



Budget Forecasts and Outcomes

by Gareth Griffith, Lenny Roth and John Wilkinson

1 Introduction

Economic forecasting is not an exact science, subject as it is to the vagaries and contingencies of human affairs. By extension, it follows that budget forecasts are likely to vary in accuracy depending on a host of factors, including economic and political developments at the sub-national, national and international level. Whatever econometric models are used by Treasury and Finance Departments to estimate and account for prospective government revenue and expenditure, variations will occur.

By way of illustrating the uncertainties involved, NSW Treasury explained, in Budget Paper No.2, in the *Budget Statement: 2005-06*:

Budget estimates rely on assumptions, forecasts and assessments for the economy and other factors made when the budget was prepared...History suggests that often the critical factors for economic and fiscal outcomes are ones not foreseen or deemed too improbable when the forecasts were assembled.¹

By way of practical example, the [NSW Report on State Finances 2008-09](#), published by NSW Treasury, states:

The \$897 million Budget deficit represents a \$1,165 million decrease on the original 2008-09 Budget Paper estimate of a surplus of \$268 million.... The outcome however represents an improvement of \$440 million on the prediction of a \$1,337 million deficit contained in the 2009-10 Budget Papers.

Explaining in part these variations between estimates and outcomes, the report adds:

The Global Financial Crisis and its impacts on the New South Wales economy have been a significant driver towards the 2008-09 deterioration of the Budget result.

There was also a significant variation between forecasts and outcomes in 2009-10, with the NSW Treasury reporting:

The \$994 million Budget surplus represents a \$1,984 million improvement on the original Budget estimate of a deficit of \$990 million...The outcome represents an improvement of \$893 million on the estimate of a \$101 million surplus contained in the 2010-11 Budget Papers.²

The purpose of this E-Brief is modest in nature. It sets out in broad terms the budget forecasts and actual outcomes for the Commonwealth and States of

Australia, from 2001-02 to 2009-10.³ The E-Brief does not purport to present a comprehensive explanation of why a particular outcome was achieved in each case. On the other hand, from a public interest standpoint, it does draw attention to the potentially distorting impact that high levels of inaccuracy in budget forecasting may have on the parliamentary approval and broader decision making process.

2 Reports and commentaries

The difference between budget forecasts and outcomes has been the subject of debate, in Australia and overseas.

2.1 Canadian review

In Canada, for example, criticism of the accuracy of the Department of Finance's forecasts - specifically the underestimation of budget surpluses - resulted in a number of studies of its estimation methodology and forecasting performance.⁴ According to one summary, the 2005 [Review of Canadian Federal Fiscal Processes and Systems](#) (the O'Neill report) found that:

there are no special technical problems with federal economic and fiscal forecasting. However, the Report acknowledged that there are issues with the degree of error in forecasting fiscal balances. In particular, the Report found that experts seem to agree that there is a "public interest issue that goes beyond any technical weaknesses in the forecasts themselves." Several experts felt that the persistence of unanticipated surpluses at the end of the fiscal period is evidence of a failure in public policy making. They argued that such a tendency in forecasting hinders public and parliamentary discussions because it does not permit a full debate on fiscal options and might in fact

"distort the decision-making process itself."⁵

The point was made in a [Canadian Parliamentary Library](#) research paper that:

elected officials must approve billions of dollars of government spending, and require some estimate of future economic performance and budget requirements. While pinpoint accuracy is not expected, forecasters must achieve a reasonable degree of accuracy if they are to retain their credibility in Parliament.⁶

2.2 Western Australia Treasury report

In March 2006 the WA Department of Treasury and Finance published a [Review of Revenue Forecasting](#). This was in response to 'a period of substantial under-estimation of Western Australia's budget revenues', particularly in 2003-04 and 2004-05. Setting out the context of the revenue forecasts, the review stated:

Revenues are inherently more variable and less within the Government's control than expenses. It is likely that this is especially so in Western Australia because of the export and resource orientation of the State's economy and its associated exposure to volatile commodity prices. Even relatively small percentage errors in the revenue forecasts can have a large impact on budget surpluses...⁷

Over a five year period the review found that:

The largest forecasting variances were for property market stamp duties (reflecting the failure of forecast 'turning points' to materialise), GST revenue grants

(reflecting underestimation by the Commonwealth and lags in receiving updated Commonwealth estimates), and mining royalties (reflecting large, unforeseen growth in the oil price and other commodity prices).⁸

Reflecting the inherent difficulty of predicting future economic activity and other revenue base 'drivers', the review acknowledged that no panaceas were identified. Nonetheless, it also concluded that 'significant improvements in the forecasts should be possible over time'. Various recommendations were made, such as more regular formal consultation with external experts on issues relating to stamp duty on property conveyances and mining royalties – the largest and most volatile revenue sources for WA.⁹

2.3 Australian Capital Territory Treasury report

In May 2008 the ACT Department of Treasury released [Forecasting Accuracy of the ACT Budget Estimates](#). Introducing the issue, the report observed:

It should be no surprise that forecasts are not always accurate – they are essentially about predicting the future with incomplete information. Nevertheless, forecast inaccuracy, particularly consistent underestimation of revenues and budget surpluses, generally draws intense criticism.

The report recognised that, as a rule, 'forecasts are generally too low in periods of high economic growth, and too high in periods of low economic growth'. This was seen to be of more than technical interest, with the report stating:

Inaccurate forecasts are seen to hinder resource allocation choices and an informed debate on those choices.

The reasons for inaccuracies are said to fall into three broad categories, as follows:

- technical issues, such as data accuracy, forecasting methodology, process and agency structures;
- effects of fiscal objectives (such as legislatively defined fiscal targets and principles); and
- the economic cycle.

According to the ACT report, the real question is whether budget forecasts are within what it calls 'boundaries of acceptable inaccuracy'. The report noted in this respect that 'The accuracy of the ACT revenue estimates is comparable with other States particularly NSW and Victoria'.¹⁰

3 Data sets

Two data sets are used generally in the analysis of budget forecasts and outcomes. One data set is based on the ABS publications;¹¹ the other on the Budget Papers of the various jurisdictions. As the focus of this E-Brief is specifically on Treasury forecasts and outcomes, its figures are based on budget speeches and Treasury publications, in the case of NSW the annual [NSW Report on State Finances](#), which is available electronically from 2000-01 onwards.¹²

4 Budget forecasts and outcomes by jurisdiction

4.1 The Commonwealth

Federal budget forecasts and outcomes over the past decade are shown in the following table. With the

exception of 2001-02, the picture is one of budget surpluses outstripping forecasts between 2000-01 and 2007-08.

Budget surpluses were underestimated by significant margins for the financial years 2002-03 to 2007-08. The large disparity between the forecast and outcome for 2008-09 show the impact of the global financial crisis.

Federal Budget Forecasts and Outcomes, \$bill¹³

Year	Forecast	Actual	Variation
00-01	2.8	5.9	3.1
01-02	1.5	-1.1	-2.6
02-03	2.1	7.4	5.3
03-04	2.2	8	5.8
04-05	2.4	13.6	11.2
05-06	8.9	15.7	6.8
06-07	10.8	17.2	6.4
07-08	10.6	19.7	9.1
08-09	21.7	-27.1	-48.8
09-10	-57.6	-54.8	2.8

4.2 New South Wales

The following table presents budget forecasts and outcomes, based on [budget speeches](#) and on the Treasury's annual [NSW Report on State Finances](#).

NSW Budget Forecasts and Outcomes (\$m)

Year	Forecast	Actual	Variation
00-01	659	712	53
01-02	368	495	127
02-03	168	619	451
03-04	43	6	-37
04-05	837	695	-142
05-06	303	1034	731
06-07	-696	584	1280
07-08	376	386	10
08-09	268	-897	-1,165
09-10	-990	994	1,984

On the figures presented here, the variation of \$1,984 million on the surplus side between forecast and

outcome for the 2009-10 budget is the largest for the period under review. In that period, variations have been in excess of \$1 billion on three occasions, twice on the surplus and once on the deficit side. Generally, budget surpluses have been underestimated, but to a lesser extent than in Victoria (see table below), which is perhaps the best economic point of comparison with NSW. The variations were less than \$200 million in five of the ten financial years reported.

In the [NSW Report on State Finances 2008-09](#), Treasury commented on the impact of the Global Financial Crisis on the New South Wales economy, as 'a significant driver towards the 2008-09 deterioration of the Budget result'.

Conversely, the [NSW Report on State Finances 2009-10](#) commented on the \$994 million Budget surplus outcome, which represented a \$1,984 million improvement on the original Budget estimate of a deficit of \$990. The report went on to explain that revenues were \$3,375 million or 6.4 per cent above budget. This was explained by:

- Higher than expected taxation revenues, driven by increases in transfer duties of \$1,009 million, reflecting an early recovery in the residential property market.
- Commonwealth grants were \$1,302 above budget, including GST revenue grants \$997 million higher than expected and funding for national partnership payments was \$504 above budget.
- Fines, fees and other revenues were \$453 million above budget, while revenues for sale of goods and services were \$468 million above budget.

4.3 Victoria

The figures presented below indicate a tendency to underestimate budget surpluses – with recorded variations on the surplus side of over \$1 billion in three financial years, and over \$500 million in another three financial years.

Victoria Budget Forecasts and Outcomes (\$m)¹⁴

Year	Forecast	Actual	Variation
00-01	592	1,199	607
01-02	509	1,598	1089
02-03	522	1,513	991
03-04	245	962	717
04-05	545	795	250
05-06	365	825	460
06-07	317	1,335	1018
07-08	324	1,647	1323
08-09	828	251	-577

4.4 Queensland

The variations recorded in NSW and Victoria, between budget forecasts and outcomes, are dwarfed by the figures for Queensland, where the mining boom may have been one factor. Between 2003-04 and 2006-07 variations on the surplus side were recorded in excess of \$3 billion in two financial years, and over \$2 billion and \$1 billion in subsequent years. In fact, as shown in the table below, for Queensland the differences are on both the surplus and deficit side.

Queensland Budget Forecasts and Outcomes, \$(m)¹⁵

Year	Forecast	Actual	Variation
00-01	29	-857	-886
01-02	24	-858	-882
02-03	23	12	-9
03-04	153	3,340	3187
04-05	646	3,942	3296
05-06	934	3,714	2780
06-07	245	1,855	1610
07-08	268	-1,559	-1827
08-09	809	35	-774

4.5 Western Australia

As in the case of Queensland, significant variations between budget forecasts and outcomes were recorded during the mining boom years, with three variations on the surplus side over \$1 billion. With the exception of 2008-09, all of the recorded variations have been on the surplus side.

WA Budget Forecasts and Outcomes, \$(m)¹⁶

Year	Forecast	Actual	Variation
00-01	42	167	125
01-02	51.6	197	144.4
02-03	119	250	131
03-04	83	793	711
04-05	243	1,240	997
05-06	521	2,265	1,743
06-07	1,275	2,303	1,028
07-08	1,453	2,569	1,117
08-09	1,855	318	-82.9

4.6 South Australia

Compared to the resource based States, in dollar terms the variations between South Australia's budget forecasts and outcomes are more modest. As shown in the table below, no variation was over \$500 million, either on the surplus or deficit side.

SA Budget Forecasts and Outcomes, \$(m)¹⁷

Year	Forecast	Actual	Variation
00-01	-2	-297	-295
01-02	3	-174	-177
02-03	92	448	356
03-04	-20	385	405
04-05	52	224	172
05-06	51	202	151
06-07	91	209	118
07-08	30	464	434
08-09	160	-233	-393

4.7 Tasmania

The scale on which variations between Tasmania's budget forecasts and outcomes operate is more modest again. As set out in the table below, no

variation was over \$300 million, and in six financial years the variation was under \$200 million, on the surplus or deficit side.

Tasmanian Budget Forecasts and Outcomes, \$(m)¹⁸

Year	Forecast	Actual	Variation
00-01	2.6	41	38.4
01-02	4.2	140	135.8
02-03	8.5	162	153.5
03-04	6.9	296	289.1
04-05	15	240	225
05-06	-5.5	120	125.5
06-07	-84	-72	12
07-08	-39	111	150
08-09	106	-102	-208

While the dollar amounts are modest, overall the variations between forecasts and outcomes for South Australia and Tasmania alike suggest the tendency for Treasuries to err on the conservative side when calculating budget estimates.

5 Conclusion

An exact match between budget forecasts and outcomes is not to be expected. Indeed, in some circumstances, such as those experienced in the global financial crisis, expectations would tend rather towards a significant mismatch.

In NSW, the differences between forecasts and outcomes have been less dramatic than in some other Australian jurisdictions. Nonetheless, in NSW, variations have been in excess of \$1 billion on three occasions in the last decade, twice on the surplus and once on the deficit side. As shown by the outcome for the 2009-10 year, the underestimation of revenue from a federal source, in the form of grants and/or GST payments, can have a major impact in this context.

Given the relative size of the total budgets, it may be no surprise that the Commonwealth has had the largest forecast/outcome variations over the years, while the two jurisdictions with the smallest budgets (South Australia and Tasmania) have generally had the lowest variations. For the other States, there may be a number of reasons why certain States have forecasted more accurately than others.

In all jurisdictions, there has been a tendency to underestimate budget surpluses. This suggests that Treasury Departments take a conservative approach to budget forecasting.

While budget forecasting is not expected to be entirely accurate, the key question identified by the ACT Treasury Department is whether forecasts are within 'boundaries of acceptable inaccuracy'. This is an important issue because budget forecasts are the basis upon which public policy decisions are made and play a key role in the parliamentary approval process. Whether an agreed standard for assessing the 'boundaries of acceptable inaccuracy' is within reach is another matter.

¹ NSW Treasury, *Budget Statement: 2005-06* (NSW Treasury, Sydney, 2005), Budget Paper No.2, Chapter 6, p.6-12.

² [NSW Report on State Finances 2009-10](#), p v.

³ Or 2008-09, depending on the latest available figures.

⁴ These studies also contributed to the appointment in 2006 of a [Parliamentary Budget Officer](#).

⁵ GA Beaumier, [The Accountability Act and the Parliamentary Budget Officer](#), Library of the Canadian Parliament, June 2006, p 5.

⁶ GA Beaumier, n 5, p 1. The debate contributed to the appointment in 2006 of a [Parliamentary Budget Officer](#).

⁷ WA Department of Treasury and Finance, [Review of Revenue Forecasting](#), March 2006, p vi.

⁸ WA Department of Treasury and Finance, n 7, p vii.

- ⁹ WA Department of Treasury and Finance, n 7, pp viii-ix.
- ¹⁰ ACT Department of Treasury released [Forecasting Accuracy of the ACT Budget Estimates](#), p 6.
- ¹¹ BUDGET ESTIMATES: ABS Cat. No. 5501.0.55.001 Government Financial Estimates, Australia Electronic Delivery - 2006-07, and ACTUAL ESTIMATES: ABS Cat. No. 5512.0 Government Finance Statistics, Australia.
- ¹² It is acknowledged that different jurisdictions may calculate their budget estimates on a different basis. However, the purpose of this paper is not to compare budget outcomes across jurisdictions but, rather, to compare variations between budget estimates and actual budget outcomes within particular jurisdictions, irrespective of the basis upon which these are calculated.
- ¹³ *Commonwealth Treasury - [Historical budget and net financial worth data](#); [Past Budgets for 2000-01-2008-09](#) (with special reference to Budget Highlight documents); [Budget at a Glance 2008-09](#); [Final Budget Outcome 2008-09](#); [Mid-Year Fiscal and Economic Outlook](#) and [Final Budget Outcome 2009-10](#)*. The final budget outcome is expressed in terms of the 'underlying cash balance'.
- ¹⁴ For Budget outcomes see - Victorian Budget Statement 2010-11, [Statement of Finances 2010-11, Appendix A, Table A3](#) (General Government Operating Statement – Historical Series), pp.283-286.
- ¹⁵ For budget outcomes see – [Queensland Budget Strategy and Outlook 2009-10](#) (General Government Time Series), p 184; [Budget Strategy and Outlook 2010-11](#), p 185.
- ¹⁶ See WA Treasurer, *Budget Speeches*, 2000-01 to 2007-08 at <http://www.ourstatebudget.wa.gov.au/>. See also WA Department of Treasury and Finance, [Government Financial Results](#), 2001-02 to 2008-09.
- ¹⁷ South Australia, [Budget Speeches](#), 2002-03 to 2008-09. See also, in particular, Table B.4 (General Government Sector Operating Statement) in Budget Paper no.3 of [State Budget: 2007-08 and State Budget: 2010-11](#).
- ¹⁸ Tasmania, [Budget Speeches](#), 2000-01 to 2008-09. See also [Consolidated Financial Statements, 2000-01 to 2002-03](#) and pages A1.3/A1.4 of Budget Paper No.1 in [State Budgets 2005-06 to 2009-10](#).

Information about Research Publications can be found on the Internet at the:
[NSW Parliament's Website](#)

Advice on legislation or legal policy issues contained in this paper is provided for use in parliamentary debate and for related parliamentary purposes. This paper is not professional legal opinion.

© 2010

Except to the extent of the uses permitted under the *Copyright Act 1968*, no part of this document may be reproduced or transmitted in any form or by any means including information storage and retrieval systems, without the prior written consent from the Librarian, New South Wales Parliamentary Library, other than by Members of the New South Wales Parliament in the course of their official duties.

ISSN 1838-0204