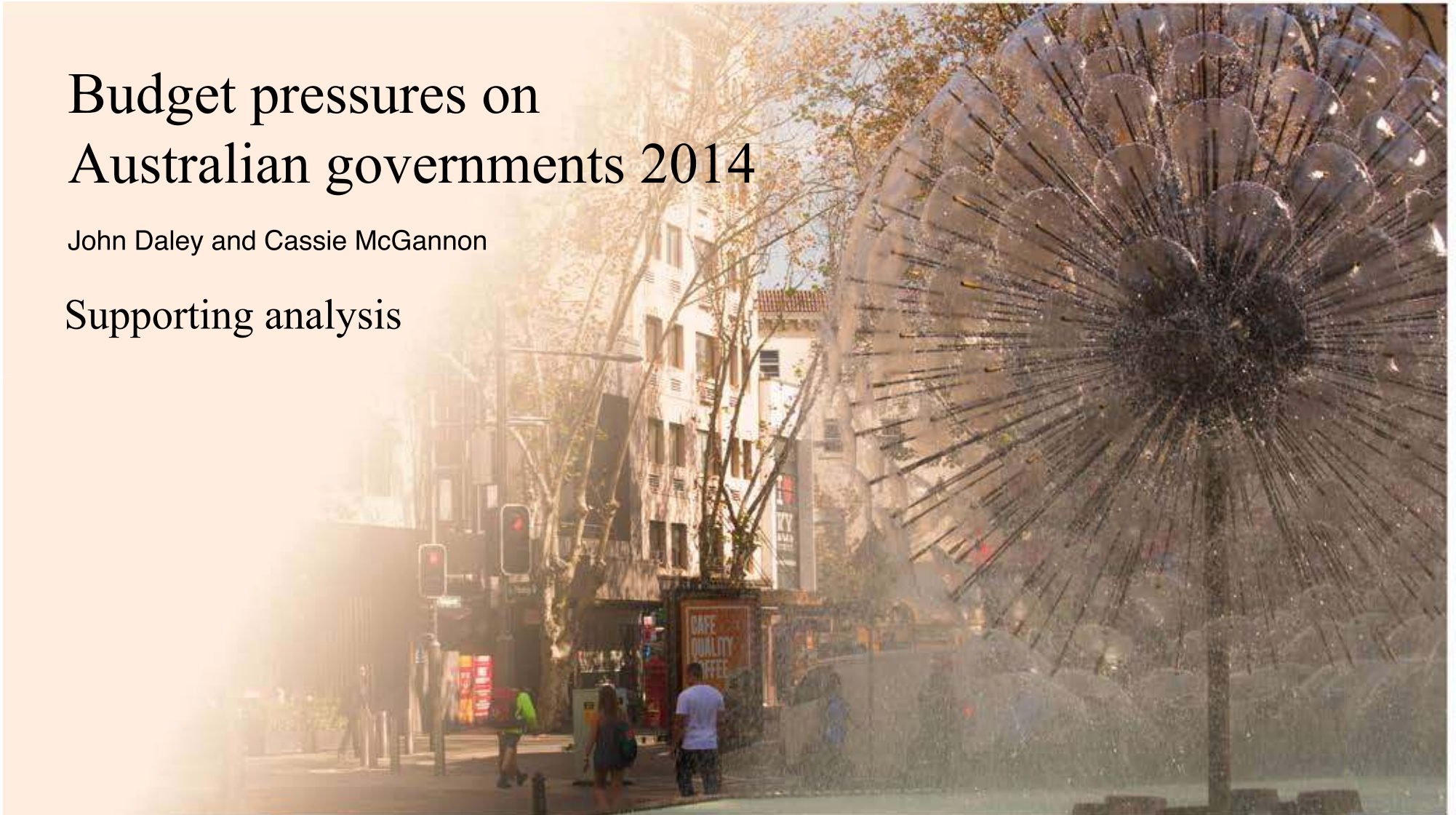


May 2014

Budget pressures on Australian governments 2014

John Daley and Cassie McGannon

Supporting analysis



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Grattan Institute Report No. 2014-7, May 2014

This *Supporting analysis* publication accompanies a report, *Budget pressures on Australian governments*, which can be downloaded from Grattan Institute's website.

This report was written by John Daley, Chief Executive Officer, Grattan Institute. Cassie McGannon and Amélie Hunter provided extensive research assistance and made substantial contributions to the report. Joshua Tomlinson also made a significant contribution. This edition builds on the 2013 report 'Budget pressures on Australian governments', to which Jim Savage and Hans Zhu made significant contributions.

We would like to thank numerous people from the public policy community, the private sector, and the members of Grattan Institute's Public Policy Committee for their helpful comments.

The opinions in this report are those of the authors and do not necessarily represent the views of Grattan Institute's founding members, affiliates, individual board members or reference group members. Any remaining errors or omissions are the responsibility of the authors.

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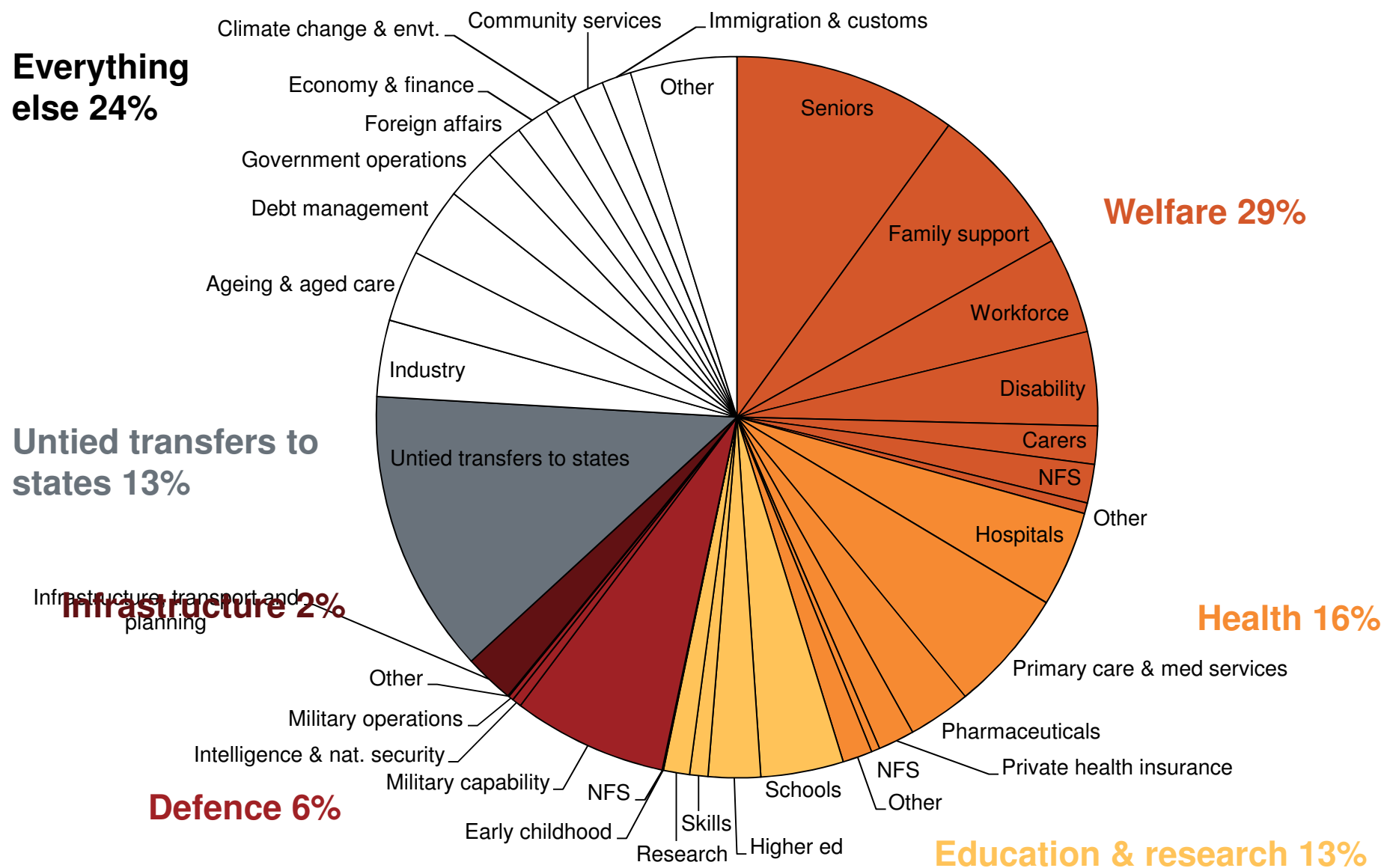
This supporting analysis presents revenue and expenditure data by jurisdiction. Jurisdictions present budget data differently in their budget papers. It is not always possible to match expenditure or revenue categories between jurisdictions or years, so some anomalies may still be present in this data. This particularly applies to small spending categories. See pages 35-46 for further details.

Unless otherwise noted, reference to States also includes Territories.

Part B: Budget analysis approach

Pages 35-46

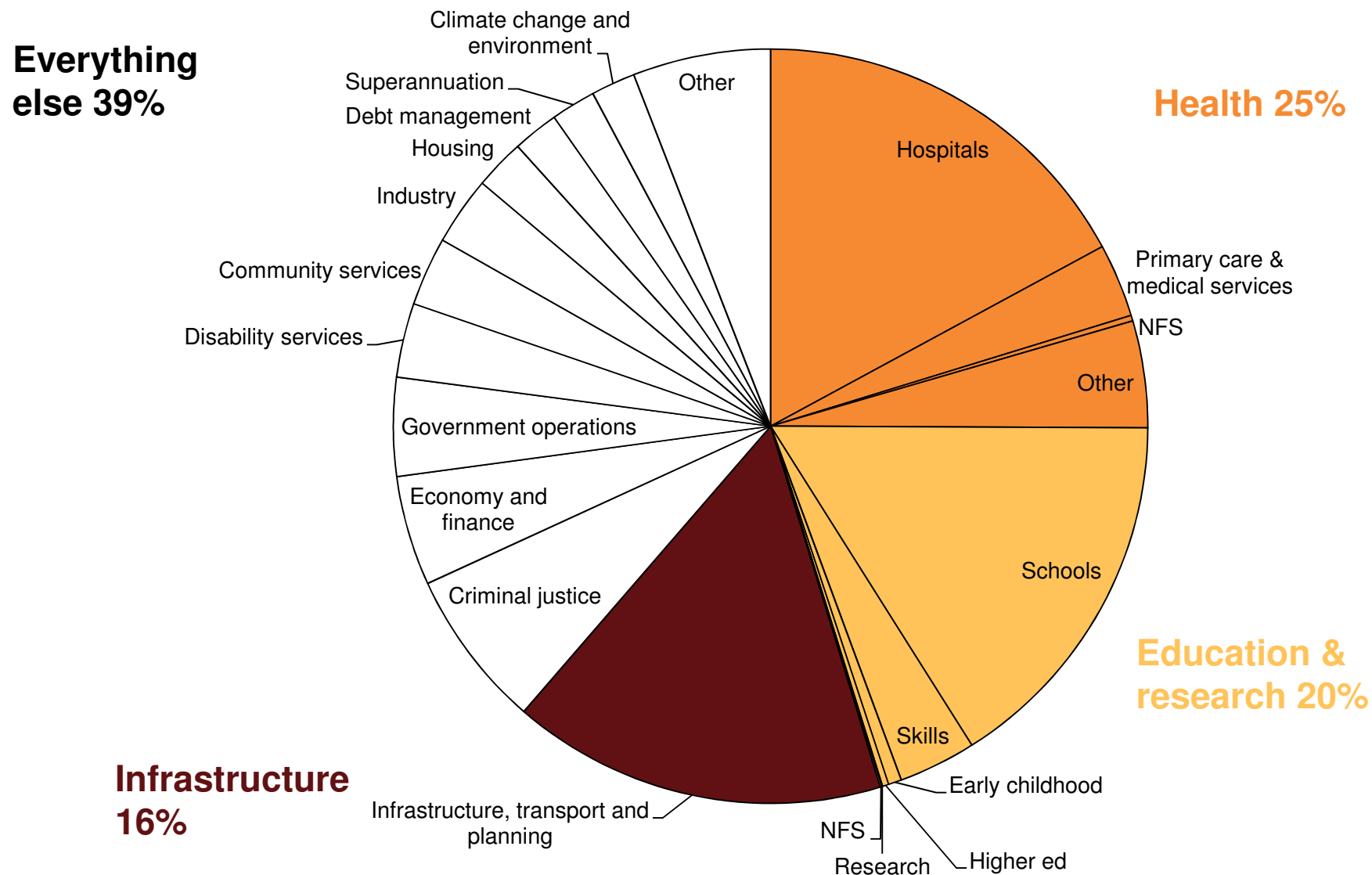
Commonwealth recurrent expenditure by policy area, 2013-14



Note: Includes funds transferred to States. NFS=not further specified. 'Other' comprises all expenditure not elsewhere included, including employment, housing, disability services, communications, superannuation, legal, criminal justice, arts and sport, water, and emergency services. See p35-40 of this volume for further notes.

Source: Grattan analysis of Commonwealth Budget Papers 2013-14 and PBO unpublished data.

State recurrent expenditure by policy area, 2013-14

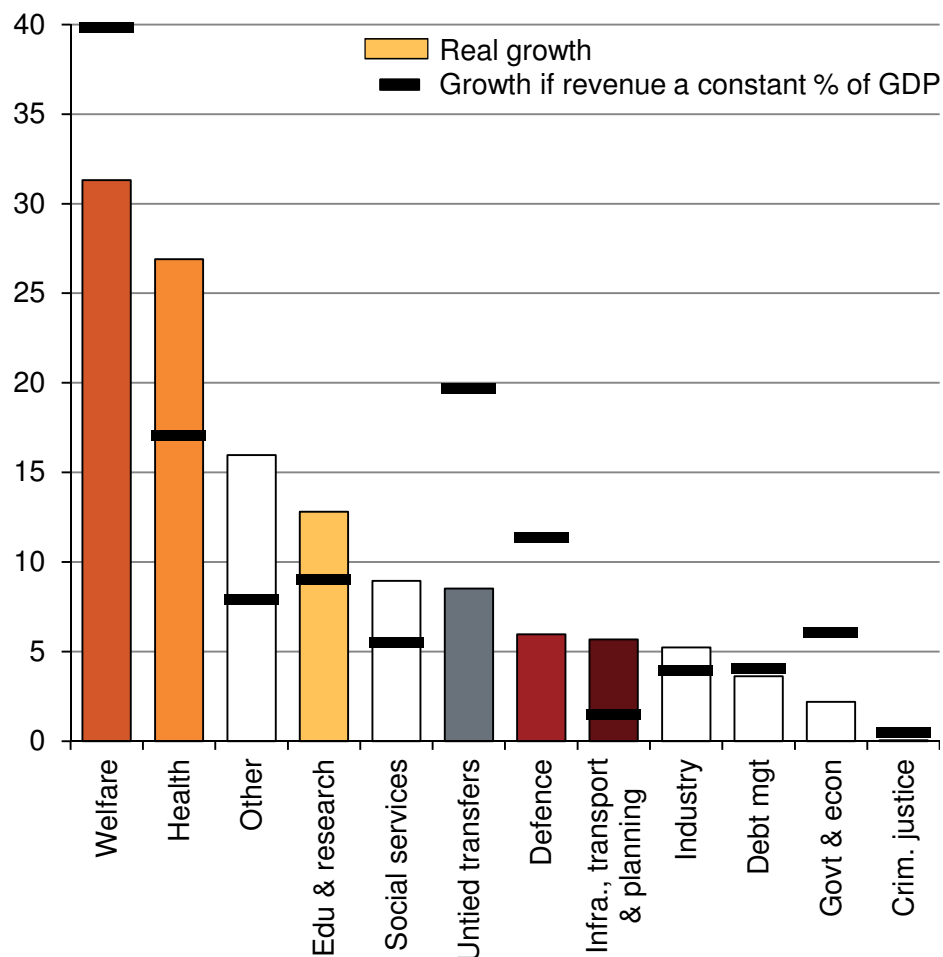


Note: Based on analysis of NSW, Victoria, Queensland and Western Australian budgets. NFS=not further specified. 'Other' comprises all expenditure not elsewhere included, including legal, emergency services, arts and sport, ageing and aged care, employment and water. See p35-40 of this volume for further notes.
Source: Grattan analysis of State Budget Papers 2013-14.

Change in recurrent expenditure by category, 2002-03 to 2013-14

Change in Commonwealth recurrent expenditure

Real change in expenditure, 2003 to 2014, \$2013 bn

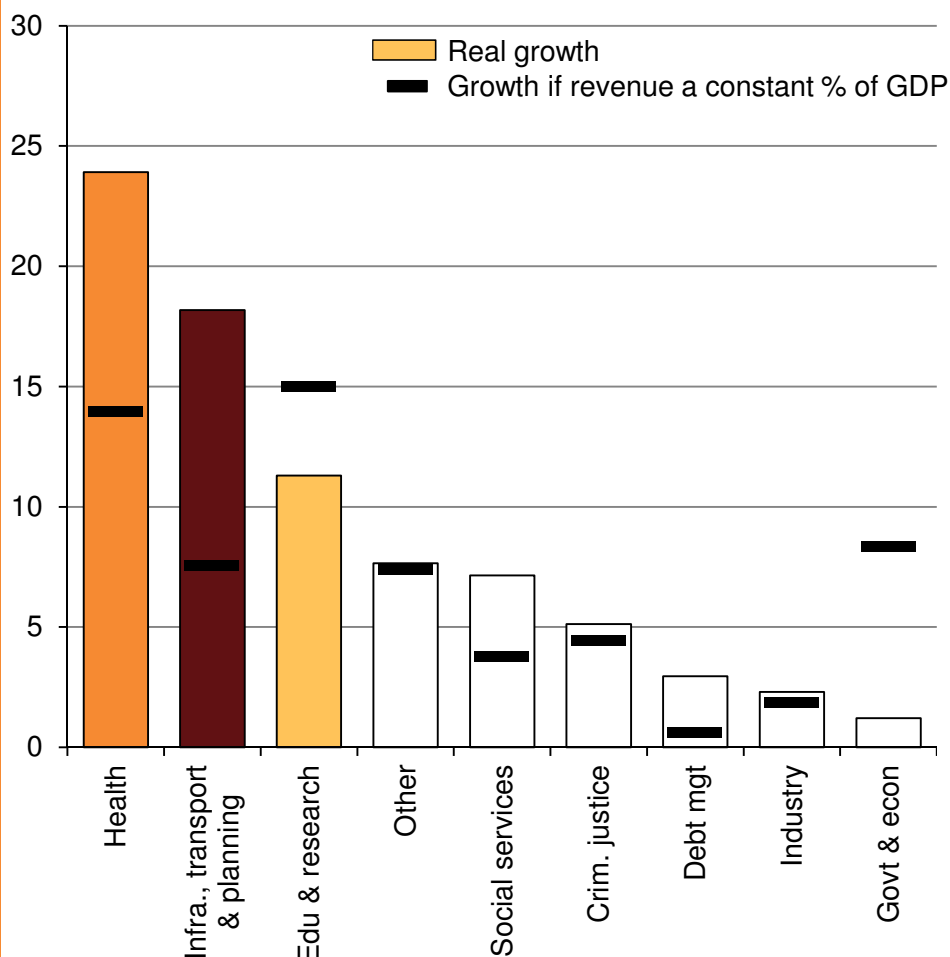


Note: Includes funds transferred to States. 'Other' comprises all expenditure not elsewhere included. 'Social services' comprises ageing and aged care services, disability services, and community services. 'Govt & econ' comprises government operations and economy and finance. See p35-40 of this volume for further notes.

Source: Grattan analysis of Commonwealth budget papers for 2002-03 and 2013-14; PBO unpublished data; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Change in State recurrent expenditure

Real change in expenditure, 2003 to 2014, \$2013 bn

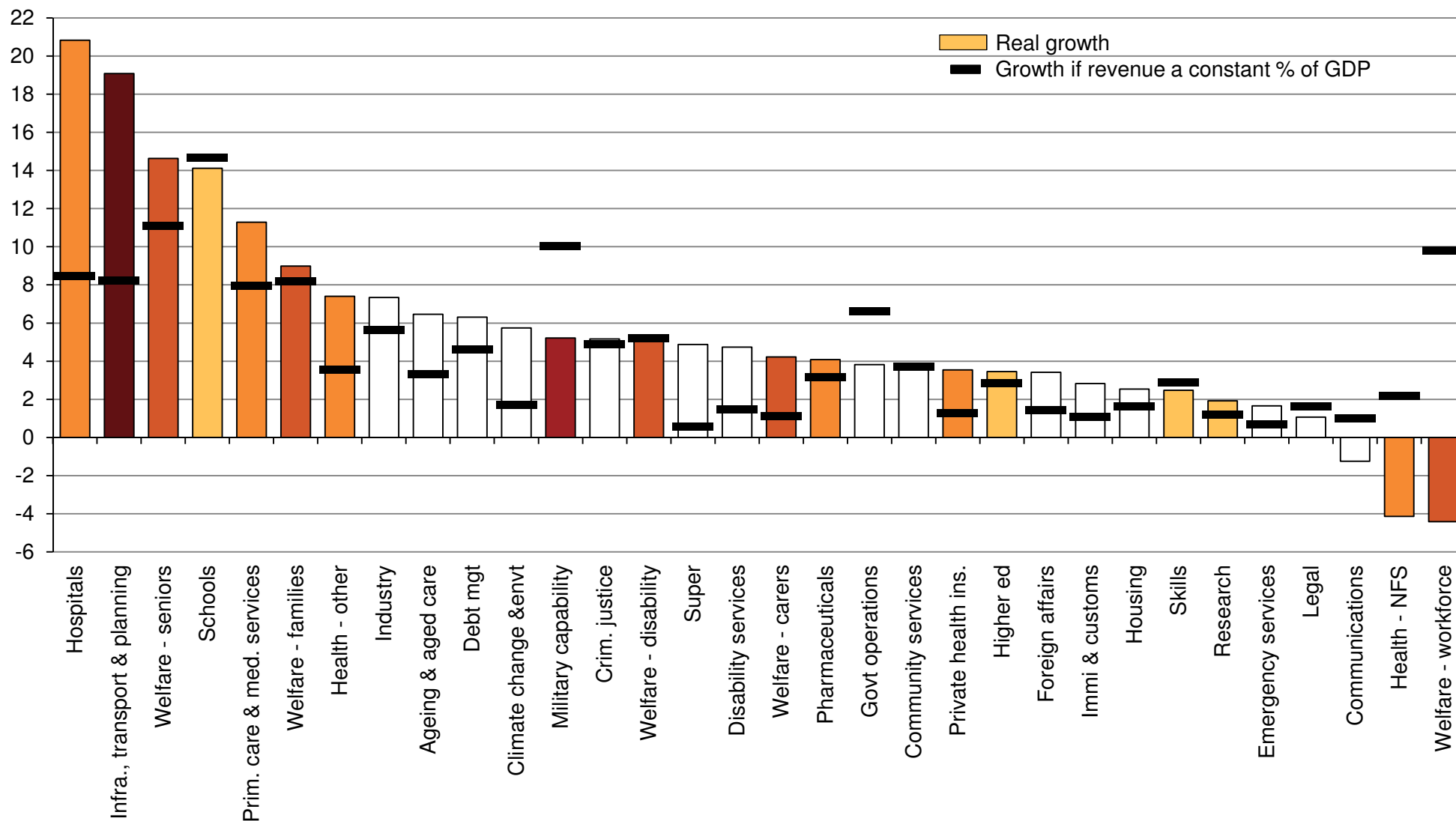


Note: Based on NSW, Vic, Qld and WA data. 'Other' comprises all expenditure not elsewhere included. 'Social services' comprises ageing and aged care services, disability services, and community services. 'Govt & econ' comprises government operations and economy and finance. See p35-40 of this volume for further notes.

Source: Grattan analysis of State budget papers for 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Change in total recurrent expenditure, 2002-03 to 2013-14

Real change in combined Commonwealth and State recurrent expenditure, 2003 to 2014, \$2013 bn

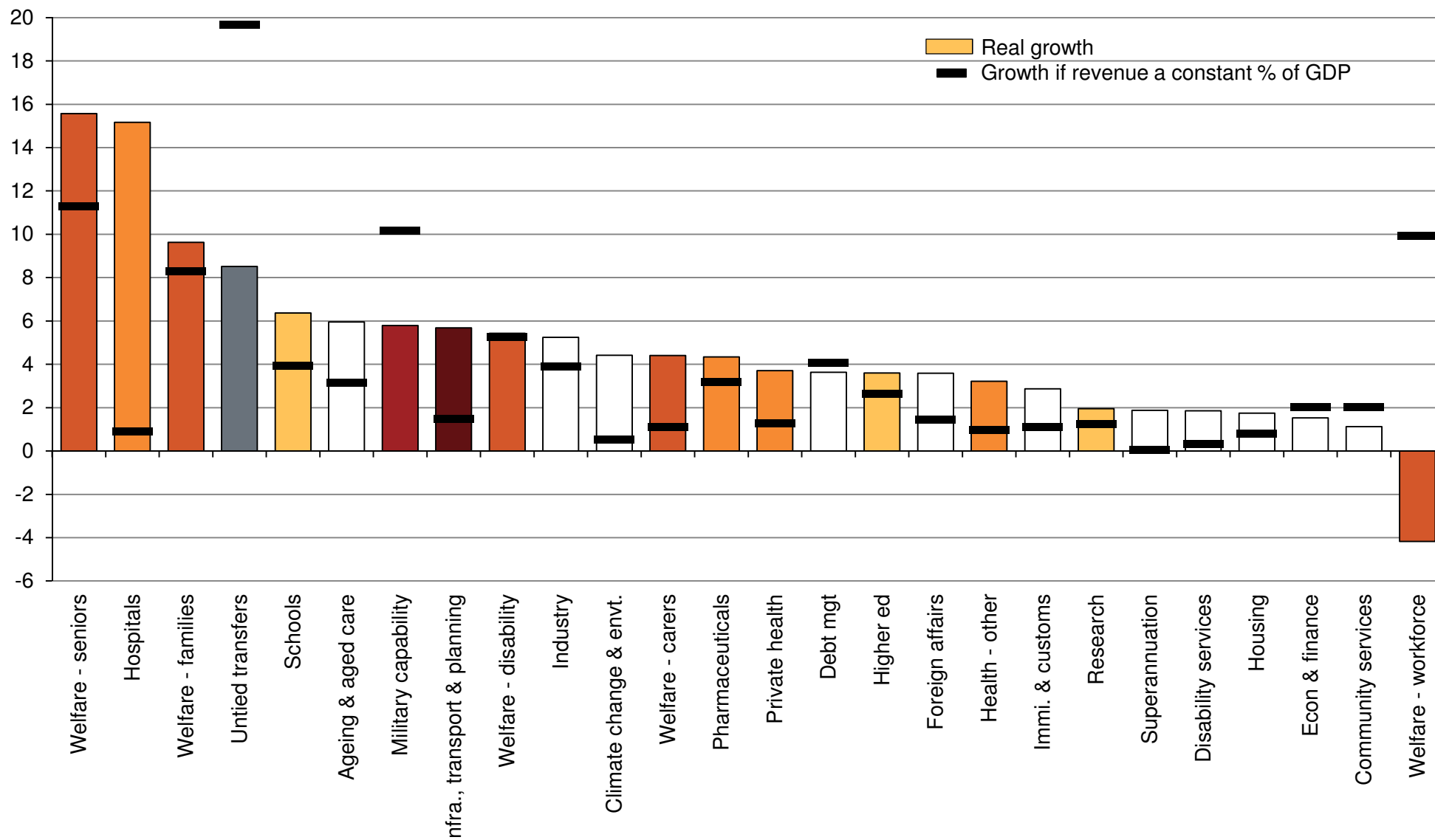


Note: Based on analysis of Commonwealth, NSW, Vic, Qld and WA data. NFS=not further specified. Categories that changed by less than \$1 billion not shown. See p35-40 of this volume for further notes.

Source: Grattan analysis of Commonwealth and State budget papers for 2002-03 and 2013-14; PBO (n.d.-a); ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Change in Commonwealth recurrent expenditure, 2002-03 to 2013-14

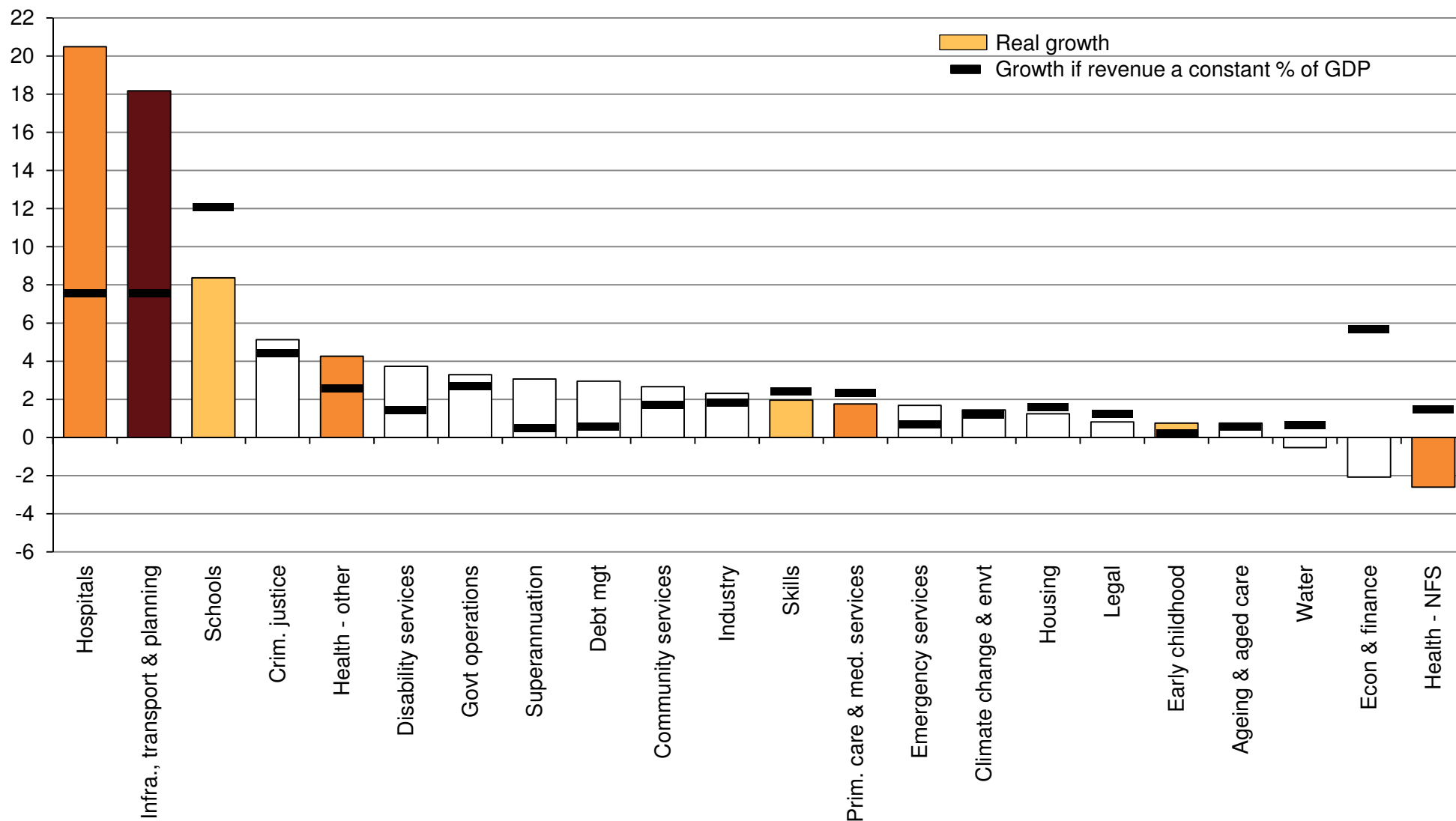
Real change in Commonwealth expenditure, 2003 to 2014, \$2013 bn



Note: Includes funds transferred to states. NFS=not further specified. Categories that changed by less than \$1 billion not shown. See p35-40 of this volume for further notes.
Source: Grattan analysis of Commonwealth budget papers for 2002-03 and 2013-14; PBO (n.d.-a); ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Change in State recurrent expenditure, 2002-03 to 2013-14

Real change in combined State and Territory expenditure, 2003 to 2014, \$2013 bn



Note: Based on analysis of NSW, Vic, Qld and WA data. NFS=not further specified. Categories that changed by less than \$0.5 billion not shown. See p35-40 of this volume for further notes.
Source: Grattan analysis of State budget papers for 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Total recurrent expenditure, 2013-14 (1/3)

Expenditure category	Total Australian government expenditure		Commonwealth expenditure (excluding transfers to states)		State expenditure		Commonwealth expenditure (including transfers to states)	
	\$bn	% of exp.	\$bn	% of exp.	\$bn	% of exp.	\$bn	% of exp.
Ageing and aged care services	13.54	2.6%	11.51	3.8%	2.03	0.9%	12.74	3.2%
Arts and sport	3.57	0.7%	1.52	0.5%	2.05	1.0%	0.99	0.2%
Climate change and environment	9.43	1.8%	5.36	1.8%	4.08	1.9%	5.57	1.4%
Communications	0.92	0.2%	0.92	0.3%	-	-	2.32	0.6%
Community Services	11.58	2.2%	5.24	1.7%	6.34	3.0%	5.49	1.4%
Criminal justice	15.63	3.0%	1.01	0.3%	14.62	6.8%	1.05	0.3%
Debt management	16.16	3.1%	11.94	3.9%	4.22	2.0%	12.35	3.1%
Defence - military capability	26.69	5.2%	26.69	8.8%	-	-	27.60	6.9%
Defence - military operations	0.86	0.2%	0.86	0.3%	-	-	0.89	0.2%
Defence - intelligence & national security	1.63	0.3%	1.63	0.5%	-	-	1.69	0.4%
Defence - other	0.14	<0.1%	0.14	<0.1%	-	-	0.20	<0.1%
Disability services	7.86	1.5%	1.02	0.3%	6.84	3.2%	2.55	0.6%
Economy and finance	15.36	3.0%	5.25	1.7%	10.10	4.7%	5.87	1.5%
Education - early childhood	1.22	0.2%	-	-	1.22	0.6%	0.10	<0.1%
Education - higher education	9.55	1.8%	8.98	3.0%	0.57	0.3%	9.28	2.3%
Education - schools	45.56	8.8%	11.28	3.7%	34.28	16.0%	14.78	3.7%
Education - skills	8.70	1.7%	1.55	0.5%	7.14	3.3%	3.29	0.8%
Education - NFS	0.27	0.1%	0.11	<0.1%	0.16	0.1%	0.12	<0.1%

Note: State figures based on analysis of NSW, Victoria, Queensland and Western Australian budgets. NFS=not further specified. See p35-40 of this volume for further notes.

Source: Grattan analysis of Commonwealth and State Budget Papers 2013-14.

Total recurrent expenditure, 2013-14 (2/3)

Expenditure category	Total Australian government expenditure		Commonwealth expenditure (excluding transfers to states)		State expenditure		Commonwealth expenditure (including transfers to states)	
	\$bn	% of exp.	\$bn	% of exp.	\$bn	% of exp.	\$bn	% of exp.
Emergency services	3.17	0.6%	-	-	3.17	1.5%	0.15	<0.1%
Employment	4.51	0.9%	3.47	1.1%	1.04	0.5%	4.35	1.1%
Foreign affairs	6.48	1.3%	6.48	2.1%	-	-	6.70	1.7%
Government operations	18.05	3.5%	9.02	3.0%	9.04	4.2%	9.32	2.3%
Health - hospitals	38.93	7.5%	2.23	0.7%	36.70	17.1%	17.09	4.3%
Health - other	15.00	2.9%	5.18	1.7%	9.82	4.6%	5.29	1.3%
Health - pharmaceuticals	10.83	2.1%	10.83	3.6%	-	-	11.19	2.8%
Health - primary care & medical services	28.35	5.5%	21.58	7.1%	6.77	3.2%	21.90	5.5%
Health - NFS	0.52	0.1%	-	0.0%	0.52	0.2%	1.51	0.4%
Health - private health	6.26	1.2%	6.26	2.1%	-	-	6.48	1.6%
Housing	6.02	1.2%	1.39	0.5%	4.63	2.2%	3.45	0.9%
Immigration and customs	5.16	1.0%	5.16	1.7%	-	-	5.24	1.3%
Industry	19.46	3.8%	13.17	4.3%	6.29	2.9%	13.65	3.4%
Infrastructure, transport and planning	36.74	7.1%	2.32	0.8%	34.42	16.0%	8.89	2.2%
Legal	4.56	0.9%	1.05	0.3%	3.51	1.6%	1.18	0.3%
Research	4.55	0.9%	4.47	1.5%	0.08	<0.1%	4.62	1.2%
Superannuation	6.08	1.2%	1.95	0.6%	4.12	1.9%	2.02	0.5%
Untied transfers to states	-	-	-	-	-	-	50.73	12.7%

Note: State figures based on analysis of NSW, Victoria, Queensland and Western Australian budgets. NFS=not further specified. See p35-40 of this volume for further notes.

Source: Grattan analysis of Commonwealth and State Budget Papers 2013-14.

Total recurrent expenditure, 2013-14 (3/3)

Expenditure category	Total Australian government expenditure		Commonwealth expenditure (excluding transfers to states)		State expenditure		Commonwealth expenditure (including transfers to states)	
	\$bn	% of exp.	\$bn	% of exp.	\$bn	% of exp.	\$bn	% of exp.
Water	1.40	0.3%	0.51	0.2%	0.89	0.4%	0.96	0.2%
Welfare payments - disability	16.20	3.1%	16.20	5.3%	-	-	16.75	4.2%
Welfare payments - family support	26.53	5.1%	26.53	8.8%	-	-	27.44	6.9%
Welfare payments - seniors	38.46	7.4%	38.46	12.7%	-	-	39.77	10.0%
Welfare payments - carers	6.59	1.3%	6.59	2.2%	-	-	6.81	1.7%
Welfare payments - other	1.86	0.4%	1.86	0.6%	-	-	1.92	0.5%
Welfare payments - NFS	6.67	1.3%	6.67	2.2%	-	-	6.90	1.7%
Welfare payments - workforce	16.59	3.2%	16.59	5.5%	-	-	17.15	4.3%
Total	517.66	100.0%	303.00	100.0%	214.65	100.0%	398.30	100.0%

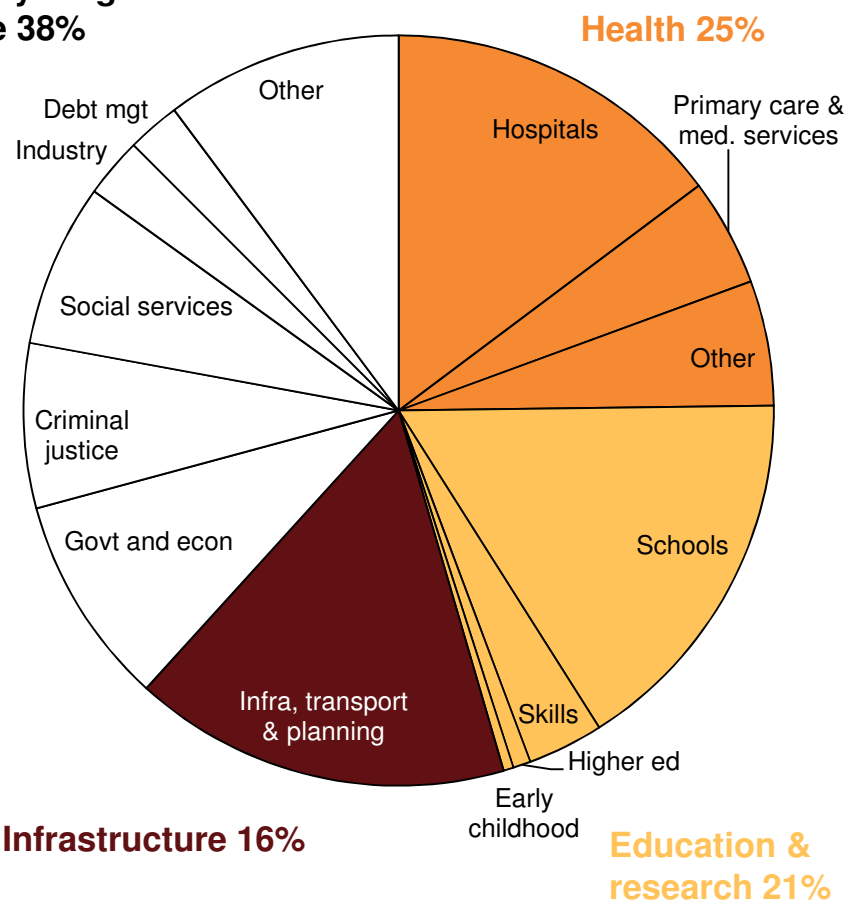
Note: State figures based on analysis of NSW, Victoria, Queensland and Western Australian budgets. NFS=not further specified. See p35-40 of this volume for further notes.
Source: Grattan analysis of Commonwealth and State Budget Papers 2013-14.

New South Wales recurrent expenditure

NSW recurrent expenditure by category, 2013-14

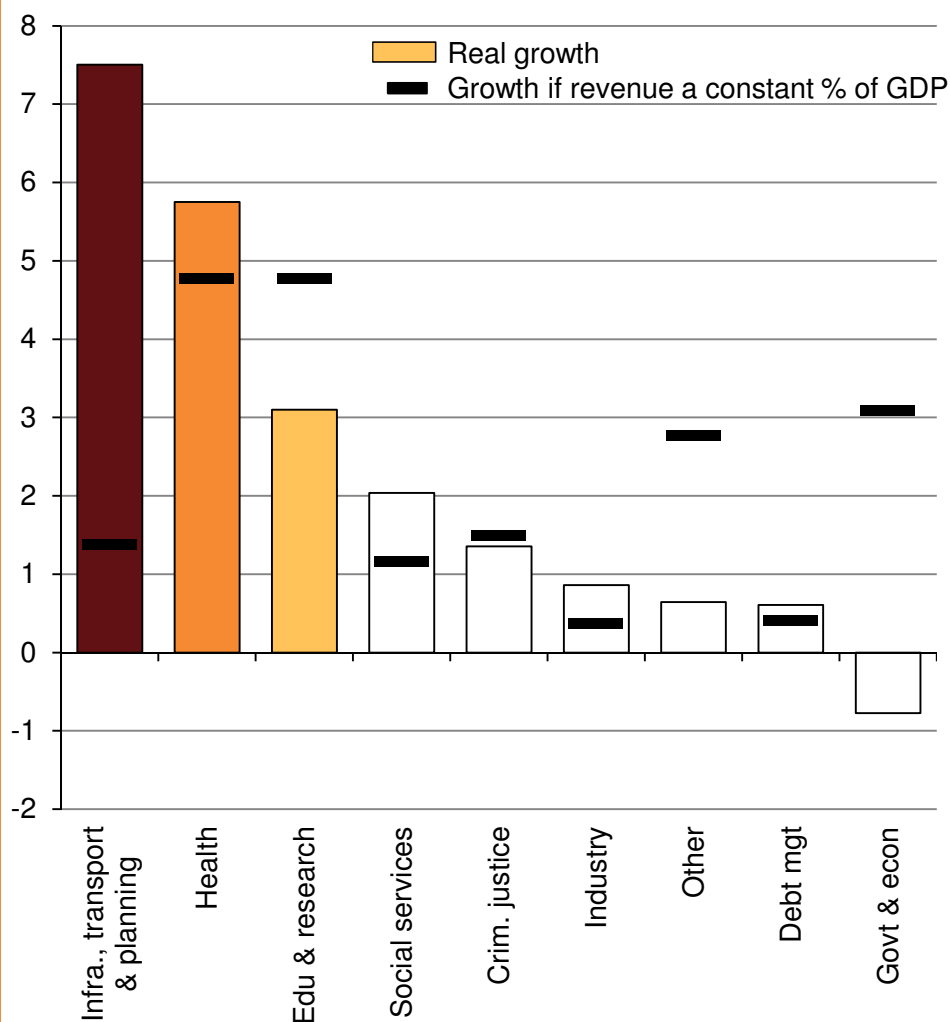
Total expenditure = \$64.5bn

**Everything
else 38%**



Change in NSW recurrent expenditure, 2002-03 to 2013-14

Real change in expenditure, 2003 to 2014, \$2013 bn



Note: 'Other' comprises all expenditure not elsewhere included. 'Social services' comprises ageing and aged care services, disability services, and community services. 'Govt & econ' comprises government operations and economy and finance. See p35-40 of this volume for further notes.

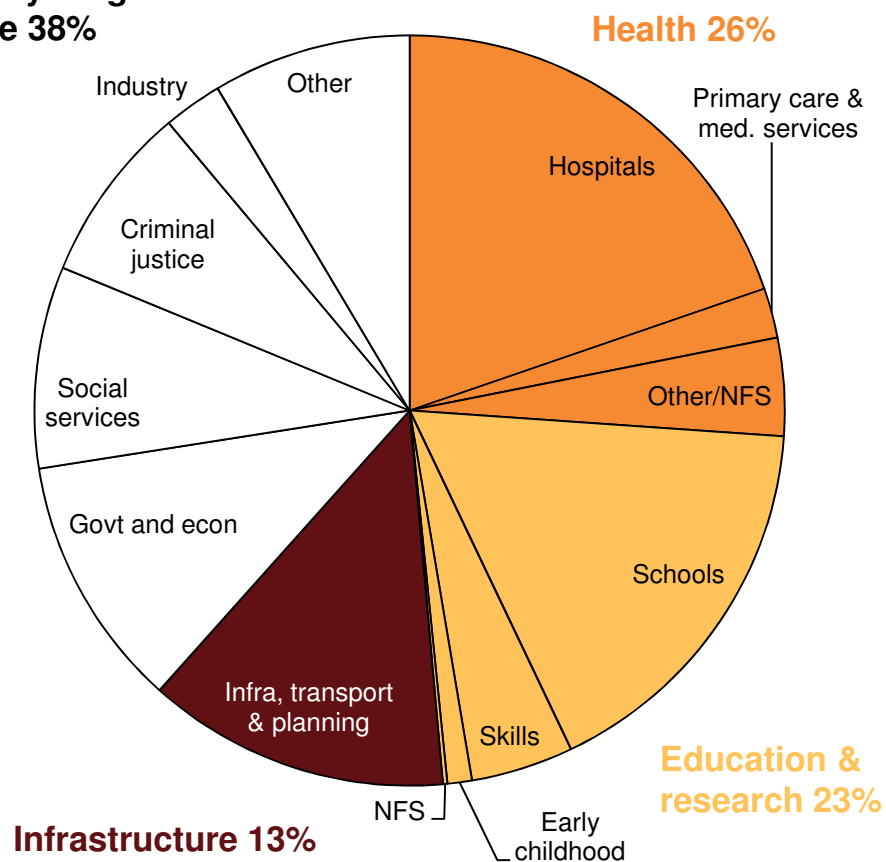
Source: Grattan analysis of NSW Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Victorian recurrent expenditure

Victorian recurrent expenditure by category, 2013-14

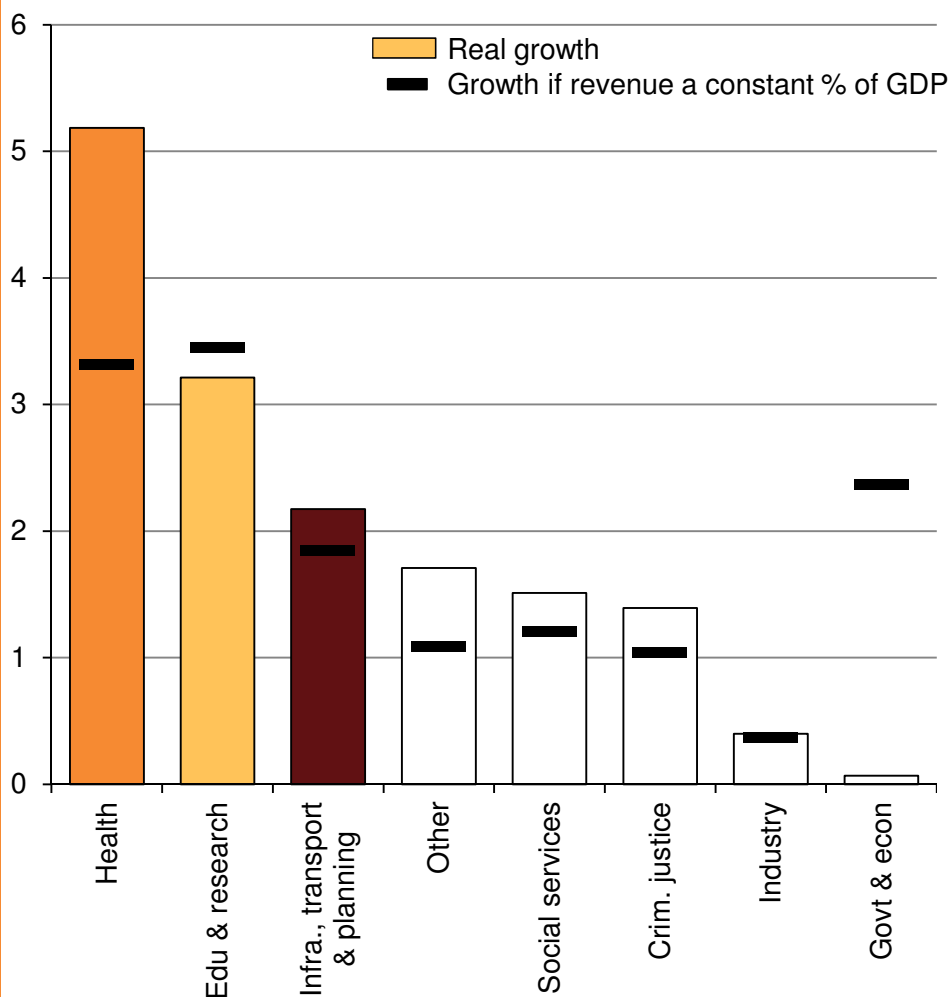
Total expenditure = \$47.1bn

**Everything
else 38%**



Change in Victorian recurrent expenditure, 2002-03 to 2013-14

Real change in expenditure, 2003 to 2014, \$2013 bn



Note: 'Other' comprises all expenditure not elsewhere included. 'Social services' comprises ageing and aged care services, disability services, and community services. 'Govt & econ' comprises government operations and economy and finance. See p35-40 of this volume for further notes.

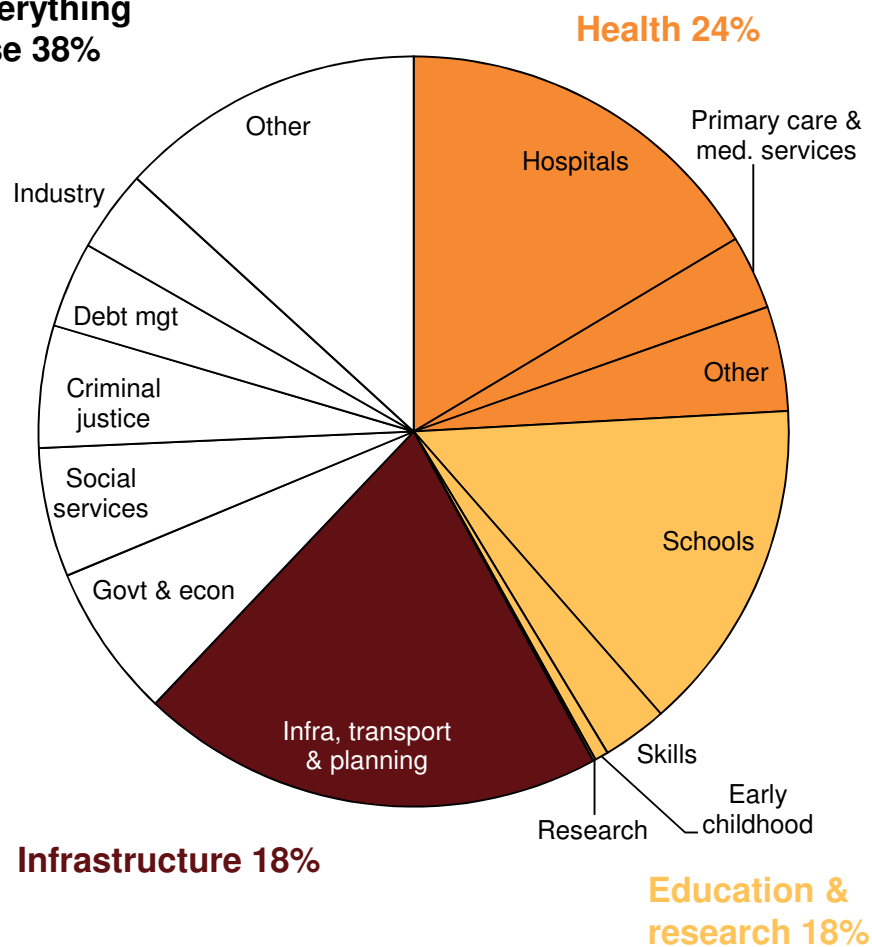
Source: Grattan analysis of Victorian Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Queensland recurrent expenditure

Queensland recurrent expenditure by category, 2013-14

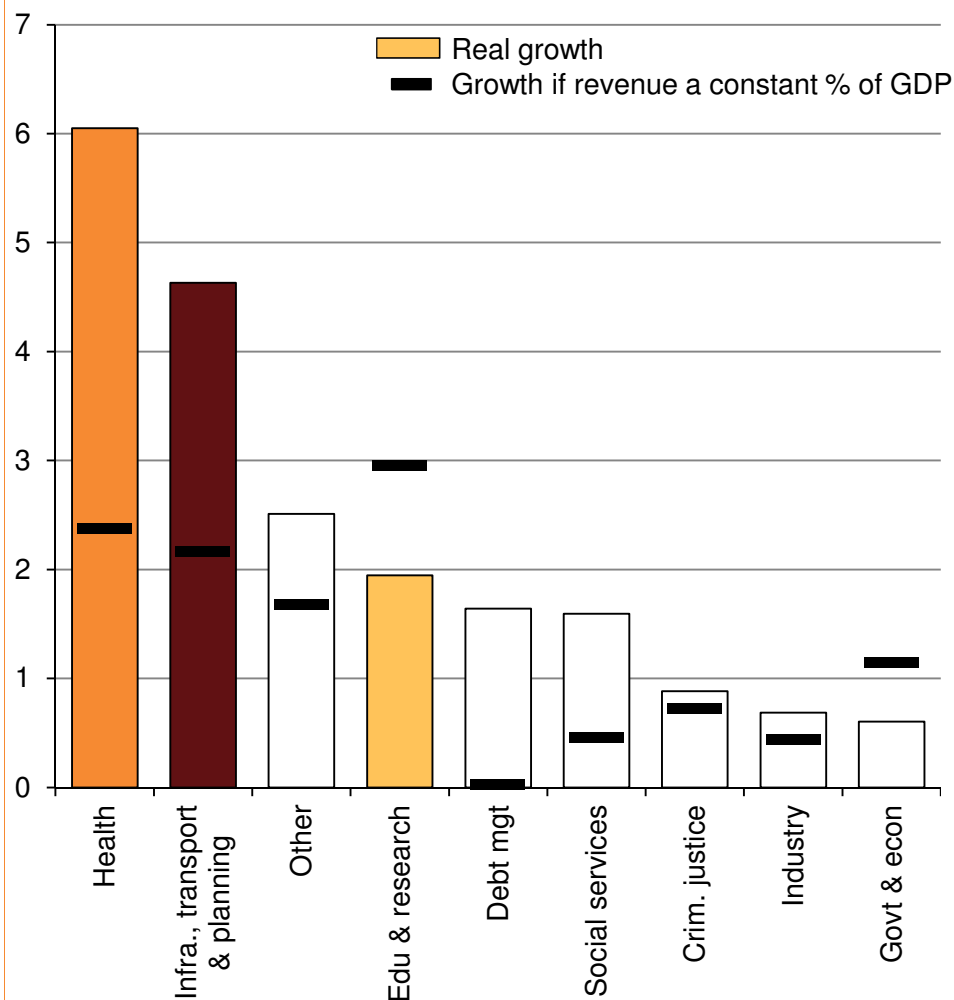
Total expenditure = \$46.3bn

**Everything
else 38%**



Change in Queensland recurrent expenditure, 2002-03 to 2013-14

Real change in expenditure, 2003 to 2014, \$2013 bn



Note: 'Other' comprises all expenditure not elsewhere included. 'Social services' comprises ageing and aged care services, disability services, and community services. 'Govt & econ' comprises government operations and economy and finance. See p35-40 of this volume for further notes.

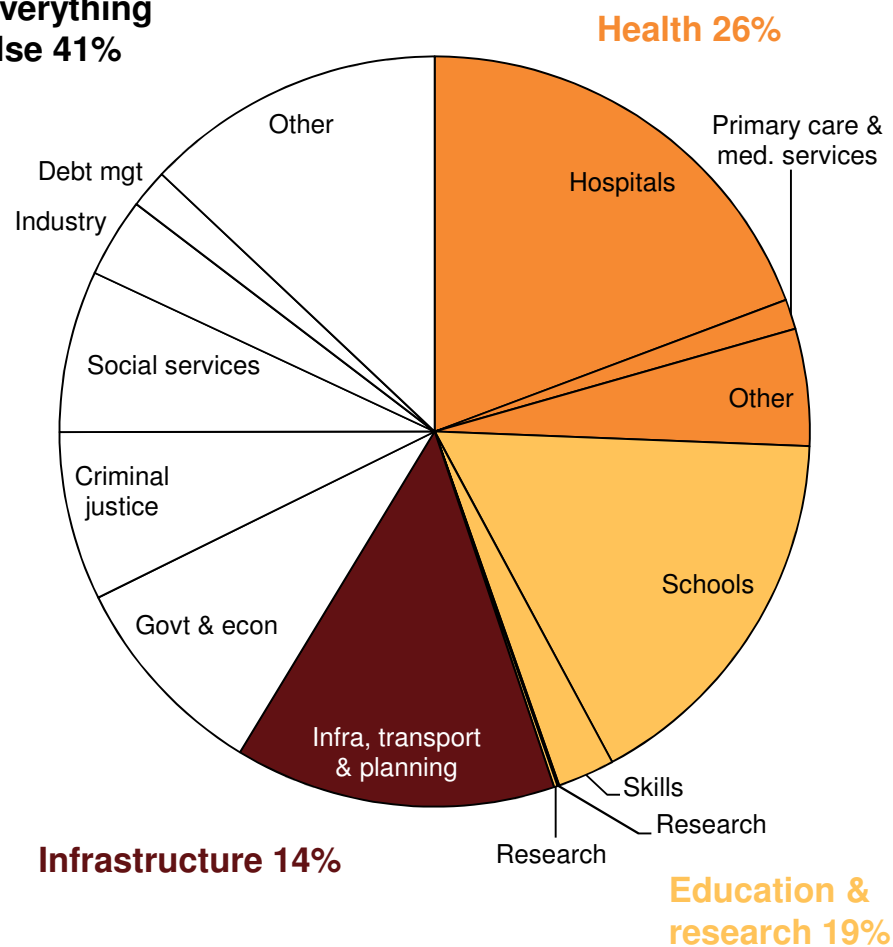
Source: Grattan analysis of Queensland Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Western Australian recurrent expenditure

Western Australian recurrent expenditure by category, 2013-14

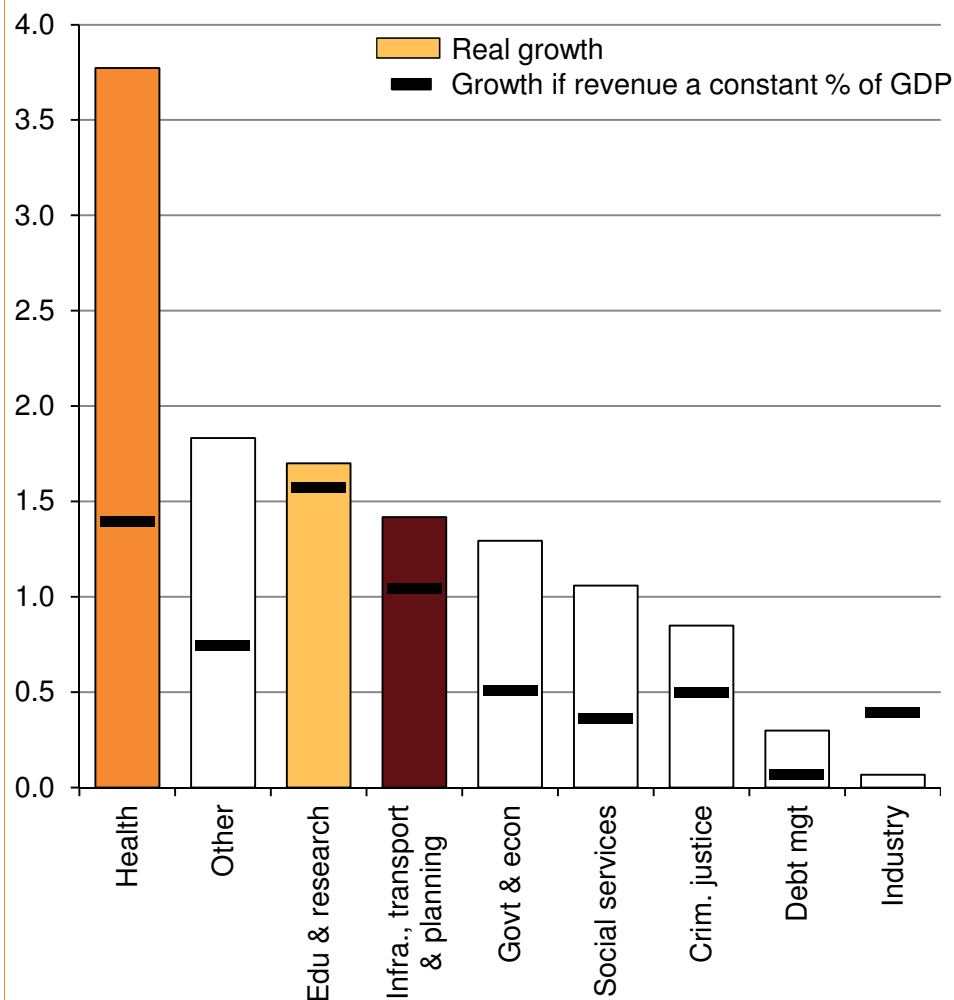
Total expenditure = \$26.4bn

**Everything
else 41%**



Change in Western Australian recurrent expenditure, 2002-03 to 2013-14

Real change in expenditure, 2003 to 2014, \$2013 bn



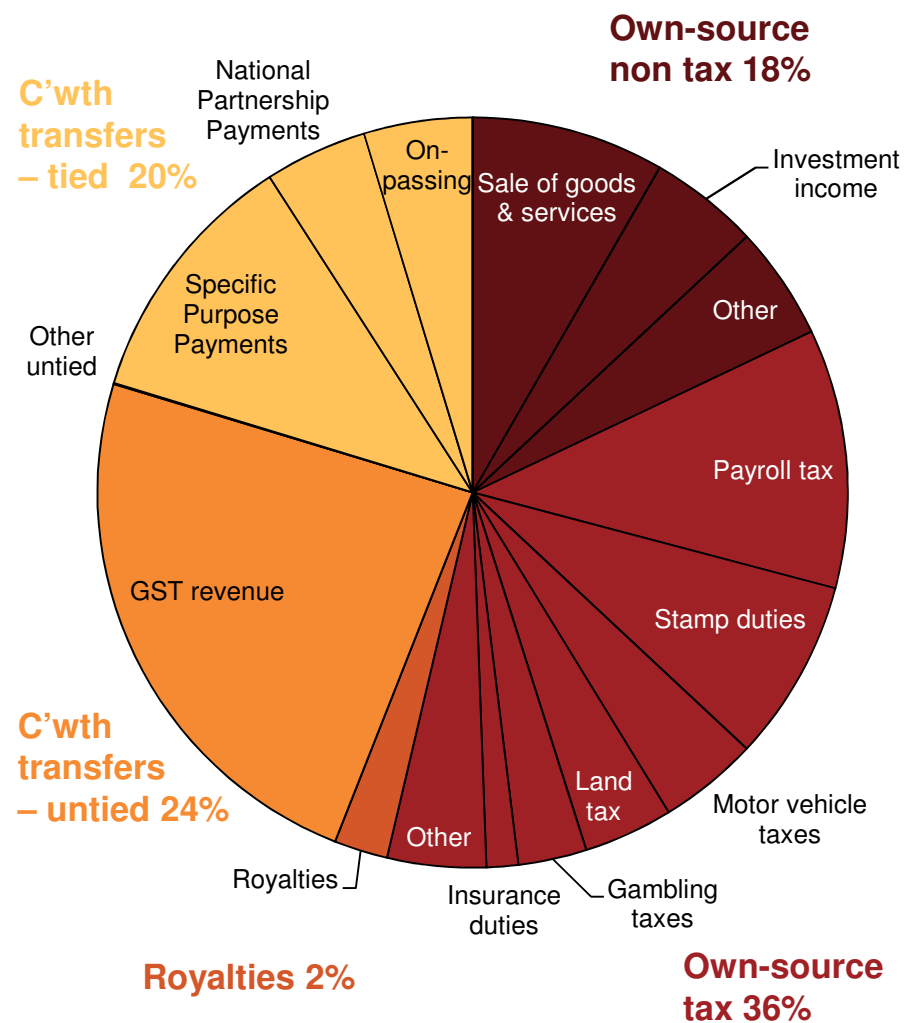
Note: 'Other' comprises all expenditure not elsewhere included. 'Social services' comprises ageing and aged care services, disability services, and community services. 'Govt & econ' comprises government operations and economy and finance. See p35-40 of this volume for further notes.

Source: Grattan analysis of Western Australian Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

New South Wales revenue

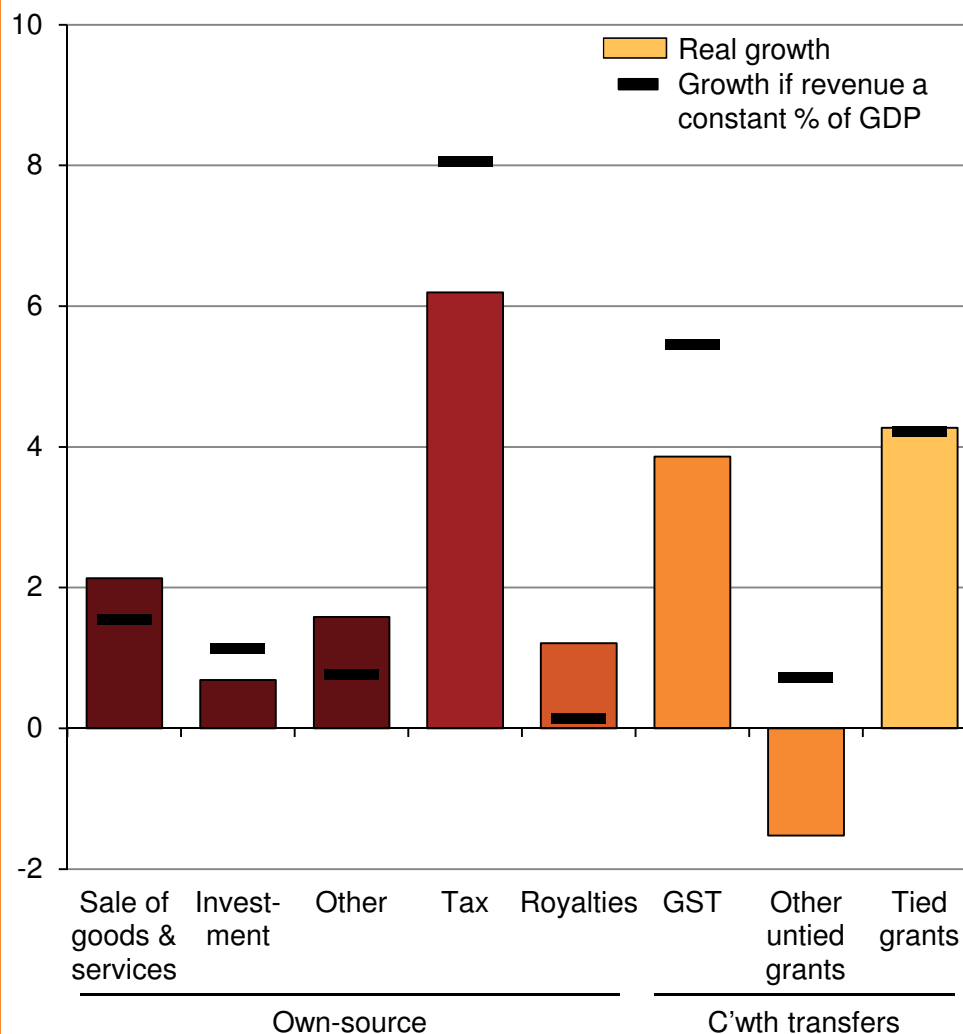
NSW revenue by category, 2013-14

Total revenue = \$65.6bn



Change in NSW revenues, 2002-03 to 2013-14

Real change in revenue, 2003 to 2014, \$2013 bn



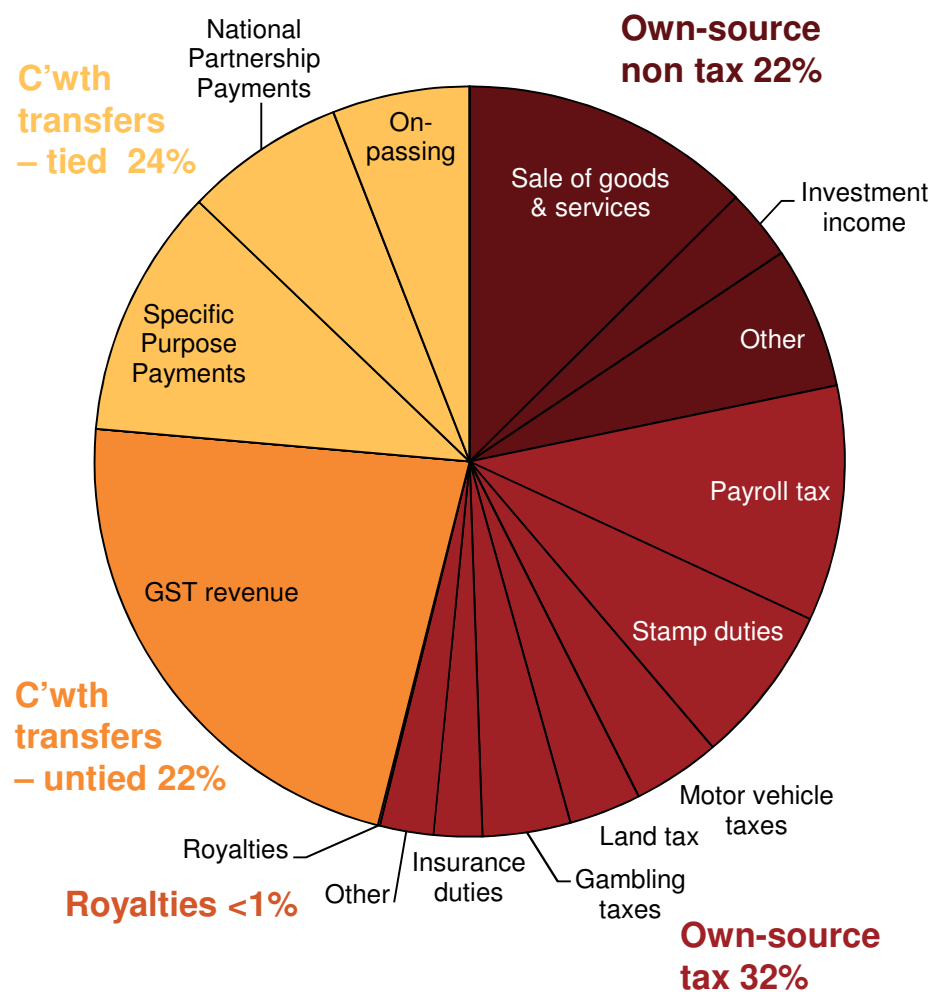
Note: 'Investment income' includes interest income, dividends, and tax-equivalent payments from State entities. 'Other own-source' includes fines, fees, grants from entities other than the Commonwealth, and other revenue not elsewhere included. See 'A Bluffer's Guide to Budgets' on p69 of main report for detail of types of Commonwealth grants. See p35-40 of this volume for further notes.

Source: Grattan analysis of NSW Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Victorian revenue

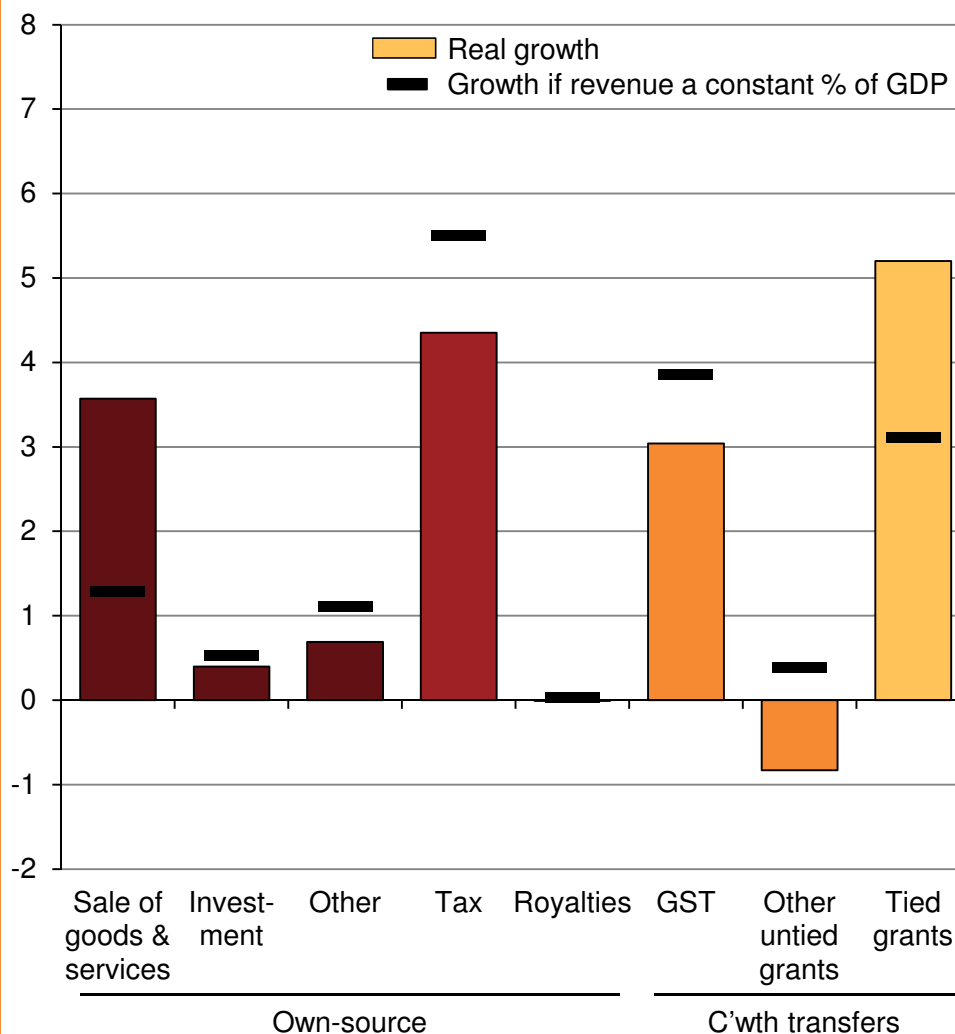
Victorian revenue by category, 2013-14

Total revenue = \$50.3bn



Change in Victorian revenues, 2002-03 to 2013-14

Real change in revenue, 2003 to 2014, \$2013 bn



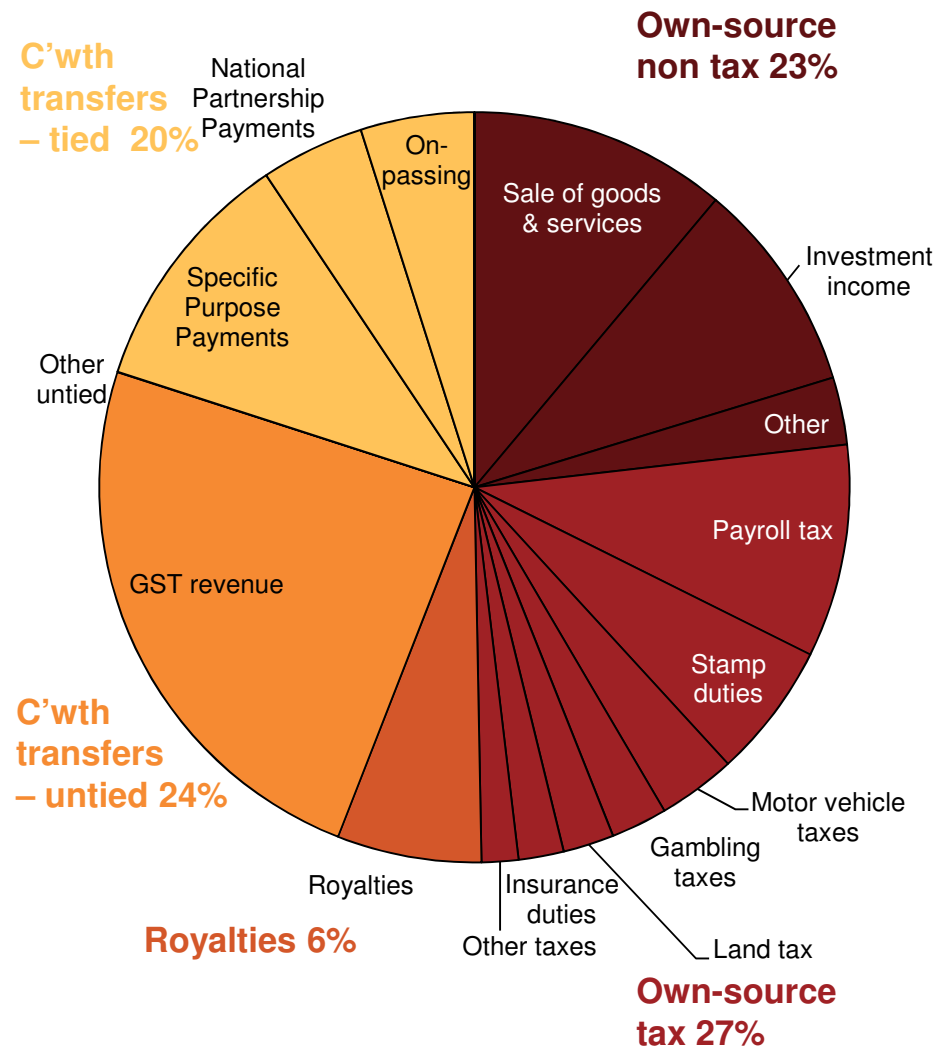
Note: 'Investment income' includes interest income, dividends, and tax-equivalent payments from State entities. 'Other own-source' includes fines, fees, grants from entities other than the Commonwealth, and other revenue not elsewhere included. See 'A Bluffer's Guide to Budgets' on p69 of main report for detail of types of Commonwealth grants. See p35-40 of this volume for further notes.

Source: Grattan analysis of Victorian Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Queensland revenue

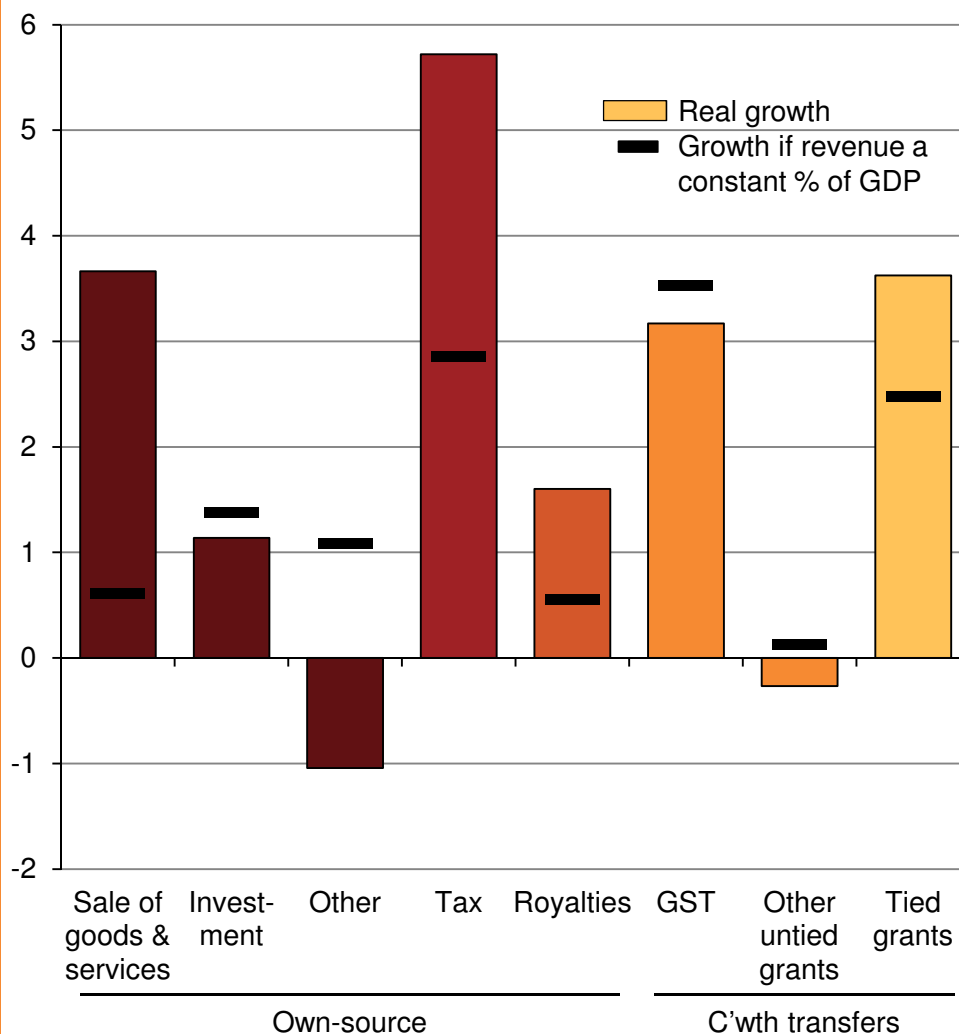
Queensland revenue by category, 2013-14

Total revenue = \$44.7bn



Change in Queensland revenues, 2002-03 to 2013-14

Real change in revenue, 2003 to 2014, \$2013 bn



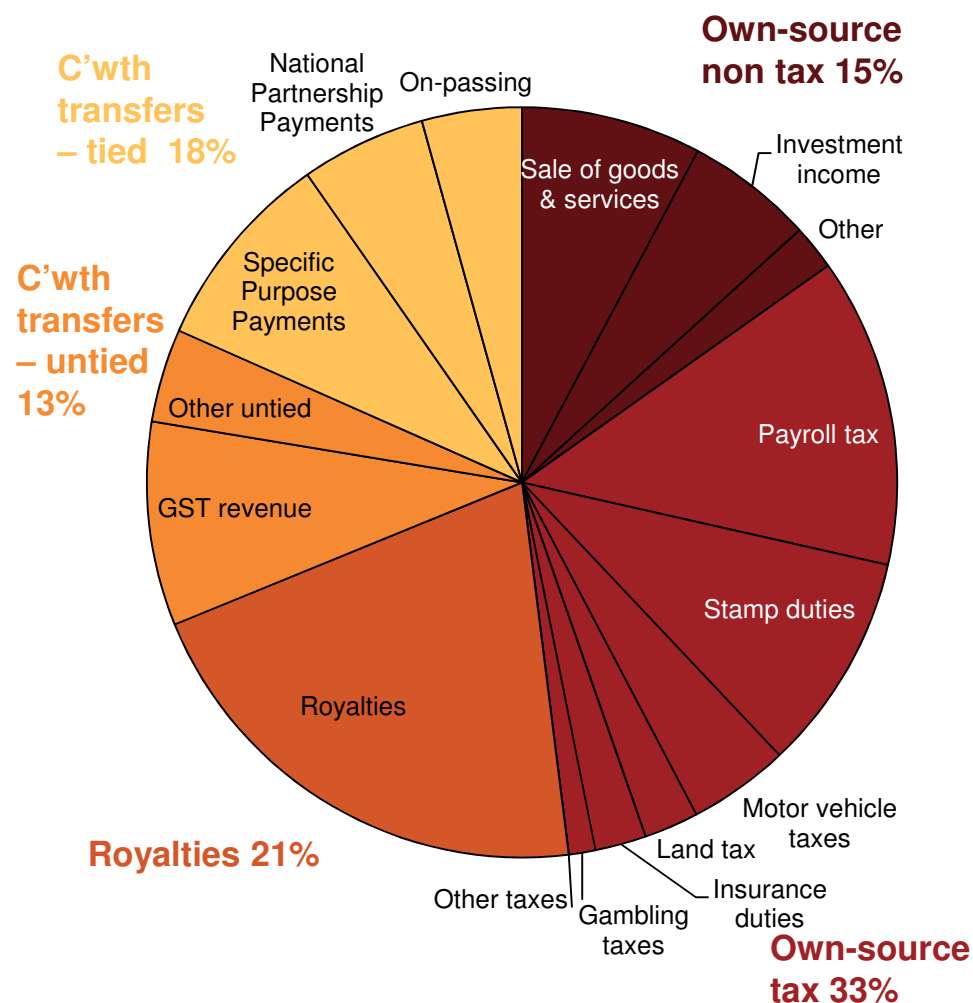
Note: 'Investment income' includes interest income, dividends, and tax-equivalent payments from State entities. 'Other own-source' includes fines, fees, grants from entities other than the Commonwealth, and other revenue not elsewhere included. See 'A Bluffer's Guide to Budgets' on p69 of main report for detail of types of Commonwealth grants. See p35-40 of this volume for further notes.

Source: Grattan analysis of Queensland Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Western Australian revenue

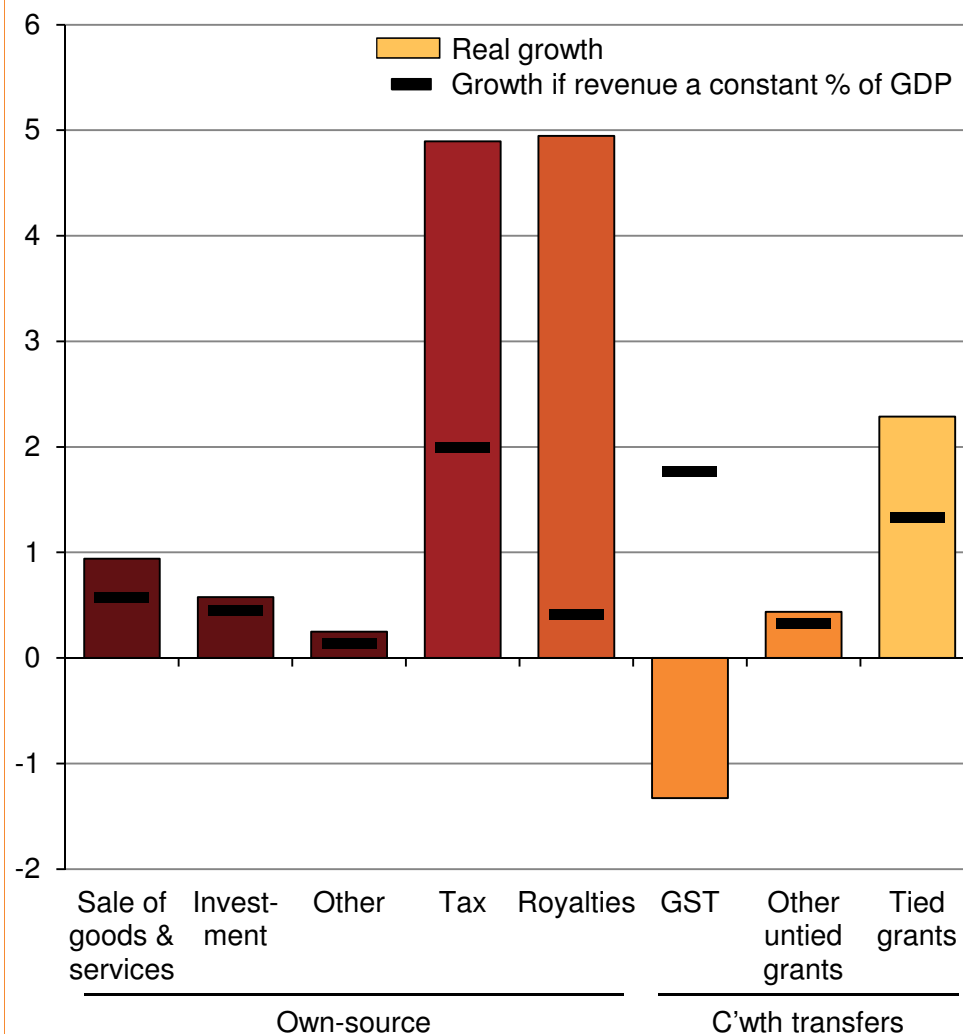
Western Australian revenue by category, 2013-14

Total revenue = \$28.0bn



Change in Western Australian revenues, 2002-03 to 2013-14

Real change in revenue, 2003 to 2014, \$2013 bn



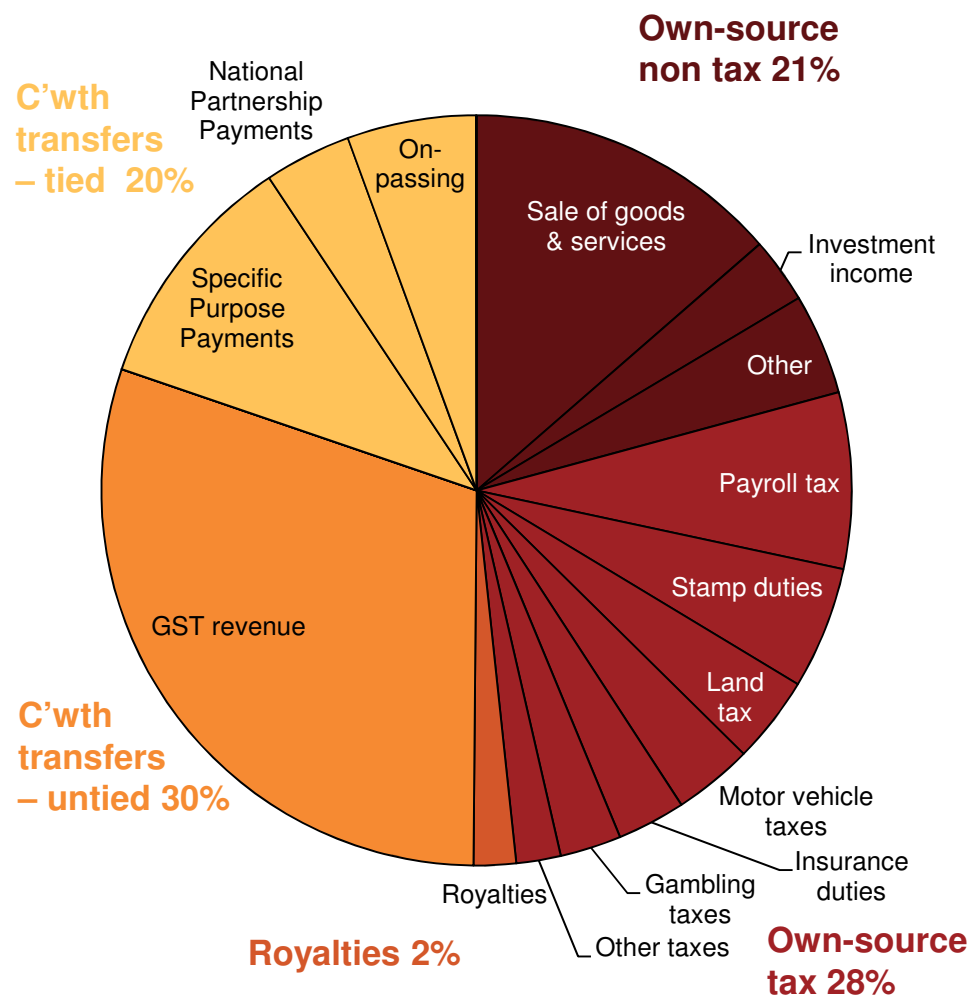
Note: 'Investment income' includes interest income, dividends, and tax-equivalent payments from State entities. 'Other own-source' includes fines, fees, grants from entities other than the Commonwealth, and other revenue not elsewhere included. 'Other untied' is mostly royalty equivalent payments. See 'A Bluffer's Guide to Budgets' on p69 of main report for detail of types of Commonwealth grants. See p35-40 of this volume for further notes.

Source: Grattan analysis of Western Australian Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

South Australian revenue

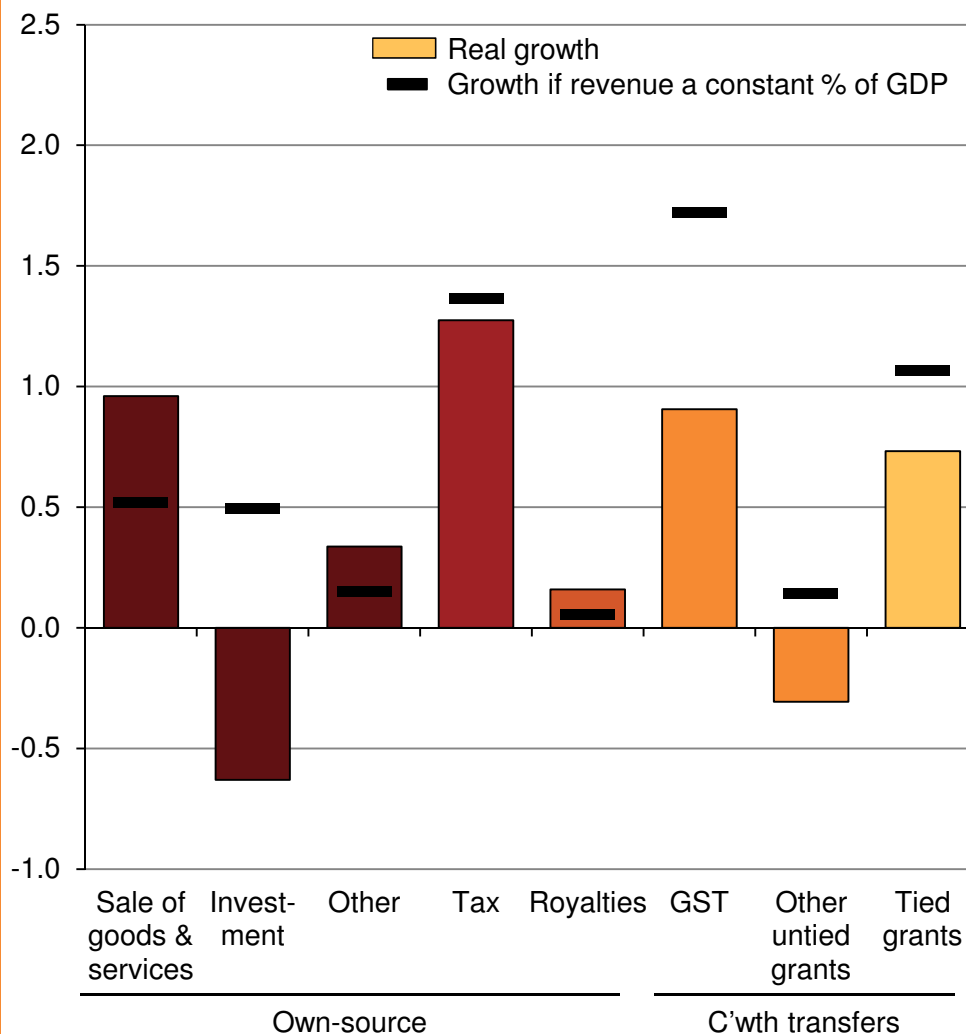
South Australian revenue by category, 2013-14

Total revenue = \$15.3bn



Change in South Australian revenues, 2002-03 to 2013-14

Real change in revenue, 2003 to 2014, \$2013 bn



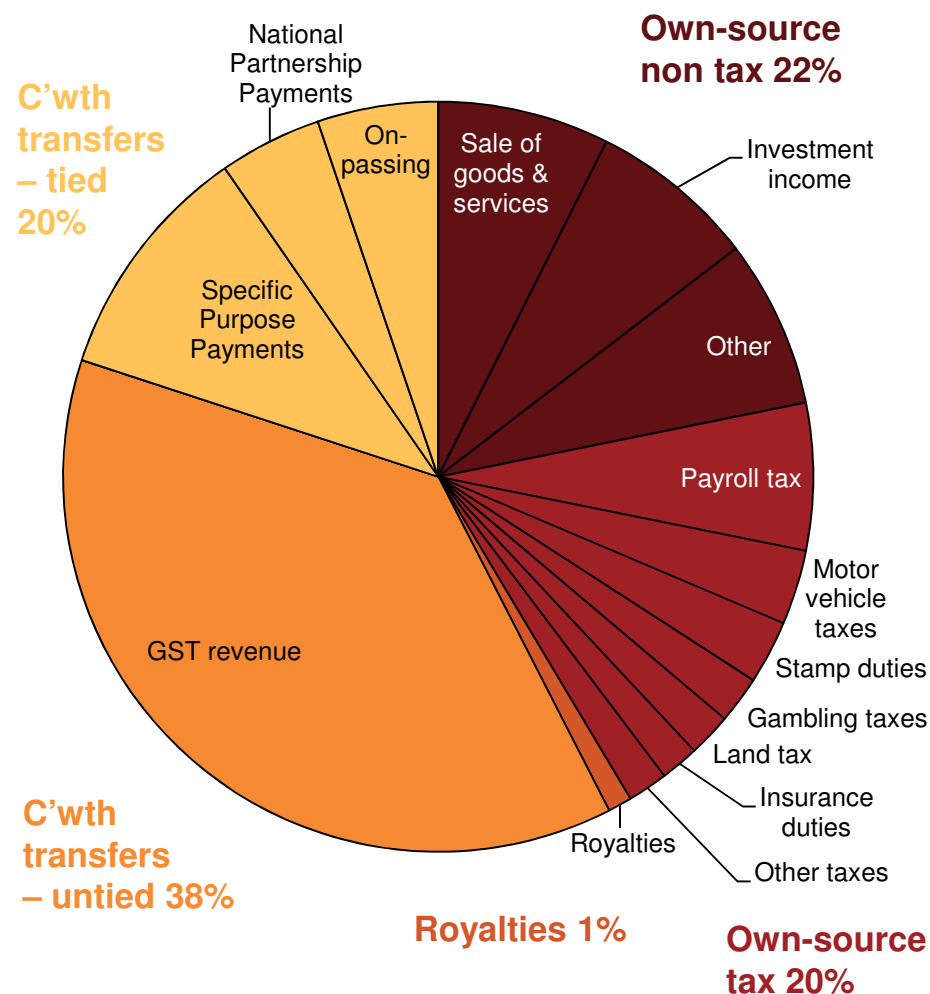
Note: 'Investment income' includes interest income, dividends, and tax-equivalent payments from State entities. 'Other own-source' includes fines, fees, grants from entities other than the Commonwealth, and other revenue not elsewhere included. See 'A Bluffer's Guide to Budgets' on p69 of main report for detail of types of Commonwealth grants. See p35-40 of this volume for further notes.

Source: Grattan analysis of South Australian Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Tasmanian revenue

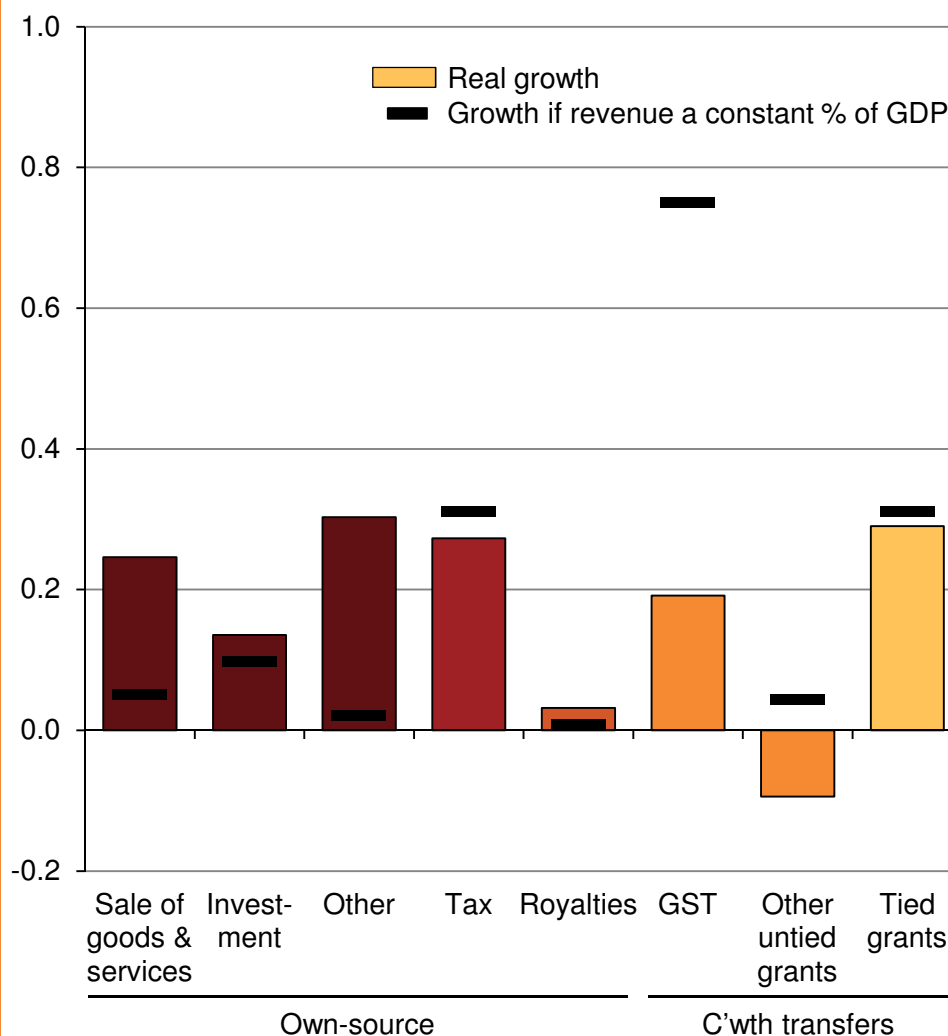
Tasmanian revenue by category, 2013-14

Total revenue = \$4.8bn



Change in Tasmanian revenues, 2002-03 to 2013-14

Real change in revenue, 2003 to 2014, \$2013 bn



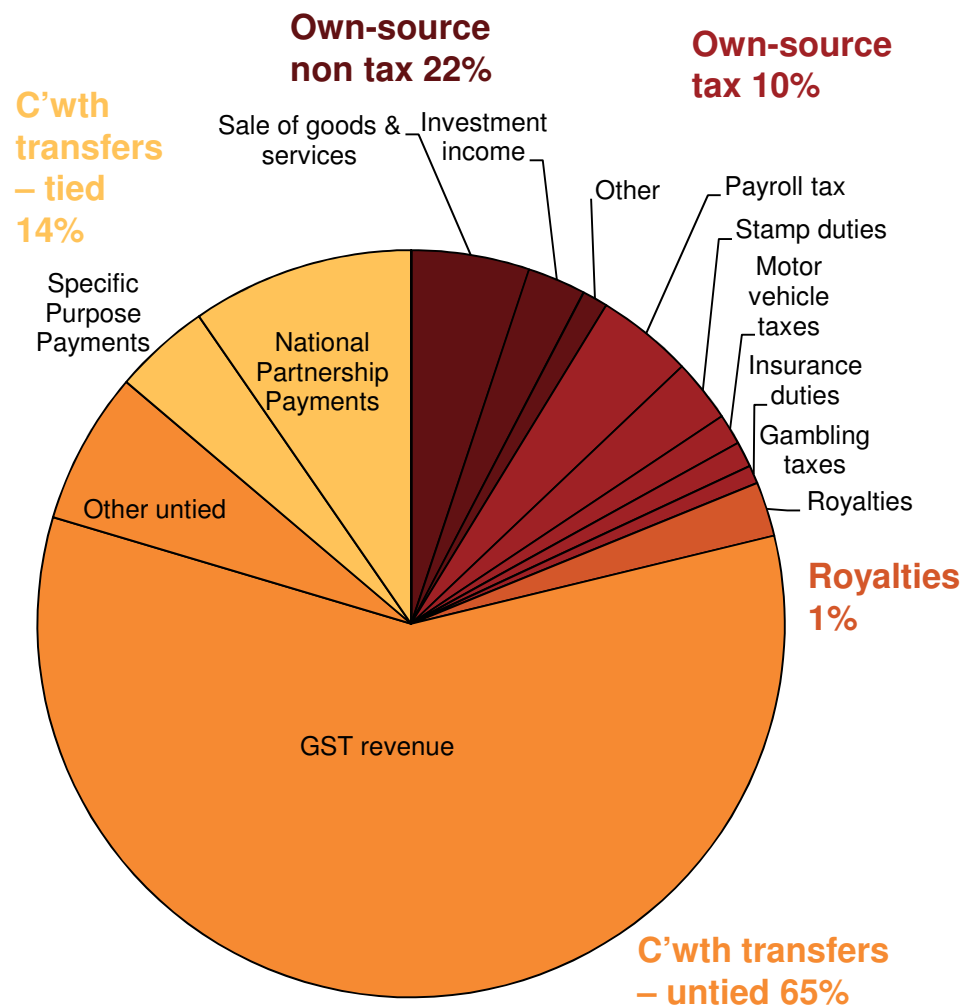
Note: 'Investment income' includes interest income, dividends, and tax-equivalent payments from State entities. 'Other own-source' includes fines, fees, grants from entities other than the Commonwealth, and other revenue not elsewhere included. See 'A Bluffer's Guide to Budgets' on p69 of main report for detail of types of Commonwealth grants. See p35-40 of this volume for further notes.

Source: Grattan analysis of Tasmanian Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

Northern Territory revenue

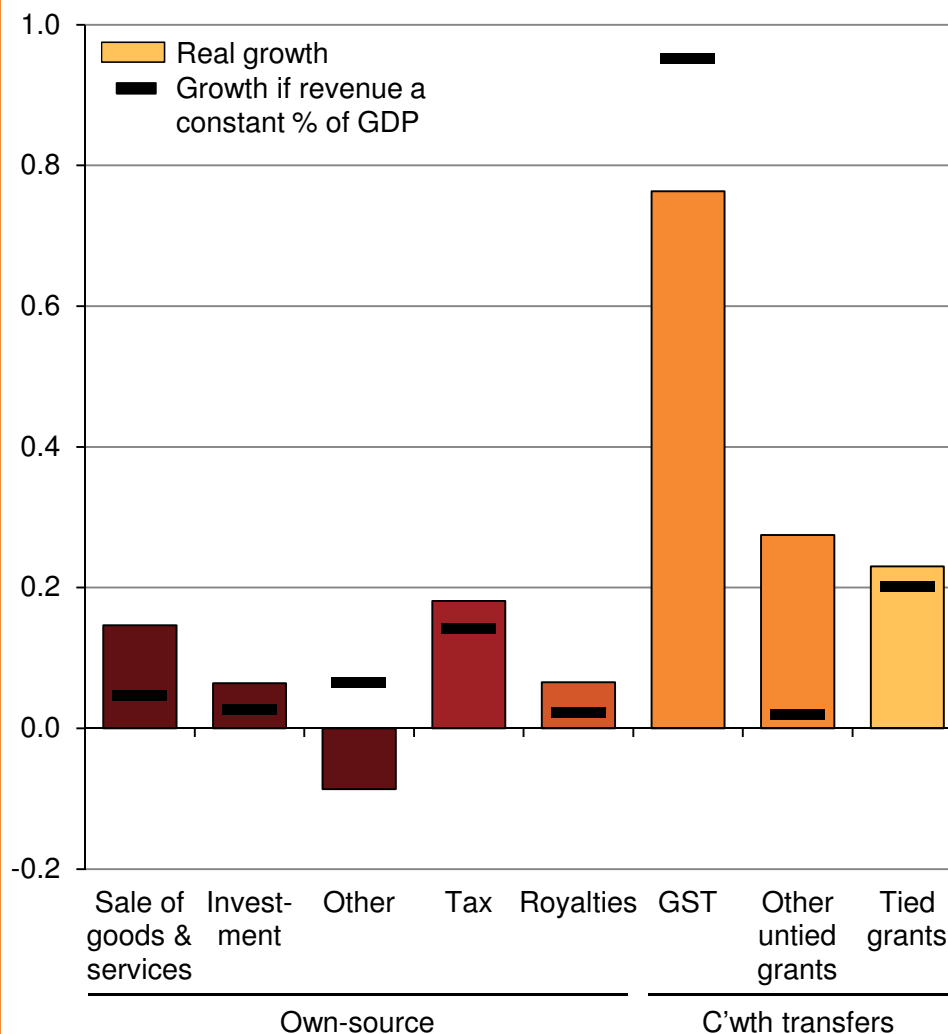
Northern Territory revenue by category, 2013-14

Total revenue = \$4.8bn



Change in Northern Territory revenues, 2002-03 to 2013-14

Real change in revenue, 2003 to 2014, \$2013 bn



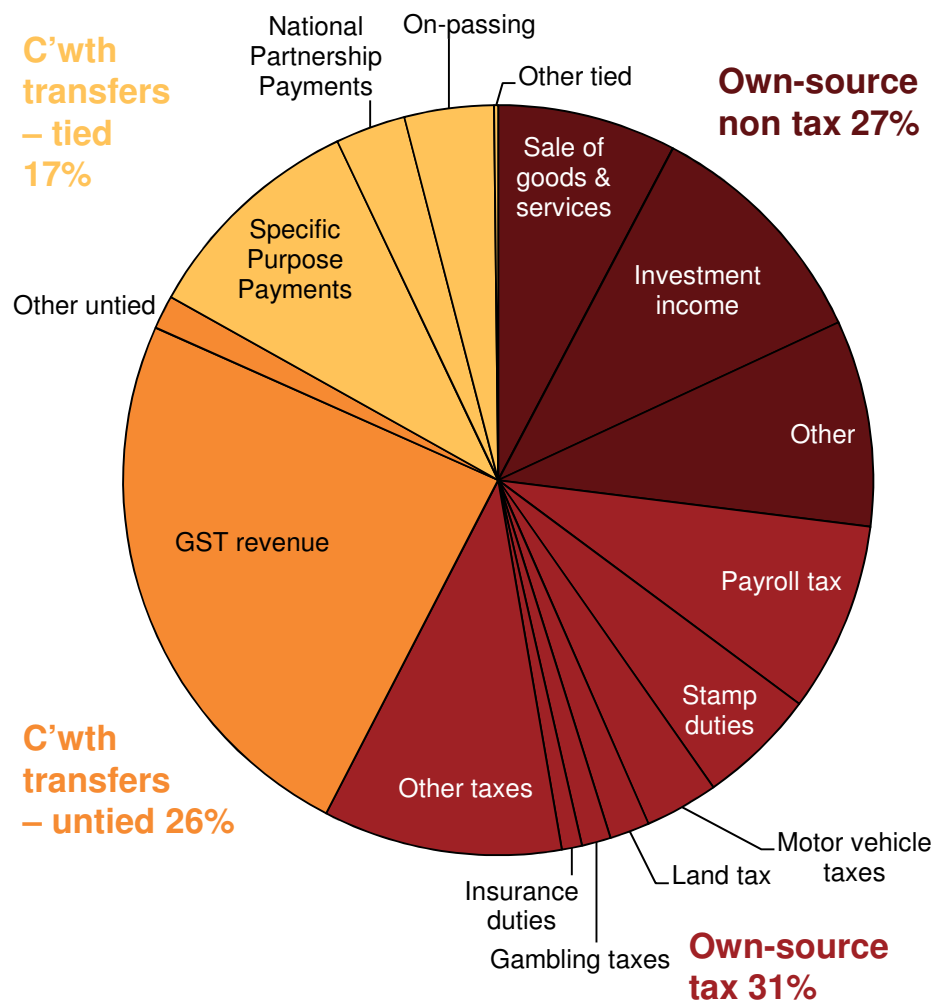
Note: 'Investment income' includes interest income, dividends, and tax-equivalent payments from State entities. 'Other own-source' includes fines, fees, grants from entities other than the Commonwealth, and other revenue not elsewhere included. 'Other untied' is mostly royalty equivalent payments. See 'A Bluffer's Guide to Budgets' on p69 of main report for detail of types of Commonwealth grants. See p35-40 of this volume for further notes.

Source: Grattan analysis of Northern Territory Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

ACT revenue

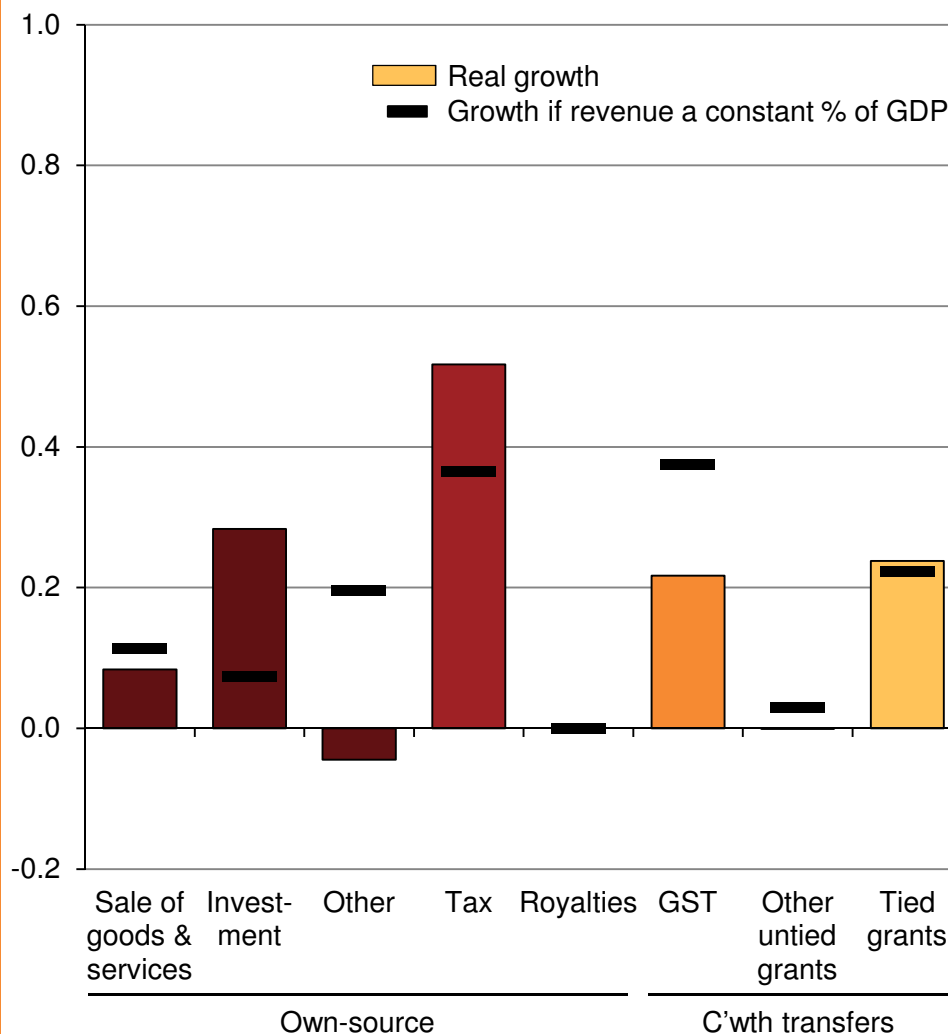
ACT revenue by category, 2013-14

Total revenue = \$4.2bn



Change in ACT revenues, 2002-03 to 2013-14

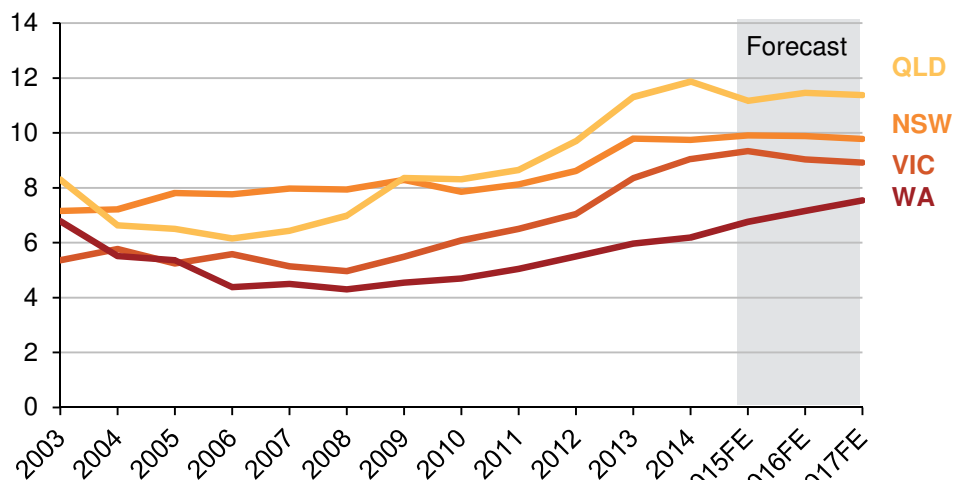
Real change in revenue, 2003 to 2014, \$2013 bn



Note: 'Investment income' includes interest income, dividends, and tax-equivalent payments from State entities. 'Other own-source' includes fines, fees, grants from entities other than the Commonwealth, and other revenue not elsewhere included. 'Other untied' is payments for ACT municipal services used by the Commonwealth, and local government equivalent grant payments. ACT does not earn royalties. See 'A Bluffer's Guide to Budgets' on p69 of main report for detail of types of Commonwealth grants. See p35-40 of this volume for further notes. Source: Grattan analysis of ACT Government budget papers, 2002-03 and 2013-14; ABS (2014) Cat 5206; ABS (2014) Cat 6401.

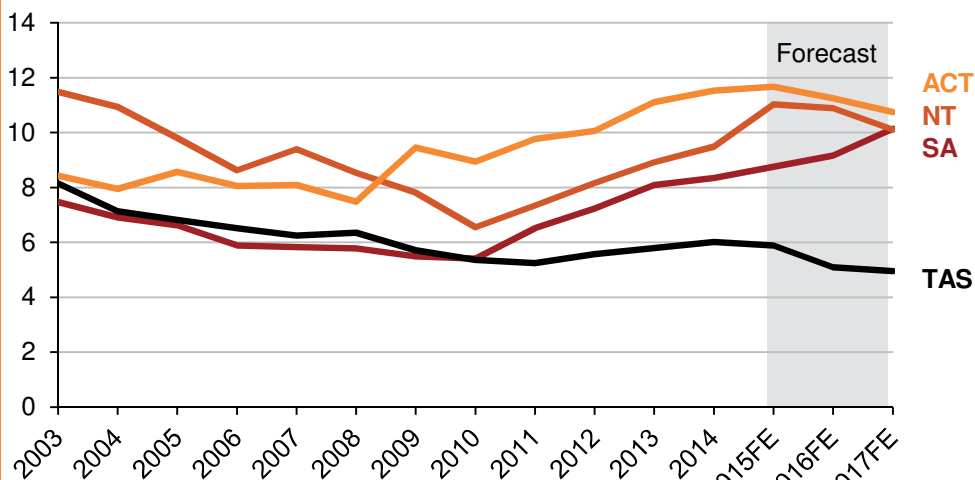
State depreciation and interest expenditure

Total depreciation and interest expense as a percentage of revenue
% of operating revenue



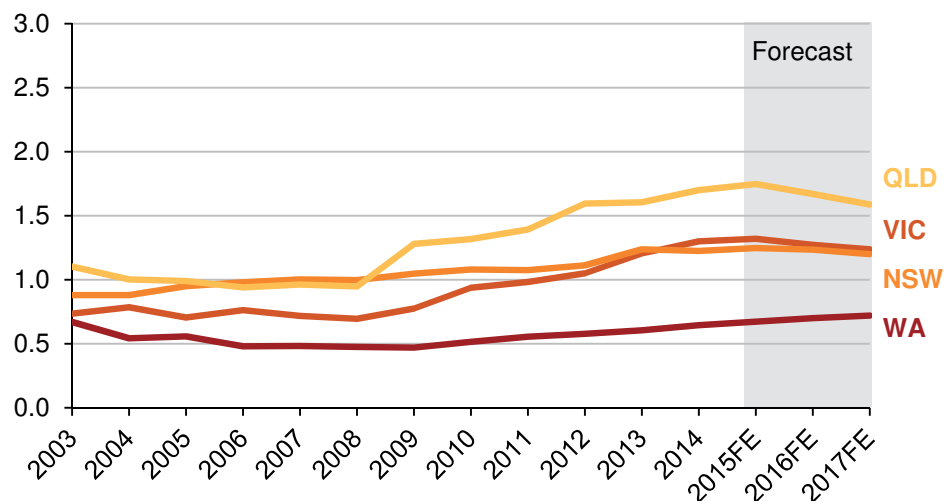
Source: : ABS (2013) cat 5512, State and Territory budget papers (2013-14)

Total depreciation and interest expense as a percentage of revenue
% of operating revenue



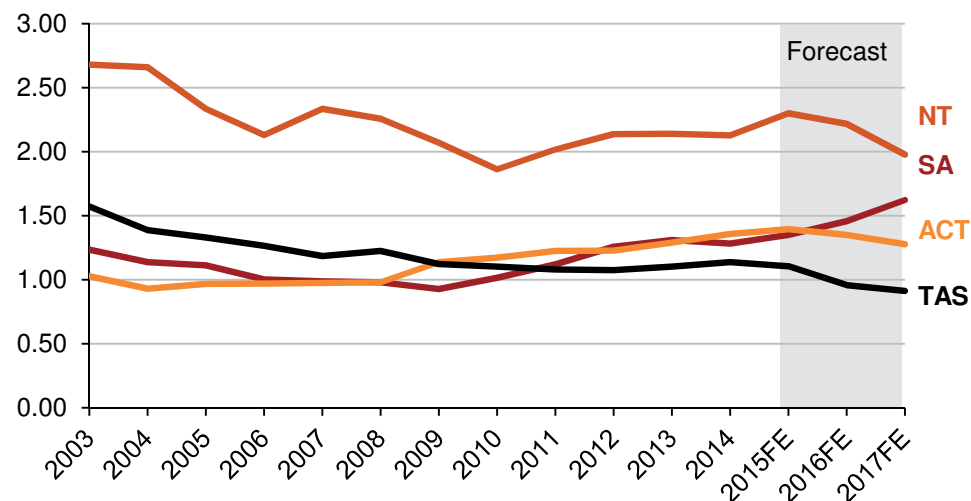
Source: : ABS (2013) cat 5512, State and Territory budget papers (2013-14)

Total depreciation and interest expense as a percentage of GSP
% of GSP



Note: GSP forecast based on 10 year compound annual growth rate
Source: : ABS (2013) cat 5512, State and Territory budget papers (2013-14)

Total depreciation and interest expense as a percentage of GSP
% of GSP

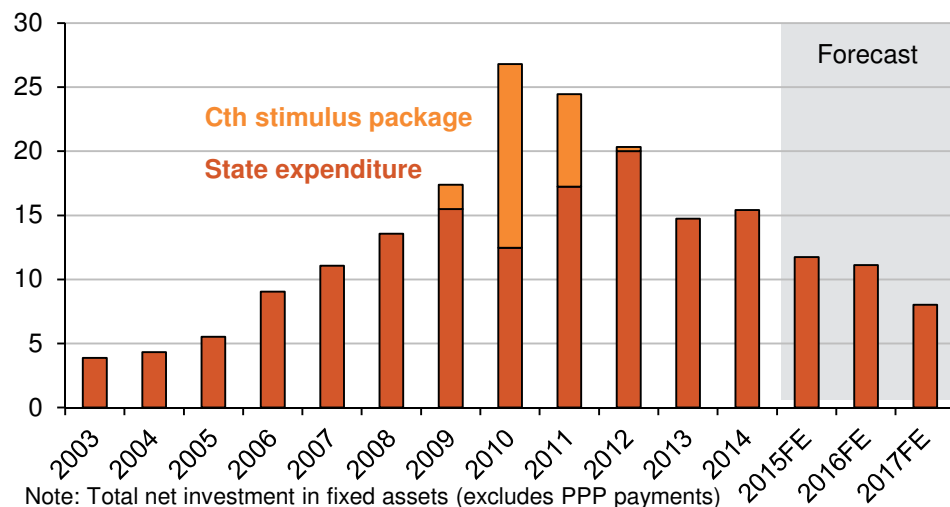


Note: GSP forecast based on 10 year compound annual growth rate
Source: : ABS (2013) cat 5512, State and Territory budget papers (2013-14)

Total state capital expenditure, depreciation, interest and debt

Capital expenditure has increased significantly over time

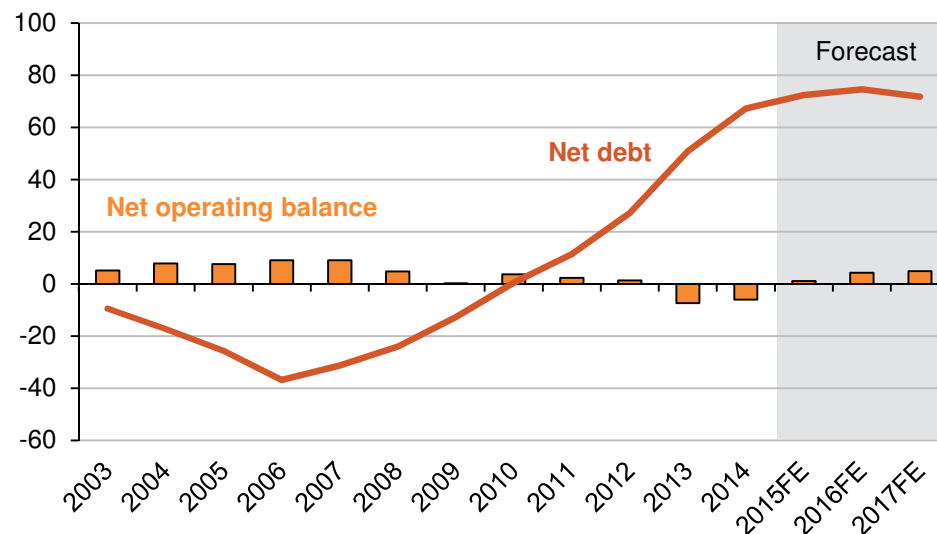
Net acquisition of non-financial assets, \$ billions (\$2012-13)



Note: Total net investment in fixed assets (excludes PPP payments)
Source: ABS (2013) cat 5512.0, State Budget Papers (2013), Commonwealth Budget (2008)

Net debt and net operating balance

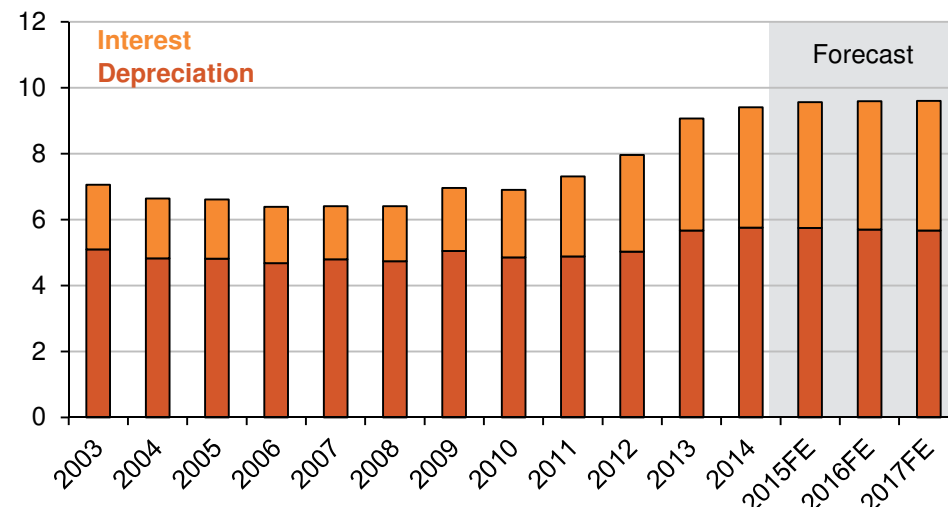
\$ billions, (\$2012-13)



Note: Net operating balances for 2013 onwards are estimates and forecasts
Source: ABS (2013) cat 5512.0, State and Territory Budget Papers (2013)

Depreciation and interest expense as a percentage of revenue

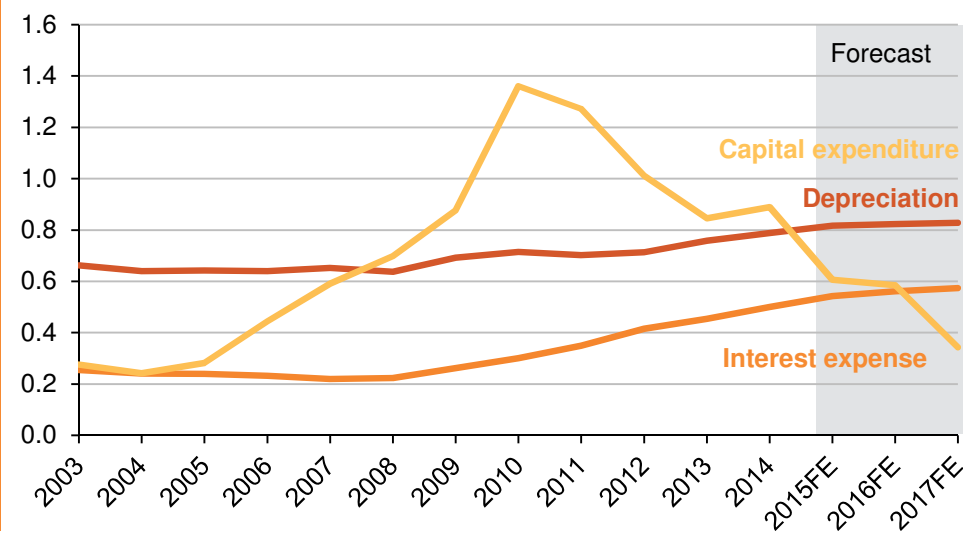
% of revenue



Source: ABS (2013) cat 5512, State and Territory budget papers (2013-14)

Depreciation, interest and capital expenditure as a percentage of GSP

% of GSP

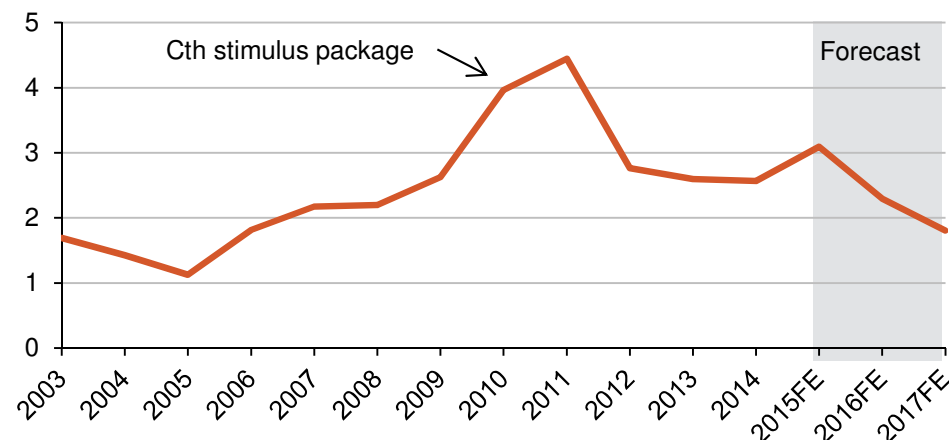


Note: GSP forecast based on 2013-14 state budget assumptions for economic forecasts
Source: : ABS (2013) cat 5512 and cat 5220, State and Territory budget papers (2013-14)

New South Wales capital expenditure

Current capital expenditure is double that of 10 years ago

Net acquisition of non-financial assets, \$ billions (\$2012-13)

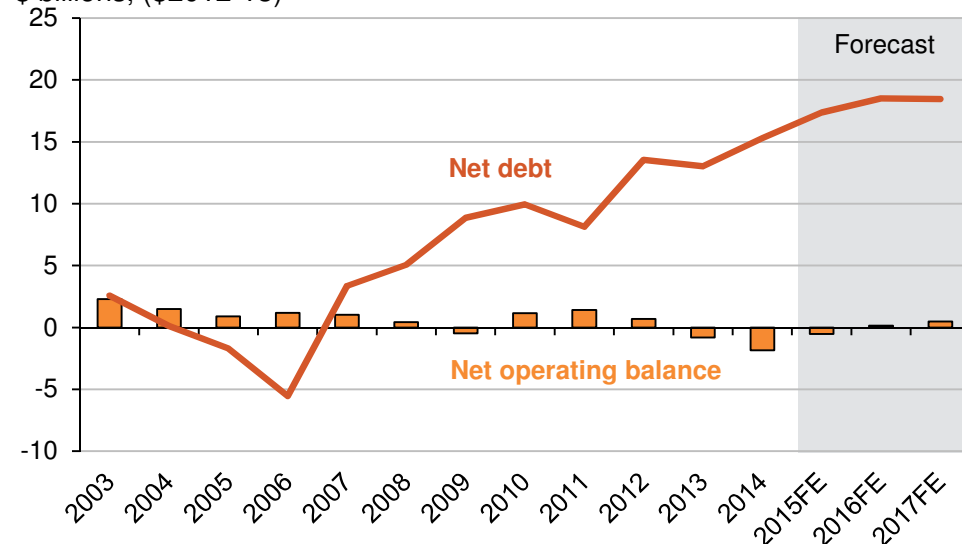


Note: Total net investment in fixed assets (excludes PPP payments). Includes payments to PNFCs classified as recurrent expenditure

Source: ABS (2013) cat 5512.0, NSW Government 2013-14 Budget Paper 2 (2013)

Net debt and net operating balance

\$ billions, (\$2012-13)

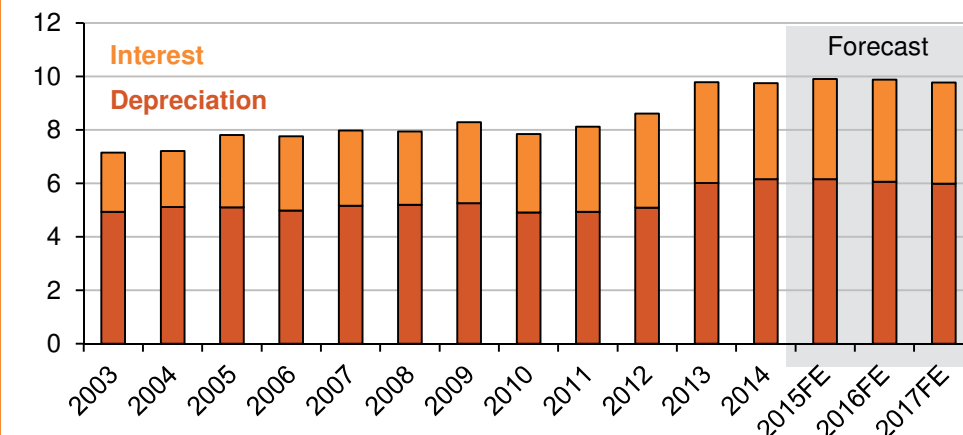


Note: Net operating balances for 2013 are estimates and subsequent years are forecasts

Source: ABS (2013) cat 5512.0, NSW Government 2013-14 Budget Paper 2 (2013)

Depreciation and interest expense as a percentage of revenue

% of revenue

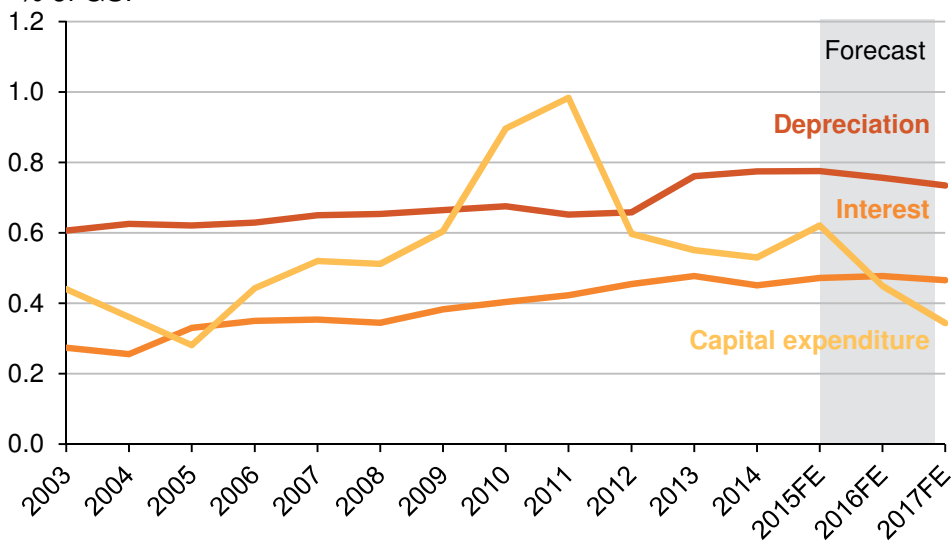


NOTE: Asset revaluations resulted in increased depreciation from 2012-13

Source: ABS (2013) cat 5512, NSW State Budget Paper 2 (2013-14)

Depreciation and interest expense as a percentage of GSP

% of GSP



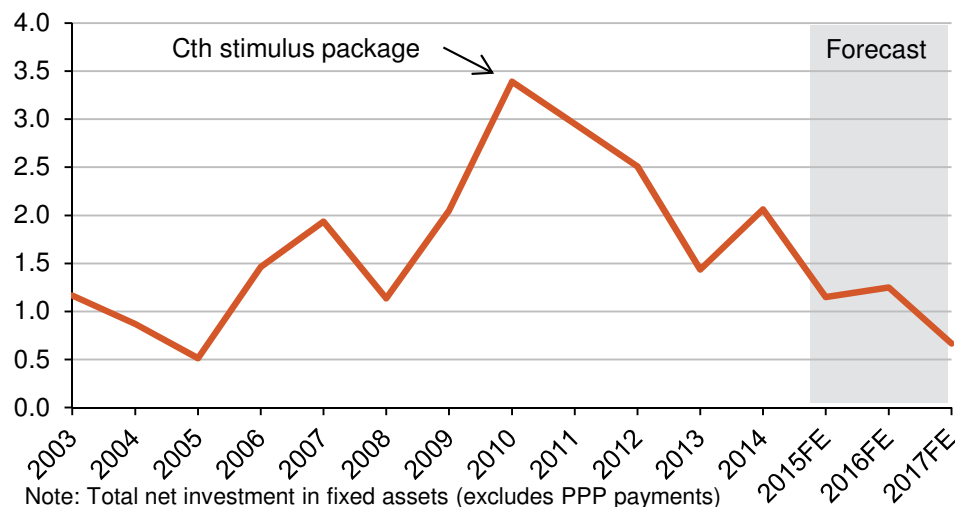
Note: GSP forecast based on 2013-14 state budget assumptions for economic forecasts

Source: : ABS (2013) cat 5512 and cat 5220, NSW State Budget Paper 2 (2013-14)

Victorian capital expenditure

Capital expenditure has increased significantly over time

Net acquisition of non-financial assets, \$ billions (\$2012-13)

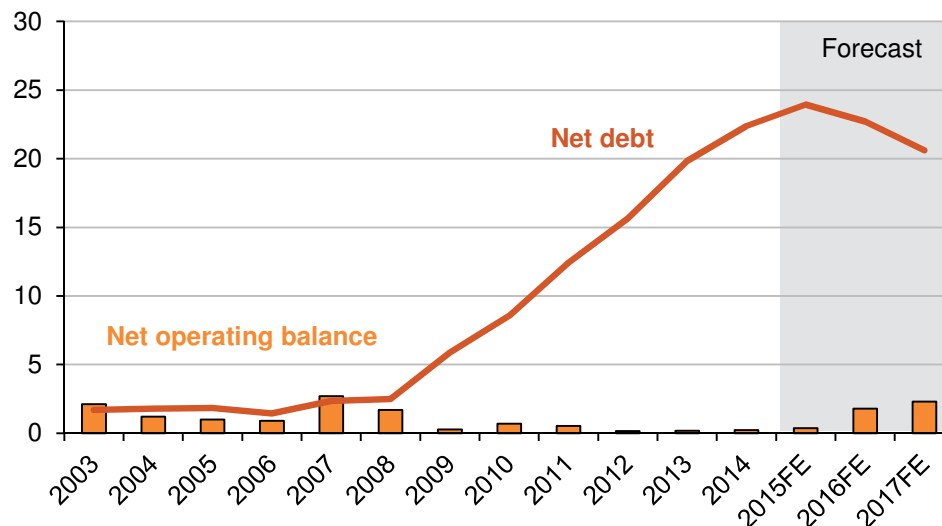


Note: Total net investment in fixed assets (excludes PPP payments)

Source: ABS (2013) cat 5512.0, Victorian Government 2013-14 Budget Paper 2 (2013)

Net debt and net operating balance

\$ billions, (\$2012-13)

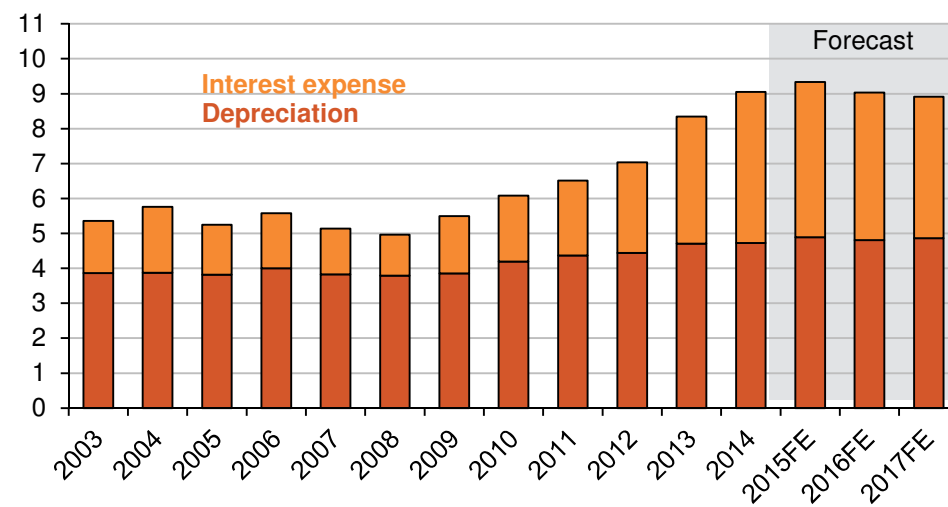


Note: Net operating balances for 2013 are estimates and subsequent years are forecasts

Source: ABS (2013) cat 5512.0, Victorian Government 2013-14 Budget Paper 2 (2013)

Depreciation and interest expense as a percentage of revenue

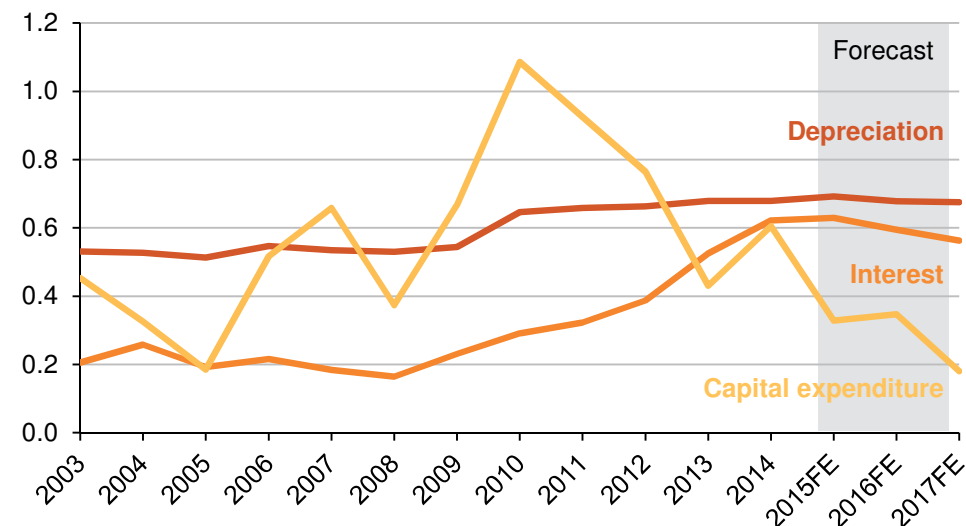
% of revenue



Source: ABS (2013) cat 5512, Victorian State Budget Paper 2 (2013-14)

Depreciation and interest expense as a percentage of GDP

% of GDP



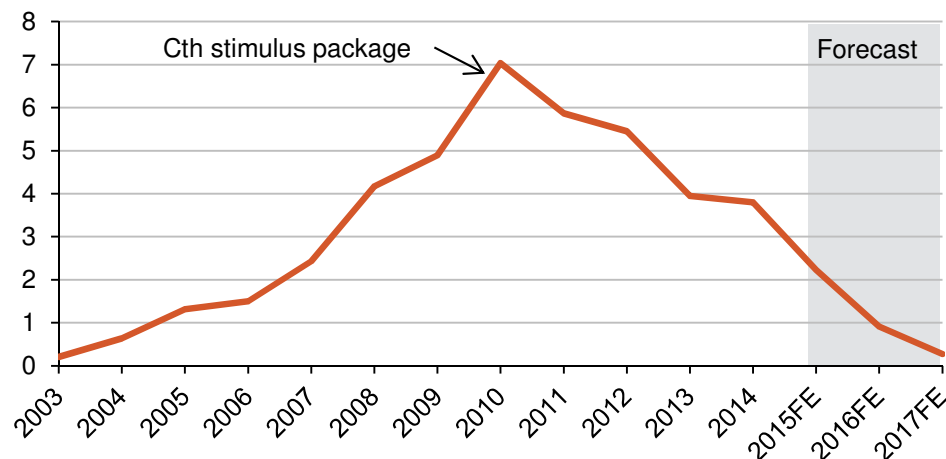
Note: GDP forecast based on 2013-14 state budget assumptions for economic forecasts

Source: : ABS (2013) cat 5512 and cat 5220, Victorian State Budget Paper 2 (2013-14)

Queensland capital expenditure

Capital expenditure in 2014 is four times that of 10 years ago

Net acquisition of non-financial assets, \$ billions (\$2012-13)

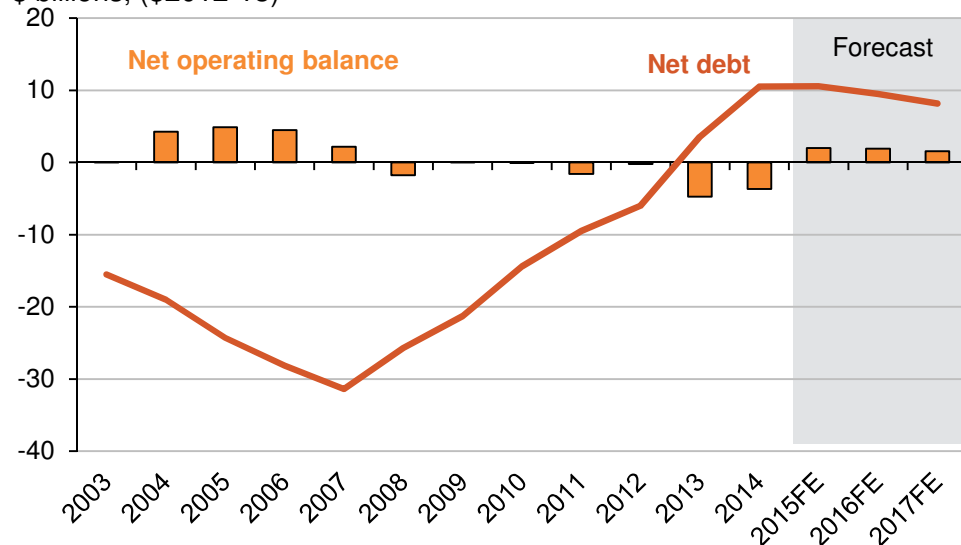


Note: Total net investment in fixed assets (excludes PPP payments). Significant capital expenditure has been spent on natural disaster recovery.

Source: ABS (2013) cat 5512.0, QLD Government 2013-14 Budget Paper 2 (2013)

Net debt and operating balance

\$ billions, (\$2012-13)

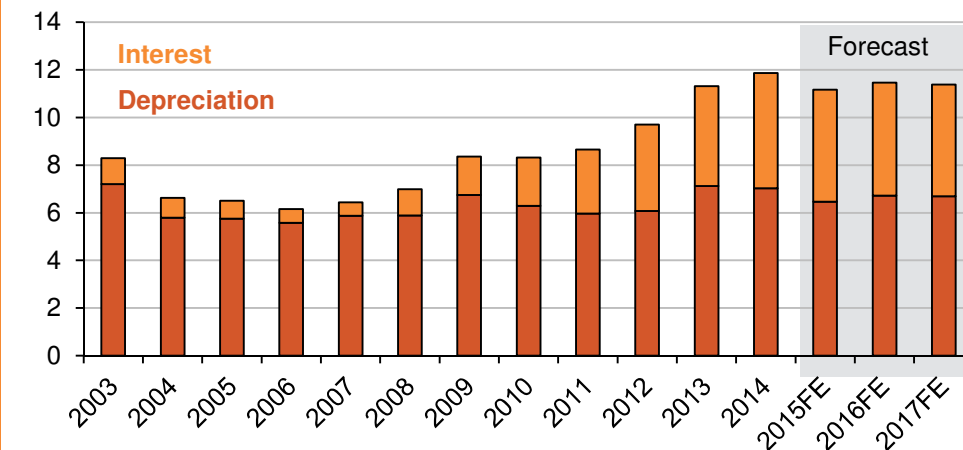


Note: Net operating balances for 2013 are estimates and subsequent years are forecasts

Source: ABS (2013) cat 5512.0, QLD Government 2013-14 Budget Paper 2 (2013)

Depreciation and interest expense as a percentage of revenue

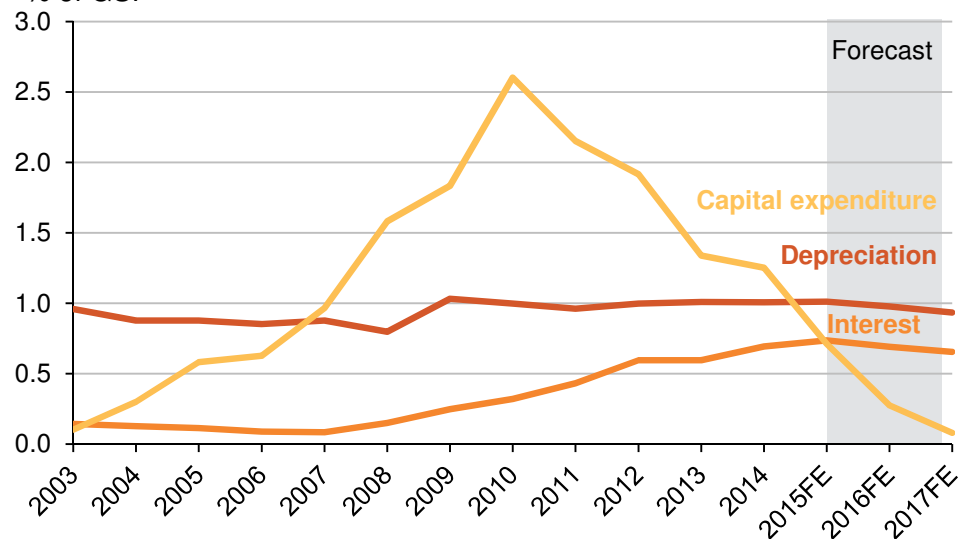
% of revenue



Source: ABS (2013) cat 5512, QLD State Budget Paper 2 (2013-14)

Depreciation and interest expense as a percentage of GSP

% of GSP



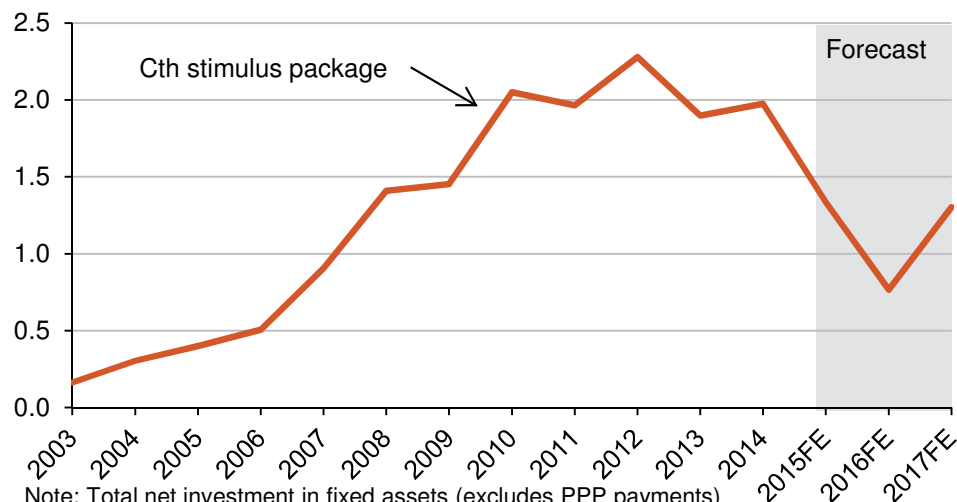
Note: GSP forecast based on 2013-14 state budget assumptions for economic forecasts

Source: : ABS (2013) cat 5512 and cat 5220, QLD State Budget Paper 2 (2013-14)

Western Australian capital expenditure

Current capital expenditure is four times that of 10 years ago

Net acquisition of non-financial assets, \$ billions (\$2012-13)

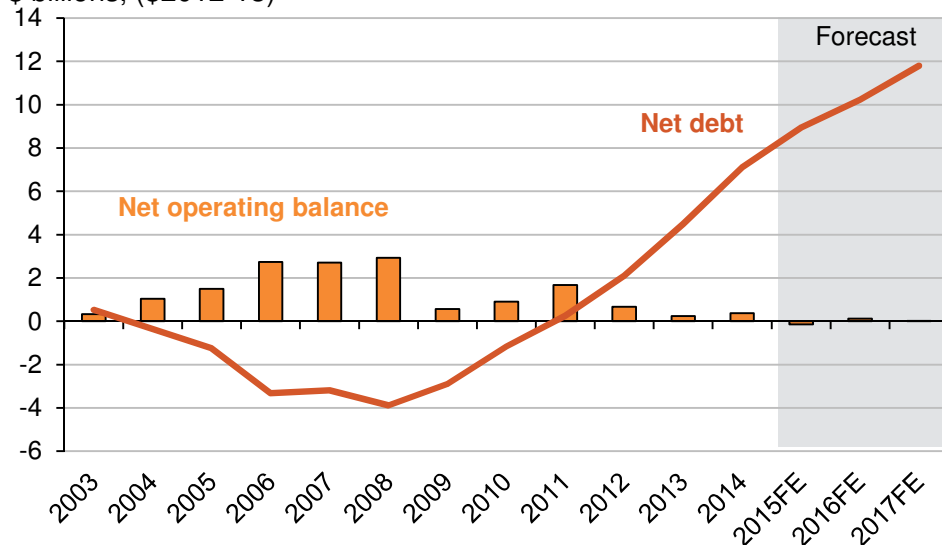


Note: Total net investment in fixed assets (excludes PPP payments)

Source: ABS (2013) cat 5512.0, WA Government 2013-14 Budget Paper 3 (2013)

Net debt and operating balance

\$ billions, (\$2012-13)

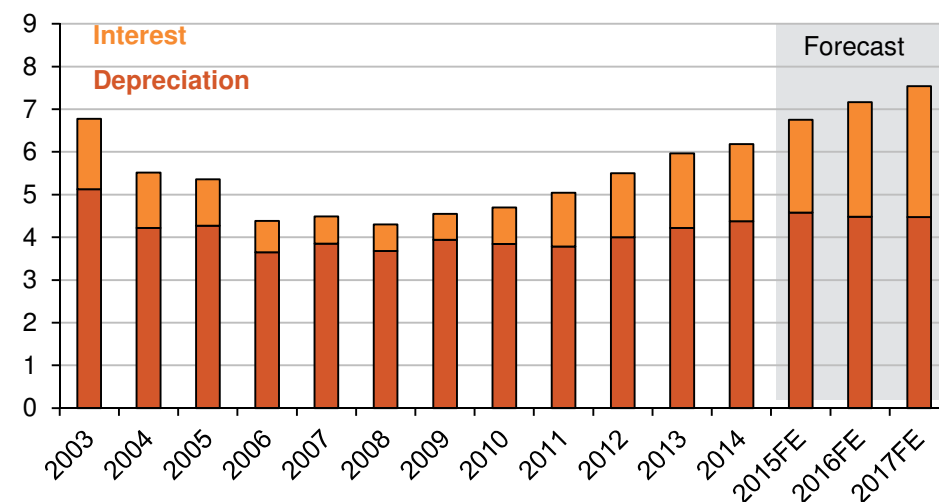


Note: Net operating balances for 2013 are estimates and subsequent years are forecasts

Source: ABS (2013) cat 5512.0, WA Government 2013-14 Budget Paper 3 (2013)

Depreciation and interest expense as a percentage of revenue

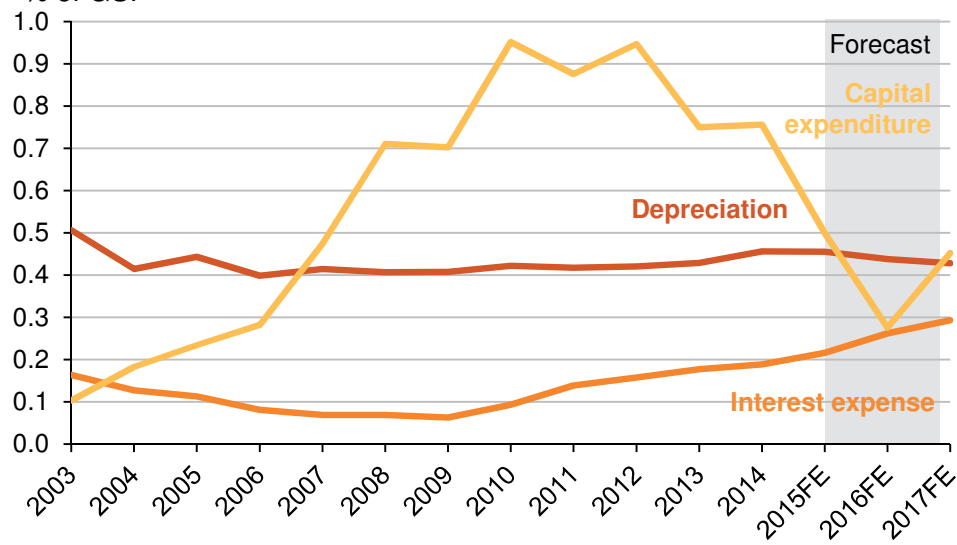
% of revenue



Source: ABS (2013) cat 5512, WA State Budget Paper 3 (2013-14)

Depreciation, interest and capital expenditure as a percentage of GSP

% of GSP



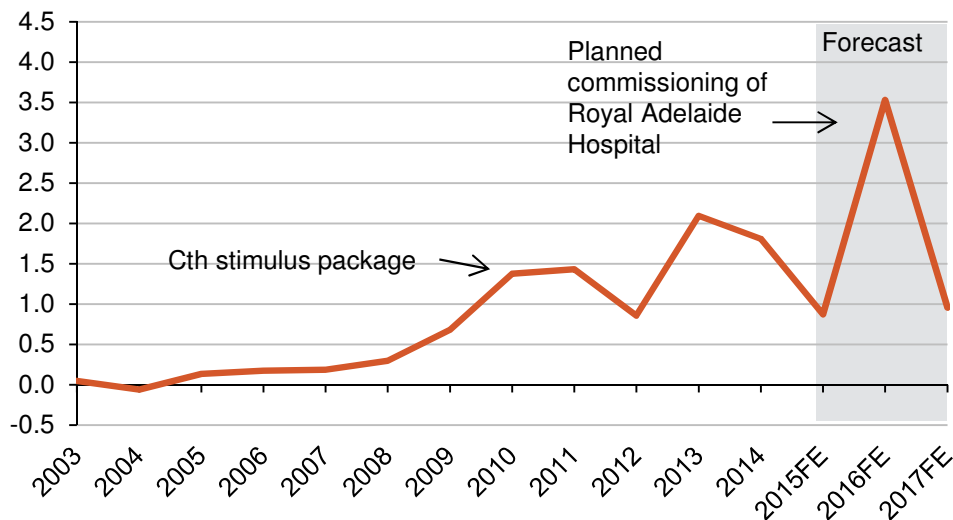
Note: GSP forecast based on 2013-14 state budget assumptions for economic forecasts

Source: : ABS (2013) cat 5512 and cat 5220, WA State Budget Paper 3 (2013-14)

South Australian capital expenditure

Current capital expenditure is double that of 10 years ago

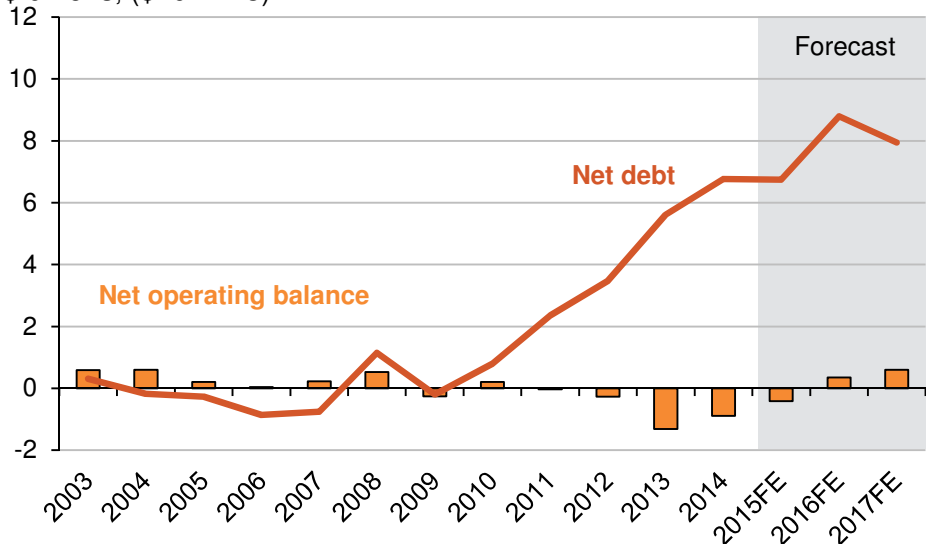
Net acquisition of non-financial assets, \$ billions (\$2012-13)



Source: ABS (2013) cat 5512.0, SA Government 2013-14 Budget Paper 3 (2013)

Net debt and net operating balance

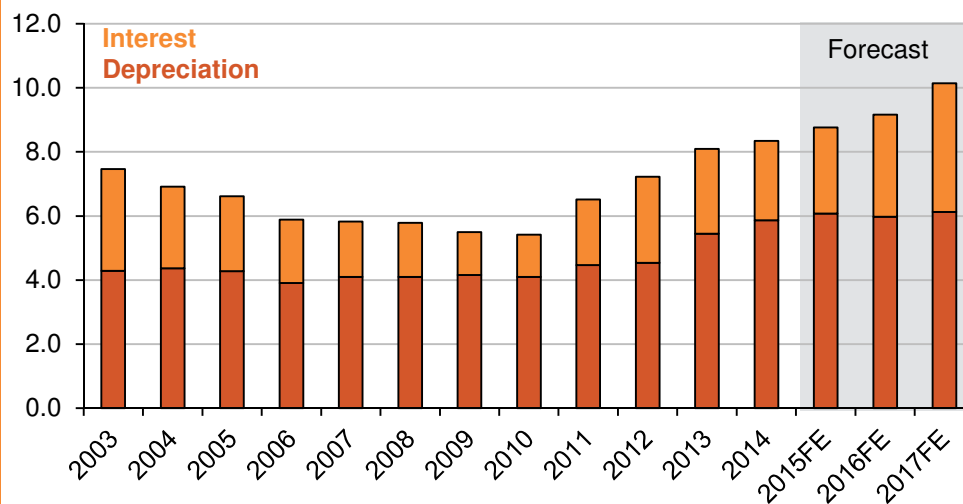
\$ billions, (\$2012-13)



Note: Net operating balances for 2013 are estimates and subsequent years are forecasts
Source: ABS (2013) cat 5512.0, SA Government 2013-14 Budget Paper 3 (2013)

Depreciation and interest expense as a percentage of revenue

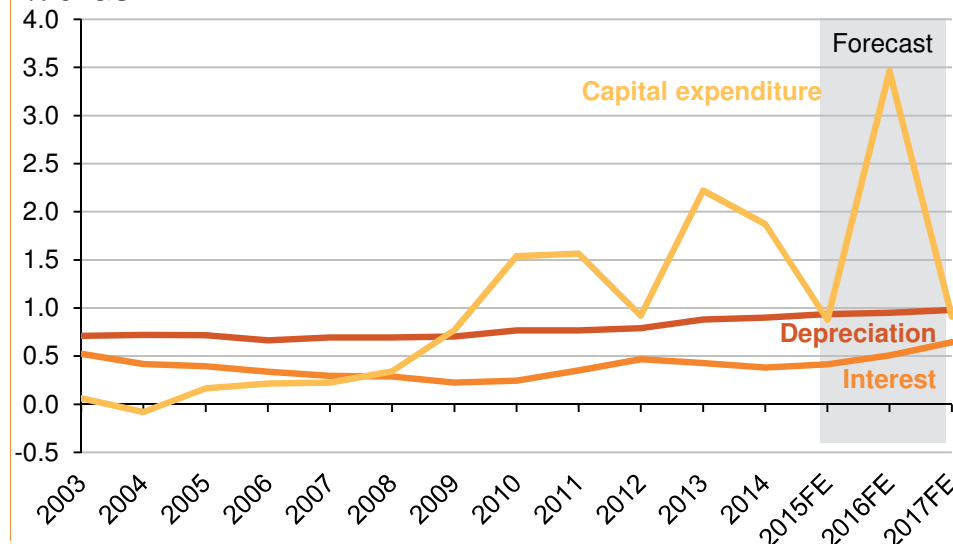
% of revenue



Source: ABS (2013) cat 5512, SA State Budget Paper 3 (2013-14)

Depreciation, interest and capital expenditure as a percentage of GSP

% of GSP

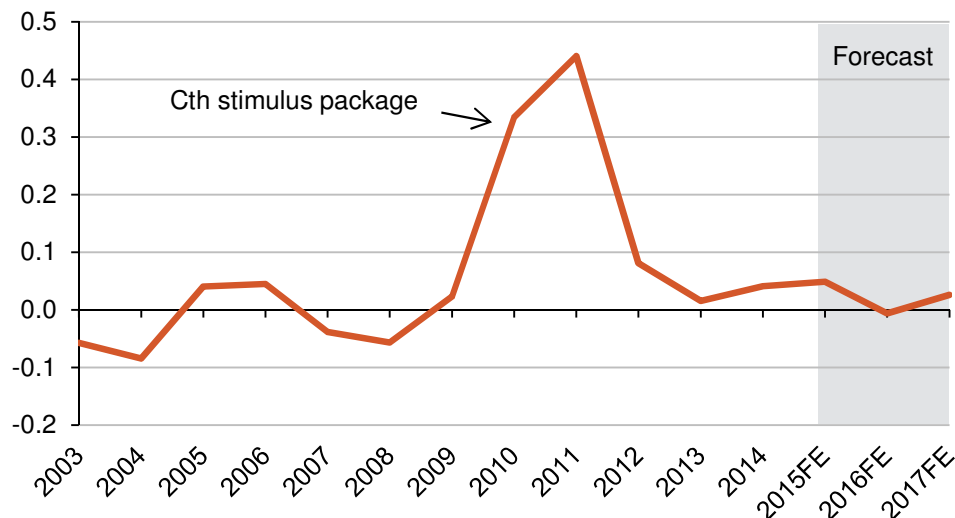


Note: GSP forecast based on 2013-14 state budget assumptions for economic forecasts
Source: : ABS (2013) cat 5512 and cat 5220, SA State Budget Paper 3 (2013-14)

Tasmanian capital expenditure

Capital expenditure peaked with Commonwealth stimulus packages

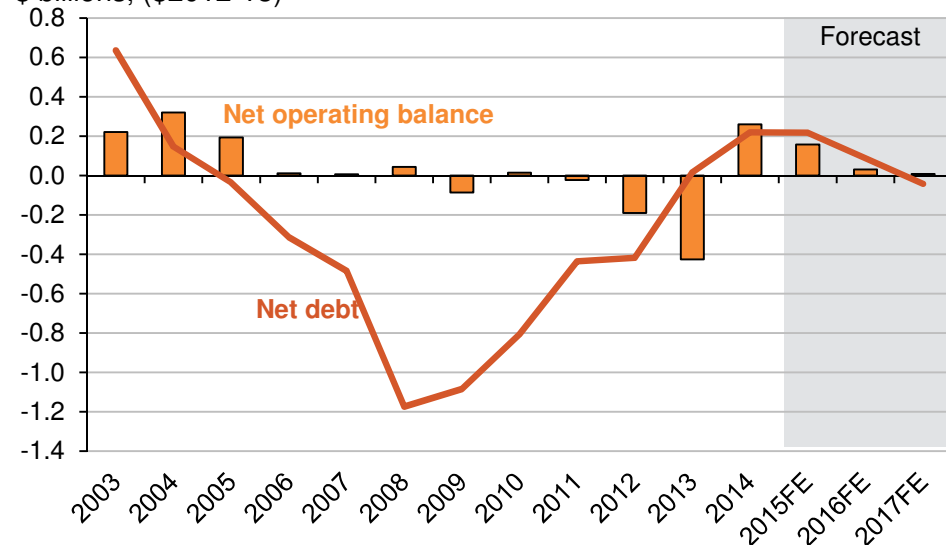
Net acquisition of non-financial assets, \$ billions (\$2012-13)



Source: ABS (2013) cat 5512.0, TAS Government 2013-14 Budget Paper 1 (2013)

Net debt and net operating balance

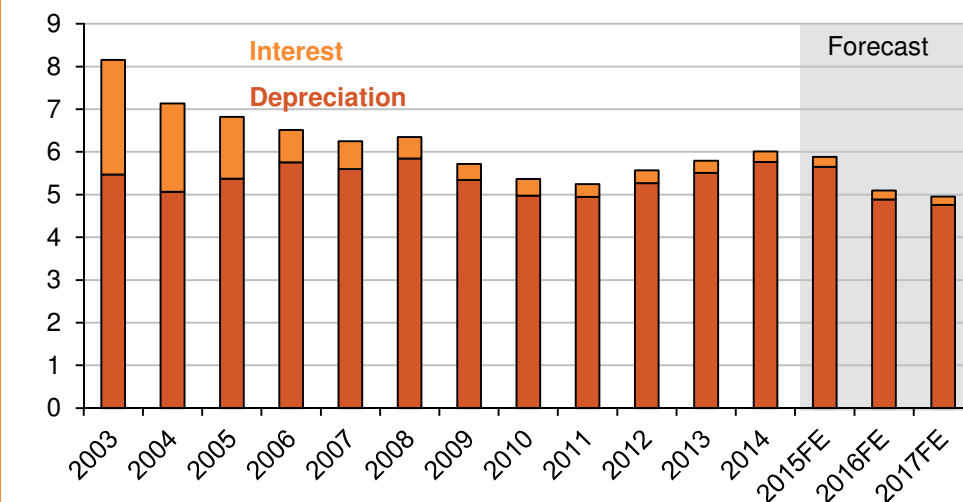
\$ billions, (\$2012-13)



Note: Net operating balances for 2013 are estimates and subsequent years are forecasts
Source: ABS (2013) cat 5512.0, TAS Government 2013-14 Budget Paper 1 (2013)

Interest expense is limited and depreciation costs steady

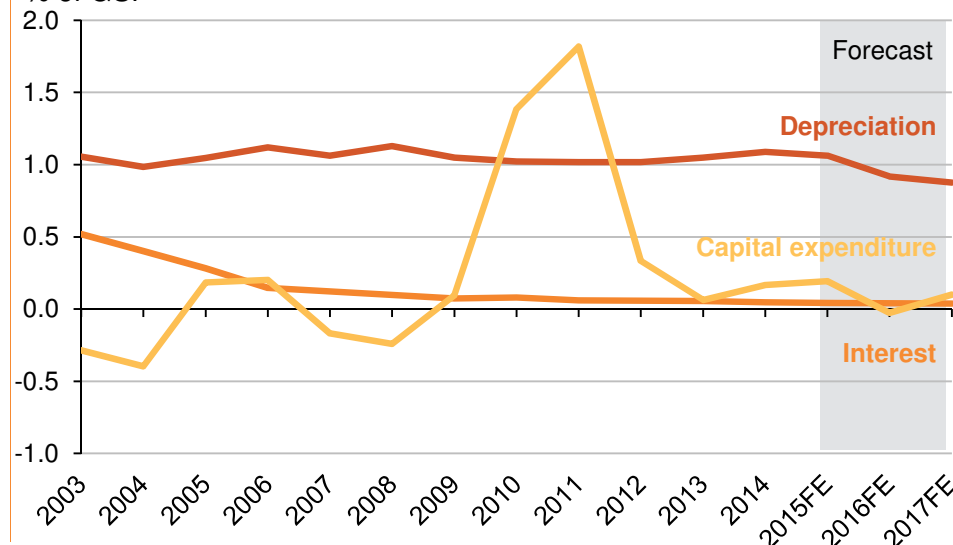
% of revenue



Source: ABS (2013) cat 5512, TAS State Budget Paper 1 (2013-14)

Depreciation, interest and capital expenditure as a percentage of GSP

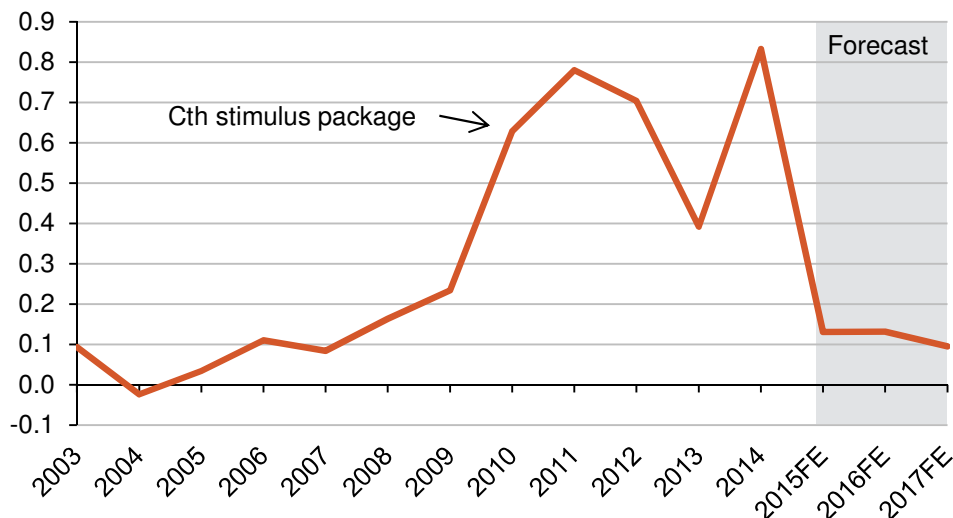
% of GSP



Note: GSP forecast based on 2013-14 state budget assumptions for economic forecasts
Source: : ABS (2013) cat 5512 and cat 5220, TAS State Budget Paper 1 (2013-14)

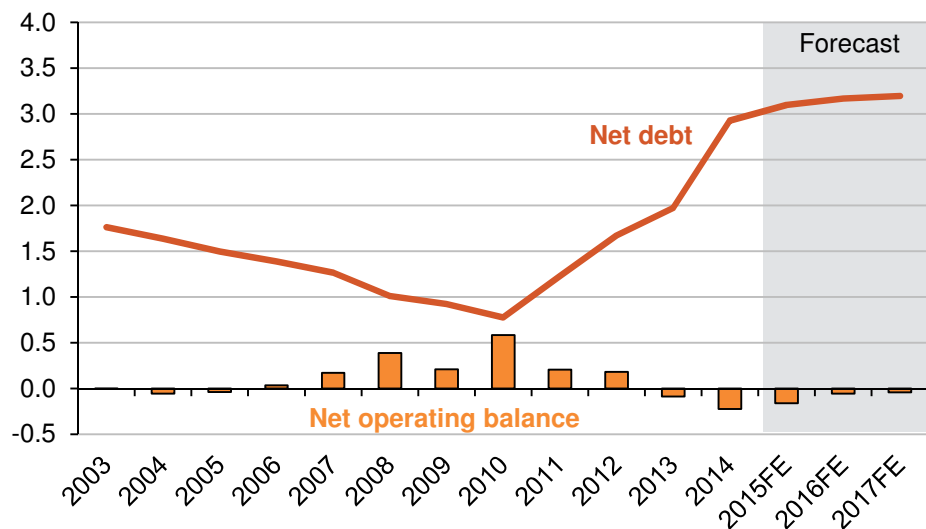
Northern Territory capital expenditure

Current capital expenditure is significantly higher than 10 years ago
Net acquisition of non-financial assets, \$ billions (\$2012-13)



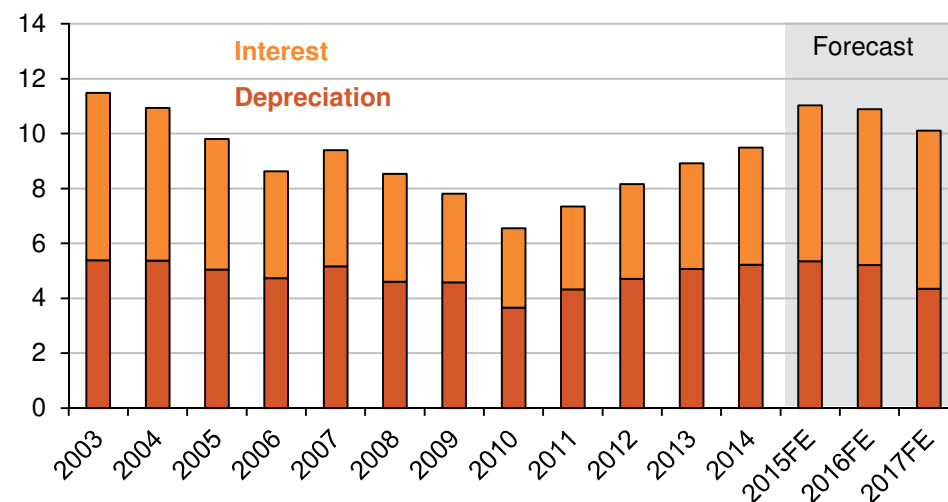
Source: ABS (2013) cat 5512.0, NT Government 2013-14 Budget Paper 2 (2013)

Net debt and net operating balance
\$ billions, (\$2012-13)



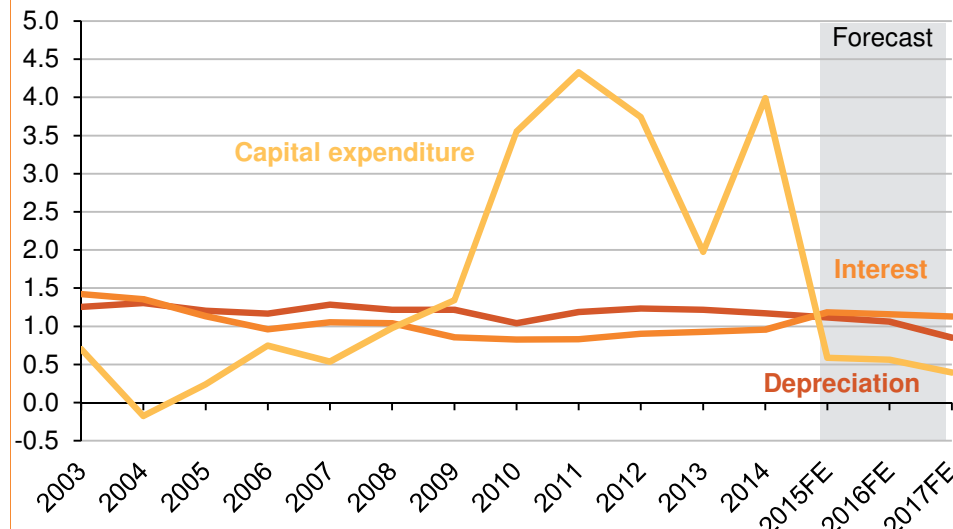
Note: Net operating balances for 2013 are estimates and subsequent years are forecasts
Source: ABS (2013) cat 5512.0, NT Government 2013-14 Budget Paper 2 (2013)

Depreciation and interest expense as a percentage of revenue
% of revenue



Source: ABS (2013) cat 5512, NT State Budget Paper 2 (2013-14)

Depreciation, interest and capital expenditure as a percentage of GSP
% of GSP

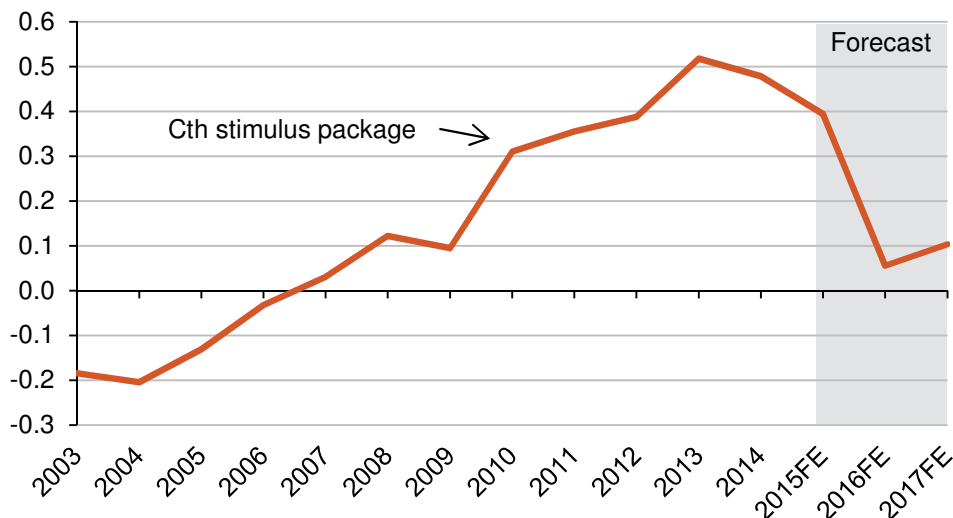


Note: GSP forecast based on 2013-14 territory budget assumptions for economic forecasts
Source: : ABS (2013) cat 5512 and cat 5220, NT State Budget Paper 2 (2013-14)

ACT capital expenditure

Current capital expenditure has grown steadily

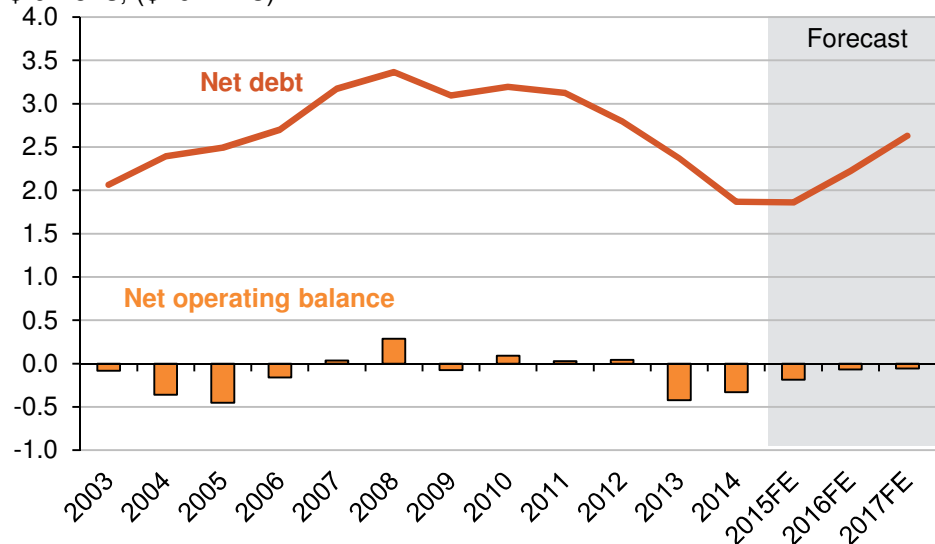
Net acquisition of non-financial assets, \$ billions (\$2012-13)



Source: ABS (2013) cat 5512.0, ACT Government 2013-14 Budget Paper 3 (2013)

Net debt and net operating balance

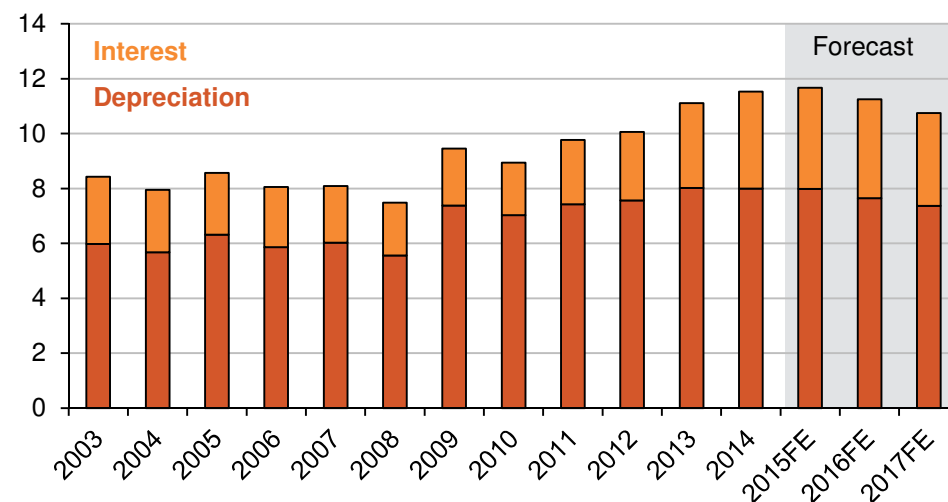
\$ billions, (\$2012-13)



Note: Net operating balances for 2013 are estimates and subsequent years are forecasts
Source: ABS (2013) cat 5512.0, ACT Government 2013-14 Budget Paper 3 (2013)

Depreciation and interest expense as a percentage of revenue

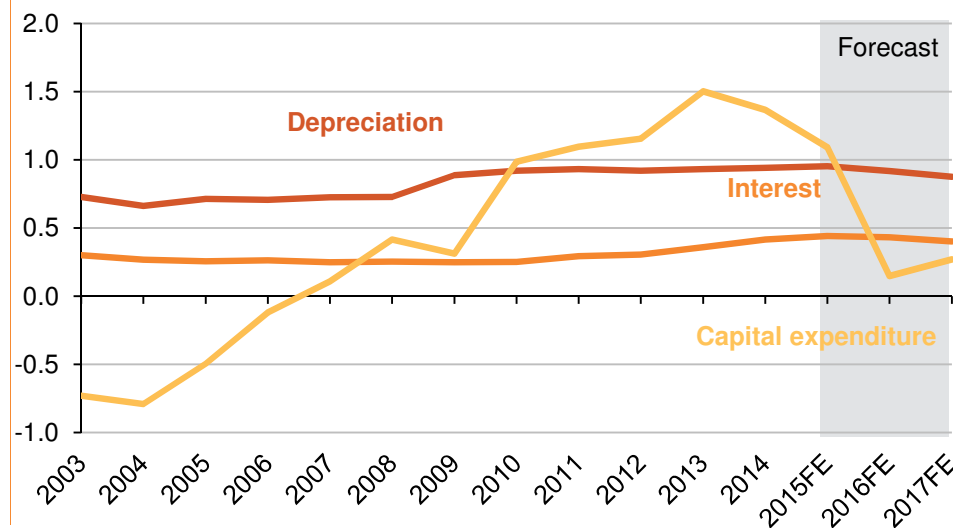
% of revenue



Source: ABS (2013) cat 5512, ACT State Budget Paper 3 (2013-14)

Depreciation, interest and capital expenditure as a percentage of GSP

% of GSP



Note: GSP forecast based on 2013-14 territory budget assumptions for economic forecasts
Source: : ABS (2013) cat 5512 and cat 5220, ACT State Budget Paper 3 (2013-14)

Part B: Budget analysis approach

This note applies to the data presented in Figures 3, 7-10, 12-13, 19-21, 23-25, 29-34 and the accompanying text in the main volume of this report, and the data presented in Part A of this Supporting Analysis.

B.1 Recurrent expenditure analysis methodology

The data in this paper represents our best efforts to date in breaking down budget expenditure by policy area. Our approach has been to categorise all general government expenditure listed in the Portfolio Budget Statements (for the Commonwealth), and equivalent budget documents for the States, using budgeted figures for 2002-03 and 2013-14. For Commonwealth expenditure for 2013-14, we have also made use of expenditure data collated by the Parliamentary Budget Office.¹ In some cases, we contacted the relevant Treasury department for clarification of issues.

Our expenditure categories differ from those used in the ABS Government Finance Statistics (GFS), which are used to develop the 'expenses by function' data published in the Commonwealth budget,² and equivalent State government papers in their Uniform Presentation Frameworks, and the Parliamentary Budget Office's expenditure analysis.³ See Section B.2 below for a further explanation of our categorization approach.

Assumptions and caveats are as follows:

¹ PBO (n.d.-a)

² Refer to Budget Paper 1, Statement 6: Expenses and Net Capital Investment.

³ PBO (2013)

- The expenditure analysis is based on Commonwealth, NSW, Victorian, Queensland and Western Australian budget data. Other State and Territory expenditures for each category are assumed to be proportionate to the included States as a percentage of each State or Territory's total expenditure. We believe this is a reasonable approximation. In 2012-13, NSW, Victoria, Western Australia and Queensland together comprise 86 per cent of State and Territory expenditure. With the addition of Commonwealth expenditure, the analysis includes 94 per cent of Australian government expenditure.
- Determining total government expenditure in Australia is complicated by federal financial relations, which involves transfers of funds from the Commonwealth to the States. We have removed the double-counting of expenditure that would result from simple addition of jurisdiction totals. For all charts showing combined Commonwealth and State expenditure:
 - Commonwealth transfers to States (approx. \$95bn in 2013-14) have been included as State expenditures only.
 - Some funding (approx. \$11bn in 2013-14 is also paid by the Commonwealth 'through' the States to other entities (mostly non-government schools and local governments). This is sometimes known as 'on-passings'. As States have no discretion over this funding, it is classified as Commonwealth expenditure in this paper, and is also removed from the total expenditure from each State where

the published total includes on-passings.

In both cases, we have used Commonwealth figures for transfer amounts for consistency.

- The analysis includes all non-capital (recurrent) expenditure listed in the budget papers. Capital expenditure is analysed separately; the methodology is described below in Section B.5.
- For each jurisdiction, our expenditure data sums to a figure greater than the published expenditure total. This is because our data includes some transfers between agencies in the same jurisdiction that cannot be identified from publicly available information. The majority of the difference between our data and the published budget totals is accounted for by these transfers. Most jurisdictions list the total amount of these transfers; once these are subtracted from our totals where possible, and on-passings are accounted for, the difference between the published totals and our totals as a proportion of the published expenditure total are:

- Commonwealth	2002-03 – 3.9%	2013-14 – 4.4%
- NSW	2002-03 – 1.5%	2013-14 – 1.6%
- Victoria	2002-03 – 9.0%	2013-14 – 9.3%
- Queensland	2002-03 – 15.5%	2013-14 – 12.0%
- Western Australia	2002-03 – 9.3%	2013-14 – 6.0%

In each case, the unidentified transfers have been spread across all categories, in proportion to the size of the categories. In other words, the share of expenditure for each category derived from the decomposed data has been applied to the published budget total for that jurisdiction.

B.2 Expenditure categorisation

While the vast majority of expenditure is straightforward to categorise, there will always be a few items that could legitimately be included in more than once place. A good example is spending on police forces, which could be placed either in 'emergency services' or 'criminal justice' – we have chosen the latter, and applied it consistently to all jurisdictions across time.

We have not used Government Finance Statistics (GFS) expenditure categories. GFS categories do not provide sufficient detail in some areas, and classification of expenditure is not always transparent, or consistent over time and between jurisdictions. For example, in 2002-03 Youth Allowance payments to students were classified as welfare expenditure; in 2012-13 they are classified as education expenditure. We have consistently applied our policy categorisations across jurisdictions and across years to the greatest extent possible, within the limitations of the way data is presented in the budget papers.

Table B.1 provides descriptions of the types of expenditure included in each category. The list is illustrative rather than comprehensive. The operational costs of departments have been included in the relevant category.

Table B.1: Description of expenditure categories

Category	Commonwealth	States and Territories
Ageing and aged care services	Home-based, residential and flexible care for the aged	Home-based, residential and flexible care for the aged
Arts and sport	Arts and sports programs; expenses for national museums, galleries and libraries	Arts and sports programs; expenses for state museums, galleries, libraries and sports facilities
Climate change and environment	Climate change and environmental protection programs and agencies; natural resource management; Bureau of Meteorology	Climate change and environmental protection programs and agencies; parks and wildlife
Communications	ABC, SBS, communications regulation and programs	ICT industry programs
Community services	Community care and support services, including for veterans, children, and indigenous Australians. Excludes services specifically for the aged and people with disability, and housing expenditure	Child protection and out-of-home care; community care and support services; Indigenous support services; support for specific groups including women, youth and veterans. Excludes services specifically for aged and people with disability, and housing expenditure
Criminal justice	Australian Federal Police (AFP) and other criminal justice agencies	Police forces; crime prevention; corrections and custodial services
Debt management	Cost of government debt	Cost of government debt
Defence - military capability	Defence personnel, equipment, and general operational costs	n/a
Defence - military operations	Specific military operations	n/a
Defence - intelligence and national security	Department of Defence spending on intelligence capabilities; ASIO; ASIC; some AFP and other security agencies	n/a
Defence - other	Some veterans' support services; Australian War memorial	n/a
Disability services	Community care, services and support for people with disability. Excludes most disability services expenditure, which is transferred to States. Excludes employment services for people with disability.	Supported accommodation and services for people with disability.
Economy and finance	Australian Tax Office; Australian Securities and Investments Commission, policy and budget advice in the Department of the Treasury and Department of Finance and Deregulation	Economic, financial, regulatory and insurance services and advice to government; revenue collection.

Category	Commonwealth	States and Territories
Education - early childhood	Access to early childhood education; excludes child care subsidies	Early childhood education and development services, where separately identifiable from schools
Education - schools	General funding to non-government schools; funding for specific programs in government and non-government schools. Excludes general funding for government schools, which is transferred to States.	General funding to government and non-government schools; curriculum and assessment services.
Education - skills	Apprenticeships; funding for specific programs.	Funding to TAFEs; other vocational education expenses.
Education - higher education	Funding to universities for teaching costs and associated programs; loan programs (HELP).	Funding for health-related teaching and research
Education - not further specified	Education support for children of veterans	Departmental expenses not elsewhere included
Emergency services	Emergency and disaster management	Fire and rescue services; emergency preparedness and management
Employment	Employment services and programs; workplace safety and insurance; entitlements and redundancy schemes; industrial relations programs and agencies.	Workcover, long service leave and workers' compensation agencies; industrial relations.
Foreign affairs	Diplomacy, consular services, development assistance (AusAID)	n/a
Government operations	Operating costs, salaries and entitlements for Parliament; agencies with functions across government, including the ABS, ANAO, DPMC, APSC; payments and services for local governments and Territories.	Operating costs, salaries and entitlements for Parliament; shared services functions; agencies with functions across government, including DPC, audit and ombudsman's offices; public service commissions.
Health - hospitals	Hospital services for veterans; blood and organ donation agencies. Excludes general funding for hospitals, which is transferred to States.	Inpatient hospital services and emergency health services
Health - private health insurance	Private health insurance rebates and associated expenses	n/a
Health - pharmaceuticals	Pharmaceutical Benefits Scheme; veterans' pharmaceutical services; other pharmaceuticals and aids and appliances programs.	n/a
Health - primary care and medical services	Medicare benefits, other programs supporting medical services	Primary and community-based services

Category	Commonwealth	States and Territories
Health - other	Health workforce capacity, medical research, mental, population, community and preventative health	Mental, population, community and preventive health; rehabilitation services
Health - not further specified	Some health department expenses not elsewhere included; Nation Building Fund – Health and Hospitals special account	Some health department expenses not elsewhere included
Housing	Affordable housing, Defence home loans, indigenous housing First Home Saver Accounts. Excludes majority of affordable housing funding, which is transferred to States.	Housing assistance; social housing; indigenous housing; First Home Owner Grants; rates rebates.
Immigration and customs	Visas and migration; asylum seeker management and detention; quarantine and export services, settlement services	n/a
Industry	Funding and support services to industry, including fuel tax credits and rebates, and R&D tax credits; subsidies to particular industries, including agriculture, coal, renewable energy and automotive.	Funding and support services to industry; subsidies to particular industries; rural and regional economic development; investment facilitation and attraction.
Infrastructure, transport and planning	Building Australia Fund; roads funding; aviation and maritime programs and agencies; local infrastructure projects	Road transport; public transport; public works; planning and land management. Includes funding for Queensland flood reconstruction.
Legal	Courts, commissions and tribunals; legal services to government.	Courts, commissions and tribunals; legal services to government; legal aid; related programs and agencies for fair trading, state trustees, liquor and gaming regulation and licensing, and privacy.
Research	Funding to universities for research expenses; other research agencies e.g. CSIRO, ARC. Excludes medical research via the NHMRC.	Funding to research agencies
Superannuation	Public sector superannuation payments and administration; low income super contribution; other superannuation programs and agencies	Public sector superannuation payments and administration
Untied transfers to States	GST; royalty payments to WA and NT.	n/a
Water	Regional and urban water	Water and sewerage
Welfare payments - disability	Disability Support Pension; disability payments for veterans; Mobility Allowance; related program support and other expenses	n/a
Welfare payments - family support	Family Tax Benefit Parts A and B; Child Care Benefit; Child Care Rebate; Paid Parental Leave; Schoolkids Bonus; Baby Bonus; related program support and other expenses	n/a

Category	Commonwealth	States and Territories
Welfare payments - workforce	Newstart Allowance; Youth Allowance; Parenting Payments; Austudy; related program support and other expenses	n/a
Welfare payments - seniors	Age Pension; Widow Allowance; Seniors Supplement; Wife Pension (Age); related program support and other expenses	n/a
Welfare payments - carers	Carer Payment; Wife Pension (DSP); related program support and other expenses	n/a
Welfare payments - other	War & Defence Widows Pension and related veterans' compensation; related program support and other expenses	n/a
Welfare payments - not further specified	Income support pensions for veterans not elsewhere included; delivery expenses not elsewhere included (Centrelink and DHS)	n/a

B.3 Revenue analysis methodology

Revenue analysis uses budgeted revenue data from all jurisdictions for 2002-03 and 2013-14. It does not require the adjustments outlined above as we have adopted the revenue categories used by government.

We have removed the double-counting of revenue that would result from simple addition of jurisdiction totals. For all figures showing combined Commonwealth and State revenue, funds collected by the Commonwealth and then transferred to the States have been counted as Commonwealth revenues only unless otherwise noted.

B.4 GDP growth relative to CPI

In the expenditure growth charts like Figures 8, 12-13, 19, and 21-24, we use a measure of GDP growth as a point of comparison for spending growth. This GDP measure is deflated by the CPI deflator. The purpose of this conversion is to allow the reader to interpret categories that exceed the line as increasing in share of the economy *in nominal terms*, while still allowing a rough comparison of spending categories across time.

In reality, the prices of various spending categories do not follow the CPI, and so we should only use the CPI-adjusted spending as a guide to real spending changes.

B.5 Capital expenditure accounting

The following paragraphs detail how capital expenditure is accounted for in government budgets. Different processes occur depending on the financing mechanism: government or PPP funded.

Accounting for project grants (revenue)

Where states receive Commonwealth grants for capital investment (including for PPPs), governments must record the grant against revenue in the year it is received, as *recurrent* revenue. It is then allocated to annual expenses (usually capital expenses) as the project is implemented.

Some states account for capital related grant revenue as unallocated capital and use this to offset the state's net debt until it is spent. The unallocated capital is then built into the forward estimates. However, some states may allocate the grant into general revenue, tempting state governments to allocate it to projects or expenses other than the capital expenditure it is intended for.

Accounting for capital expenditure

Governments account for general government capital expenditure in their operating statement through the:

- Net acquisition of non-financial assets – net funds spent on building or acquiring capital assets
- Interest expense – the cost of financing debt for capital

expenditure

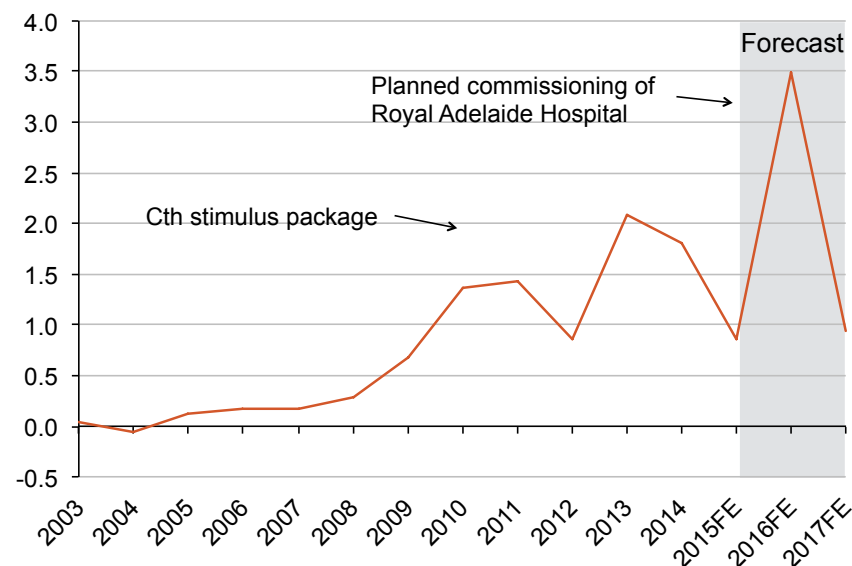
- Depreciation expense– the annualised cost or consumption of an asset over its useful life
- Operating expenses – the associated cost of running an asset for example building maintenance costs and electricity to run train lines.

In addition to the operating statement, the overall impact of funding capital expenditure through borrowing is reflected in the budget's balance sheet in net debt.

The analysis in the text varies from headline figures reported by individual state and territory governments. The analysis in the text is roughly equivalent to the cash spent each year on capital expenditure by core government agencies. The amount recorded in government budgets may differ due to accounting rules, such as those that record the entire capital expenditure on a PPP in the year when the project is completed and the finance lease is formally accepted by the government, rather than being recognised over the years as the capital works are in progress. For example, this explains the very large spike in South Australia's capital expenditure, as the spending on the Royal Adelaide Hospital is all recognised when the hospital is commissioned, rather than over the several years of its construction, as shown in Figure B.1

Figure B.1: South Australia – purchase of non-financial assets 2012-13

\$ billions, (2012-13 \$)



Source: South Australian Budget Papers, Budget Paper 3, (multiple years)

Governments may also provide funding to Public Non-Financial Corporations (PNFCs) to build infrastructure and deliver services on behalf of the government.⁴ States account for this funding differently. In Queensland, for example, it is recorded as an equity payment to Government Owned Corporations (GOCs).

⁴ Also referred to as Government Owned Corporations (GOCs) in Queensland and Public Trading Entities (PTEs) in New South Wales.

In New South Wales, the government leases trains and buses from PNFCs RailCorp and the State Transit Authority. As the government is the only user of these assets, it accounts for the capital component of lease payments as general government capital expenditure under the net acquisition of non-financial assets.

In some circumstances, maintenance expenditure normally accounted for as operating expenditure, is capitalised, or recorded against capital accounts.

Accounting for PPPs

As PPPs are financed by private investment, state governments account for the capital expenditure differently to when capital expenditure is publicly financed. Governments account for PPPs as finance leases.

When an asset is commissioned, governments record the associated finance lease as borrowings in the state's net debt.⁵ At the same time, governments increase their non-financial assets by the asset's 'fair value'. This is reflected in states' 'net acquisition of non-financial assets'.⁶ However, PPPs are not listed individually; some governments explicitly acknowledge which PPPs are included and their value, while others do not.

⁵ For example, see Victorian 2013-14 Budget Paper 5 Note 20 p38

⁶ For example, Victorian 2013-14 Budget Paper 5 Note 15 includes a category of 'other movements in non-financial assets'. The forward estimate for 2015-16 reflects the expected commissioning of the Victorian Comprehensive Cancer Centre, although it is not explicitly labeled as such.

The finance lease makes states liable for regular contractual service payments to the private operators. These payments include both interest and capital expenditure component. However, due to the finance arrangement and accounting rules, the capital expenditure component is not reflected in any capital expenditure budget line. Rather, it is recorded against, and reduces, the state's finance lease liability. The capital expenditure component of PPPs is not readily identifiable unless the government explicitly identifies this component outside of regular accounting standards.⁷

⁷ For example, Victorian 2013-14 Budget Paper 4 Table 6

B.6 Future budget pressures

The assumptions underpinning Figure 1 in the main report, and the associated text, are as follows:

Table B.2: Estimates of effects on future government budget balances

Component	Size of effect (per cent of GDP)	Basis for estimate	Discussion in report
Forecast surplus 2016-17	-1.0%	Grattan Institute analysis of nominal budget forecasts in Commonwealth and State mid-year budget updates (released December 2013 to February 2014).	Section 3.2
Long-run commitments	1.0% to 1.5%	Commitments and likely spending pressures with significant increases in spending beyond the forward estimates, including National Disability Insurance Scheme, school funding, defence spending and Overseas Development Aid.	Section 7.3
Health costs	1.5% to 2.0%	<p>Over the last decade, health costs have increased more quickly than national output – health spending now forms a larger portion of GDP than before. This appears to be a feature of rich countries with ageing populations. Health is a luxury good—one that forms a larger percentage of consumption as incomes rise.⁸ As a country becomes richer, its citizens prefer another year of life to another proverbial sports car.</p> <p>On nominal terms, the increase in health spending grew in share of GDP by about 1 per cent. However, the price of minerals increased much faster than the price of health, and so minerals production grew its share of GDP in nominal terms. If economy-wide prices had increased at the same rate as health prices, health share of GDP would have increased by almost 2 per cent.</p> <p>For the coming decade, we do not expect another large terms of trade boom, and so expect economy-wide and health prices to be roughly matched. However, we also expect the trends in real health spending to continue. For this reason, we expect government health spending to increase in share of GDP by about 1.5 to 2 per cent.</p>	Section 7.2.1

⁸ Hall and Jones (2007)

Component	Size of effect (per cent of GDP)	Basis for estimate	Discussion in report
Higher welfare costs	0.5% to 2.0%	Decreases in inequality per dollar spent on welfare were higher in Australia than in any other OECD country. ⁹ We assume that this high level of targetting continues, and that the cost of decreasing inequality scales with GDP. This gives us a price of decreasing inequality in terms of welfare budget. Assuming that the counterfactual Gini index grows at the same rate as the last decade, this gives an increase in inequality, which is multiplied by the price in terms of welfare spending to arrive at a number of around 2 per cent of GDP. However, under a progressive taxation system and increasing incomes at the top, some of the decreases in inequality will be had by the tax system. Therefore we project a cost of 0.5% GDP as a sensible baseline. As a check, this is similar in magnitude to the increase in Age Pension expenditure as a share of GDP over the last decade that is not explained by CPI or ageing (Section 4.5.1).	Section 7.2.2
Potential terms of trade fall	0.5% to 1.5%	We extended the McDonald <i>et al.</i> ¹⁰ model of structural budget position to include more recent data. This suggests there is currently a cyclical surplus or between 0.5 and 1.5 per cent of GDP—depending on the assumption of the level of “structural” terms of trade. A reversal of the cycle (which would almost certainly occur due to a sharp fall in the terms of trade) would decrease government revenue by this cyclical amount.	Section 7.1.1
General assumption	0	We assume that all other revenues and costs grow proportionately with GDP	n/a
Total decline in budget position	4.5% to 8.0%	n/a	n/a

⁹ OECD (2008); Greenville, *et al.* (2013)

¹⁰ McDonald, *et al.* (2010)

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