

ECONOMIC SURVEY OF AUSTRALIA 2006:
ASSESSING THE EFFECT OF THE TERMS OF TRADE ON THE FISCAL BALANCE

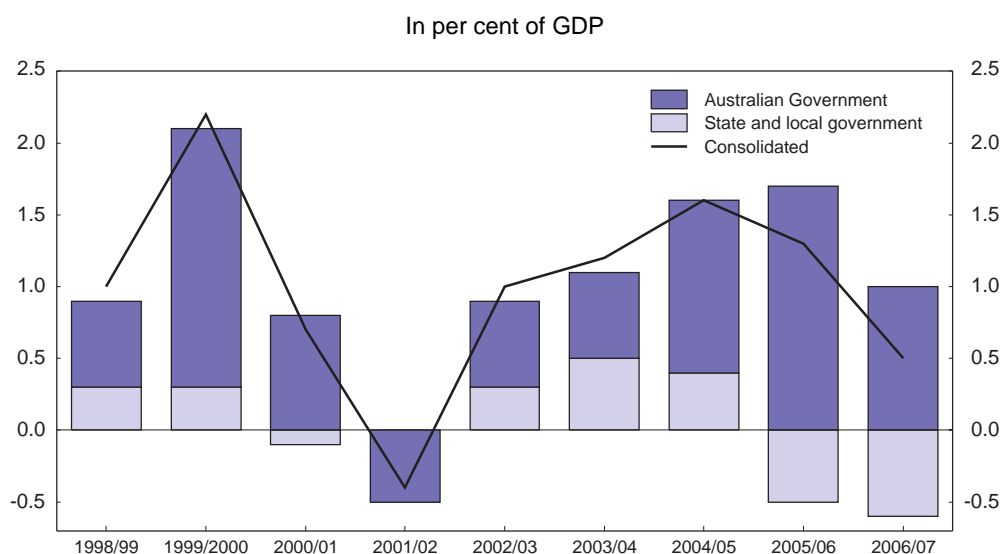
*This is an excerpt of the OECD Economic Survey of Australia, 2006,
from the section on 'Fiscal Policy' in Chapter 1 "The Short-term Challenge: Riding the Commodities
Rollercoaster".*

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Fiscal policy

1. The combined balance of the federal and state governments has been in modest surplus in all but one of the last eight years (**Figure 1.10**). It slipped temporarily into deficit in 2001/02 following the global economic slowdown, but since then has recorded a string of surpluses of around 1 to 1½ per cent of GDP, although the surplus is expected to fall to ½ per cent of GDP in fiscal year 2006/07. Sustained surpluses have resulted in a steady fall in consolidated general government net debt, which was eliminated in 2004/05 with Australia joining a small group of OECD countries, where general government financial assets exceed debt (**Figure 1.11**).

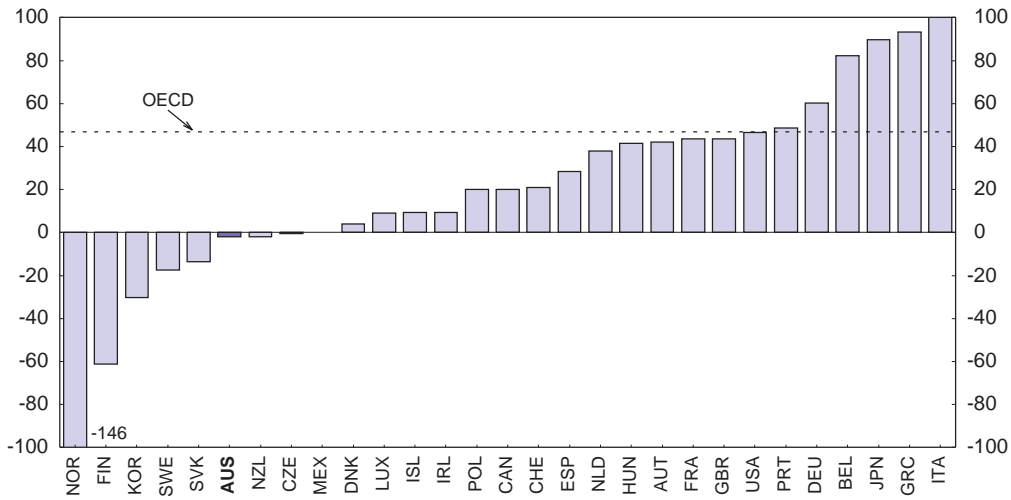
Figure 1.10. General government fiscal balance



Source: Australian Government (2006), *Budget Paper No. 1: Budget Strategy and Outlook 2006-07*, Australian Government, Canberra.

Figure 1.11. General government net debt

In per cent of GDP, 2006¹



1. Projections.

Source: OECD Economic Outlook 79 database.

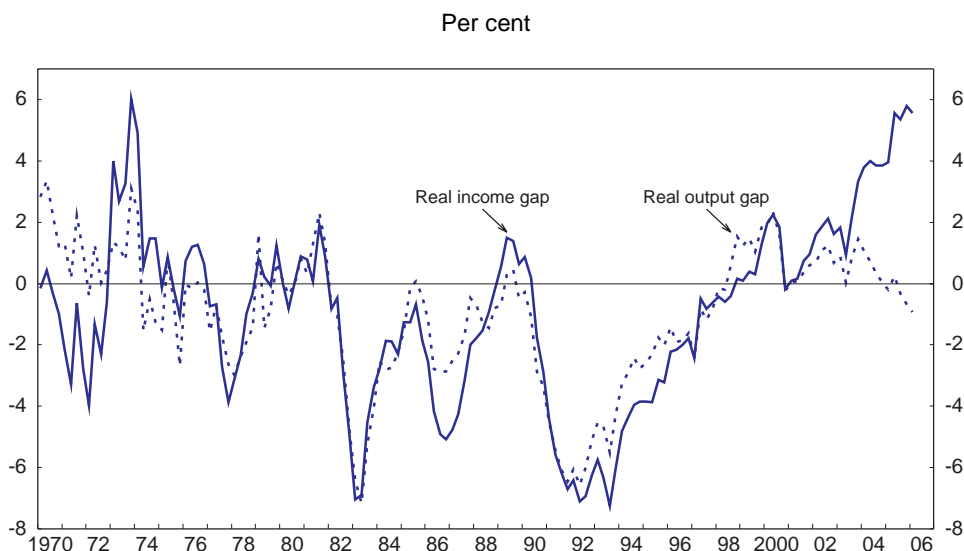
The strong terms of trade have boosted the fiscal balance

2. Recent surpluses might be regarded as essentially structural, as standard calculations of the cyclical component of the fiscal balance (Girouard and André, 2005) have remained relatively small over recent years given the limited size of the estimated output gap (Figure 1.1, panel B). However, the output-gap based calculation and interpretation of the cyclical or transient component of the fiscal balance may convey a misleading picture in the case of commodity-rich countries, where the fiscal position may be particularly sensitive to movements in the terms of trade (Ford, 2005). Indeed, although the fiscal strategy of the federal government explicitly refers to the cycle, official scepticism about the practical usefulness of both the output gap and cyclically-adjusted fiscal balances means that such measures are not published by the government. In this context a macroeconomic model simulation conducted by the OECD on the Treasury’s TRYM model is illustrative of the potential problems of cyclically adjusting the fiscal balance in the presence of a terms of trade shock; a rise in world commodity prices *lowers* the level of GDP (due to the loss of competitiveness of non-resource exports), although it raises real gross domestic income and real gross national expenditure and *boosts* the fiscal balance. Clearly in these circumstances the implied inverse association between the output gap and the fiscal balance does not readily fit with the standard OECD methodology of calculating the cyclical component of the fiscal balance.

3. An alternative approach is to base the calculation of the transitory component on a measure of the real *income* rather than the real *output* gap. The real income gap is the same as the output gap when the terms of trade are at their equilibrium level, which is here taken to be the long-run historical average.¹ An increase in the terms of trade relative to their long-run equilibrium will raise both real domestic income relative to real GDP as well as nominal GDP by boosting the GDP deflator. As tax receipts are quite closely related to nominal GDP, an increase in the terms of trade will also boost tax receipts. For most OECD countries the difference between the real output and real income gaps is small. However, for a major commodity exporter during a commodity price boom the difference can be substantial; for Australia the real income gap in the final quarter of 2005 is estimated to be plus 5½ per cent whereas the standard OECD measure of the output gap was minus ½ per cent (Figure 1.12). Assuming a unitary elasticity between nominal GDP and aggregate tax revenue, every percentage point of the real income gap translates

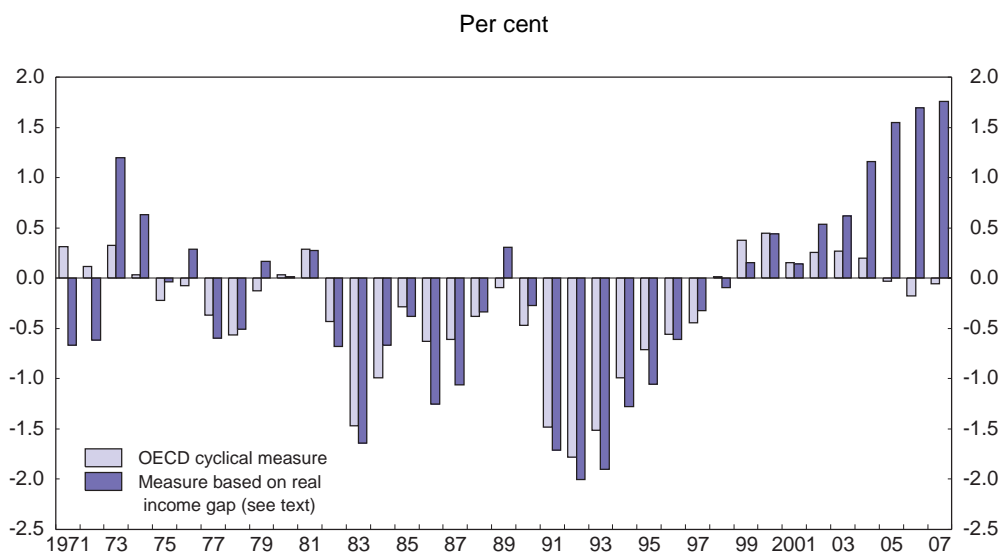
into a temporary tax share equal to 0.3% of GDP, because the average share of tax receipts in GDP is 30%.² The difference between this alternative calculation and the standard OECD calculation of the cyclical component is small over much of history, but currently substantial (**Figure 1.13**); based on the real income gap the temporary component of the fiscal balance is about 1¾ per cent of GDP in 2005 and 2006,³ whereas, according to the standard OECD methodology it is close to zero.

Figure 1.12. Real income and real output gaps



Source: ABS (2006), *Australian National Accounts: National Income, Expenditure and Product* (cat. No. 5206.0) and OECD Economic Outlook 79 database.

Figure 1.13. The transient component of tax revenues



Source: ABS (2006), *Australian National Accounts: National Income, Expenditure and Product* (cat. No. 5206.0) and OECD Economic Outlook 79 database.

4. There is, however, at least one major caveat to the calculation based on the income gap. It assumes that the equilibrium terms of trade will revert to their long-run historical average. An extreme

alternative assumption would be that the current elevated terms of trade represent a new sustainable equilibrium. In this case the real output and real income gaps would coincide and so imply that the transient component of the fiscal balance is negligible. The official view underlying the recent federal budget lies between these two extreme cases, namely that the terms of trade are likely to fall in future years, but remain at levels well above the long-run historical average. This is consistent with a view that the prospective growth of China, together with gains from being a substantial net importer of information and communication technology products (for which there has been a trend fall in prices), have led to a permanent favourable shift in the terms of trade. In particular, on a per capita basis, China lags well behind developed regional neighbours such as Japan and Korea in terms of consumption of a range of resources and resource intensive products such as steel (Maurer *et al.*, 2004). On the basis of the budget assumption that the terms of trade eventually fall (but only by 2008/09) from 28% above the long-run historical average (since 1960) to about 14% above it, the transient component of the fiscal balance would currently be about ¾ to 1% of GDP, which compares to a projected general government surplus (for the Australian government and the states) of ½ per cent of GDP in 2006/07.

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1. The real income gap is calculated as [(real domestic income/potential output) - 1 - α], where potential output is the OECD measure of potential output (OECD, 2006) and α is a constant calculated to ensure that the average real income gap is equal to the average real output gap over history.
2. Arguably the elasticity between nominal GDP and aggregate tax revenue is probably greater than unity due to fiscal drag, which in Australia may be particularly large, as discussed further below.
3. The calculations are based on the most recent *Economic Outlook* projection which assumes the terms of trade remains close to recent levels until the end of 2007.