services, excluding costs related to revaluations such as the write down of assets. Expenses are recorded when costs are incurred, regardless of whether any cash is paid. This reflects an accrual accounting framework.

### *Expenses (less transfers)*

Expenses as described above but adjusted to remove double counting of expenses including grants which are transfers to another jurisdiction. GST payments, payments for specific purposes and other revenue assistance which the Australian Government transfers to state and territory (state) governments is removed, consistent with the consolidation of the national aggregates.

The 2023-24 Budget included transfers of \$179.9 billion from the Australian Government to state governments. This comprised \$91.5 billion for GST payments, \$87.4 billion in payments for specific purposes (Figure A1 refers), and \$0.9 billion for other revenue assistance. For more information about Commonwealth-state transfers, see Budget Paper 3 of the Australian Government Budget.

**Figure A1: Payments for Specific purposes 2023-24, by sector**



Source: 2023-24 Budget Paper Number 3. Chart 1.1

### *Fiscal balance*

The fiscal balance is one of several indicators known as 'budget aggregates' that measure the impact of the government's budget on the economy. The fiscal balance is equal to the government's revenue minus its expenses, adjusted for government capital investments when they are acquired or sold. It reflects an accrual accounting framework.

### *Fiscal sustainability*

Fiscal sustainability refers to the combined governments' (Australian and state governments) ability to maintain their long-term fiscal policy arrangements indefinitely, without the need for major remedial policy action. A fiscally sustainable position is one which can be maintained while pursuing similar borrowing and repayment approaches over the long-term, such that taxation and spending can be expected to operate within reasonable and expected bounds.

### *General government sector*

The general government sector consists primarily of government departments and agencies that provide public services and benefits for free or at subsidised prices, funded mainly through taxes.

### *Government businesses*

For the purpose of this report, government businesses refer to public non-financial corporations, which provide services on a fee-for-service basis. Public non-financial corporations are financed through their own revenue. They may pay profits to government and, in general, they are legally distinguishable from the governments that own them.

### *Net capital investment*

Net capital investment, sometimes referred to as net acquisition of non-financial assets, is calculated by deducting the value of any sales of non-financial assets from the value of non-financial assets purchased, adjusted for changes in the value of non-financial assets, such as for depreciation.

### *Net debt*

Net debt is a widely used measure of the strength of the government's balance sheet. Net debt is the sum of selected financial liabilities (deposits held, advances received, government securities, loans and other borrowings) less the sum of selected financial assets (cash and deposits, advances paid, and investments, loans and placements). It does not include superannuation-related liabilities, but may include superannuation-related assets where these are classified as one of the 'selected financial assets' listed above.

### *Net financial worth*

Net financial worth is a broader measure of the strength of the government's balance sheet than net debt. Net financial worth is the sum of all financial assets (such as cash or shares in a company) less the sum of all financial liabilities, such as outstanding debts and superannuation-related liabilities.

### *Net operating balance*

The net operating balance is an accrual budget aggregate equal to the government's revenue minus its expenses. It does not include net capital investment, but does include the consumption of capital (depreciation). The net operating balance plus net capital investment is equal to the fiscal balance.

The net operating balance is the budget balance measure used in the annual *National fiscal outlook*. In contrast, the PBO's *Beyond the budget* reports use the Australian Government's underlying and fiscal balances as measures of budget balance.

The primary reason for using the net operating balance in this publication is that presenting the net operating balance and net capital investment allows a clear distinction between recurrent and capital expenses, which is particularly important for understanding state budget positions.

### *Public debt interest*

Public debt interest is the borrowing costs of the government, mainly incurred through issuing and servicing government debt. It is recorded as a cost to government in the budget.

### *Payments*

Payments capture all outgoing cash transactions. In the Australian and state budget context, payments are those that affect the underlying cash balance and comprise cash transactions for operating activities and the purchase of non-financial assets.

### *Receipts*

Receipts are government income recorded at the time the cash is received, as reported on a cash accounting basis.

## Revenue

Revenue is government income, recorded at the time it is earned, as reported on an accrual accounting basis.

### Revenue (less transfers)

Revenue as described above but adjusted to remove double accounting of revenue which is then transferred to another jurisdiction. GST revenue, payments for specific purposes and other revenue assistance which the Australian Government transfers to state governments is removed, consistent with the consolidation of the national aggregates. For more information about Commonwealth-state transfers, see Budget Paper 3 of the Australian Government Budget.

Table A1 presents forecast GST revenue as a share of total revenue by state/territory.

**Table A1: GST revenue as a share of state/territory revenue (%)**

|                              | 2023-24     | 2024-25     | 2025-26     | 2026-27     |
|------------------------------|-------------|-------------|-------------|-------------|
| New South Wales              | 23.3        | 23.2        | 23.3        | 23.8        |
| Victoria                     | 22.2        | 23.7        | 23.9        | 23.4        |
| Queensland                   | 23.7        | 22.6        | 22.8        | 23.4        |
| Western Australia            | 15.0        | 17.7        | 18.5        | 21.4        |
| South Australia              | 33.0        | 33.2        | 32.7        | 31.0        |
| Tasmania                     | 41.8        | 41.2        | 42.1        | 43.4        |
| Australian Capital Territory | 25.0        | 24.6        | 24.7        | 25.4        |
| Northern Territory           | 50.9        | 54.4        | 57.6        | 59.3        |
| <b>Total</b>                 | <b>23.9</b> | <b>24.4</b> | <b>24.6</b> | <b>25.0</b> |

*Source: PBO calculations from latest jurisdictional budgets (see Data sources on page 5).*

## Data and methodology

The PBO adjusts historical data and budget projections to improve comparability across jurisdictions and through time (as discussed under ‘Methodology’ on page 6). The PBO does not otherwise adjust historical or budget data. The analysis uses the budget papers as published, so only current government policies at the time of the respective budgets are included.

### Data sources

In general, the scope of this report is the general government sector. The exception is information provided on net capital investment including government businesses.

Data from 2002-03 to 2021-22 are sourced from the Australian Bureau of Statistics (ABS) Government Finance Statistics, Annual publication. Data for 2022-23 through to 2026-27 are sourced from the 2023-24 Australian and state Budgets, with release dates as shown in Table A2.

Historical net debt figures were provided to the PBO through the ABS special data service, consistent with the presentation in the ABS Government Finance Statistics, Annual, 2016-17 publication. The ABS no longer publishes a single measure of net debt and has instead introduced a debt matrix presentation for public sector debt statistics, disaggregated by government sector and debt instrument. Under the matrix presentation, item code L2 is the closest comparable measure to government reporting of net debt in line with the Uniform Presentation Framework (UPF) used in Australian Government and state budget papers.<sup>1</sup>

**Table A2: Release dates of the 2023-24 Budgets**

| Jurisdiction                                 | Date released     |
|--|-------------------|
| <a href="#">Australian Government</a>        | 9 May 2023        |
| <a href="#">Northern Territory</a>           | 9 May 2023        |
| <a href="#">Western Australia</a>            | 11 May 2023       |
| <a href="#">Victoria</a>                     | 23 May 2023       |
| <a href="#">Tasmania</a>                     | 25 May 2023       |
| <a href="#">Queensland</a>                   | 13 June 2023      |
| <a href="#">South Australia</a>              | 15 June 2023      |
| <a href="#">Australian Capital Territory</a> | 27 June 2023      |
| <a href="#">New South Wales</a>              | 19 September 2023 |

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<sup>1</sup> The Uniform Presentation Framework sets out agreed approaches to a common core of financial information in budget papers, based on recognised accounting standards and can be found at <https://treasury.gov.au/publication/p2019-t365789>.

### ***Final budget outcomes not included for 2022-23***

The data in this report do not incorporate 2022-23 final budget results for any jurisdiction. The figures in this report also do not incorporate any announcements since budgets.

Partially updating the forward estimates for final budget results of some jurisdictions (e.g. Public debt interest payments) may misrepresent trends across the forward estimates.

### ***Gross State Product (GSP)***

State-level data is expressed as a percentage of the relevant GSP rather than the national GDP. Historical state GSP data are sourced from the ABS, while projections are sourced from state budgets (Victoria and New South Wales) or, where not included in state budgets, PBO estimates (all other states).

### **Methodology**

To prepare the National fiscal outlook on a consistent basis both across jurisdictions and across time, the PBO undertook a number of steps to account for transfers between Australian and state governments following the acquisition of data as outlined above.

When consolidating the national aggregates, totals are adjusted to remove double counting. Unless stated as '*less transfers*', reported revenue and expenses for jurisdictions include transfers between governments. For example, GST is collected by the Australian Government, where it is counted as Australian revenue, and then passed onto state governments, where it is counted as state government revenue.

The projections of revenue and expenses for New South Wales and Western Australia have been adjusted by the PBO, using the estimates of these transfers in state and Australian budget papers to improve comparability across periods. This is consistent with the ABS approach that the full 'grossed up' amount be reported. The budget estimates published by New South Wales and Western Australia exclude Australian Government transfers that 'pass through' their state accounts and, as such, their reported revenue and expenses do not include these amounts (these mainly relate to payments to non-government schools and local governments which the Australian Government makes through the states).

The projections of net debt for the Australian Capital Territory are adjusted by the PBO to be consistent with the UPF.

While data are generally comparable across the historical and forward estimates periods, there are some differences in the budget treatment of items across jurisdictions.

Charts comparing variables from the previous and current outlooks use the GDP projections underpinning their corresponding Australian budget updates when calculating shares of GDP. For example, the net debt projections from the 2022-23 Budget are expressed as a share of the GDP projection in the 2022-23 Budget and net debt projections from the 2023-24 Budget are expressed as a share of the GDP projection in the 2023-24 Budget.

From 2022-23, aggregated local government data on revenue and expenses are projected by the PBO using historical trends, and net capital investments are projected in line with projected GDP.

## Fiscal sustainability

The PBO's fiscal sustainability framework, containing a range of long-term budget scenarios, was first introduced in 2021 at the Commonwealth level to assess fiscal sustainability in the aftermath of COVID-19. Since then, it has been applied to Commonwealth budget estimates in *Beyond the Budget* publications available on the PBO website. This framework has now been incorporated into the National fiscal outlook through applying the framework to the aggregate Commonwealth and state budgets, providing a range of scenarios at the national level using the methodology outlined below.

Judgements about fiscal sustainability relate to the long-term. In this analysis, fiscal sustainability refers to the aggregate of the Commonwealth and state government's ability to maintain their long-term fiscal policy settings indefinitely without the need for major remedial policy interventions. This means that governments need to continue to act but that, in general, historical approaches to borrowing and repaying debt can be maintained, while keeping taxation and spending within reasonable and expected bounds.

We consider the fiscal position to be sustainable if the debt-to-GDP ratio is expected to be stable or trend downwards over the long-term. Such circumstances provide governments the fiscal space to pursue their long-term policy objectives and to support sustainable economic growth. It allows flexibility for governments to respond to changes in economic conditions, including downturns, either through automatic or discretionary mechanisms.

The long-run trajectory for the debt-to-GDP ratio is driven by 3 parameters:

1. the aggregate Commonwealth and state budget balance (headline cash balance before interest payments)
2. the aggregate Commonwealth and state prior stock of debt and the interest rates that apply to this debt
3. economic growth (nominal GDP).

The aggregate budget balance does not necessarily need to be zero or in surplus to reduce the debt-to-GDP ratio. If the rate of economic growth exceeds the rate of interest on debt, debt-to-GDP can be reduced with sufficiently small budget deficits. Accordingly, an aggregate budget deficit across years can be consistent with a fiscally sustainable position.

A sustainable position also does not mean that every Commonwealth, state or territory Budget is sustainable or that the debt-to-GDP ratio will not increase at times, especially in response to large unforeseen economic shocks, such as the COVID-19 pandemic. In this sense, it is not necessarily the level of debt that determines if the fiscal position is sustainable, but whether, on average, the aggregate debt-to-GDP ratio is expected to remain stable or to trend downwards over the long-term. This report does not assess whether each individual State's level of debt-to-GSP is sustainable.

By comparison, the fiscal position may not be sustainable if the debt-to-GDP ratio is expected to trend upwards over the long-term. In such circumstances, major interventions could be needed to reduce deficits and keep debt broadly stable as a percentage of GDP.

In our fiscal sustainability analysis, we examine 27 possible scenarios for the debt-to-GDP ratio over a 40-year period. Each scenario reflects variations in 3 parameters – interest rates, economic growth, and the budget balance – consistent with low, middle, and high ranges throughout history. Here, we refer to these variations as 'cases'. For example, one scenario might combine our middle

case for the budget balance, our upside case for interest rates, and our downside case for GDP growth. Our cases for the budget balance, interest rates, and economic growth are described below and summarised in Table A3.

**Table A3: Cases for middle, best and worst scenarios**

| Cases    | Interest rates*                        | Nominal GDP                                | Consolidated national budget balance                                       |
|----------|--|--|--|
| Downside | Interest rates rise to 5.3% by 2066-67 | Nominal GDP growth reaches 3.8% by 2066-67 | A sustained minor surplus is maintained from 2028-29 through to 2066-67    |
| Middle   | Interest rates rise to 4.7% by 2066-67 | Nominal GDP growth reaches 4.5% by 2066-67 | A sustained modest surplus is maintained from 2027-28 through to 2066-67   |
| Upside   | Interest rates rise to 4.1% by 2066-67 | Nominal GDP growth reaches 5.1% by 2066-67 | A sustained stronger surplus is maintained from 2026-27 through to 2066-67 |

\*Interest rates for the Commonwealth. State interest rates are 0.4ppt higher and National interest rates are 0.2ppt higher than the Commonwealth, reflecting historical variances between aggregate state bond yields and Commonwealth bond yields.

1. **Interest rates** are similar to their recent levels in most scenarios.

- Commonwealth interest rates, in our middle case, are at 4.5% by 2066-67, reflecting assumptions for long-term bond yields. In our upside and downside cases, interest rates vary by  $\pm 0.6$  percentage points (ppt) from our middle case by 2066-67.
- State interest rates are 0.4ppt higher than the Commonwealth, reflecting historical variances between aggregate state bond yields and Commonwealth bond yields.
- National interest rates are 0.2ppt higher than the Commonwealth, reflecting that the amount of state bonds on issue were around half of the amount of Commonwealth bonds on issue as at 30 June 2023.

2. **Nominal GDP** scenarios incorporate different paths for important drivers of economic growth.

- Future economic growth depends on growth in the population, productivity, and labour force participation.
- For variables that may change significantly over time, such as productivity, we implicitly account for peaks and troughs by looking at their long-run historical averages. For population growth, which incorporates the impact of ageing, we take projections from the Australian Bureau of Statistics.
- In our middle case, nominal GDP growth reaches 4.5% by 2066-67. In our upside and downside cases, GDP growth reaches approximately  $\pm 0.6$  ppt from our middle case by 2066-67, reflecting deviations in both productivity and population growth.



3. **National budget balance** scenarios assume varying levels of surplus could be achieved at the national level from 2027-28 to 2066-67, driven by different levels of surpluses at the aggregate state level, while the downside case for the Commonwealth's considers ongoing deficits.

- Our cases for state budget balances are based on historical trends identified in annual Government Finance Statistics supplemented by growth rates from the National Accounts. With interest payments separately accounted for, the budget balance used here is the headline cash balance excluding interest payments, which is historically often in surplus.
- This approach implicitly accounts for the fiscal policy response to both economic booms and downturns over time. While governments may run greater deficits during downturns, stimulus spending reduces during boom periods so that the historical average includes both booms and downturns. This approach also allows us to obtain around 50 years of data to support our analysis.
- Our cases for Commonwealth budget balances are the same as Beyond the budget 2023-24 report, except we start the cases from the end of the forward estimates period.
- Our cases for national budget balances combine the state and Commonwealth. In our middle case, modest surpluses are achievable from 2027-28 through to 2066-67. Our downside case shows very modest surpluses from 2028-29 to 2066-67. The upside case shows the possibility of gradually strengthening surpluses from 2026-27 through to 2066-67.

The fiscal sustainability analysis takes a long-term view. There are a range of uncertainties including policy decisions and other factors that may impact government budgets, but are not explicitly included in the fiscal sustainability analysis. Our analysis instead assumes that future governments will act to maintain a sustainable budget in a similar way to in the past. Key uncertainties are outlined below.

- Economic factors such as productivity, wage price growth and the growth of the economy which will impact the amount of revenue and expenses. For more information on how different economic assumptions and policy settings impact the Commonwealth Budget see the [Build your own budget](#) educational interactive tool.
- The current "GST no-worse off" payments which are scheduled to cease at the end of 2026-27. If the payment is not continued, states and territories will likely experience a reduction in grant revenue while the Commonwealth would experience a corresponding decrease in expenditure.
- Government net capital investment programs often show a downward trajectory in the forward years. This typically understates the level of investment that actually occurs in future years as estimates are only included once new projects are announced and existing projects may be pushed out. Net capital investment also reflects movements in non-financial assets including transfers of fixed assets to other sectors of government.

It should be noted that the Australian Government's Intergenerational Report (IGR) projects the long-term Commonwealth budget on the basis of no future policy changes, and applies a technical assumption that the tax-to-GDP ratio remains constant at 24.4% for projections beyond 2033-34. While the IGR and the PBO analyses take different approaches, both conclude that future governments will need to act to maintain a sustainable budget. The PBO analysis suggests that the degree of action may not need to greatly differ from historical trends.