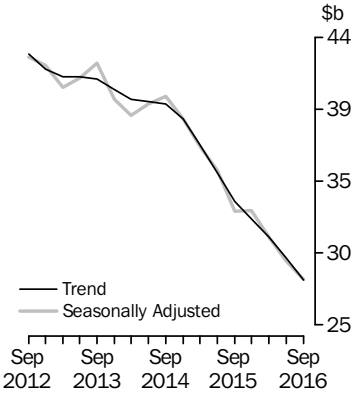
SEPTEMBER QUARTER 2016 5625.0

PRIVATE NEW CAPITAL EXPENDITURE AND EXPECTED EXPENDITURE AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) THURS 1 DEC 2016

New Capital Expenditure
in volume terms



KEY FIGURES

	Sep Qtr 16 $m	Jun Qtr 16 to Sep Qtr 16 % change	Sep Qtr 15 to Sep Qtr 16 % change
Trend estimates(a)			
Total new capital expenditure	27 964	–4.9	–15.6
Buildings and structures	15 524	–8.5	–26.2
Equipment, plant and machinery	12 545	1.0	3.5
Seasonally adjusted(a)			
Total new capital expenditure	28 030	–4.0	–13.7
Buildings and structures	15 626	–5.7	–24.3
Equipment, plant and machinery	12 404	–1.9	4.6

(a) In volume terms

KEY POINTS

ACTUAL EXPENDITURE (VOLUME TERMS)

- The trend volume estimate for total new capital expenditure fell by 4.9% in the September quarter 2016 while the seasonally adjusted estimate fell by 4.0%.
- The trend volume estimate for buildings and structures fell by 8.5% in the September quarter 2016 while the seasonally adjusted estimate fell by 5.7%.
- The trend volume estimate for equipment, plant and machinery rose by 1.0% in the September quarter 2016 while the seasonally adjusted estimate fell by 1.9%.

EXPECTED EXPENDITURE (CURRENT PRICE TERMS)

- This issue includes the fourth estimate (Estimate 4) for 2016-17.
- Estimate 4 for 2016-17 is $106,926m. This is 14.3% lower than Estimate 4 for 2015-16. Estimate 4 is 1.3% higher than Estimate 3 for 2016-17.
- See pages 7-10 for further commentary on expectations data.

INQUIRIES

Inquiries about these and related statistics, contact the National Information and Referral Service on 1300 135 070. The ABS Privacy Policy outlines how the ABS will handle any personal information that you provide to us.

NOTES

FORTHCOMING ISSUES

ISSUE (Quarter)	*RELEASE DATE*
December 2016	23 February 2017
March 2017	1 June 2017
June 2017	31 August 2017
September 2017	30 November 2017

CHANGES TO THIS ISSUE

- Each September quarter, the reference and base year for chain volume estimates for the Survey of Private New Capital Expenditure are updated. A new base year, 2014-15, has been introduced into the chain volume estimates which has resulted in minor revisions to growth rates in subsequent periods. In addition, the chain volume estimates have been re-referenced to 2014-15. Additivity is preserved in the quarters of the reference year and subsequent quarters. Re-referencing affects the level of, but not the movements in, chain volume estimates.
- As happens each year, a seasonal review has been undertaken based on estimates up to and including the June quarter 2016. This review has not resulted in noteworthy revisions to estimates up to and including June quarter 2016. There are no noteworthy revisions to previous estimates.

DATA NOTES

Mining projects tend to be complex in structure and comprise a number of different investment activities including exploration, engineering construction, plant and equipment and buildings. A feature article released in the March 2012 issue of Private New Capital Expenditure and Expected Expenditure, Australia (cat. no. 5625.0) provides a summary of the conceptual basis of the relevant ABS publications that measure investment in Australia, using a hypothetical mining project to illustrate how this investment is reflected in ABS data.

ABBREVIATIONS

ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
PAYG	pay-as-you-go tax
SNA08	System of National Accounts 2008 version
TAU	type of activity unit

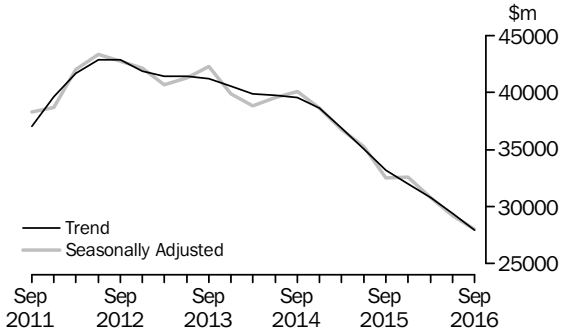
David W. Kalisch
Australian Statistician

CONTENTS

ACTUAL NEW CAPITAL EXPENDITURE IN VOLUME TERMS

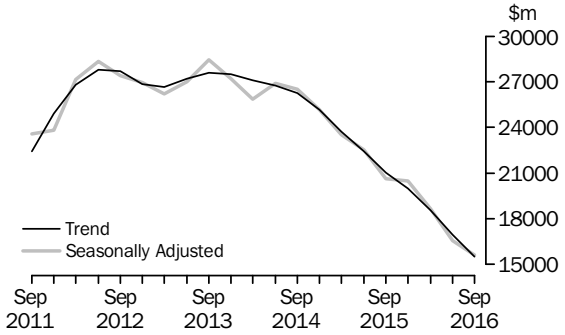
TOTAL CAPITAL EXPENDITURE

The trend estimate for total new capital expenditure fell 4.9% in the September quarter 2016. By asset type, the trend estimate for buildings and structures fell 8.5% and equipment, plant and machinery rose 1.0%. The seasonally adjusted estimate for total new capital expenditure fell 4.0% in the September quarter 2016.



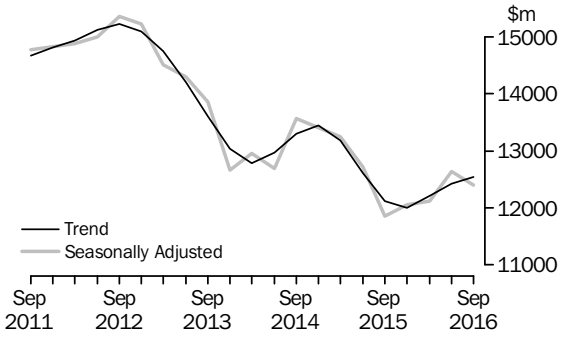
BUILDINGS AND STRUCTURES

The trend estimate for buildings and structures fell 8.5% in the September quarter 2016. Buildings and structures for Mining fell 13.4%, Other Selected Industries fell 2.4% and Manufacturing rose 3.2%. The seasonally adjusted estimate for buildings and structures fell 5.7% in the September quarter 2016. Mining fell 7.7%, Other Selected Industries fell 2.4% and Manufacturing fell 11.6% in seasonally adjusted terms.



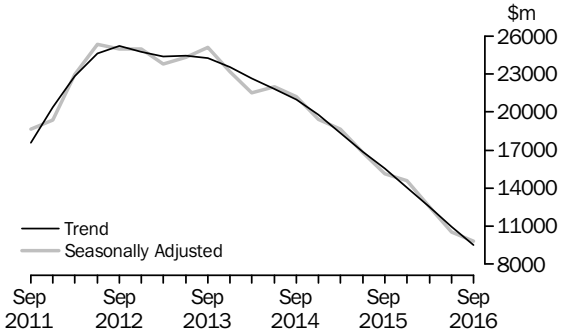
EQUIPMENT, PLANT AND MACHINERY

The trend estimate for equipment, plant and machinery rose 1.0% in the September quarter 2016. Equipment, plant and machinery for Other Selected Industries rose 1.4%, Mining fell 4.0% and Manufacturing rose 1.7%. The seasonally adjusted estimate for equipment, plant and machinery fell 1.9% in the September quarter 2016. Other Selected Industries fell 1.6%, Mining fell 3.1% and Manufacturing fell 2.5% in seasonally adjusted terms.



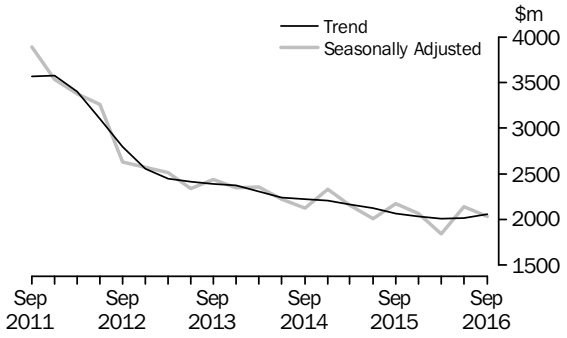
MINING

The trend estimate for Mining fell 13.2% in the September quarter 2016. Buildings and structures fell 13.4% and equipment, plant and machinery fell 4.0%. The seasonally adjusted estimate for Mining fell 7.2%. Buildings and structures fell 7.7% and equipment, plant and machinery fell 3.1% in seasonally adjusted terms.



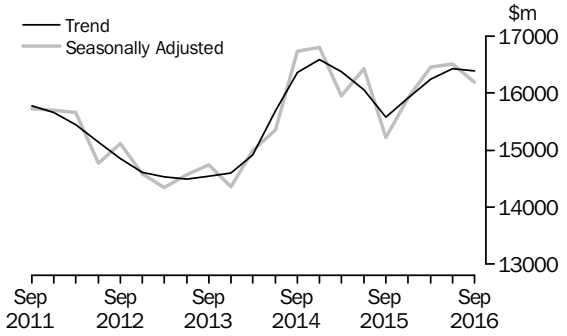
MANUFACTURING

The trend estimate for Manufacturing rose 2.0% in the September quarter 2016. Equipment, plant and machinery rose 1.7% and buildings and structures rose 3.2%. The seasonally adjusted estimate for Manufacturing fell 4.9% in the September quarter 2016. Building and structures fell 11.6% and equipment, plant and machinery fell 2.5% in seasonally adjusted terms.



OTHER SELECTED INDUSTRIES

The trend estimate for Other Selected Industries fell 0.2% in the September quarter 2016. Building and structures fell 2.4% and equipment, plant and machinery rose 1.4%. The seasonally adjusted estimate for Other Selected Industries fell 1.9% in the September quarter 2016. Building and structures fell 2.4% and equipment, plant and machinery fell 1.6% in seasonally adjusted terms.



ACTUAL AND EXPECTED NEW CAPITAL EXPENDITURE

FINANCIAL YEARS AT CURRENT PRICES

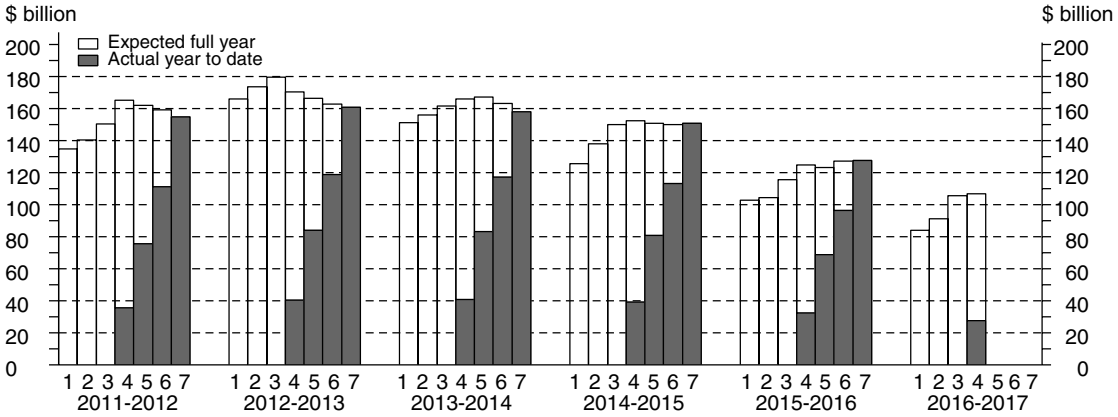
The graphs below show the seven estimates of actual and expected expenditure for each financial year. The estimates appearing below relate to data contained in Tables 5 and 6. Advice about the application of realisation ratios to these estimates is in paragraph 26 to 29 of the Explanatory Notes.

The timing and construction of these estimates are as follows:

		COMPOSITION OF ESTIMATE.....		
Estimate	Based on data reported at:	*Data on long-term expected expenditure*	*Data on short-term expected expenditure*	*Data on actual expenditure*
1	Jan-Feb, 5-6 months before period begins	12 months	Nil	Nil
2	Apr-May, 2-3 months before period begins	12 months	Nil	Nil
3	Jul-Aug, at beginning of period	6 months	6 months	Nil
4	Oct-Nov, 3-4 months into period	6 months	3 months	3 months
5	Jan-Feb, 6-7 months into period	Nil	6 months	6 months
6	Apr-May, 9-10 months into period	Nil	3 months	9 months
7	Jul-Aug, at end of period	Nil	Nil	12 months

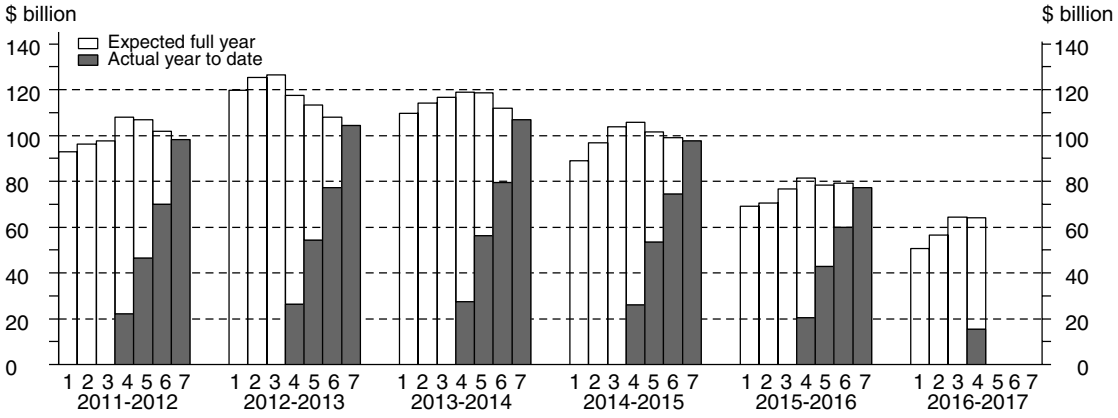
TOTAL CAPITAL EXPENDITURE

Estimate 4 for total capital expenditure for 2016-17 is $106,926m. This is 14.3% lower than Estimate 4 for 2015-16. The main contributor to the decrease is Mining (-33.6%). Estimate 4 is 1.3% higher than Estimate 3 for 2016-17. The main contributor to the increase was Other Selected Industries (4.7%).



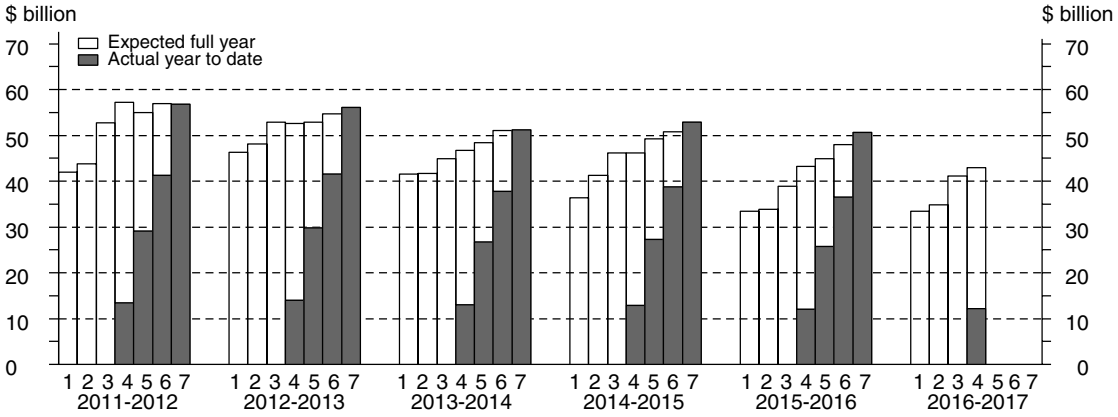
BUILDINGS AND STRUCTURES

Estimate 4 for buildings and structures for 2016-17 is $64,041m. This is 21.4% lower than Estimate 4 for 2015-16. The main contributor to the decrease was Mining (-36.7%). Estimate 4 is 0.6% lower than Estimate 3 for 2016-17. The main contributor to the decrease was Mining (-4.0%).



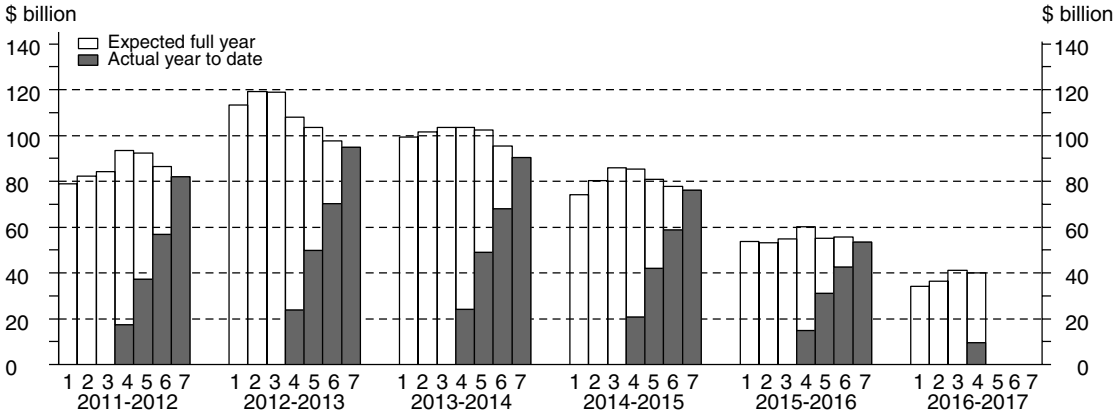
EQUIPMENT, PLANT AND MACHINERY

Estimate 4 for equipment, plant and machinery for 2016-17 is $42,884m. This is 0.8% lower than Estimate 4 for 2015-16. The main contributor to this decrease is Mining (-10.8%). Estimate 4 is 4.2% higher than Estimate 3 for 2016-17. The main contributor to the increase is Other Selected Industries (5.0%).



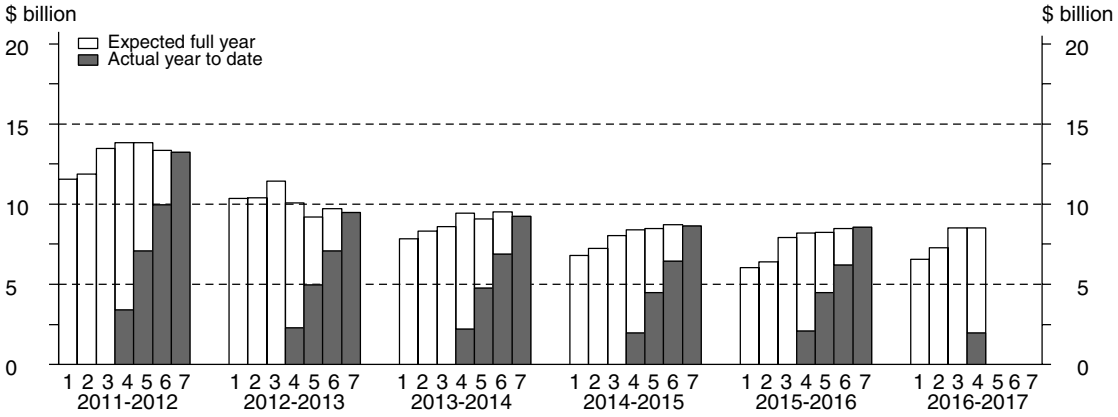
MINING

Estimate 4 for Mining for 2016-17 is $39,896m. This is 33.6% lower than Estimate 4 for 2015-16. Estimate 4 is 3.2% lower than Estimate 3 for 2016-17. Buildings and structures is 4.0% lower and equipment, plant and machinery is 1.1% higher than the corresponding third estimate for 2016-17.



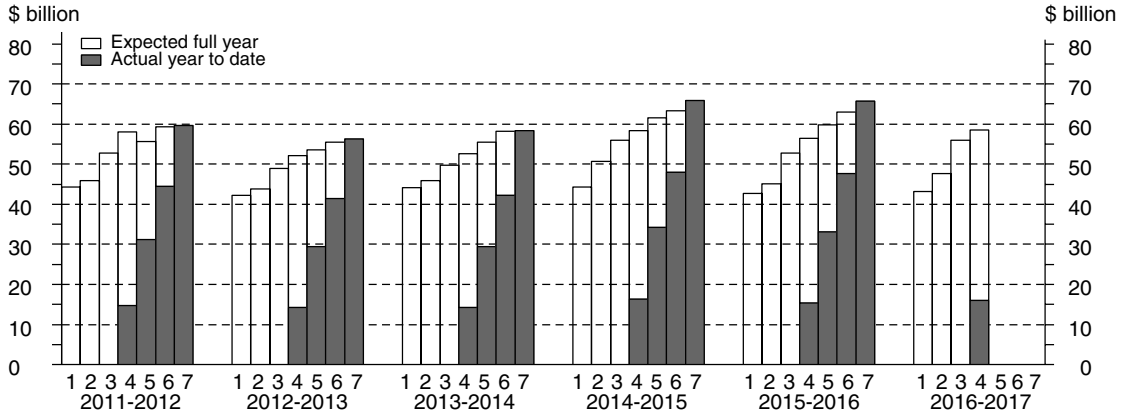
MANUFACTURING

Estimate 4 for Manufacturing for 2016-17 is $8,504m. This is 3.7% higher than Estimate 4 for 2015-16. Estimate 4 is 0.1% higher than Estimate 3 for 2016-17. Equipment, plant and machinery is 3.2% higher and buildings and structures is 8.7% lower than the corresponding third estimate for 2016-17.



OTHER SELECTED INDUSTRIES

Estimate 4 for Other Selected Industries for 2016-17 is $58,526m. This is 3.7% higher than Estimate 4 for 2015-16. Estimate 4 is 4.7% higher than Estimate 3 for 2016-17. Equipment, plant and machinery is 5.0% higher and buildings and structures is 4.5% higher than the corresponding third estimate for 2016-17.



1 ACTUAL AND EXPECTED EXPENDITURE, By type of asset and industry—Current prices

	BUILDINGS AND STRUCTURES				EQUIPMENT, PLANT AND MACHINERY				TOTAL			
	Mining	*Manu-facturing*	*Other selected industries*	*Total*	*Mining*	*Manu-facturing*	*Other selected industries*	*Total*	*Mining*	*Manu-facturing*	*Other selected industries*	*Total*
Period	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
ORIGINAL (Actual)												
2014–15	67 622	2 483	27 625	97 729	8 495	6 145	38 286	52 925	76 117	8 628	65 910	150 655
2015–16	47 515	1 950	27 646	77 111	5 874	6 616	38 090	50 581	53 389	8 566	65 737	127 692
2014–15												
June	15 292	^ 501	7 450	23 242	1 950	1 679	10 540	14 169	17 242	2 180	17 989	37 411
2015–16												
September	13 390	451	6 549	20 391	1 498	1 644	8 877	12 018	14 888	2 095	15 426	32 409
December	14 453	512	7 568	22 533	1 773	1 865	10 121	13 760	16 227	2 378	17 689	36 293
March	10 228	403	6 265	16 896	1 172	1 337	8 220	10 728	11 400	1 740	14 485	27 624
June	9 443	584	7 264	17 291	1 432	1 770	10 873	14 075	10 874	2 354	18 137	31 366
2016–17												
September	8 460	469	6 608	15 536	1 215	1 483	9 468	12 166	9 676	1 951	16 075	27 702
ORIGINAL (Expected)(a)												
2016–17												
3 mths to Dec	9 211	676	8 073	17 960	1 771	2 012	7 589	11 372	10 981	2 689	15 662	29 332
6 mths to Jun	15 886	903	13 755	30 545	3 352	2 961	13 034	19 347	19 239	3 864	26 789	49 892
Total fin year	33 557	2 049	28 435	64 041	6 338	6 455	30 091	42 884	39 896	8 504	58 526	106 926
SEASONALLY ADJUSTED (Actual)												
2014–15												
June	15 016	480	7 015	22 511	1 829	1 568	9 683	13 080	16 846	2 048	16 698	35 592
2015–16												
September	13 589	475	6 617	20 681	1 595	1 777	9 043	12 414	15 184	2 252	15 659	33 096
December	13 280	462	6 978	20 721	1 514	1 701	9 380	12 595	14 794	2 164	16 359	33 316
March	11 232	449	7 191	18 872	1 413	1 468	9 672	12 554	12 645	1 917	16 863	31 426
June	9 296	559	6 862	16 717	1 351	1 658	9 936	12 944	10 647	2 217	16 798	29 661
2016–17												
September	8 606	493	6 693	15 791	1 299	1 604	9 698	12 602	9 905	2 097	16 391	28 393
TREND (Actual)												
2014–15												
June	15 074	490	6 889	22 452	1 851	1 676	9 429	12 956	16 925	2 166	16 317	35 408
2015–16												
September	14 000	447	6 664	21 110	1 630	1 692	9 324	12 647	15 630	2 139	15 988	33 757
December	12 718	466	6 974	20 157	1 495	1 652	9 388	12 535	14 213	2 118	16 361	32 692
March	11 250	484	7 022	18 757	1 418	1 605	9 617	12 641	12 669	2 089	16 639	31 397
June	9 717	506	6 930	17 153	1 353	1 584	9 799	12 735	11 071	2 090	16 729	29 889
2016–17												
September	8 396	522	6 769	15 686	1 293	1 602	9 844	12 746	9 689	2 124	16 615	28 428

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Not directly comparable with estimates of actual expenditure due to likely over/under realisation. See paragraphs 26 to 29 of the Explanatory Notes.

2 ACTUAL AND EXPECTED EXPENDITURE, By detailed industry—Current prices

Period	Mining $m	Manufacturing $m	Electricity, Gas, Water and Waste Services $m	Construction $m	Wholesale Trade $m	Retail Trade $m	Transport, Postal and Warehousing $m
ORIGINAL (Actual)							
2014–15	76 117	8 628	5 097	6 279	3 449	5 679	12 495
2015–16	53 389	8 566	5 406	5 437	4 243	5 152	10 529
2014–15							
June	17 242	2 180	1 312	^ 1 787	899	1 535	3 275
2015–16							
September	14 888	2 095	1 350	^ 1 075	899	1 282	3 006
December	16 227	2 378	1 543	^ 1 174	^ 1 143	1 447	2 813
March	11 400	1 740	1 134	^ 1 266	^ 1 030	984	2 113
June	10 874	2 354	1 378	^ 1 922	^ 1 172	1 438	2 597
2016–17							
September	9 676	1 951	1 215	^ 1 377	1 002	1 279	2 461
ORIGINAL (Expected) (a)							
2016–17							
3 mths to Dec	10 981	2 689	1 506	^ 762	1 039	1 197	2 427
6 mths to Jun	19 239	3 864	2 711	^ 1 302	1 783	2 304	4 580
Total fin year	39 896	8 504	5 432	3 441	3 824	4 781	9 467
SEASONALLY ADJUSTED (Actual)							
2014–15							
June	16 846	2 048	1 234	1 502	884	1 363	3 299
2015–16							
September	15 184	2 252	1 371	1 231	933	1 282	2 907
December	14 794	2 164	1 402	1 142	964	1 264	2 533
March	12 645	1 917	1 327	1 385	1 197	1 283	2 702
June	10 647	2 217	1 303	1 628	1 164	1 324	2 392
2016–17							
September	9 905	2 097	1 231	1 574	1 040	1 272	2 372
TREND (Actual)							
2014–15							
June	16 925	2 166	1 275	1 452	841	1 335	3 219
2015–16							
September	15 630	2 139	1 338	1 265	914	1 289	2 792
December	14 213	2 118	1 375	1 237	1 040	1 279	2 704
March	12 669	2 089	1 347	1 369	1 113	1 285	2 571
June	11 071	2 090	1 293	1 530	1 137	1 296	2 460
2016–17							
September	9 689	2 124	1 250	1 636	1 120	1 294	2 399

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Not directly comparable with estimates of actual expenditure due to likely over/under realisation. See paragraphs 26 to 29 of the Explanatory Notes.

ACTUAL AND EXPECTED EXPENDITURE, By detailed industry—Current prices *continued*

Period	Information Media and Telecommunications $m	Financial and Insurance Services $m	Rental, Hiring and Real Estate Services $m	Professional, Scientific and Technical Services $m	Other Selected Services $m	Total $m
ORIGINAL (Actual)						
2014–15	5 810	3 794	12 192	3 639	7 476	150 655
2015–16	6 413	3 950	12 899	3 735	7 972	127 692
2014–15						
June	1 275	980	3 383	^1 139	2 404	37 411
2015–16						
September	1 535	955	2 800	^677	^1 847	32 409
December	1 701	1 173	3 510	^1 045	2 140	36 293
March	1 671	773	2 804	^970	1 740	27 624
June	1 505	1 050	3 786	^1 044	2 245	31 366
2016–17						
September	1 815	1 023	3 284	^763	^1 857	27 702
ORIGINAL (Expected) (a)						
2016–17						
3 mths to Dec	1 649	921	3 833	579	^1 749	29 332
6 mths to Jun	3 232	1 632	4 749	^1 241	3 257	49 892
Total fin year	6 696	3 576	11 866	2 582	6 862	106 926
SEASONALLY ADJUSTED (Actual)						
2014–15						
June	1 322	928	3 057	1 061	2 046	35 592
2015–16						
September	1 535	932	2 910	705	1 854	33 096
December	1 622	1 087	3 261	986	2 097	33 316
March	1 678	911	3 254	1 058	2 069	31 426
June	1 579	1 006	3 459	983	1 959	29 661
2016–17						
September	1 814	996	3 410	801	1 882	28 393
TREND (Actual)						
2014–15						
June	1 452	967	2 937	879	1 959	35 408
2015–16						
September	1 500	975	3 026	896	1 993	33 757
December	1 588	985	3 174	949	2 030	32 692
March	1 644	990	3 303	988	2 030	31 397
June	1 679	984	3 400	967	1 983	29 889
2016–17						
September	1 733	982	3 420	879	1 902	28 428

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Not directly comparable with estimates of actual expenditure due to likely over/under realisation. See paragraphs 26 to 29 of the Explanatory Notes.

3 ACTUAL EXPENDITURE, By type of asset and industry—Chain volume measures(a)

	ASSET			INDUSTRY			
	Buildings and Structures	*Equipment, Plant and Machinery*	*Total*	*Mining*	*Manufacturing*	*Other Selected Industries*	*Total*
Period	$m	$m	$m	$m	$m	$m	$m
			ORIGINAL				
2012–13	107 545	59 378	166 805	98 080	10 055	58 618	166 805
2013–14	108 433	52 171	160 622	91 747	9 375	59 456	160 622
2014–15	97 729	52 925	150 655	76 117	8 628	65 910	150 655
2015–16	76 381	48 675	125 056	52 739	8 226	64 091	125 056
2014–15							
September	26 194	13 160	39 353	20 870	1 982	16 500	39 353
December	27 203	14 671	41 874	21 271	2 557	18 045	41 874
March	21 125	11 333	32 459	16 793	1 955	13 709	32 459
June	23 208	13 761	36 968	17 182	2 133	17 657	36 968
2015–16							
September	20 308	11 461	31 769	14 788	2 017	14 963	31 769
December	22 254	13 143	35 397	15 953	2 271	17 174	35 397
March	16 702	10 359	27 062	11 245	1 672	14 145	27 062
June	17 117	13 712	30 829	10 753	2 267	17 809	30 829
2016–17							
September	15 358	11 951	27 309	9 552	1 891	15 866	27 309
			SEASONALLY ADJUSTED				
2014–15							
September	26 512	13 561	40 071	21 201	2 128	16 735	40 071
December	25 180	13 408	38 591	19 457	2 334	16 798	38 591
March	23 520	13 246	36 773	18 663	2 157	15 948	36 773
June	22 518	12 711	35 219	16 796	2 009	16 429	35 219
2015–16							
September	20 639	11 855	32 494	15 103	2 171	15 220	32 494
December	20 502	12 055	32 557	14 580	2 070	15 907	32 557
March	18 672	12 126	30 797	12 499	1 846	16 452	30 797
June	16 568	12 639	29 208	10 558	2 139	16 511	29 208
2016–17							
September	15 626	12 404	28 030	9 802	2 035	16 193	28 030
			TREND				
2014–15							
September	26 260	13 307	39 569	20 978	2 226	16 357	39 569
December	25 174	13 439	38 616	19 815	2 204	16 593	38 616
March	23 699	13 176	36 876	18 333	2 166	16 378	36 876
June	22 438	12 604	35 037	16 867	2 125	16 050	35 037
2015–16							
September	21 023	12 125	33 147	15 514	2 066	15 572	33 147
December	20 003	11 999	32 001	14 057	2 031	15 912	32 001
March	18 567	12 207	30 783	12 529	2 008	16 246	30 783
June	16 975	12 422	29 401	10 957	2 018	16 427	29 401
2016–17							
September	15 524	12 545	27 964	9 507	2 058	16 391	27 964

(a) Reference year for chain volume measures is 2014-15.

4 ACTUAL EXPENDITURE, By type of asset and industry—Percentage change, Chain volume measures(a)

	ASSET			INDUSTRY			
	Buildings and Structures	*Equipment, Plant and Machinery*	*Total*	*Mining*	*Manufacturing*	*Other Selected Industries*	*Total*
Period	%	%	%	%	%	%	%
			ORIGINAL				
2012–13	4.5	–0.2	2.8	13.7	–28.5	–5.2	2.8
2013–14	0.8	–12.1	–3.7	–6.5	–6.8	1.4	–3.7
2014–15	–9.9	1.4	–6.2	–17.0	–8.0	10.9	–6.2
2015–16	–21.8	–8.0	–17.0	–30.7	–4.7	–2.8	–17.0
2014–15							
September	–5.1	–3.9	–4.7	–7.5	–16.4	0.8	–4.7
December	3.9	11.5	6.4	1.9	29.0	9.4	6.4
March	–22.3	–22.8	–22.5	–21.1	–23.5	–24.0	–22.5
June	9.9	21.4	13.9	2.3	9.1	28.8	13.9
2015–16							
September	–12.5	–16.7	–14.1	–13.9	–5.5	–15.3	–14.1
December	9.6	14.7	11.4	7.9	12.6	14.8	11.4
March	–24.9	–21.2	–23.5	–29.5	–26.4	–17.6	–23.5
June	2.5	32.4	13.9	–4.4	35.6	25.9	13.9
2016–17							
September	–10.3	–12.8	–11.4	–11.2	–16.6	–10.9	–11.4
			SEASONALLY ADJUSTED				
2014–15							
September	–1.4	6.9	1.3	–3.5	–4.4	9.0	1.3
December	–5.0	–1.1	–3.7	–8.2	9.7	0.4	–3.7
March	–6.6	–1.2	–4.7	–4.1	–7.6	–5.1	–4.7
June	–4.3	–4.0	–4.2	–10.0	–6.9	3.0	–4.2
2015–16							
September	–8.3	–6.7	–7.7	–10.1	8.1	–7.4	–7.7
December	–0.7	1.7	0.2	–3.5	–4.7	4.5	0.2
March	–8.9	0.6	–5.4	–14.3	–10.8	3.4	–5.4
June	–11.3	4.2	–5.2	–15.5	15.9	0.4	–5.2
2016–17							
September	–5.7	–1.9	–4.0	–7.2	–4.9	–1.9	–4.0
			TREND				
2014–15							
September	–1.9	2.7	–0.4	–3.7	–0.7	4.3	–0.4
December	–4.1	1.0	–2.4	–5.5	–1.0	1.4	–2.4
March	–5.9	–2.0	–4.5	–7.5	–1.7	–1.3	–4.5
June	–5.3	–4.3	–5.0	–8.0	–1.9	–2.0	–5.0
2015–16							
September	–6.3	–3.8	–5.4	–8.0	–2.8	–3.0	–5.4
December	–4.9	–1.0	–3.5	–9.4	–1.7	2.2	–3.5
March	–7.2	1.7	–3.8	–10.9	–1.1	2.1	–3.8
June	–8.6	1.8	–4.5	–12.5	0.5	1.1	–4.5
2016–17							
September	–8.5	1.0	–4.9	–13.2	2.0	–0.2	–4.9

(a) Reference year for chain volume measures is 2014-15.

5 EXPECTED EXPENDITURE AND REALISATION RATIOS, By type of asset—Current Prices

Financial Year	12 months expectation as reported in Jan-Feb of previous financial year (Estimate 1)	12 months expectation as reported in Apr-May of previous financial year (Estimate 2)	12 months expectation as reported in Jul-Aug (Estimate 3)	3 months actual and 9 months expectation as reported in Oct-Nov (Estimate 4)	6 months actual and 6 months expectation as reported in Jan-Feb (Estimate 5)	9 months actual and 3 months expectation as reported in Apr-May (Estimate 6)	12 months actual (Estimate 7)
BUILDINGS AND STRUCTURES ($ million)							
2011–12	92 953	96 292	97 594	107 996	106 796	101 975	98 113
2012–13	119 640	125 271	126 439	117 631	113 418	108 037	104 404
2013–14	109 775	114 042	116 782	118 975	118 518	112 018	106 800
2014–15	89 051	96 787	103 842	105 873	101 534	99 060	97 729
2015–16	69 097	70 607	76 759	81 484	78 344	79 159	77 111
2016–17	50 563	56 541	64 424	64 041	nya	nya	nya
BUILDINGS AND STRUCTURES (Realisation Ratio)(a)							
2011–12	1.06	1.02	1.01	0.91	0.92	0.96	1.00
2012–13	0.87	0.83	0.83	0.89	0.92	0.97	1.00
2013–14	0.97	0.94	0.91	0.90	0.90	0.95	1.00
2014–15	1.10	1.01	0.94	0.92	0.96	0.99	1.00
2015–16	1.12	1.09	1.00	0.95	0.98	0.97	1.00
EQUIPMENT, PLANT AND MACHINERY ($ million)							
2011–12	41 920	43 815	52 710	57 184	54 905	56 983	56 728
2012–13	46 252	48 185	52 841	52 596	52 891	54 751	56 126
2013–14	41 490	41 649	44 838	46 727	48 467	51 100	51 158
2014–15	36 326	41 273	46 105	46 221	49 264	50 754	52 925
2015–16	33 474	33 893	38 944	43 238	44 901	48 023	50 581
2016–17	33 374	34 768	41 175	42 884	nya	nya	nya
EQUIPMENT, PLANT AND MACHINERY (Realisation Ratio)(a)							
2011–12	1.35	1.29	1.08	0.99	1.03	1.00	1.00
2012–13	1.21	1.16	1.06	1.07	1.06	1.03	1.00
2013–14	1.23	1.23	1.14	1.09	1.06	1.00	1.00
2014–15	1.46	1.28	1.15	1.15	1.07	1.04	1.00
2015–16	1.51	1.49	1.30	1.17	1.13	1.05	1.00
TOTAL ($ million)							
2011–12	134 874	140 108	150 305	165 180	161 701	158 958	154 841
2012–13	165 892	173 457	179 279	170 227	166 308	162 789	160 530
2013–14	151 265	155 691	161 621	165 702	166 985	163 118	157 958
2014–15	125 378	138 060	149 948	152 094	150 798	149 814	150 655
2015–16	102 571	104 499	115 704	124 722	123 245	127 182	127 692
2016–17	83 937	91 309	105 599	106 926	nya	nya	nya
TOTAL (Realisation Ratio)(a)							
2011–12	1.15	1.11	1.03	0.94	0.96	0.97	1.00
2012–13	0.97	0.93	0.90	0.94	0.97	0.99	1.00
2013–14	1.04	1.01	0.98	0.95	0.95	0.97	1.00
2014–15	1.20	1.09	1.00	0.99	1.00	1.01	1.00
2015–16	1.24	1.22	1.10	1.02	1.04	1.00	1.00
TOTAL (Percentage change over corresponding estimate for previous financial year)							
2011–12	32.5	31.4	19.7	32.7	25.1	28.3	29.7
2012–13	23.0	23.8	19.3	3.1	2.8	2.4	3.7
2013–14	–8.8	–10.2	–9.8	–2.7	0.4	0.2	–1.6
2014–15	–17.1	–11.3	–7.2	–8.2	–9.7	–8.2	–4.6
2015–16	–18.2	–24.3	–22.8	–18.0	–18.3	–15.1	–15.2
2016–17	–18.2	–12.6	–8.7	–14.3	nya	nya	nya

nya not yet available

(a) Ratio of actual expenditure for the financial year to each progressive estimate for the financial year. See paragraphs 26 to 29 of the Explanatory Notes.

6 EXPECTED EXPENDITURE AND REALISATION RATIOS, By industry—Current prices

Financial Year	12 months expectation as reported in Jan-Feb of previous financial year (Estimate 1)	12 months expectation as reported in Apr-May of previous financial year (Estimate 2)	12 months expectation as reported in Jul-Aug (Estimate 3)	3 months actual and 9 months expectation as reported in Oct-Nov (Estimate 4)	6 months actual and 6 months expectation as reported in Jan-Feb (Estimate 5)	9 months actual and 3 months expectation as reported in Apr-May (Estimate 6)	12 months actual (Estimate 7)
MINING ($ million)							
2011–12	79 004	82 380	84 137	93 377	92 248	86 370	81 997
2012–13	113 396	119 290	118 984	108 065	103 622	97 587	94 710
2013–14	99 224	101 482	103 379	103 608	102 528	95 365	90 393
2014–15	74 199	80 201	85 927	85 327	80 752	77 832	76 117
2015–16	53 820	53 058	54 991	60 110	55 251	55 696	53 389
2016–17	34 143	36 438	41 224	39 896	nya	nya	nya
MINING (Realisation Ratio)(a)							
2011–12	1.04	1.00	0.97	0.88	0.89	0.95	1.00
2012–13	0.84	0.79	0.80	0.88	0.91	0.97	1.00
2013–14	0.91	0.89	0.87	0.87	0.88	0.95	1.00
2014–15	1.03	0.95	0.89	0.89	0.94	0.98	1.00
2015–16	0.99	1.01	0.97	0.89	0.97	0.96	1.00
MANUFACTURING ($ million)							
2011–12	11 545	11 867	13 476	13 810	13 812	13 330	13 226
2012–13	10 353	10 394	11 414	10 074	9 204	9 700	9 470
2013–14	7 838	8 304	8 592	9 422	9 059	9 524	9 229
2014–15	6 814	7 234	8 053	8 386	8 470	8 703	8 628
2015–16	6 021	6 410	7 931	8 199	8 244	8 468	8 566
2016–17	6 563	7 269	8 499	8 504	nya	nya	nya
MANUFACTURING (Realisation Ratio)(a)							
2011–12	1.15	1.11	0.98	0.96	0.96	0.99	1.00
2012–13	0.91	0.91	0.83	0.94	1.03	0.98	1.00
2013–14	1.18	1.11	1.07	0.98	1.02	0.97	1.00
2014–15	1.27	1.19	1.07	1.03	1.02	0.99	1.00
2015–16	1.42	1.34	1.08	1.04	1.04	1.01	1.00
OTHER SELECTED INDUSTRIES ($ million)							
2011–12	44 324	45 861	52 692	57 992	55 641	59 258	59 618
2012–13	42 143	43 772	48 882	52 088	53 482	55 502	56 350
2013–14	44 203	45 905	49 650	52 672	55 398	58 228	58 336
2014–15	44 364	50 624	55 968	58 381	61 576	63 280	65 910
2015–16	42 730	45 032	52 781	56 413	59 750	63 019	65 737
2016–17	43 231	47 602	55 877	58 526	nya	nya	nya
OTHER SELECTED INDUSTRIES (Realisation Ratio)(a)							
2011–12	1.35	1.30	1.13	1.03	1.07	1.01	1.00
2012–13	1.34	1.29	1.15	1.08	1.05	1.02	1.00
2013–14	1.32	1.27	1.17	1.11	1.05	1.00	1.00
2014–15	1.49	1.30	1.18	1.13	1.07	1.04	1.00
2015–16	1.54	1.46	1.25	1.17	1.10	1.04	1.00

nya not yet available

(a) Ratio of actual expenditure for the financial year to each progressive estimate for the financial year. See paragraphs 26 to 29 of the Explanatory Notes.

7 RATIOS OF ACTUAL TO SHORT TERM EXPECTATIONS(a), By type of asset and industry—Current prices

Financial Year	3 MONTHS ENDING 31 December (collected in September Survey)	3 MONTHS ENDING 30 June (collected in March Survey)	6 MONTHS ENDING 31 December (collected in June Survey)	6 MONTHS ENDING 30 June (collected in December survey)
TYPE OF ASSET				
Buildings and Structures				
2011–12	0.88	0.88	0.99	0.86
2012–13	0.90	0.88	0.87	0.85
2013–14	0.93	0.84	0.95	0.81
2014–15	0.93	0.95	0.97	0.92
2015–16	0.88	0.89	0.97	0.97
Equipment, Plant and Machinery				
2011–12	0.94	0.98	1.05	1.07
2012–13	1.04	1.10	1.07	1.14
2013–14	1.08	1.00	1.16	1.12
2014–15	1.15	1.18	1.15	1.17
2015–16	1.13	1.22	1.28	1.30
Total				
2011–12	0.90	0.91	1.01	0.92
2012–13	0.95	0.95	0.93	0.93
2013–14	0.97	0.89	1.01	0.89
2014–15	0.99	1.02	1.03	1.00
2015–16	0.96	1.02	1.07	1.08
TYPE OF INDUSTRY				
Mining				
2011–12	0.85	0.85	0.94	0.81
2012–13	0.91	0.89	0.84	0.83
2013–14	0.93	0.82	0.93	0.77
2014–15	0.89	0.91	0.93	0.88
2015–16	0.84	0.83	0.96	0.92
Manufacturing				
2011–12	0.91	0.97	0.97	0.91
2012–13	0.84	0.91	0.88	1.06
2013–14	0.95	0.89	1.10	1.04
2014–15	0.97	0.97	1.07	1.04
2015–16	1.00	1.04	1.04	1.09
Other selected industries				
2011–12	0.97	1.02	1.12	1.16
2012–13	1.05	1.06	1.14	1.12
2013–14	1.06	1.01	1.15	1.11
2014–15	1.15	1.17	1.18	1.16
2015–16	1.10	1.18	1.20	1.22
Total				
2011–12	0.90	0.91	1.01	0.92
2012–13	0.95	0.95	0.93	0.93
2013–14	0.97	0.89	1.01	0.89
2014–15	0.99	1.02	1.03	1.00
2015–16	0.96	1.02	1.07	1.08

(a) For more information on Realisation Ratios see paragraphs 26 to 29 of the Explanatory Notes.

8 ACTUAL EXPENDITURE ON BUILDINGS AND STRUCTURES, By state—Current prices

Period	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
ORIGINAL									
2012–13	10 134	7 082	31 667	2 912	45 035	353	6 799	421	104 404
2013–14	9 606	6 822	34 064	3 346	46 060	248	6 337	318	106 800
2014–15	11 185	7 145	23 268	3 273	46 395	272	5 831	360	97 729
2015–16	11 669	7 338	14 173	2 549	35 658	357	4 991	376	77 111
2014–15									
September	2 796	1 540	7 160	^1 000	11 874	*72	1 630	76	26 147
December	3 164	1 988	6 964	^1 059	12 298	69	1 568	89	27 199
March	2 247	1 667	4 375	639	10 763	44	1 317	88	21 141
June	2 978	1 950	4 769	^576	11 459	87	1 316	107	23 242
2015–16									
September	2 444	1 757	3 953	^596	10 104	77	1 359	101	20 391
December	3 072	1 922	4 471	^749	10 793	105	1 331	90	22 533
March	2 791	1 667	2 784	^572	7 859	76	1 067	81	16 896
June	3 361	1 993	2 965	^632	6 902	^100	1 234	^104	17 291
2016–17									
September	2 532	2 028	3 138	^598	5 914	78	1 152	96	15 536
SEASONALLY ADJUSTED									
2014–15									
September	2 896	1 551	7 063	1 002	12 059	np	np	np	26 431
December	2 945	1 851	6 291	950	11 485	np	np	np	25 136
March	2 497	1 857	5 109	738	11 733	np	np	np	23 497
June	2 782	1 878	4 677	567	11 144	np	np	np	22 511
2015–16									
September	2 573	1 778	3 887	597	10 358	np	np	np	20 681
December	2 849	1 786	4 027	668	9 980	np	np	np	20 721
March	3 100	1 857	3 269	661	8 557	np	np	np	18 872
June	3 125	1 913	2 907	624	6 730	np	np	np	16 717
2016–17									
September	2 689	2 062	3 079	599	6 094	np	np	np	15 791
TREND									
2014–15									
September	2 848	1 721	7 104	985	11 733	65	1 588	79	26 159
December	2 821	1 782	6 189	906	11 797	62	1 510	84	25 128
March	2 709	1 844	5 268	749	11 542	63	1 394	95	23 671
June	2 625	1 856	4 571	623	11 136	73	1 341	101	22 452
2015–16									
September	2 688	1 807	4 112	599	10 600	85	1 314	98	21 110
December	2 884	1 797	3 728	636	9 676	90	1 267	92	20 157
March	3 004	1 850	3 371	651	8 431	89	1 199	90	18 757
June	3 003	1 937	3 087	632	7 115	89	1 162	94	17 153
2016–17									
September	2 881	2 025	2 878	606	6 060	88	1 153	99	15 686

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

np not available for publication but included in totals where applicable, unless otherwise indicated

ACTUAL EXPENDITURE ON EQUIPMENT, PLANT AND MACHINERY, By state—Current prices

Period	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
ORIGINAL									
2012–13	13 974	11 146	13 404	2 626	13 134	673	645	525	56 126
2013–14	13 682	11 029	12 082	2 671	9 886	596	859	353	51 158
2014–15	15 819	11 501	11 732	2 975	8 717	623	1 166	393	52 925
2015–16	16 585	12 324	9 884	2 694	7 502	587	585	419	50 581
2014–15									
September	3 765	2 647	2 878	657	2 340	^ 147	^ 326	*133	12 893
December	4 258	3 044	3 091	^ 873	2 571	181	352	*88	14 458
March	3 421	2 494	^ 2 609	^ 618	1 839	^ 126	237	*61	11 406
June	4 375	3 316	3 154	827	1 967	^ 169	251	^ 111	14 169
2015–16									
September	3 630	2 921	2 529	^ 663	1 796	150	184	^ 145	12 018
December	4 574	3 385	2 572	^ 764	2 081	152	134	^ 99	13 760
March	3 702	2 653	1 915	^ 567	1 609	^ 119	*97	65	10 728
June	4 680	3 365	2 868	699	2 016	^ 166	^ 170	^ 110	14 075
2016–17									
September	4 585	2 907	2 275	565	1 475	^ 133	108	^ 118	12 166
SEASONALLY ADJUSTED									
2014–15									
September	3 799	2 744	3 034	711	2 425	np	np	np	13 297
December	3 868	2 809	2 910	766	2 339	np	np	np	13 218
March	3 938	2 905	2 937	710	2 119	np	np	np	13 331
June	4 209	3 022	2 901	774	1 838	np	np	np	13 080
2015–16									
September	3 660	3 038	2 662	720	1 875	np	np	np	12 414
December	4 159	3 129	2 428	668	1 886	np	np	np	12 595
March	4 258	3 091	2 334	658	1 851	np	np	np	12 554
June	4 498	3 055	2 437	651	1 880	np	np	np	12 944
2016–17									
September	4 630	3 036	2 390	614	1 548	np	np	np	12 602
TREND									
2014–15									
September	3 711	2 774	2 912	715	2 411	142	290	93	13 072
December	3 891	2 825	2 962	738	2 287	152	312	90	13 292
March	3 989	2 903	2 946	751	2 105	161	293	93	13 262
June	3 967	2 998	2 839	743	1 928	157	237	102	12 956
2015–16									
September	3 958	3 068	2 659	718	1 853	150	175	109	12 647
December	4 050	3 099	2 470	686	1 875	144	138	104	12 535
March	4 265	3 091	2 388	657	1 865	145	130	97	12 641
June	4 484	3 066	2 382	640	1 778	148	130	96	12 735
2016–17									
September	4 617	3 038	2 400	626	1 661	150	126	99	12 746

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

np not available for publication but included in totals where applicable, unless otherwise indicated

10 ACTUAL TOTAL EXPENDITURE, By state—Current prices

Period	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
ORIGINAL									
2012–13	24 108	18 228	45 072	5 537	58 169	1 026	7 444	946	160 530
2013–14	23 287	17 850	46 147	6 017	55 946	844	7 196	672	157 958
2014–15	27 004	18 646	35 000	6 249	55 112	895	6 996	753	150 655
2015–16	28 254	19 661	24 057	5 242	43 160	944	5 577	795	127 692
2014–15									
September	6 561	4 187	10 038	^1 657	14 214	^219	1 955	*209	39 039
December	7 422	5 032	10 055	1 931	14 869	250	1 921	^177	41 657
March	5 668	4 162	6 984	1 258	12 603	^170	1 554	^149	32 547
June	7 353	5 266	7 923	1 403	13 426	^256	1 566	218	37 411
2015–16									
September	6 074	4 677	6 482	1 260	11 900	227	1 543	246	32 409
December	7 646	5 306	7 042	1 513	12 874	257	1 465	189	36 293
March	6 493	4 320	4 700	^1 139	9 468	^195	1 164	146	27 624
June	8 041	5 358	5 833	1 331	8 918	266	1 404	^214	31 366
2016–17									
September	7 117	4 935	5 414	1 163	7 389	210	1 260	215	27 702
SEASONALLY ADJUSTED									
2014–15									
September	6 695	4 295	10 097	1 713	14 484	239	1 940	189	39 728
December	6 813	4 660	9 200	1 716	13 824	210	1 891	177	38 355
March	6 435	4 762	8 046	1 448	13 852	208	1 603	165	36 828
June	6 991	4 901	7 577	1 340	12 981	241	1 560	216	35 592
2015–16									
September	6 234	4 816	6 549	1 317	12 233	245	1 532	221	33 096
December	7 008	4 916	6 455	1 335	11 866	219	1 455	191	33 316
March	7 359	4 948	5 604	1 319	10 408	235	1 185	165	31 426
June	7 623	4 968	5 344	1 275	8 610	250	1 399	211	29 661
2016–17									
September	7 319	5 098	5 469	1 213	7 642	227	1 253	193	28 393
TREND									
2014–15									
September	6 559	4 495	10 017	1 701	14 143	207	1 878	171	39 231
December	6 712	4 607	9 152	1 645	14 084	214	1 822	174	38 419
March	6 699	4 747	8 214	1 500	13 647	224	1 687	188	36 934
June	6 592	4 855	7 410	1 366	13 064	230	1 578	203	35 408
2015–16									
September	6 646	4 875	6 771	1 316	12 452	235	1 488	207	33 757
December	6 934	4 896	6 198	1 323	11 551	234	1 404	196	32 692
March	7 269	4 941	5 758	1 308	10 295	234	1 329	187	31 397
June	7 487	5 003	5 469	1 272	8 894	237	1 292	190	29 889
2016–17									
September	7 497	5 063	5 278	1 232	7 721	238	1 279	198	28 428

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

11 ACTUAL EXPENDITURE ON BUILDINGS AND STRUCTURES, By state—Chain volume measures(a)

Period	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
ORIGINAL									
2012–13	10 500	7 232	32 921	2 976	46 106	353	7 070	436	107 545
2013–14	9 802	6 901	34 754	3 367	46 586	248	6 507	323	108 433
2014–15	11 185	7 145	23 268	3 273	46 395	272	5 831	360	97 729
2015–16	11 386	7 320	13 942	2 528	35 495	350	4 990	370	76 381
2014–15									
September	2 809	1 544	7 181	1 002	11 882	72	1 632	76	26 194
December	3 174	1 989	6 993	1 058	12 276	69	1 557	90	27 203
March	2 246	1 665	4 355	638	10 768	44	1 315	87	21 125
June	2 956	1 947	4 738	575	11 469	87	1 327	107	23 208
2015–16									
September	2 393	1 757	3 920	593	10 104	76	1 365	100	20 308
December	3 004	1 912	4 393	744	10 689	103	1 320	89	22 254
March	2 725	1 660	2 725	567	7 811	74	1 061	79	16 702
June	3 265	1 991	2 903	624	6 891	97	1 244	102	17 117
2016–17									
September	2 447	2 039	3 073	589	5 875	75	1 165	94	15 358
SEASONALLY ADJUSTED									
2014–15									
September	2 925	1 557	7 117	1 009	12 060	np	np	np	26 512
December	2 972	1 854	6 355	955	11 455	np	np	np	25 180
March	2 512	1 856	5 119	741	11 730	np	np	np	23 520
June	2 776	1 878	4 677	569	11 149	np	np	np	22 518
2015–16									
September	2 528	1 781	3 878	595	10 361	np	np	np	20 639
December	2 792	1 778	3 981	664	9 891	np	np	np	20 502
March	3 029	1 850	3 219	655	8 515	np	np	np	18 672
June	3 037	1 912	2 863	615	6 727	np	np	np	16 568
2016–17									
September	2 600	2 074	3 033	589	6 061	np	np	np	15 626
TREND									
2014–15									
September	2 881	1 726	7 179	991	11 729	65	1 594	79	26 260
December	2 847	1 783	6 234	912	11 780	62	1 505	84	25 174
March	2 722	1 846	5 289	753	11 538	63	1 392	95	23 699
June	2 615	1 856	4 572	624	11 134	73	1 345	101	22 438
2015–16									
September	2 651	1 805	4 091	597	10 576	84	1 315	97	21 023
December	2 825	1 792	3 691	632	9 630	89	1 263	91	20 003
March	2 931	1 845	3 324	645	8 376	88	1 197	89	18 567
June	2 920	1 937	3 038	623	7 081	87	1 167	92	16 975
2016–17									
September	2 793	2 033	2 833	595	6 135	86	1 165	97	15 524

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Reference year for chain volume measures is 2014-15.

12 ACTUAL EXPENDITURE ON EQUIPMENT, PLANT AND MACHINERY, By state—Chain volume measures(a)

Period	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
ORIGINAL									
2012–13	14 706	11 722	14 201	2 796	14 038	712	689	543	59 378
2013–14	13 955	11 254	12 322	2 731	10 067	607	874	359	52 171
2014–15	15 819	11 501	11 732	2 975	8 717	623	1 166	393	52 925
2015–16	16 008	11 891	9 511	2 581	7 155	564	559	406	48 675
2014–15									
September	3 844	2 702	2 938	672	2 385	150	332	135	13 160
December	4 327	3 091	3 137	888	2 600	183	356	89	14 671
March	3 397	2 484	2 595	612	1 825	126	234	61	11 333
June	4 250	3 224	3 062	804	1 907	164	243	108	13 761
2015–16									
September	3 467	2 786	2 416	629	1 707	143	175	138	11 461
December	4 375	3 249	2 459	727	1 966	144	127	96	13 143
March	3 597	2 561	1 845	546	1 540	115	92	63	10 359
June	4 570	3 294	2 792	680	1 942	161	165	109	13 712
2016–17									
September	4 525	2 864	2 230	551	1 428	130	105	118	11 951
SEASONALLY ADJUSTED									
2014–15									
September	3 877	2 804	3 083	729	2 466	np	np	np	13 561
December	3 933	2 857	2 936	783	2 364	np	np	np	13 408
March	3 915	2 898	2 906	707	2 103	np	np	np	13 246
June	4 094	2 942	2 807	756	1 784	np	np	np	12 711
2015–16									
September	3 498	2 902	2 542	684	1 783	np	np	np	11 855
December	3 980	3 008	2 327	635	1 784	np	np	np	12 055
March	4 138	2 988	2 259	631	1 774	np	np	np	12 126
June	4 392	2 993	2 384	631	1 814	np	np	np	12 639
2016–17									
September	4 570	2 994	2 355	596	1 501	np	np	np	12 404
TREND									
2014–15									
September	3 783	2 830	2 955	731	2 444	143	294	95	13 307
December	3 939	2 866	2 981	751	2 308	153	314	92	13 439
March	3 967	2 890	2 913	749	2 091	160	292	94	13 176
June	3 860	2 922	2 754	724	1 872	152	232	101	12 604
2015–16									
September	3 799	2 947	2 548	686	1 766	143	168	107	12 125
December	3 885	2 973	2 366	653	1 780	136	132	102	11 999
March	4 131	2 992	2 309	629	1 782	138	125	96	12 207
June	4 386	2 997	2 327	619	1 713	142	127	96	12 422
2016–17									
September	4 537	2 992	2 362	609	1 617	145	124	100	12 545

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Reference year for chain volume measures is 2014-15.

13 ACTUAL TOTAL EXPENDITURE, By state—Chain volume measures(a)

Period	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
ORIGINAL									
2012–13	25 207	18 954	47 086	5 767	59 993	1 067	7 762	979	166 805
2013–14	23 757	18 154	47 075	6 101	56 646	855	7 378	682	160 622
2014–15	27 004	18 646	35 000	6 249	55 112	895	6 996	753	150 655
2015–16	27 395	19 211	23 453	5 109	42 650	913	5 549	777	125 056
2014–15									
September	6 654	4 245	10 118	1 677	14 267	222	1 964	211	39 353
December	7 501	5 080	10 130	1 946	14 874	252	1 913	179	41 874
March	5 643	4 150	6 951	1 249	12 594	170	1 549	148	32 459
June	7 206	5 171	7 801	1 377	13 377	251	1 570	215	36 968
2015–16									
September	5 860	4 544	6 335	1 222	11 811	219	1 540	239	31 769
December	7 379	5 161	6 852	1 471	12 655	247	1 448	185	35 397
March	6 321	4 222	4 571	1 113	9 351	188	1 153	143	27 062
June	7 835	5 285	5 695	1 303	8 833	259	1 409	210	30 829
2016–17									
September	6 972	4 903	5 304	1 140	7 303	205	1 270	211	27 309
SEASONALLY ADJUSTED									
2014–15									
September	6 802	4 360	10 195	1 739	14 525	241	1 948	192	40 071
December	6 904	4 712	9 290	1 739	13 818	211	1 884	180	38 591
March	6 427	4 756	8 030	1 448	13 835	207	1 599	166	36 773
June	6 871	4 819	7 485	1 322	12 933	236	1 565	215	35 219
2015–16									
September	6 024	4 684	6 426	1 279	12 146	236	1 530	217	32 494
December	6 771	4 785	6 309	1 298	11 674	209	1 439	188	32 557
March	7 168	4 839	5 476	1 286	10 291	226	1 175	163	30 797
June	7 430	4 903	5 243	1 246	8 538	242	1 406	209	29 208
2016–17									
September	7 173	5 068	5 385	1 186	7 562	220	1 265	192	28 030
TREND									
2014–15									
September	6 664	4 557	10 129	1 723	14 172	208	1 887	174	39 569
December	6 785	4 649	9 214	1 664	14 088	215	1 820	176	38 616
March	6 689	4 736	8 204	1 502	13 629	223	1 684	189	36 876
June	6 475	4 778	7 330	1 347	13 007	225	1 576	202	35 037
2015–16									
September	6 449	4 752	6 642	1 283	12 343	227	1 483	204	33 147
December	6 710	4 765	6 058	1 285	11 411	225	1 394	193	32 001
March	7 061	4 837	5 633	1 274	10 168	226	1 322	185	30 783
June	7 306	4 934	5 363	1 242	8 799	229	1 294	189	29 401
2016–17									
September	7 342	5 017	5 192	1 204	7 663	231	1 292	197	27 964

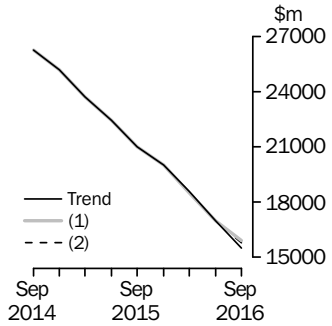
(a) Reference year for chain volume measures is 2014-15.

EFFECT OF NEW SEASONALLY ADJUSTED ESTIMATES ON TREND ESTIMATES

TREND REVISIONS

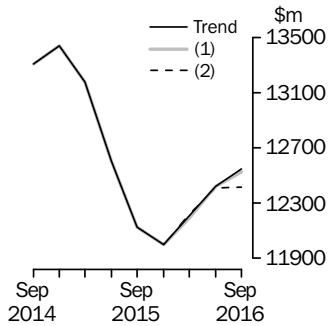
Recent seasonally adjusted and trend estimates are likely to be revised when original estimates for subsequent quarters become available. The approximate effects of possible scenarios on trend estimates for capital expenditure in chain volume terms are presented below by illustrating the impact if next quarter's seasonally adjusted estimate rises or falls by a specified percentage (based on the historical average of movements in seasonally adjusted estimates). For further information, see paragraphs 41 and 42 in the Explanatory Notes.

BUILDINGS AND STRUCTURES



	Trend as published		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE: (1) rises by 2.1% on this quarter		(2) falls by 2.1% on this quarter	
	$m	%	$m	%	$m	%
2015						
December	20 003	–4.9	20 003	–4.9	20 003	–4.9
2016						
March	18 567	–7.2	18 499	–7.5	18 525	–7.4
June	16 975	–8.6	16 991	–8.2	16 981	–8.3
September	15 524	–8.5	15 920	–6.3	15 796	–7.0

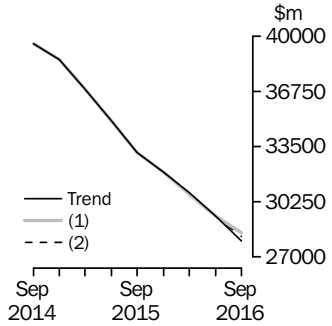
EQUIPMENT, PLANT AND MACHINERY



	Trend as published		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE: (1) rises by 1.9% on this quarter		(2) falls by 1.9% on this quarter	
	$m	%	$m	%	$m	%
2015						
December	11 999	–1.0	11 999	–1.0	11 999	–1.0
2016						
March	12 207	1.7	12 194	1.6	12 217	1.8
June	12 422	1.8	12 420	1.9	12 412	1.6
September	12 545	1.0	12 527	0.9	12 418	—

— nil or rounded to zero (including null cells)

TOTAL CAPITAL EXPENDITURE



	Trend as published		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE: (1) rises by 2.0% on this quarter		(2) falls by 2.0% on this quarter	
	$m	%	$m	%	$m	%
2015						
December	32 001	–3.5	32 001	–3.5	32 001	–3.5
2016						
March	30 783	–3.8	30 694	–4.1	30 742	–3.9
June	29 401	–4.5	29 428	–4.1	29 412	–4.3
September	27 964	–4.9	28 455	–3.3	28 223	–4.0

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains estimates of actual and expected new capital expenditure by private businesses for selected industries in Australia. The series have been compiled from data collected by the Australian Bureau of Statistics (ABS) in its quarterly Survey of New Capital Expenditure.

SCOPE OF THE SURVEY

2 The Survey of New Capital Expenditure includes the following industries classified according to the Australian and New Zealand Standard Industrial Classification, ANZSIC, 2006:

Mining (Division B)
Manufacturing (Division C)
Other selected industries:
- Electricity, Gas, Water and Waste Services (Division D)
- Construction (Division E)
- Wholesale Trade (Division F)
- Transport, Postal and Warehousing (Division I)
- Information Media and Telecommunications (Division J)
- Finance and Insurance (Division K, excluding ANZSIC class 6330, Superannuation Funds)
- Rental, Hiring and Real Estate Services (Division L)
- Professional, Scientific and Technical Services (Division M)
- Other selected services:
  - Accommodation and Food Services (Division H)
  - Administrative and Support Services (Division N)
  - Arts and Recreation Services (Division R)
  - Other Services (Division S)

3 The survey excludes the following industries:

Agriculture, Forestry and Fishing (Division A)
Public Administration and Safety (Division O)
Education and Training (Division P)
Health Care and Social Assistance (Division Q)
Superannuation Funds (Class 6330)

4 The scope excludes public sector business units (i.e. all departments, authorities and other organisations owned and controlled by Commonwealth, State and Local Government).

5 The Survey of New Capital Expenditure, like most ABS economic collections, takes its frame from Employing and Non-Employing Units on the ABS Business Register which is primarily based on ABN registrations to the Australian Business Register, which is managed by the Australian Taxation Office (ATO). The frame is updated quarterly to take account of new businesses and changes in the characteristics of businesses, such as industry and size.

6 Businesses which have ceased employing are identified when the Australian Taxation Office (ATO) cancels their Australian Business Number (ABN) registration. In addition, businesses which do not remit for Goods and Services Tax and/or Income Tax Withholding purposes for the previous five quarters, are removed from the frame.

7 As noted, the Survey frame includes Employing and Non-Employing Units on the ABS Business Register. However, micro non-employing businesses are excluded. These are very small units on the ABS Business Register, by standard measures of size. While there are a substantial number of these businesses, it is expected that they would not contribute significantly to the estimates, although the impact would vary from industry to industry.

STATISTICAL UNIT

8 In the Survey of New Capital Expenditure, the statistical unit used to represent businesses, and for which statistics are reported, is the Australian Business Number (ABN) unit, in most cases. The ABN unit is the business unit which has registered for an ABN, and thus appears on the ATO administered Australian Business Register. This unit is suitable for ABS statistical needs when the business is simple in structure.

9 For more significant and diverse businesses where the ABN unit is not suitable for ABS statistical needs, the statistical unit used is the Type of Activity Unit (TAU). A TAU is comprised of one or more business entities, sub-entities or branches of a business entity within an Enterprise Group that can report production and employment data for similar economic activities. When a minimum set of data items is available, a TAU is created which covers all the operations within an industry subdivision (and the TAU is classified to the relevant subdivision of the Australian and New Zealand Standard Industrial Classification (ANZSIC)). Where a business cannot supply adequate data for each industry, a TAU is formed which contains activity in more than one industry subdivision and the TAU is classified to the predominant ANZSIC subdivision. Further details about the ABS economic statistical units used in this survey, and in other ABS economic surveys (both sample surveys and censuses), can be found in Chapter 2 of the Standard Economic Sector Classifications of Australia (SESCA) 2008 (cat. no. 1218.0).

SURVEY METHODOLOGY

10 The survey is conducted on a quarterly basis. It is based on a random sample of approximately 8,800 units which is stratified by industry, state/territory and derived employment size. The figures obtained from the selected units are supplemented by data from units which have large capital expenditure and are outside the sample framework, or not adequately covered by it.

11 Respondents are asked to provide data on the same basis as their own management accounts. Where a selected unit does not respond in a given survey period, a value is estimated. If data are subsequently provided, the estimated value is replaced with reported data. Aggregates are calculated from all data using the 'number raised' estimation technique. Data are edited at both individual unit level and at aggregate level.

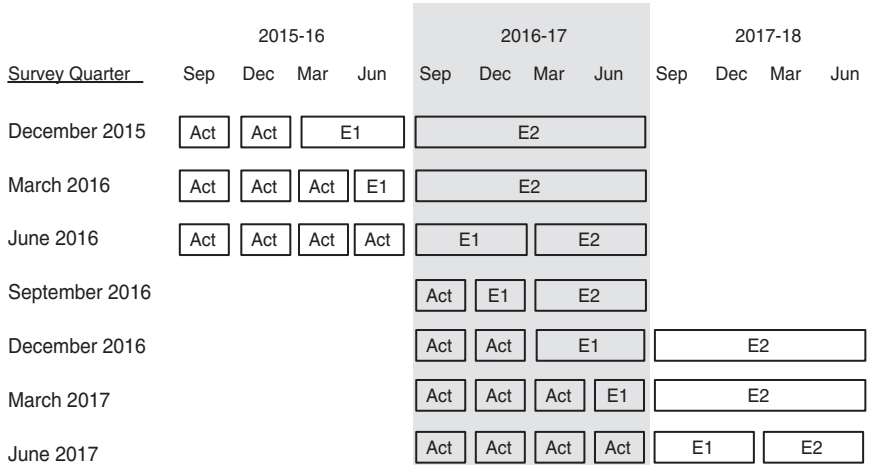
TIMING AND CONSTRUCTION OF SURVEY CYCLE

12 Surveys are conducted in respect of each quarter and returns are completed in the 8 or 9 week period after the end of the quarter to which the survey data relate (e.g. September quarter survey returns are completed during October and November).

13 Businesses are requested to provide 3 basic figures each survey:

- Actual expenditure incurred during the reference period *(Act)*
- A short term expectation *(E1)* and a longer term expectation *(E2)*.

Period to which reported data relates



TIMING AND CONSTRUCTION OF SURVEY CYCLE *continued*

14 This survey cycle facilitates the formation of estimates of expenditure for financial years (12 months ending 30 June) which are presented in tables 5 and 6 of this publication. For example, as the previous table shows for 2016-2017:

- the first estimate was available from the December 2015 survey as a longer term expectation (E2)
- the second estimate was available from the March 2016 survey (again as a longer term expectation)
- the third estimate was available from the June 2016 survey as the sum of two expectations (E1 + E2)
- in the September 2016, December 2016 and March 2017 surveys the fourth, fifth and sixth estimates, respectively, are derived from the sum of actual expenditure (for that part of the year completed) and expected expenditure (for the remainder of the year) as recorded in the current quarter's survey
- the final (or seventh) estimate from the June quarter 2017 survey is derived from the sum of the actual expenditure for each of the four quarters in the 2016–17 financial year.

15 Businesses are requested to provide actual expenditure data by state/territory each quarter. Prior to 2002, businesses were also asked to provide expected expenditure data by state/territory each December quarter. Since 2002 state/territory expectations data for businesses which operate in more than one state or territory are pro-rated to states/territories based on actual expenditure for the December quarter in each state or territory. Expectations data for businesses operating within a single state/territory are allocated to that state/territory. Expectations for businesses which report no actual expenditure for the December quarter are split equally among the states in which the businesses are known to operate.

16 These expectations data by state/territory are not included in this publication but are released on the ABS Website.

SAMPLE REVISION

17 The survey frames and samples are revised each quarter to ensure that they remain representative of the survey population. The timing for creating each quarter's survey frame is consistent with that of other ABS business surveys. This provides for greater consistency when comparing data across surveys.

18 Additionally, with these revisions to the sample, some of the units from the sampled sector are rotated out of the survey and are replaced by others to spread the reporting workload equitably.

19 Adjustments are included in the estimates to allow for lags in processing new businesses to the ABS Business Register, and the omission of some businesses from the register. The majority of businesses affected and to which adjustments apply are small in size. As an indication of the size of these adjustments, in the September quarter 2016 they represented about 0.81% of the total estimate of actual new capital expenditure.

CLASSIFICATION BY INDUSTRY

20 The Australian and New Zealand Standard Industrial Classification (ANZSIC) has been developed for use in both countries for the production and analysis of industry statistics. For more information, users are referred to *Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006* (cat. no. 1292.0).

21 In order to classify new capital expenditure by industry, each statistical unit (as defined above) is classified to the (ANZSIC) industry in which it mainly operates.

CHAIN VOLUME MEASURES

22 The chain volume measures appearing in this publication are annually reweighted chain Laspeyres indexes referenced to current price values in the chosen reference year (currently 2014-15). The current price values may be thought to be the product of a price and quantity. The value in chain volume terms can be derived by linking together movements in volumes, calculated using the average prices of the previous financial year

CHAIN VOLUME MEASURES *continued*

and applying compound movements to the current price estimates of the reference year. Each year's quarter-to-quarter growth rates in the chain volume series are based on the prices of the previous financial year, except for those quarters of the latest incomplete year which are based upon the second most recent financial year. Quarterly chain volume estimates for a financial year sum to the corresponding annual estimate.

23 With each release of the September quarter issue of this publication, a new base year is introduced and the reference year is advanced one year to coincide with it. With the release of the September quarter 2016 issue of this publication, the chain volume measures currently have 2014-15 as their base year rather than 2013-14.

24 A change in the reference year changes levels but not growth rates for all periods. A change in the base year can result in revisions, small in most cases, to growth rates for the last year.

25 Chain volume measures are not generally additive. In other words, component chain volume measures do not, in general, sum to a total in the way original current price components do. For capital expenditure data, this means that the original chain volume estimates for the states will not add to total capital expenditure for Australia. In order to minimise the impact of this, the ABS uses the latest base year as the reference year. By adopting this approach, additivity does exist for the quarters following the reference year and non-additivity is relatively small for the quarters in the reference year and those immediately preceding it. For further information on chain volume measures refer to I*nformation Paper: Introduction of Chain Volume Measures in the Australian National Accounts* (cat. no. 5248.0)

DERIVATION AND USEFULNESS OF REALISATION RATIOS

26 Once actual expenditure for a financial year is known, it is useful to investigate the relationship between each of the prior six estimates of expenditure for that financial year and the actual expenditure (see page 7 for an explanation of the derivation of the seven estimates). The resultant realisation ratios (subsequent actual expenditure divided by expected expenditure) then indicate how much expenditure was actually incurred against the amount expected to be incurred at the various times of reporting. Realisation ratios can also be formed separately for three or six month expectations as well as the 12 month E2 estimates or combinations of estimates containing at least some expectation components (e.g. six months actual and six months expected expenditure).

27 Realisation ratios provide an important tool in understanding and interpreting expectation statistics for future periods. The application of realisation ratios enables the adjustment of expectation data for known under (or over) realisation patterns in the past and hence provides a valid basis for comparison with other expectation data and actual expenditure estimates. Once this has been done the predictions can be more validly compared with each other and with previously derived estimates of actual expenditure for earlier years. For example, if one wished to make a prediction about actual expenditure for 2016–17 based on the September 2016 survey results and compare this with 2015-16 expenditure, it is necessary to apply the relevant realisation factors to the expectations to put both estimates on the same basis.

28 There are many ways in which realisation ratios can be applied to make predictions of actual expenditure for a future period. A range of realisation ratios for both type of asset and industry estimates is provided in tables 5 and 6.

29 In using realisation ratios to adjust expectations data, attention should be paid to the range of values that has occurred in the past. A wide range of values is indicative of volatility in the realisation patterns and hence greater caution should be exercised regarding the predictive value of the expectation, even after adjustment by application of realisation ratios. This is particularly the case with the early 12 month expectations for the following financial year collected in the December and March surveys.

RELIABILITY OF THE ESTIMATES

30 Estimates provided in this publication are subject to non-sampling and sampling errors. The most common way of quantifying sampling error is to calculate the standard error for the published estimate. Details of standard errors are included in the appendix of this publication.

31 Estimates that have an estimated relative standard error between 10% and 25% are annotated with the symbol '^' . These estimates should be used with caution as they are subject to sampling variability too high for some purposes. Estimates with an RSE between 25% and 50% are annotated with the symbol '*', indicating that the estimate should be used with caution as it is subject to sampling variability too high for most practical purposes. Estimates with an RSE greater than 50% are annotated with the symbol '**' indicating that the sampling variability causes the estimates to be considered too unreliable for general use. These annotations have only been applied to estimates from the March quarter 2009.

32 Non-sampling errors may arise as a result of errors in the reporting, recording or processing of the data and can occur even if there is a complete enumeration of the population. These errors can be introduced through inadequacies in the questionnaire, treatment of non-response, inaccurate reporting by respondents, errors in the application of survey procedures, incorrect recording of answers, and errors in data entry and processing.

33 Estimates for the latest quarter presented in this publication are considered preliminary and revised estimates will be released with the next issue. As discussed in Paragraphs 37 to 42 below, seasonally adjusted and trend estimates are also subject to revision as data are revised and more data become available.

34 It is difficult to measure the size of non-sampling errors. However, every effort is made in the design of the survey and development of survey procedures to minimise their effects. In addition, respondents may have difficulties in allocating to the appropriate state(s) expenditure on some equipment items such as mobile assets (e.g. aircraft, bulk oil carriers, satellites, off-shore drilling platforms and large computer installations supporting a national network). Where such difficulties exist expenditure is allocated to the state of the businesses' head office or, in the case of aircraft, is allocated across states in proportion to the likely use of the asset.

35 The Australian equivalents to International Financial Reporting Standards (AIFRS) were progressively implemented in Australia from 1 January 2005. As a result, a number of items in the financial accounts of Australian businesses were affected by changed definitions which in turn impacted upon both Income Statements and Balance Sheets. A range of ABS economic collections source data from financial accounts of businesses and use those data to derive economic statistics. There have been no changes in the associated economic definitions.

36 After monitoring data items in the immediate years following March quarter 2005 it was concluded that most affected published data series were impacted by data breaks but that the magnitude of such breaks could not be determined without imposing disproportionate load upon data providers to ABS surveys and other administratively collected data.

SEASONAL ADJUSTMENT

37 The quarterly original actual new capital expenditure series in this publication are affected in varying degrees by seasonal influences. The seasonal adjustment process estimates and removes the effects of normal seasonal variations from the original series so that the effects of other influences can be more easily recognised.

SEASONAL ADJUSTMENT *continued*

38 In the seasonal adjustment process, account has been taken of normal seasonal factors (e.g. increase in June quarter capital expenditure due to the impending end of the financial year) to produce the seasonally adjusted estimates. Particular care should be taken in interpreting quarterly movements in the seasonally adjusted estimates because seasonal adjustment does not remove the effect of irregular or non-seasonal influences (e.g. change in interest rates) and reflects the sampling and other errors to which the original estimates are subject.

39 The revision properties of the seasonally adjusted and trend estimates can be improved by the use of Autoregressive Integrated Moving Average (ARIMA) modelling. The Survey of Private New Capital Expenditure uses ARIMA modelling where appropriate for individual time series. ARIMA modelling relies on the characteristics of the series being analysed to project future period data. The projected values are temporary, intermediate values that are only used internally to improve the estimation of the seasonal factors. The projected data do not affect the original estimates and are discarded at the end of the seasonal adjustment process. For more information on the details of ARIMA modelling see Feature article: Use of ARIMA modelling to reduce revisions in the October 2004 issue of *Australian Economic Indicators* (cat. no. 1350.0).

40 Seasonally adjusted estimates by asset type for Tasmania, Northern Territory and Australian Capital Territory are not separately available because of the high sampling variability associated with them. They are included in totals for Australia and while a combined residual can be derived, the measure should not be considered reliable.

TREND ESTIMATES

41 The trend estimates are derived by applying a 7-term Henderson moving average to the seasonally adjusted estimates. The 7-term Henderson moving average is symmetric, but as the end of a time series is approached, asymmetric forms of the moving average are applied. The asymmetric moving average has been tailored to suit the particular characteristics of individual series and enable trend estimates for recent quarters to be produced. Estimates of the trend will be improved at the current end of the time series as additional observations become available. This improvement is due to the application of different asymmetric moving averages for the most recent three quarters. As a result of the improvement, revisions to the trend estimates will generally be observed for the most recent three quarters.

42 There may also be revisions because of changes in the original estimates. As a result of these revisions, the seasonally adjusted and trend estimates will also be revised. For further information, see *Information Paper: A Guide to Interpreting Time Series - Monitoring Trend, An Overview* (cat. no. 1349.0) or contact the Assistant Director, Time Series Analysis on Canberra (02) 6252 6345 or email <time.series.analysis@abs.gov.au>.

DESCRIPTION OF TERMS

43 A description of the terms used in this publication is given below:

44 *New capital expenditure* refers to the acquisition of new tangible assets either on own account or under a finance lease and includes major improvements, alterations and additions. In general, this is expenditure charged to fixed tangible assets accounts excluding expenditure on second hand assets unless these are imported for the first time.

45 Some estimates are dissected by type of asset:

- Buildings and structures: Includes industrial and commercial buildings, houses, flats, home units, water and sewerage installations, lifts, heating, ventilating and similar equipment forming an integral part of buildings and structures, land development and construction site development, roads, bridges, wharves, harbours, railway lines, pipelines, power and telephone lines. Also includes mine development (e.g. construction of shafts in underground mines, preparation of mining and quarrying sites for open cut extraction and other developmental operations primarily for commencing or extending production). Excludes purchases of land, previously occupied buildings and speculatively built projects intended for sale before occupation:
- Equipment, plant and machinery: Includes plant, machinery, vehicles, electrical apparatus, office equipment, furniture, fixtures and fittings not forming an integral part of buildings, durable containers, special tooling, etc. Also includes goods imported for the first time whether previously used outside Australia or not.

COMPARISON WITH NATIONAL ACCOUNTS AND OTHER ABS STATISTICS

46 The statistics for new capital expenditure shown in this publication differ from estimates of private gross fixed capital expenditure shown in the Australian National Accounts for the following reasons:

- National Accounts estimates incorporate data from other sources as well as information from the new capital expenditure survey. For example, annual estimates for capital expenditure on 'machinery and equipment' are based on the ABS' annual Economic Activity Survey combined with data from the Australian Taxation Office. Quarterly estimates are interpolated between and extrapolated from the annual estimates using a variety of indicators including this survey. The ABS's quarterly Building Activity Survey and Engineering Construction Survey are the main sources for estimating the National Accounts dwellings and other buildings and structures items.
- National Accounts estimates include capital expenditure by all private businesses including units classified to agriculture, forestry and fishing, education, and health and community services industries and capital expenditure on dwellings by households. Data for these sectors are excluded from this publication.
- National Accounts estimates include the value of work done on speculative construction projects as the work is put into place. The statistics in this publication, however, include full value of the speculative projects as new capital expenditure of the purchases (if in scope), when the project is sold.
- National accounts estimates of gross fixed capital formation relate to acquisitions less disposals of new or existing fixed assets, whereas the survey figures are acquisitions of new fixed tangible assets only.

47 For a more detailed explanation of the concepts and methods used in compiling the National Accounts estimates see *Australian National Accounts: Concepts, Sources and Methods* (cat. no. 5216.0).

48 The estimates of capital expenditure on buildings and other structures will differ with estimates of Construction activity published in Construction Work Done, Australia, Preliminary (cat. no. 8755.0). The latter publication presents estimates of building and engineering construction work collected by the Building Activity Survey and the Engineering Construction Survey. Estimates of construction activity are based on the value of actual work done during the quarter of individual building or construction jobs by builders, and do not necessarily equate to capitalisation of this work by the builders' eventual clients. Estimates of capital expenditure in this publication are based on data reported by businesses (that is, the builders' clients) from their financial or management accounts for purchases of buildings and structures.

RELATED PUBLICATIONS

49 Users may also wish to refer the following publications:

- *Information Paper: Changes to Private New Capital Expenditure and Expected Expenditure statistics, September 2009* (cat. no. 5625.0.55.001)
- *Australian National Accounts: National Income, Expenditure and Product* (cat. no. 5206.0)
- *Australian National Accounts: Concepts, Sources and Methods* (cat. no. 5216.0)
- *Building Activity, Australia* (cat. no. 8752.0)
- *Business Indicators, Australia* (cat. no. 5676.0)
- *Business Operations and Industry Performance, Australia* (cat. no. 8140.0)
- *Construction Work Done, Australia* (cat no 8755.0)
- *Engineering Construction Activity, Australia* (cat. no. 8762.0)
- *Information Paper: Australian National Accounts, Introduction of Chain Volume and Price Indexes* (cat. no. 5248.0)

50 Current publications and other products released by the ABS are available from the Statistics View. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.

ABS DATA AVAILABLE ON REQUEST

51 In addition to the data contained in this publication, more detailed industry and state information may be made available on request, the cost for such a service being dependent upon the amount of data requested. For example, data are generally available at the ANZSIC subdivision (2 digit) level.

ABS WEBSITE

52 The ABS website contains most of the data included in this publication but with a longer time series. In addition to the series in this publication, data for Manufacturing Subdivisions and State by Industry data are also available.

ACKNOWLEDGMENT

53 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

LEVEL ESTIMATES

INTRODUCTION

The estimates in this publication are based on a sample drawn from units in the surveyed population. Because the entire population is not surveyed, the published estimates are subject to sampling error. The most common way of quantifying such sampling error is to calculate the standard error for the published estimate or statistic.

EXAMPLE OF USE

The following example illustrates how to use the standard error to interpret a level estimate.

Let us say that the published level estimate for total capital expenditure is $27,702 and the calculated standard error in this case is $449m. The standard error is then used to interpret the level estimate of $27,702.

For instance, the standard error of $449m indicates that:

- There are approximately two chances in three that the real value falls within the range $27,253m to $28,151m ($27,702m ± $449m)
- There are approximately 19 chances in 20 that the real value falls within the range $26,804m to $28,600m ($27,702m ± $898m)

The real value in this case is the result we would obtain if we could enumerate the total population.

The following table shows the standard errors for September Quarter 2016 estimates.

	Buildings and Structures	*Equipment, Plant and Machinery*	*Total*
	$m	$m	$m
Mining	51	23	58
Manufacturing	29	96	101
Electricity, Gas, Water and Waste Services	1	36	36
Construction	23	156	156
Wholesale Trade	21	80	88
Retail Trade	54	66	90
Transport, Postal and Warehousing	56	115	120
Information Media and Telecommunications	9	52	60
Financial and Insurance Services	13	86	86
Rental, Hiring and Real Estate Services	140	157	207
Professional, Scientific and Technical Services	19	74	77
Other Selected Services	68	157	190
Total	**168**	**420**	**449**
New South Wales	58	265	278
Victoria	65	158	166
Queensland	143	186	235
South Australia	66	42	75
Western Australia	49	63	79
Tasmania	2	14	14
Northern Territory	1	10	10
Australian Capital Territory	3	18	19
Australia	**168**	**420**	**449**

MOVEMENT ESTIMATES

EXAMPLE OF USE

The following example illustrates how to use the standard error to interpret a movement estimate.

Let us say that one quarter the published level estimate for total capital expenditure is $31,366m and the next quarter the published level estimate is $27,702m.

In this example, the calculated standard error for the movement estimate is $521m. The standard error is then used to interpret the published movement estimate of $3,664m.

For instance, the standard error of $521m indicates that:

- There are approximately two chances in three that the real movement over the two-quarter period falls within the range $3,143m to $4,185m ($3,664m ± $521m).
- There are approximately 19 chances in 20 that the real movement falls within the range $2,622m to $4,706m ($3,664m ± $1,042m)

The following table shows the standard errors for September Quarter 2016 movement estimates.

	Buildings and Structures	*Equipment, Plant and Machinery*	*Total*
	$m	$m	$m
Mining	63	124	65
Manufacturing	39	103	113
Electricity, Gas, Water and Waste Services	12	36	39
Construction	45	158	167
Wholesale Trade	21	96	106
Retail Trade	44	57	73
Transport, Postal and Warehousing	56	75	97
Information Media and Telecommunications	4	23	24
Financial and Insurance Services	10	97	98
Rental, Hiring and Real Estate Services	133	152	189
Professional, Scientific and Technical Services	7	81	82
Other Selected Services	128	155	219
Total	**211**	**347**	**521**
New South Wales	97	256	285
Victoria	82	167	195
Queensland	178	153	304
South Australia	64	51	86
Western Australia	63	153	152
Tasmania	4	19	20
Northern Territory	32	27	37
Australian Capital Territory	25	27	46
Australia	**211**	**347**	**521**

FOR MORE INFORMATION . . .

INTERNET **www.abs.gov.au** the ABS website is the best place for data from our publications and information about the ABS.

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