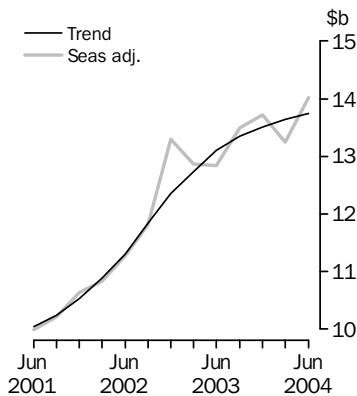


# PRIVATE NEW CAPITAL EXPENDITURE AND EXPECTED EXPENDITURE AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) THURS 26 AUG 2004

## New Capital Expenditure in volume terms



## KEY FIGURES

	<i>Jun Qtr 04</i>	<i>Mar Qtr 04 to Jun Qtr 04</i>	<i>Jun Qtr 03 to Jun Qtr 04</i>
	<i>\$m</i>	<i>% change</i>	<i>% change</i>
<b>Trend estimates<sup>(a)</sup></b>			
Total new capital expenditure	13 743	0.7	4.9
Buildings & structures	3 775	1.2	10.3
Equipment, plant & machinery	9 955	0.4	2.8
<b>Seasonally adjusted<sup>(a)</sup></b>			
Total new capital expenditure	14 023	5.8	9.2
Buildings & structures	3 835	4.1	14.1
Equipment, plant & machinery	10 188	6.5	7.4

(a) In volume terms.

## KEY POINTS

### ACTUAL EXPENDITURE

- The trend estimate for total new capital expenditure (in volume terms) increased by 0.7% in the June Quarter 2004. It increased 5.8% in seasonally adjusted terms.
- While the rate of growth in the trend estimate has been decreasing over the past two years, this decrease has slowed in recent quarters. Steady growth in equipment, plant and machinery has largely offset declining growth rates in building and structures.
- Trend estimates for expenditure by Mining have fallen for the past three quarters, while expenditure by Manufacturing has increased for the first time in four quarters. Expenditure by Other selected industries has continued to increase at a steady rate.

### EXPECTED EXPENDITURE

- This issue includes the seventh estimate for 2003-04 and the third estimate for 2004-05.
- Estimate 7 for 2003-04 is \$51,244m. This estimate is slightly higher than both the comparable estimate for 2002-03 and Estimate 6 for 2003-04.
- Estimate 3 for 2004-05 is \$49,161m, which is slightly lower than the comparable estimate for 2003-04 but is 8.8% higher than Estimate 2 for 2004-05.
- See pages 5 and 6 for further commentary on expectations data

## INQUIRIES

- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Fiona Cotsell on Sydney (02) 9268 4357.

# NOTES

## FORTHCOMING ISSUES

<i>ISSUE (Quarter)</i>	<i>RELEASE DATE</i>
September 2004	25 November 2004
December 2004	24 February 2005

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## CHANGES IN THIS ISSUE

This issue contains a feature article introducing a new experimental series on projected capital expenditure. The article also contains some information on the valuation basis businesses use to provide the ABS with data on expected expenditure.

A new base year, 2002–03, has been introduced into the chain volume estimates which has resulted in revisions to growth rates in subsequent periods. In addition, the chain volume estimates have been re-referenced to 2002–03, thereby preserving additivity in the quarters after the reference year. Re-referencing affects the levels of, but not the movements in, chain volume estimates.

## CHANGES IN NEXT ISSUE

The graphs and accompanying analysis of the various series in this release will be expanded from next quarter:

- seasonally adjusted estimates will be incorporated into the presentation of actual expenditure by asset type and industry, which currently focus on trend estimates only;
- the presentation of expected expenditure will be expanded to include an industry dissection, along with the current asset dissection; and
- the new series on projected expenditure will become a standard part of the release.

These changes are designed to provide users with more information to assist them in interpreting capital expenditure estimates.

## EXPECTATIONS BY ASSET TYPE

Estimates of actual and expected capital expenditure in this release are produced by type of asset: buildings and structures; and equipment, plant and machinery. In the case of some large, customised mining and industrial developments, aligning the components of these developments with the ABS's asset classification can be problematic. The ABS works with businesses to gain a full understanding of the nature of these developments, with a view to ensuring that data feeding into estimates of gross fixed capital formation in the Australian National Accounts from different sources does not contain errors of duplication or omission. In the planning stages of these developments, however, it is sometimes the case that incomplete understanding of these developments can lead to a misclassification of assets. Given this, users should exercise some caution when interpreting expected expenditure by type of asset. In particular, these estimates are subject to higher rates of revision than other estimates in this release.

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## ABBREVIATIONS

ABS Australian Bureau of Statistics  
ANZSIC Australian and New Zealand Standard Industrial Classification

Dennis Trewin  
Australian Statistician

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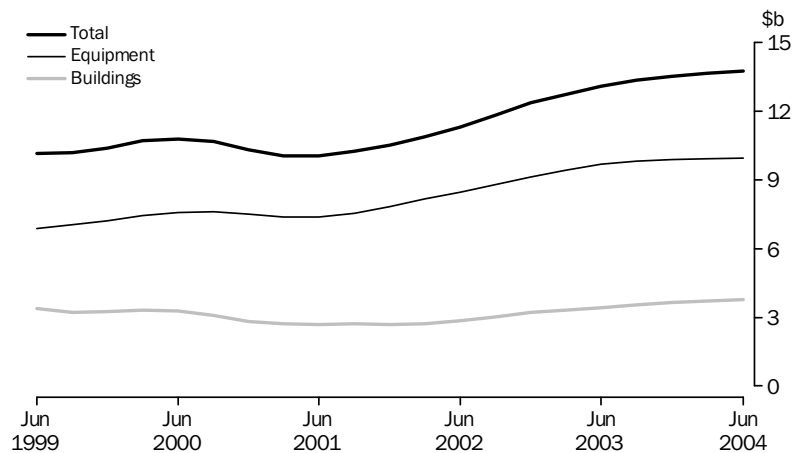
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## ACTUAL NEW CAPITAL EXPENDITURE TREND

### QUARTERLY TREND ESTIMATES OF CHAIN VOLUME MEASURES

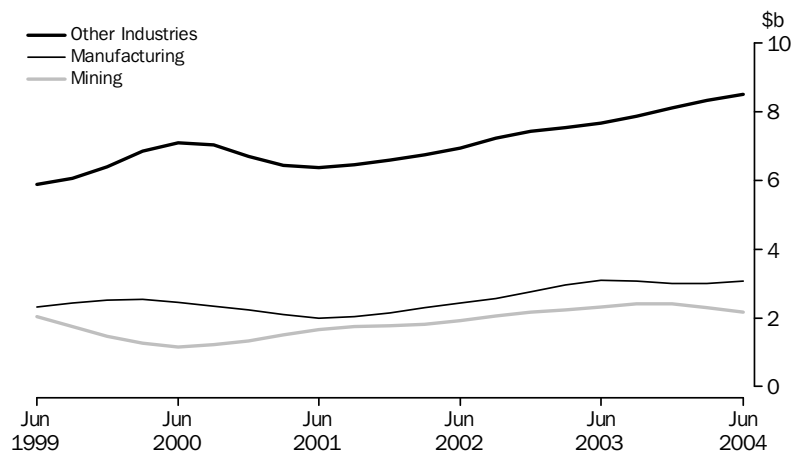
#### BY ASSET

The trend estimate for buildings and structures increased by 1% in the June quarter 2004, the tenth consecutive quarter of growth. The rate of growth has slowed considerably in recent quarters after reaching a peak in September quarter 2002. Manufacturing and Other selected industries both increased this quarter. The trend estimate for expenditure on equipment, plant and machinery increased slightly this quarter. The rate of growth (0.4%) was relatively unchanged from the previous two quarters. Manufacturing increased this quarter after three quarters of decreases, while Other selected industries continued several quarters of growth.



#### BY INDUSTRY

Trend estimates for expenditure by Mining have decreased over the past three quarters, although the levels of expenditure are still high after several years of strong growth. Decreased expenditure on equipment, plant and machinery has caused most of the recent falls. The trend estimate for expenditure by Manufacturing rose by 2% in June quarter 2004, the first increase in four quarters. Expenditure on both equipment, plant and machinery (up 1%) and buildings and structures (up 6%) has risen this quarter. The trend estimate for Other selected industries increased by a similar amount (2%) to recent quarters. The growth rate for equipment, plant and machinery has remained relatively unchanged whilst buildings and structures has slowed slightly.



# 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 paragraphs 24 to 27 of the Explanatory Notes.

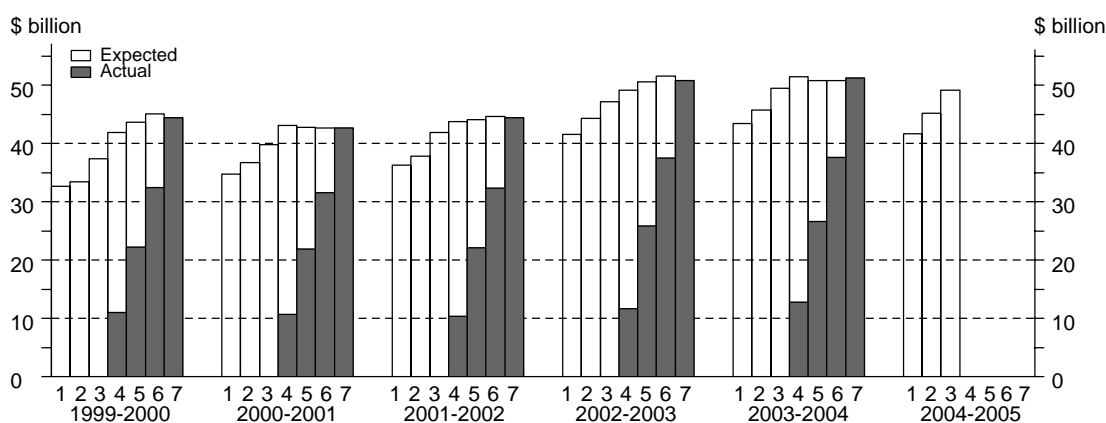
The timing and construction of these estimates are as follows:

Estimate	Based on data reported at:	COMPOSITION OF ESTIMATE.....		
		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 7 for 2003-04 has increased slightly (by 0.8%) from the comparable estimate for 2002-03. An increase in Mining (up 6%) offset a decrease in Transport (down 2%). There has been a slight increase compared to Estimate 6 for 2003-04.

The third estimate for 2004-05 is \$49,161m which is slightly lower (0.6%) than the comparable estimate for 2003-04, but is 9% higher than the second estimate for 2004-05. The increase from Estimate 2 was seen across most industries with Manufacturing (up 12%), Property and Business (up 15%) and Other Services (12%) all having strong growth, whilst Retail decreased slightly.

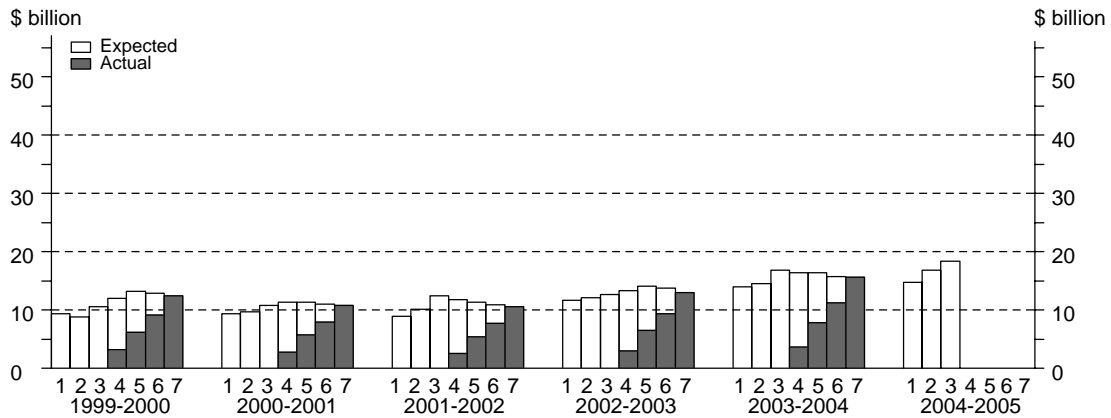


## ACTUAL AND EXPECTED NEW CAPITAL EXPENDITURE *continued*

### CAPITAL EXPENDITURE ON BUILDINGS AND STRUCTURES

Estimate 7 for 2003-04 is 20% higher than the final estimate for 2002-03 but has decreased slightly compared to Estimate 6. Both Mining (up 8%) and Other services (up 49%) have contributed strongly to the growth from the comparable estimate for 2002-03.

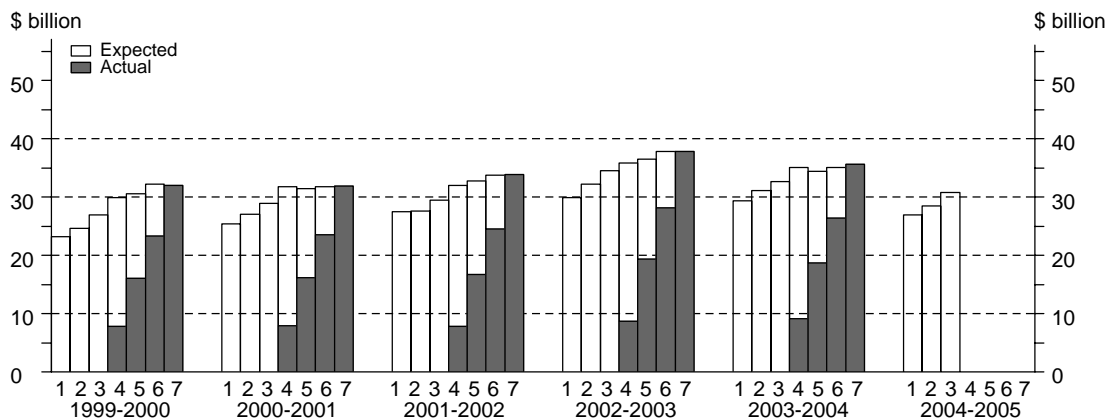
Estimate 3 for 2004-05 is 9% higher than estimate 3 for 2003-04 and 10% higher than Estimate 2. The increase since Estimate 2 was across most industries, with only Retail showing a slight decrease.



### CAPITAL EXPENDITURE ON EQUIPMENT, PLANT AND MACHINERY

Estimate 7 for 2003-04 fell 6% from the comparable estimate for 2002-03 but increased slightly from Estimate 6 for 2003-04. Transport (up 12%) and Property and business services (up 5%) have both increased since Estimate 6, whilst Mining has decreased (9%).

The third estimate for 2004-05 is 6% lower than the comparable estimate for 2003-04 but 8% higher than Estimate 2 for 2004-05. Manufacturing increased significantly compared to Estimate 2 (up 15%), whilst Wholesale (up 42%) and Finance and insurance (up 20%) also had strong growth.



## FEATURE ARTICLE

### EXPERIMENTAL PROJECTED CAPITAL EXPENDITURE SERIES

#### INTRODUCTION

This article describes the development of a new experimental projected capital expenditure series, together with some information regarding businesses reporting of expectations.

The projected series, which links actual and expected capital expenditure, has been designed to assist users in interpreting the expectations data released each quarter, especially in terms of obtaining an indicator of future trends in expenditure.

The projected series will be presented graphically as a standard part of future releases.

#### METHODOLOGY

In summary, the projected series applies historical realisation ratios to contemporary expectations to convert these to quarterly figures. Trend estimates of resultant quarterly time series of actual and expected expenditure are produced.

In more detail:

- Current short and long term expectations are of varying periods depending on the quarter in which they are collected (see paragraph 12 of the Explanatory Notes). Each expectation from the beginning of the time series is confronted with the actual expenditure that occurred in each quarter to which that expectations figure related (for example, June quarter 2001 short-term expectations related to the September and December quarters 2001). The output of this is to produce a quarterly realisation ratio for each expectations estimate through time.
- Five-year average realisation ratios are then calculated. These average realisation ratios are applied to contemporary expectations to produce estimates of projected expenditure for forthcoming quarters.
- These estimates of likely expenditure are then linked with the current price time series of actual expenditure to produce a quarterly time series which extends to the end point of the contemporary expectations series. For December, March and June quarters, the end point is 30 June of the following financial year. For September quarters, the end point is 30 June of the current financial year.
- The resultant quarterly time series are then produced in trend terms. The same aggregation structure which is used to produce seasonally adjusted and trend estimates of actual capital expenditure is used for these projected series. (See Paragraphs 33 to 38 of the Explanatory notes for more information regarding seasonally adjusted and trend estimates).

#### CAUTIONARY NOTES

While the ABS has produced these projected series to assist users in interpreting capital expenditure expectations, users should exercise caution in comparing these estimates with the estimates of actual and expected expenditure contained elsewhere in this release. In particular:

- The trend estimates which feature as key indicators in this release are based on the time series up to and including the current quarter, while the projected trend estimates are based on a time series which concludes at the end point of available expectations. Paragraphs 36 and 37 of the Explanatory Notes describe the potential impact of future estimates on the end point of the trend estimate, and this is shown in more detail in the "What if ..." analysis on page 24 of this release.

CAUTIONARY NOTES

continued

- Key indicators of actual expenditure in this release are presented in volume terms, which removes the impact of price changes on the time series. Tables 1 and 2 of this release also present actual and expected expenditure in current price terms. The projected series, however, are compiled using current price estimates for the actual component of the time series (that is, prices as they related to the particular quarter) and expectations which are generally based on prices for the quarter in which they were reported. The section "Business reporting of expectations data", below, provides more information. The impact of price changes can have a significant impact on some series. For example, trend estimates of total expenditure in volume terms have been increasing in recent quarters, while current price estimates have been decreasing.
- The projected series is based on five-year average realisation ratios. As is discussed in paragraphs 24 to 27 of the Explanatory Notes, there is some volatility in realisation ratios over time and so it is not necessarily the case that contemporary expectations will be realised in line with the average of the past five years. The following tables show the five year average realisation ratios used to create the projected series, together with the highest and lowest realisation ratios observed over this five year period.

	<i>Buildings and structures</i>	<i>Equipment, plant and machinery</i>	<i>Total</i>	<i>Mining</i>	<i>Manufacturing</i>	<i>Other selected industries</i>
<b>September quarter(a)</b>						
5 year average realisation ratio	0.47	0.51	0.50	0.42	0.43	0.56
Lowest realisation ratio in last 5 years	0.40	0.48	0.48	0.37	0.40	0.53
Highest realisation ratio in last 5 years	0.55	0.55	0.55	0.54	0.47	0.58
<b>December quarter(a)</b>						
5 year average realisation ratio	0.51	0.57	0.55	0.44	0.50	0.61
Lowest realisation ratio in last 5 years	0.45	0.54	0.52	0.38	0.43	0.57
Highest realisation ratio in last 5 years	0.56	0.60	0.59	0.48	0.54	0.68
<b>March quarter(b)</b>						
5 year average realisation ratio	0.46	0.55	0.52	0.41	0.48	0.57
Lowest realisation ratio in last 5 years	0.38	0.51	0.48	0.38	0.39	0.53
Highest realisation ratio in last 5 years	0.62	0.58	0.59	0.46	0.58	0.65
<b>June quarter(b)</b>						
5 year average realisation ratio	0.56	0.63	0.61	0.50	0.57	0.66
Lowest realisation ratio in last 5 years	0.46	0.58	0.58	0.47	0.48	0.61
Highest realisation ratio in last 5 years	0.72	0.69	0.70	0.56	0.63	0.78

(a) Realisation ratios for the September and December quarters measure actual expenditure in those quarters as a proportion of the short term expectation from the preceding June quarter

(b) Realisation ratios for the March and June quarters measure actual expenditure in those quarters as a proportion of the long term expectation from the preceding June quarter



BUSINESS REPORTING OF EXPECTATIONS DATA

A skirmish study of approximately 250 businesses was undertaken during the June Quarter to ascertain on what basis businesses report expectations data. Generally most businesses do not consider price change when estimating the cost of expected purchases. It was found that the majority of businesses estimate the price for expected purchases based on the current replacement cost.

Key Findings

Of those businesses in the skirmish study:

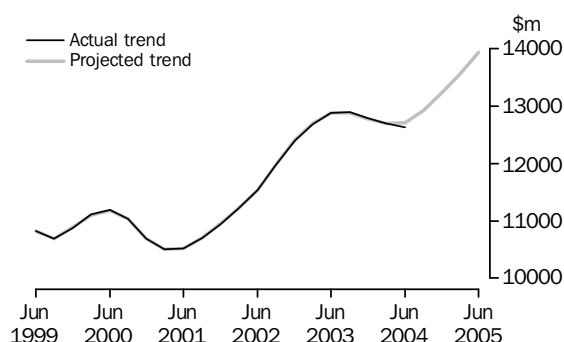
- 74% of large businesses had a fixed budget for capital expenditure and purchased capital items based on a combination of planned requirements and needs as they arose.
- The majority of small businesses (62%) did not have a fixed budget for capital expenditure, and purchased items on a needs basis (64%).
- 12% of large businesses considered price changes when estimating the cost of expected purchases. Businesses in Mining and Manufacturing contributed over 70% of this figure.
- The majority of small, medium and large businesses estimated the cost of expected purchases based on 'current replacement cost', (58%, 54% and 49% respectively).
- 35% of large businesses took into account currency changes. Over 70% of these businesses were in the Mining and Manufacturing industries.
- 57% of large businesses entered into contractual agreements with suppliers, whilst 64% of small businesses and 66% of medium businesses indicated that they did not.

EXPERIMENTAL PROJECTED CAPITAL EXPENDITURE SERIES

The following graphs, with accompanying commentary, show the projected capital expenditure series based on June quarter 2004 data, which includes expected expenditure up to and including the June quarter 2005.

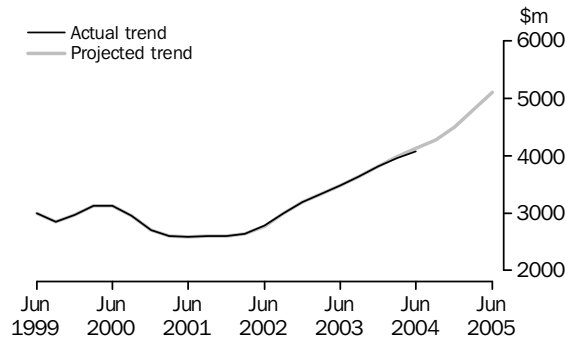
TOTAL CAPITAL EXPENDITURE

In recent quarters total capital expenditure has been declining slightly in current price trend terms. Strong expectations for 2004-05 financial year when combined with the recent decline, indicate that the slight fall in expenditure is temporary and that strong growth may occur over the next year. Both Mining and Manufacturing have shown a slight decline in recent quarters but are indicating strong growth for 2004-05.



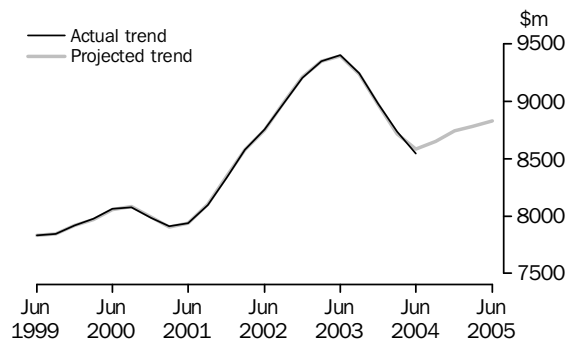
**BUILDINGS AND STRUCTURES**

Strong expectations for the 2004-05 financial year, coupled with the existing growth in current price trend estimates, indicates that expenditure on buildings and structures will continue the strong growth of the previous two years. While little of the recent growth has come from Manufacturing, all major industry groups are projected to contribute to the growth over the next year.



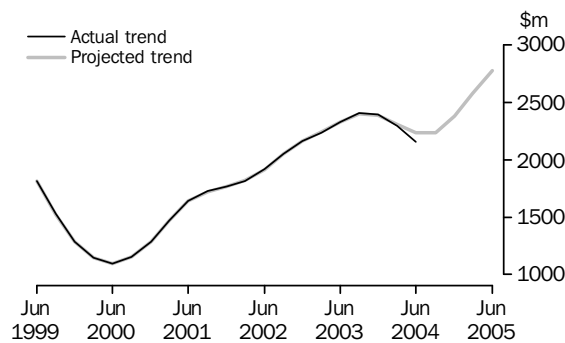
**EQUIPMENT, PLANT AND MACHINERY**

Current price trend estimates for equipment, plant and machinery have shown moderate decreases in recent quarters. When combined with expectations data there is an indication that this decrease will flatten out and then lead to some slight growth over the 2004-05 financial year. Mining and Manufacturing are indicating strong growth over the next year, whilst Other selected industries is projecting a decrease in expenditure.



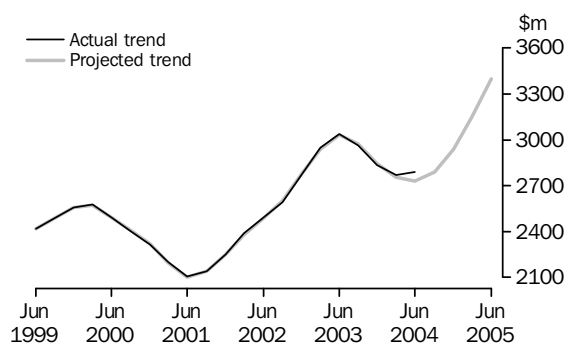
**MINING**

The trend estimate for Mining (in current price terms) has been declining slightly in recent quarters, however levels remain historically high. Expectations for 2004-05 indicate that the expenditure will show moderate growth in future quarters. Building expenditure is the main contributor to the projected increase.



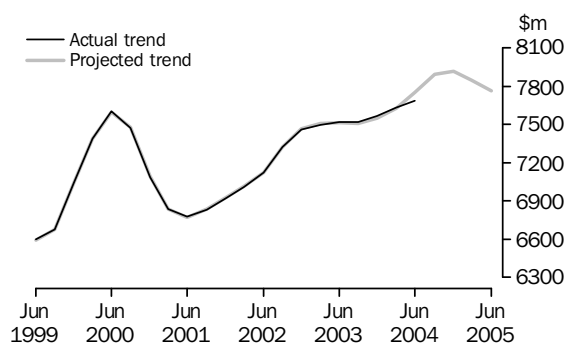
MANUFACTURING

Manufacturing current price trend estimates have shown a decline in recent quarters after reaching historically high levels. A decline in equipment expenditure was the main contributor to this decrease. The 2004-05 financial year expectations indicates that Manufacturing expenditure will show strong growth in the future, with both equipment and building expenditure contributing to the projected increase.



OTHER SELECTED INDUSTRIES

The current price trend estimate for Other selected industries has been relatively flat in recent quarters. Expectations data indicates slight growth for the 2004-05 financial year, with the levels remaining at a similar level to current expenditure. Building expenditure is projected to show some growth over the next year while equipment expenditure is projected to decrease slightly.



FURTHER INFORMATION AND FEEDBACK

For further information about the projected capital expenditure series please contact John Blanchette on Sydney 02 9268 4429.

The ABS invites comments on these experimental series. Comments can be provided to John Blanchette on Sydney 02 9268 4429 or email <[john.blanchette@abs.gov.au](mailto:john.blanchette@abs.gov.au)>. The ABS aims to remove the experimental label after it has considered user comments.

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

Period	BUILDINGS AND STRUCTURES				EQUIPMENT, PLANT AND MACHINERY				TOTAL CAPITAL EXPENDITURE			
	Mining	Manu- facturing	Other selected indus- tries	Total	Mining	Manu- facturing	Other selected indus- tries	Total	Mining	Manu- facturing	Other selected indus- tries	Total
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL (Actual)												
<b>2002-03</b>	4 540	1 877	6 583	13 000	4 226	9 507	24 082	37 816	8 766	11 384	30 665	50 816
<b>2003-04</b>	4 910	2 462	8 208	15 580	4 370	8 971	22 323	35 664	9 280	11 432	30 531	51 244
<b>2002-03</b>												
March	1 015	464	1 411	2 890	943	2 230	5 572	8 745	1 958	2 694	6 983	11 635
June	1 220	555	1 836	3 611	1 216	2 737	5 759	9 712	2 436	3 292	7 595	13 323
<b>2003-04</b>												
September	1 122	590	1 943	3 655	1 213	2 267	5 636	9 115	2 334	2 857	7 579	12 771
December	1 449	604	2 104	4 157	1 269	2 420	5 938	9 627	2 718	3 023	8 042	13 783
March	1 078	488	1 830	3 397	910	1 852	4 913	7 674	1 988	2 339	6 743	11 070
June	1 261	780	2 330	4 372	979	2 432	5 837	9 248	2 240	3 212	8 167	13 620
ORIGINAL (Expected) (a)												
<b>2004-05</b>												
6 mths to Dec	2 887	1 337	4 970	9 194	2 653	4 525	9 053	16 231	5 539	5 862	14 023	25 425
6 mths to Jun	3 155	1 713	4 323	9 191	2 552	4 561	7 432	14 545	5 708	6 274	11 755	23 736
Total fin year	6 042	3 050	9 293	18 385	5 205	9 086	16 485	30 776	11 247	12 136	25 778	49 161
SEASONALLY ADJUSTED (Actual)												
<b>2002-03</b>												
March	1 155	528	1 644	3 327	1 054	2 438	6 000	9 492	2 209	2 966	7 644	12 819
June	1 157	524	1 740	3 421	1 153	2 521	5 537	9 211	2 310	3 045	7 277	12 632
<b>2003-04</b>												
September	1 150	585	1 976	3 711	1 249	2 440	5 675	9 364	2 399	3 025	7 651	13 075
December	1 325	576	1 911	3 812	1 171	2 258	5 718	9 147	2 496	2 834	7 629	12 959
March	1 231	553	2 123	3 907	1 021	2 029	5 327	8 377	2 252	2 582	7 450	12 284
June	1 198	734	2 229	4 161	930	2 235	5 606	8 771	2 128	2 969	7 835	12 932
TREND ESTIMATES (Actual)												
<b>2002-03</b>												
March	1 161	512	1 665	3 338	1 077	2 438	5 834	9 349	2 238	2 950	7 499	12 687
June	1 169	549	1 765	3 483	1 163	2 490	5 752	9 405	2 332	3 039	7 517	12 888
<b>2003-04</b>												
September	1 203	558	1 884	3 645	1 205	2 406	5 635	9 246	2 408	2 964	7 519	12 891
December	1 242	576	1 994	3 812	1 152	2 257	5 574	8 983	2 394	2 833	7 568	12 795
March	1 248	615	2 100	3 963	1 048	2 156	5 533	8 737	2 296	2 771	7 633	12 700
June	1 228	657	2 199	4 084	932	2 131	5 485	8 548	2 160	2 788	7 684	12 632

(a) Not directly comparable with estimates of actual expenditure due to likely over/under realisation. See paragraphs 24 to 27 of the Explanatory Notes.

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

Period	Mining	Manu- facturing	Construction	Wholesale trade	Retail trade	Transport and storage	Finance and insurance	Property and business services	Other services	Total
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL (Actual)										
<b>2002-03</b>	8 766	11 384	1 967	2 087	3 439	7 203	2 897	6 518	6 553	50 816
<b>2003-04</b>	9 280	11 432	1 719	2 099	3 571	7 080	2 975	6 758	6 329	51 244
<b>2002-03</b>										
March	1 958	2 694	492	418	680	1 511	715	1 518	1 650	11 635
June	2 436	3 292	494	577	892	1 707	695	1 734	1 496	13 323
<b>2003-04</b>										
September	2 334	2 857	^ 332	500	906	1 971	773	1 681	1 416	12 771
December	2 718	3 023	^ 420	555	978	1 795	765	1 812	1 717	13 783
March	1 988	2 339	^ 481	488	774	1 344	630	1 428	1 598	11 070
June	2 240	3 212	^ 485	556	912	1 971	808	1 837	1 599	13 620
ORIGINAL (Expected) (a)										
<b>2004-05</b>										
6 mths to Dec	5 539	5 862	519	1 029	1 259	3 418	1 462	3 022	3 313	25 425
6 mths to Jun	5 708	6 274	448	863	1 104	2 375	1 468	2 743	2 754	23 736
Total fin year	11 247	12 136	967	1 892	2 363	5 793	2 930	5 765	6 068	49 161
SEASONALLY ADJUSTED (Actual)										
<b>2002-03</b>										
March	2 209	2 966	507	507	845	1 574	847	1 682	1 682	12 819
June	2 310	3 045	456	533	891	1 660	640	1 598	1 499	12 632
<b>2003-04</b>										
September	2 399	3 025	359	486	841	2 007	741	1 705	1 512	13 075
December	2 496	2 834	414	522	880	1 746	740	1 768	1 559	12 959
March	2 252	2 582	492	594	956	1 417	749	1 585	1 657	12 284
June	2 128	2 969	448	513	914	1 911	742	1 695	1 612	12 932
TREND ESTIMATES (Actual)										
<b>2002-03</b>										
March	2 238	2 950	471	520	859	1 615	763	1 624	1 647	12 687
June	2 332	3 039	427	510	854	1 772	737	1 654	1 563	12 888
<b>2003-04</b>										
September	2 408	2 964	411	513	871	1 796	716	1 693	1 519	12 891
December	2 394	2 833	419	532	892	1 738	732	1 692	1 563	12 795
March	2 296	2 771	450	546	917	1 679	749	1 678	1 614	12 700
June	2 160	2 788	478	553	941	1 672	745	1 652	1 643	12 632

^ 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 24 to 27 of the Explanatory Notes.

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

Period	ASSET			INDUSTRY			
	Buildings and structures	Equipment, plant and machinery	Total	Mining	Manufacturing	Other selected industries	Total
	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL							
<b>2000-01</b>	11 243	29 867	41 030	5 637	8 834	26 457	41 030
<b>2001-02</b>	10 920	32 028	42 954	7 281	8 832	26 835	42 954
<b>2002-03</b>	13 000	37 816	50 816	8 766	11 384	30 665	50 816
<b>2003-04</b>	14 767	39 725	54 492	9 310	12 210	32 972	54 492
<b>2001-02</b>							
June	2 866	8 953	11 834	2 001	2 530	7 300	11 834
<b>2002-03</b>							
September	3 032	8 498	11 523	1 978	2 421	7 123	11 523
December	3 532	10 533	14 070	2 396	2 913	8 759	14 070
March	2 885	8 789	11 682	1 960	2 699	7 021	11 682
June	3 551	9 996	13 541	2 432	3 350	7 763	13 541
<b>2003-04</b>							
September	3 548	9 643	13 191	2 332	2 947	7 912	13 191
December	3 983	10 589	14 572	2 738	3 215	8 620	14 572
March	3 205	8 754	11 959	2 007	2 543	7 409	11 959
June	4 031	10 739	14 770	2 234	3 506	9 031	14 770
SEASONALLY ADJUSTED							
<b>2001-02</b>							
June	2 763	8 502	11 275	1 953	2 340	6 981	11 275
<b>2002-03</b>							
September	3 085	8 734	11 813	2 030	2 583	7 199	11 813
December	3 240	10 045	13 298	2 215	2 726	8 353	13 298
March	3 315	9 551	12 864	2 213	2 973	7 678	12 864
June	3 360	9 486	12 841	2 308	3 102	7 435	12 841
<b>2003-04</b>							
September	3 597	9 905	13 503	2 398	3 129	7 975	13 503
December	3 649	10 067	13 717	2 516	3 019	8 181	13 717
March	3 685	9 564	13 249	2 273	2 813	8 164	13 249
June	3 835	10 188	14 023	2 123	3 249	8 651	14 023
TREND							
<b>2001-02</b>							
June	2 840	8 454	11 300	1 920	2 432	6 945	11 300
<b>2002-03</b>							
September	3 034	8 804	11 842	2 056	2 556	7 229	11 842
December	3 205	9 146	12 354	2 166	2 752	7 435	12 354
March	3 322	9 419	12 742	2 239	2 959	7 544	12 742
June	3 424	9 682	13 104	2 332	3 093	7 682	13 104
<b>2003-04</b>							
September	3 539	9 816	13 353	2 415	3 078	7 861	13 353
December	3 647	9 872	13 516	2 407	3 008	8 101	13 516
March	3 729	9 915	13 642	2 308	3 003	8 331	13 642
June	3 775	9 955	13 743	2 175	3 063	8 497	13 743

(a) Reference year for chain volume measures is 2002-03.

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

Period	ASSET			INDUSTRY			
	Buildings and structures	Equipment, Plant and Machinery	Total	Mining	Manufacturing	Other selected industries	Total
	%	%	%	%	%	%	%
ORIGINAL							
<b>2000-01</b>	-16.0	1.6	-3.3	-3.1	-11.8	-0.4	-3.3
<b>2001-02</b>	-2.9	7.2	4.7	29.2	0.0	1.4	4.7
<b>2002-03</b>	19.0	18.1	18.3	20.4	28.9	14.3	18.3
<b>2003-04</b>	13.6	5.0	7.2	6.2	7.3	7.5	7.2
<b>2001-02</b>							
June	18.2	20.5	19.9	22.9	16.6	20.4	19.9
<b>2002-03</b>							
September	5.8	-5.1	-2.6	-1.1	-4.3	-2.4	-2.6
December	16.5	23.9	22.1	21.1	20.3	23.0	22.1
March	-18.3	-16.6	-17.0	-18.2	-7.3	-19.8	-17.0
June	23.1	13.7	15.9	24.1	24.1	10.6	15.9
<b>2003-04</b>							
September	-0.1	-3.5	-2.6	-4.1	-12.0	1.9	-2.6
December	12.3	9.8	10.5	17.4	9.1	8.9	10.5
March	-19.5	-17.3	-17.9	-26.7	-20.9	-14.0	-17.9
June	25.8	22.7	23.5	11.3	37.8	21.9	23.5
SEASONALLY ADJUSTED							
<b>2001-02</b>							
June	1.5	4.9	4.1	10.6	-2.0	4.7	4.1
<b>2002-03</b>							
September	11.7	2.7	4.8	4.0	10.4	3.1	4.8
December	5.0	15.0	12.6	9.1	5.6	16.0	12.6
March	2.3	-4.9	-3.3	-0.1	9.1	-8.1	-3.3
June	1.4	-0.7	-0.2	4.3	4.3	-3.2	-0.2
<b>2003-04</b>							
September	7.1	4.4	5.2	3.9	0.9	7.3	5.2
December	1.4	1.6	1.6	5.0	-3.5	2.6	1.6
March	1.0	-5.0	-3.4	-9.7	-6.8	-0.2	-3.4
June	4.1	6.5	5.8	-6.6	15.5	6.0	5.8
TREND							
<b>2001-02</b>							
June	4.3	3.7	3.8	5.4	5.4	2.9	3.8
<b>2002-03</b>							
September	6.8	4.1	4.8	7.1	5.1	4.1	4.8
December	5.6	3.9	4.3	5.3	7.7	2.8	4.3
March	3.7	3.0	3.1	3.4	7.5	1.5	3.1
June	3.1	2.8	2.8	4.1	4.5	1.8	2.8
<b>2003-04</b>							
September	3.4	1.4	1.9	3.6	-0.5	2.3	1.9
December	3.1	0.6	1.2	-0.3	-2.3	3.0	1.2
March	2.2	0.4	0.9	-4.1	-0.2	2.8	0.9
June	1.2	0.4	0.7	-5.8	2.0	2.0	0.7

(a) Reference year for chain volume measures is 2002-03.

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)
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BUILDINGS AND STRUCTURES (\$ million)

2000-01	9 321	9 654	10 834	11 333	11 330	10 955	10 742
2001-02	8 860	10 122	12 445	11 796	11 335	10 891	10 552
2002-03	11 694	12 124	12 691	13 344	14 067	13 744	13 000
2003-04	13 975	14 551	16 834	16 427	16 353	15 712	15 580
2004-05	14 754	16 775	18 385	nya	nya	nya	nya

BUILDINGS AND STRUCTURES (Realisation Ratio) (a)

2001-02	1.19	1.04	0.85	0.89	0.93	0.97	1.00
2002-03	1.11	1.07	1.02	0.97	0.92	0.95	1.00
2003-04	1.11	1.07	0.93	0.95	0.95	0.99	1.00
5-year average	1.18	1.14	0.99	0.96	0.94	0.97	1.00

EQUIPMENT, PLANT AND MACHINERY (\$ million)

2000-01	25 447	27 037	28 943	31 759	31 428	31 721	31 878
2001-02	27 457	27 640	29 473	31 956	32 769	33 703	33 828
2002-03	29 859	32 157	34 478	35 805	36 540	37 770	37 816
2003-04	29 393	31 129	32 627	35 031	34 402	35 034	35 664
2004-05	26 927	28 423	30 776	nya	nya	nya	nya

EQUIPMENT, PLANT AND MACHINERY (Realisation Ratio) (a)

2001-02	1.23	1.22	1.15	1.06	1.03	1.00	1.00
2002-03	1.27	1.18	1.10	1.06	1.03	1.00	1.00
2003-04	1.21	1.15	1.09	1.02	1.04	1.02	1.00
5-year average	1.27	1.21	1.13	1.04	1.03	1.00	1.00

TOTAL (\$ million)

2000-01	34 768	36 691	39 777	43 092	42 758	42 676	42 621
2001-02	36 317	37 762	41 917	43 752	44 105	44 594	44 380
2002-03	41 553	44 281	47 169	49 149	50 607	51 514	50 816
2003-04	43 369	45 681	49 462	51 458	50 755	50 747	51 244
2004-05	41 682	45 197	49 161	nya	nya	nya	nya

TOTAL (Realisation Ratio) (a)

2001-02	1.22	1.18	1.06	1.01	1.01	1.00	1.00
2002-03	1.22	1.15	1.08	1.03	1.00	0.99	1.00
2003-04	1.18	1.12	1.04	1.00	1.01	1.01	1.00
5-year average	1.24	1.19	1.09	1.02	1.01	1.00	1.00

TOTAL (Percentage change over corresponding estimate for previous financial year)

2000-01	6.6	9.8	6.3	3.0	-2.1	-5.3	-4.1
2001-02	4.5	2.9	5.4	1.5	3.1	4.5	4.1
2002-03	14.4	17.3	12.5	12.3	14.7	15.5	14.5
2003-04	4.4	3.2	4.9	4.7	0.3	-1.5	0.8
2004-05	-3.9	-1.1	-0.6	nya	nya	nya	nya

nya not yet available

(a) Ratio of actual expenditure for the financial year to each progressive estimate for the financial year. For more information see paragraphs 24 to 27 of the Explanatory Notes.



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)
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MINING (\$ million)

2000-01	5 355	5 569	5 789	6 415	5 952	5 879	5 490
2001-02	6 323	7 327	8 300	8 873	8 415	7 749	7 249
2002-03	9 764	10 163	10 510	10 089	9 695	9 222	8 766
2003-04	9 388	10 053	10 672	10 812	10 365	9 780	9 280
2004-05	10 192	10 937	11 247	nya	nya	nya	nya

MINING (Realisation Ratio) (a)

2001-02	1.15	0.99	0.87	0.82	0.86	0.94	1.00
2002-03	0.90	0.86	0.83	0.87	0.90	0.95	1.00
2003-04	0.99	0.92	0.87	0.86	0.90	0.95	1.00
5-year average	0.98	0.95	0.88	0.85	0.91	0.94	1.00

MANUFACTURING (\$ million)

2000-01	9 339	10 015	10 502	10 027	10 088	9 514	9 144
2001-02	9 161	9 028	9 018	9 174	9 465	9 377	9 180
2002-03	9 173	9 776	11 021	10 808	10 904	11 624	11 384
2003-04	10 453	10 911	12 402	12 370	11 371	11 571	11 432
2004-05	9 853	10 915	12 136	nya	nya	nya	nya

MANUFACTURING (Realisation Ratio) (a)

2001-02	1.00	1.02	1.02	1.00	0.97	0.98	1.00
2002-03	1.24	1.16	1.03	1.05	1.04	0.98	1.00
2003-04	1.09	1.05	0.92	0.92	1.01	0.99	1.00
5-year average	1.09	1.06	0.99	0.98	0.98	0.98	1.00

OTHER SELECTED INDUSTRIES (\$ million)

2000-01	20 074	21 108	23 486	26 650	26 718	27 283	27 987
2001-02	20 834	21 407	24 600	25 704	26 225	27 469	27 950
2002-03	22 616	24 341	25 638	28 252	30 009	30 669	30 665
2003-04	23 528	24 716	26 388	28 276	29 019	29 396	30 531
2004-05	21 637	23 346	25 778	nya	nya	nya	nya

OTHER SELECTED INDUSTRIES (Realisation Ratio) (a)

2001-02	1.34	1.31	1.14	1.09	1.07	1.02	1.00
2002-03	1.36	1.26	1.20	1.09	1.02	1.00	1.00
2003-04	1.30	1.24	1.16	1.08	1.05	1.04	1.00
5-year average	1.41	1.33	1.20	1.09	1.05	1.02	1.00

nya not yet available

(a) Ratio of actual expenditure for the financial year to each progressive estimate for the financial year. For more information see paragraphs 24 to 27 of the Explanatory Notes.

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

<i>Financial Year</i>	3 MONTHS ENDING		6 MONTHS ENDING	
	<i>31 December (collected in September Survey)</i>	<i>30 June (collected in March Survey)</i>	<i>31 December (collected in June Survey)</i>	<i>30 June (collected in December Survey)</i>
TYPE OF ASSET				
<b>Buildings and structures</b>				
2001–02	0.92	0.89	0.86	0.87
2002–03	0.98	0.83	1.04	0.86
2003–04	0.91	0.97	0.91	0.91
5-year average	0.95	0.90	0.98	0.89
<b>Equipment, plant and machinery</b>				
2001–02	1.04	1.01	1.09	1.07
2002–03	1.05	1.00	1.08	1.07
2003–04	0.95	1.07	1.06	1.08
5-year average	0.99	1.02	1.08	1.07
<b>Total</b>				
2001–02	1.00	0.98	1.02	1.01
2002–03	1.03	0.95	1.07	1.01
2003–04	0.94	1.04	1.01	1.02
5-year average	0.98	0.98	1.05	1.01
TYPE OF INDUSTRY				
<b>Mining</b>				
2001–02	0.76	0.80	0.84	0.76
2002–03	0.79	0.84	0.81	0.83
2003–04	0.86	0.82	0.86	0.80
5-year average	0.80	0.82	0.86	0.83
<b>Manufacturing</b>				
2001–02	0.93	0.93	0.94	0.94
2002–03	0.94	0.93	0.97	1.09
2003–04	0.81	0.96	0.91	1.01
5-year average	0.90	0.92	0.93	0.97
<b>Other selected industries</b>				
2001–02	1.13	1.07	1.11	1.14
2002–03	1.16	1.00	1.22	1.05
2003–04	1.04	1.16	1.11	1.11
5-year average	1.07	1.07	1.16	1.10
<b>Total</b>				
2001–02	1.00	0.98	1.02	1.01
2002–03	1.03	0.95	1.07	1.01
2003–04	0.94	1.04	1.01	1.02
5-year average	0.98	0.98	1.05	1.01

(a) For more information on Realisation Ratios see paragraphs 24 to 27 of the Explanatory Notes.

## ACTUAL EXPENDITURE ON BUILDINGS AND STRUCTURES, 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									
<b>2000-01</b>	3 202	2 385	2 052	692	1 671	134	396	212	10 742
<b>2001-02</b>	2 695	1 847	1 948	617	1 831	445	975	194	10 552
<b>2002-03</b>	3 112	2 343	2 122	783	2 898	255	1 380	107	13 000
<b>2003-04</b>	4 069	2 638	2 362	944	3 796	163	1 529	79	15 580
<b>2001-02</b>									
June	622	501	567	159	499	138	279	32	2 797
<b>2002-03</b>									
September	677	592	532	159	539	88	377	26	2 989
December	832	616	612	214	725	54	417	38	3 509
March	604	529	459	163	760	73	281	21	2 890
June	999	605	520	247	874	39	305	23	3 611
<b>2003-04</b>									
September	895	^ 720	531	195	853	21	424	16	3 655
December	1 050	717	608	281	1 079	^ 24	383	14	4 157
March	914	601	493	192	786	52	334	*25	3 397
June	1 210	599	730	275	1 078	67	388	*24	4 372
SEASONALLY ADJUSTED									
<b>2001-02</b>									
June	587	507	549	156	484	np	np	np	2 701
<b>2002-03</b>									
September	691	556	529	169	546	np	np	np	3 048
December	756	572	572	174	666	np	np	np	3 225
March	706	609	520	201	860	np	np	np	3 327
June	939	614	497	241	841	np	np	np	3 421
<b>2003-04</b>									
September	911	675	530	208	865	np	np	np	3 711
December	956	665	565	229	986	np	np	np	3 812
March	1 073	691	564	238	897	np	np	np	3 907
June	1 131	612	696	268	1 032	np	np	np	4 161
TREND									
<b>2001-02</b>									
June	645	508	532	162	466	119	305	33	2 777
<b>2002-03</b>									
September	664	543	551	165	564	97	345	30	2 993
December	719	578	545	182	690	74	356	28	3 190
March	793	603	525	205	794	54	345	26	3 338
June	859	630	516	220	866	38	340	20	3 483
<b>2003-04</b>									
September	926	661	520	224	897	27	352	17	3 645
December	987	672	555	228	924	31	373	18	3 812
March	1 051	663	603	242	962	44	383	21	3 963
June	1 126	639	652	259	991	57	394	25	4 084

^ 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, Current prices

	<i>New South Wales</i>	<i>Victoria</i>	<i>Queensland</i>	<i>South Australia</i>	<i>Western Australia</i>	<i>Tasmania</i>	<i>Northern Territory</i>	<i>Australian Capital Territory</i>	<i>Total</i>
<i>Period</i>	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL									
<b>2000-01</b>	11 820	8 612	4 471	2 170	3 608	467	382	348	31 878
<b>2001-02</b>	10 821	9 508	5 480	2 497	4 163	518	414	427	33 828
<b>2002-03</b>	11 312	10 487	6 929	3 223	4 241	626	427	570	37 816
<b>2003-04</b>	10 303	9 234	6 591	2 962	5 156	533	389	496	35 664
<b>2001-02</b>									
June	2 804	2 598	1 530	738	1 158	169	136	144	9 277
<b>2002-03</b>									
September	2 742	2 552	1 443	662	961	101	82	99	8 642
December	3 135	2 995	1 991	930	1 131	211	157	167	10 717
March	2 633	2 423	1 608	734	951	151	82	164	8 745
June	2 801	2 518	1 887	897	1 199	164	106	140	9 712
<b>2003-04</b>									
September	2 587	2 476	1 507	776	1 374	^ 139	^ 121	^ 134	9 115
December	2 672	2 480	1 854	798	1 462	136	^ 114	112	9 627
March	2 250	2 017	1 398	609	1 087	^ 126	80	^ 107	7 674
June	2 794	2 262	1 832	779	1 232	132	74	^ 142	9 248
SEASONALLY ADJUSTED									
<b>2001-02</b>									
June	2 657	2 498	1 446	704	1 102	np	np	np	8 799
<b>2002-03</b>									
September	2 783	2 576	1 566	715	966	np	np	np	8 875
December	3 012	2 792	1 919	828	1 073	np	np	np	10 213
March	2 870	2 697	1 703	806	1 059	np	np	np	9 492
June	2 653	2 428	1 720	856	1 138	np	np	np	9 211
<b>2003-04</b>									
September	2 627	2 496	1 641	841	1 384	np	np	np	9 364
December	2 563	2 314	1 779	712	1 381	np	np	np	9 147
March	2 452	2 240	1 485	673	1 215	np	np	np	8 377
June	2 651	2 186	1 668	736	1 171	np	np	np	8 771
TREND									
<b>2001-02</b>									
June	2 712	2 499	1 465	691	1 036	130	114	118	8 757
<b>2002-03</b>									
September	2 752	2 580	1 579	717	1 004	137	106	124	8 980
December	2 803	2 624	1 681	757	988	147	91	130	9 208
March	2 789	2 606	1 714	810	1 051	156	94	139	9 349
June	2 715	2 533	1 718	841	1 198	154	110	144	9 405
<b>2003-04</b>									
September	2 610	2 431	1 692	808	1 318	144	116	136	9 246
December	2 547	2 333	1 657	745	1 330	138	106	124	8 983
March	2 542	2 253	1 621	704	1 266	132	88	116	8 737
June	2 563	2 192	1 606	692	1 180	126	72	108	8 548

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

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

<i>Period</i>	<i>New South Wales</i>	<i>Victoria</i>	<i>Queensland</i>	<i>South Australia</i>	<i>Western Australia</i>	<i>Tasmania</i>	<i>Northern Territory</i>	<i>Australian Capital Territory</i>	<i>Total</i>
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL									
<b>2000-01</b>	15 022	10 997	6 523	2 862	5 279	600	778	560	42 621
<b>2001-02</b>	13 516	11 355	7 428	3 113	5 994	963	1 389	621	44 380
<b>2002-03</b>	14 424	12 830	9 052	4 006	7 140	881	1 806	677	50 816
<b>2003-04</b>	14 372	11 872	8 953	3 906	8 952	696	1 919	574	51 244
<b>2001-02</b>									
June	3 426	3 100	2 096	897	1 657	307	415	175	12 074
<b>2002-03</b>									
September	3 420	3 144	1 975	821	1 500	189	459	125	11 631
December	3 967	3 611	2 604	1 145	1 856	265	574	205	14 226
March	3 237	2 953	2 067	897	1 711	224	362	184	11 635
June	3 801	3 123	2 407	1 143	2 073	203	411	163	13 323
<b>2003-04</b>									
September	3 482	3 196	2 038	971	2 227	^ 160	545	^ 150	12 771
December	3 722	3 197	2 462	1 079	2 541	160	497	126	13 783
March	3 164	2 618	1 891	802	1 873	^ 177	414	^ 132	11 070
June	4 004	2 861	2 562	1 054	2 311	199	463	^ 166	13 620
SEASONALLY ADJUSTED									
<b>2001-02</b>									
June	3 244	3 005	1 995	860	1 586	279	433	155	11 500
<b>2002-03</b>									
September	3 474	3 132	2 095	884	1 512	198	423	144	11 923
December	3 768	3 364	2 491	1 002	1 739	274	546	207	13 438
March	3 576	3 306	2 223	1 007	1 919	232	395	182	12 819
June	3 592	3 042	2 217	1 097	1 979	182	428	142	12 632
<b>2003-04</b>									
September	3 538	3 171	2 171	1 049	2 249	165	517	175	13 075
December	3 519	2 979	2 344	941	2 367	164	467	129	12 959
March	3 525	2 931	2 049	911	2 112	184	451	131	12 284
June	3 782	2 798	2 364	1 004	2 203	179	488	145	12 932
TREND									
<b>2001-02</b>									
June	3 357	3 007	1 997	853	1 502	249	419	151	11 534
<b>2002-03</b>									
September	3 416	3 123	2 130	882	1 568	234	451	154	11 973
December	3 522	3 202	2 226	939	1 678	221	447	158	12 398
March	3 582	3 209	2 239	1 015	1 845	210	439	165	12 687
June	3 574	3 163	2 234	1 061	2 064	192	450	164	12 888
<b>2003-04</b>									
September	3 536	3 092	2 212	1 032	2 215	171	468	153	12 891
December	3 534	3 005	2 212	973	2 254	169	479	142	12 795
March	3 593	2 916	2 224	946	2 228	176	471	137	12 700
June	3 689	2 831	2 258	951	2 171	183	466	133	12 632

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

<i>Period</i>	<i>New South Wales</i>	<i>Victoria</i>	<i>Queensland</i>	<i>South Australia</i>	<i>Western Australia</i>	<i>Tasmania</i>	<i>Northern Territory</i>	<i>Australian Capital Territory</i>	<i>Total</i>
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL									
<b>2000-01</b>	3 352	2 495	2 147	724	1 751	139	414	221	11 243
<b>2001-02</b>	2 791	1 911	2 014	639	1 897	459	1 007	201	10 920
<b>2002-03</b>	3 112	2 343	2 122	783	2 898	255	1 380	107	13 000
<b>2003-04</b>	3 853	2 506	2 237	894	3 598	154	1 452	74	14 767
<b>2001-02</b>									
June	638	513	580	163	512	141	285	32	2 866
<b>2002-03</b>									
September	687	600	539	161	547	89	382	26	3 032
December	838	620	616	216	731	55	419	38	3 532
March	604	528	457	163	760	73	280	21	2 885
June	984	595	511	243	861	38	299	22	3 551
<b>2003-04</b>									
September	869	699	515	189	828	20	412	15	3 548
December	1 006	687	583	269	1 034	23	367	13	3 983
March	862	567	466	182	741	49	315	24	3 205
June	1 116	553	674	254	994	62	357	22	4 031
SEASONALLY ADJUSTED									
<b>2001-02</b>									
June	601	518	561	159	494	np	np	np	2 763
<b>2002-03</b>									
September	705	561	537	170	551	np	np	np	3 085
December	767	574	576	175	667	np	np	np	3 240
March	711	605	520	201	855	np	np	np	3 315
June	930	602	490	237	826	np	np	np	3 360
<b>2003-04</b>									
September	887	654	516	202	841	np	np	np	3 597
December	916	636	543	219	948	np	np	np	3 649
March	1 010	652	534	225	851	np	np	np	3 685
June	1 040	564	644	248	958	np	np	np	3 835
TREND									
<b>2001-02</b>									
June	662	520	544	165	476	123	313	34	2 840
<b>2002-03</b>									
September	678	549	559	167	570	98	352	30	3 034
December	729	580	549	182	691	72	361	29	3 205
March	796	599	524	203	788	52	345	26	3 322
June	851	618	509	216	851	37	335	20	3 424
<b>2003-04</b>									
September	903	640	506	218	873	27	342	16	3 539
December	946	643	533	219	888	30	357	17	3 647
March	987	625	569	228	911	43	361	20	3 729
June	1 033	597	600	239	921	53	365	22	3 775

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(a) Reference year for chain volume measures is 2002-03.

<i>Period</i>	<i>New South Wales</i>	<i>Victoria</i>	<i>Queensland</i>	<i>South Australia</i>	<i>Western Australia</i>	<i>Tasmania</i>	<i>Northern Territory</i>	<i>Australian Capital Territory</i>	<i>Total</i>
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL									
<b>2000-01</b>	10 966	8 034	4 216	2 040	3 462	439	362	323	29 867
<b>2001-02</b>	10 205	8 975	5 203	2 367	3 984	492	396	404	32 028
<b>2002-03</b>	11 312	10 487	6 929	3 223	4 241	626	427	570	37 816
<b>2003-04</b>	11 545	10 336	7 346	3 280	5 641	593	429	555	39 725
<b>2001-02</b>									
June	2 703	2 497	1 478	713	1 128	164	132	139	8 953
<b>2002-03</b>									
September	2 695	2 506	1 420	649	948	99	81	98	8 498
December	3 080	2 943	1 956	915	1 114	207	154	164	10 533
March	2 649	2 438	1 615	737	953	151	83	163	8 789
June	2 889	2 600	1 938	922	1 227	169	109	145	9 996
<b>2003-04</b>									
September	2 747	2 635	1 592	818	1 431	148	128	144	9 643
December	2 948	2 746	2 035	875	1 587	149	124	124	10 589
March	2 578	2 314	1 593	691	1 220	143	91	123	8 754
June	3 271	2 642	2 125	897	1 402	153	85	165	10 739
SEASONALLY ADJUSTED									
<b>2001-02</b>									
June	2 561	2 400	1 399	685	1 077	np	np	np	8 502
<b>2002-03</b>									
September	2 733	2 529	1 545	706	954	np	np	np	8 734
December	2 957	2 742	1 892	819	1 058	np	np	np	10 045
March	2 886	2 712	1 718	814	1 063	np	np	np	9 551
June	2 736	2 504	1 774	884	1 166	np	np	np	9 486
<b>2003-04</b>									
September	2 790	2 655	1 740	888	1 442	np	np	np	9 905
December	2 832	2 561	1 961	782	1 501	np	np	np	10 067
March	2 815	2 568	1 701	764	1 364	np	np	np	9 564
June	3 109	2 552	1 943	847	1 334	np	np	np	10 188
TREND									
<b>2001-02</b>									
June	2 609	2 402	1 416	671	1 009	127	110	117	8 454
<b>2002-03</b>									
September	2 690	2 518	1 551	704	988	136	103	124	8 804
December	2 775	2 595	1 673	752	982	148	91	131	9 146
March	2 805	2 621	1 729	817	1 055	158	96	141	9 419
June	2 797	2 611	1 773	867	1 226	158	115	148	9 682
<b>2003-04</b>									
September	2 778	2 593	1 801	856	1 385	152	123	144	9 816
December	2 813	2 579	1 825	814	1 442	151	114	136	9 872
March	2 905	2 570	1 845	795	1 411	149	98	130	9 915
June	3 005	2 550	1 870	803	1 355	144	85	127	9 955

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(a) Reference year for chain volume measures is 2002-03.

## ACTUAL TOTAL EXPENDITURE—Chain volume measures(a)

<i>Period</i>	<i>New South Wales</i>	<i>Victoria</i>	<i>Queensland</i>	<i>South Australia</i>	<i>Western Australia</i>	<i>Tasmania</i>	<i>Northern Territory</i>	<i>Australian Capital Territory</i>	<i>Total</i>
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL									
<b>2000-01</b>	14 287	10 464	6 301	2 746	5 241	584	793	531	41 030
<b>2001-02</b>	12 998	10 893	7 190	3 002	5 920	936	1 409	595	42 954
<b>2002-03</b>	14 424	12 830	9 052	4 006	7 140	881	1 806	677	50 816
<b>2003-04</b>	15 398	12 842	9 582	4 174	9 239	747	1 881	629	54 492
<b>2001-02</b>									
June	3 349	3 014	2 049	876	1 653	301	421	172	11 834
<b>2002-03</b>									
September	3 385	3 104	1 953	810	1 499	186	461	124	11 523
December	3 917	3 565	2 572	1 131	1 846	263	575	201	14 070
March	3 261	2 968	2 075	901	1 707	224	362	184	11 682
June	3 862	3 194	2 452	1 164	2 087	208	409	168	13 541
<b>2003-04</b>									
September	3 615	3 334	2 107	1 007	2 259	168	540	159	13 191
December	3 955	3 433	2 617	1 144	2 621	172	491	137	14 572
March	3 441	2 881	2 059	873	1 962	192	406	146	11 959
June	4 387	3 194	2 798	1 150	2 396	215	443	187	14 770
SEASONALLY ADJUSTED									
<b>2001-02</b>									
June	3 171	2 920	1 951	844	1 582	275	439	154	11 275
<b>2002-03</b>									
September	3 441	3 091	2 078	876	1 510	195	428	144	11 813
December	3 726	3 318	2 469	995	1 728	270	551	205	13 298
March	3 603	3 317	2 238	1 014	1 912	231	398	182	12 864
June	3 655	3 104	2 266	1 120	1 991	185	428	146	12 841
<b>2003-04</b>									
September	3 677	3 309	2 256	1 090	2 282	173	514	185	13 503
December	3 748	3 197	2 504	1 001	2 449	177	460	140	13 717
March	3 825	3 220	2 234	988	2 215	202	441	143	13 249
June	4 148	3 116	2 587	1 095	2 292	195	465	161	14 023
TREND									
<b>2001-02</b>									
June	3 276	2 923	1 953	835	1 496	246	424	149	11 300
<b>2002-03</b>									
September	3 373	3 069	2 106	871	1 564	232	455	154	11 842
December	3 508	3 175	2 222	935	1 673	220	451	160	12 354
March	3 601	3 219	2 255	1 021	1 841	211	442	167	12 742
June	3 645	3 228	2 284	1 083	2 075	195	450	169	13 104
<b>2003-04</b>									
September	3 678	3 233	2 308	1 073	2 257	179	465	161	13 353
December	3 758	3 222	2 358	1 033	2 330	181	471	153	13 516
March	3 894	3 195	2 414	1 022	2 322	192	459	150	13 642
June	4 032	3 145	2 472	1 043	2 278	197	448	149	13 743

(a) Reference year for chain volume measures is 2002-03.



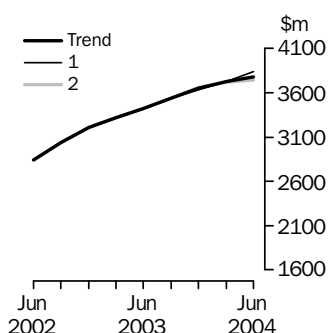
## WHAT IF...? REVISIONS TO TREND ESTIMATES

### EFFECT OF NEW SEASONALLY ADJUSTED ESTIMATES ON TREND ESTIMATES

#### TREND REVISIONS

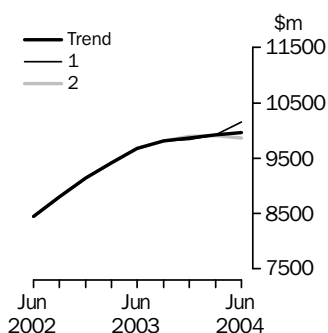
Recent seasonally adjusted and trend estimates are likely to be revised when original estimates for subsequent quarters become available. The approximate effect of possible scenarios on trend estimates for capital expenditure in chain volume terms are presented below by illustrating the impact if next 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 37 and 38 in the Explanatory Notes.

#### BUILDINGS AND STRUCTURES



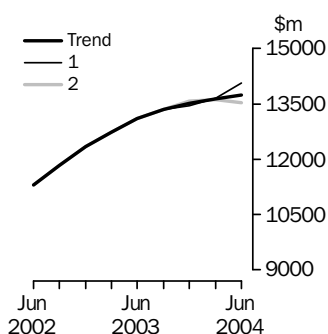
	Trend as published		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	%	(1) rises by 6.7% on this quarter		(2) falls by 6.7% on this quarter	
	\$m	%	\$m	%	\$m	%
<b>2003</b>						
September	3 539	3.4	3 539	3.4	3 539	3.4
December	3 647	3.1	3 637	2.8	3 657	3.4
<b>2004</b>						
March	3 729	2.2	3 730	2.6	3 723	1.8
June	3 775	1.2	3 839	2.9	3 743	0.5

#### EQUIPMENT, PLANT AND MACHINERY



	Trend as published		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	%	(1) rises by 4.9% on this quarter		(2) falls by 4.9% on this quarter	
	\$m	%	\$m	%	\$m	%
<b>2003</b>						
September	9 816	1.4	9 816	1.4	9 816	1.4
December	9 872	0.6	9 839	0.2	9 897	0.8
<b>2004</b>						
March	9 915	0.4	9 926	0.9	9 905	0.1
June	9 955	0.4	10 152	2.3	9 869	-0.4

#### TOTAL CAPITAL EXPENDITURE



	Trend as published		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	%	(1) rises by 4.4% on this quarter		(2) falls by 4.4% on this quarter	
	\$m	%	\$m	%	\$m	%
<b>2003</b>						
September	13 353	1.9	13 353	1.9	13 353	1.9
December	13 516	1.2	13 460	0.8	13 570	1.6
<b>2004</b>						
March	13 642	0.9	13 659	1.5	13 621	0.4
June	13 743	0.7	14 066	3.0	13 535	-0.6

## EXPLANATORY NOTES

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### 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, 1993:

Mining (Division B)

Manufacturing (Division C)

Other selected industries:

Construction (Division E)

Wholesale trade (Division F)

Retail trade (Division G)

Transport and storage (Division I)

Finance and insurance (Division K, but excluding Superannuation funds (Class 7412))

Property and business services (Division L)

Other selected services:

Electricity, gas and water (Division D)

Accommodation, cafes and restaurants (Division H)

Communication services (Division J)

Cultural and recreational services (Division P)

Personal services (Subdivision 95)

**3** The survey excludes the following industries:

Agriculture, forestry and fishing (Division A)

Government administration and defence (Division M)

Superannuation funds (Class 7412)

Education (Division N)

Health and community services (Division O)

Other services (Subdivision 96)

**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 businesses on the ABS Business Register which is primarily based on registrations to the Australian Taxation Office's Pay As You Go Withholding (PAYGW) scheme (and prior to 1 July 2000 the Group Employer scheme). The frame is updated quarterly to take account of new businesses, businesses which have ceased employing, changes in employment levels, changes in industry and other general business changes.

**6** Businesses which have ceased employing are identified when the Australian Taxation Office cancels their PAYGW registration (or previously their Group Employer registration). In addition, from September quarter 1999, businesses which did not remit under the Group Employer scheme for the previous five quarters were removed from the frame. A similar process has been adopted to remove businesses who do not remit under the PAYGW scheme.

**7** The statistics in this publication exclude non-employing businesses. Though 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.

## EXPLANATORY NOTES *continued*

### 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 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. 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) 2002 (cat. no. 1218.0).

### SURVEY METHODOLOGY

**9** The survey is conducted by mail on a quarterly basis. It is based on a random sample of approximately 8,000 units which is stratified by industry, State/Territory and number of employees. The figures obtained from the selected businesses are supplemented by data from units which have large capital expenditure and/or large employment and which are outside the sample framework, or not adequately covered by it.

**10** 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

**11** 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. March quarter survey returns are completed during April and May).

**12** Businesses are requested to provide 3 basic figures each survey:

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

Survey quarter	Period to which reported data relates									
	2001–2002			2002–2003			2003–2004			
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	
December 2001	Act	E1			E2					
March 2002	Act	Act	E1		E2					
June 2002	Act	Act	Act	E1	E2					
September 2002				Act	E1	E2				
December 2002				Act	Act	E1	E2			
March 2003				Act	Act	Act	E1	E2		
June 2003				Act	Act	Act	Act	E1	E2	

## EXPLANATORY NOTES *continued*

### TIMING AND CONSTRUCTION OF SURVEY CYCLE *continued*

**13** 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 table above shows for 2002–2003:

- the first estimate was available from the December 2001 survey as a longer term expectation (E2);
- the second estimate was available from the March 2002 survey (again as a longer term expectation);
- the third estimate was available from in the June 2002 survey as the sum of two expectations (E1 + E2);
- in the September 2002, December 2002 and March 2003 surveys the fourth, fifth and sixth estimates, respectively, are derived as 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 2003 survey was derived by summing the actual expenditure for each of the four quarters in the 2002–03 financial year.

**14** 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 have been directly collected each December quarter only from those businesses contributing significantly to data for a particular state or territory. Expectations data for the remaining businesses who 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. As has always been the case, expectations data for businesses operating within a single state/territory are allocated to that state/territory.

**15** These expectations data by state/territory are not included in this publication but are released on AusStats and are available on request.

### SAMPLE REVISION

**16** 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.

**17** 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.

**18** 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 June quarter 2004 they represented about 1.1% of the total estimate of new capital expenditure.

### CLASSIFICATION BY INDUSTRY

**19** 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), 1993* (cat. no. 1292.0).

**20** 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

**21** 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 2002–03). The current price values may be thought as being 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

## EXPLANATORY NOTES *continued*

### 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.

**22** With each release of the June quarter issue of this publication, a new base year is introduced and the reference year is advanced one year to coincide with it. This means that with the release of the June quarter 2004 issue of this publication, the chain volume measures for 2003–04 will have 2002–03 (the previous financial year) as their base year rather than 2001–02, and the reference year will be 2002–03. 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.

**23** 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 industry groups 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 *Information Paper: Introduction of Chain Volume Measures in the Australian National Accounts* (cat. no. 5248.0).

### DERIVATION AND USEFULNESS OF REALISATION RATIOS

**24** Once actual expenditure for a financial year is known, it is useful to investigate the relationship between each of the prior 6 estimates of expenditure for that financial year and the actual expenditure (see Page 5 for an explanation of the derivation of the 7 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 3 or 6 month expectations as well as the 12 month E2 estimates or combinations of estimates containing at least some expectation components (e.g. 6 months actual and 6 months expected expenditure).

**25** 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 2004–05 based on the June 2004 survey results and compare this with 2003–04 expenditure, it is necessary to apply the relevant realisation factors to the expectation to put both estimates on the same basis.

**26** 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.

**27** 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.

## EXPLANATORY NOTES *continued*

### RELIABILITY OF THE ESTIMATES

**28** 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 on pages 34 and 35 of this publication.

**29** 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 September quarter 2003.

**30** 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.

**31** 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 35, 37 and 38, below, seasonally adjusted and trend estimates are also subject to revision as data are revised and more data becomes available.

**32** 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 (eg. 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.

### SEASONAL ADJUSTMENT

**33** 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.

**34** 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.

**35** In this publication, the seasonally adjusted estimates are produced by the concurrent seasonal adjustment method which takes account of the latest available original estimates. This method improves the estimation of seasonal factors, and therefore, the seasonally adjusted and trend estimates for the current and previous quarters. As a result of this improvement, revisions to the seasonally adjusted and trend estimates will be observed for recent periods. In most instances the only noticeable revisions will be to the previous quarter and the same quarter one year ago. A more detailed review will be conducted annually prior to the June quarter release using data up to and including the March quarter. The concurrent seasonal adjustment

## EXPLANATORY NOTES *continued*

### SEASONAL ADJUSTMENT

*continued*

methodology replaces the forward factor methodology previously used to adjust capital expenditure estimates where seasonal factors for these estimates were only revised following an annual reanalysis.

**36** 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

**37** 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.

**38** 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 <timeseries@abs.gov.au>.

### DESCRIPTION OF TERMS

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

**40** *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.

**41** 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

**42** 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:

## EXPLANATORY NOTES *continued*

### COMPARISON WITH NATIONAL ACCOUNTS AND OTHER ABS STATISTICS *continued*

- 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 building 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.

**43** 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).

**44** 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

- 45** Users may also wish to refer the following publications:
- *Australian Business Expectations* (cat. no. 5250.0)
  - *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)
  - *Constructon Work Done, Australia* (cat no 8755.0)
  - *Directory of Capital Expenditure Data Sources and Related Statistics* (cat. no. 5653.0)
  - *Engineering Construction Activity, Australia* (cat. no. 8762.0)
  - *Information Paper: Experimental Estimates: Australian Industry, A State Perspective, 1998–99* (cat. no. 8156.0)
  - *Information Paper: Improvements to Australian Bureau of Statistics Business Indicators* (cat. no. 5677.0)
  - *Information Paper: Australian National Accounts, Introduction of Chain Volume and Price Indexes* (cat. no. 5248.0)



## EXPLANATORY NOTES *continued*

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### RELATED PUBLICATIONS

*continued*

**46** Current publications and other products released by the ABS are listed in the *Catalogue of Publications and Products* (cat. no. 1101.0). The Catalogue is available from any ABS office or the ABS web site <<http://www.abs.gov.au>>. 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

**47** 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 group (3 digit) level.

### DATA AVAILABLE ON AUSSTATS

**48** The ABS' time series service AusStats 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. A full list of available AusStats tables is in Appendix 2 on page 36.

### ACKNOWLEDGMENT

**49** 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*.

## APPENDIX 1 SAMPLING ERRORS

### 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

To illustrate, let us say that the published level estimate for total capital expenditure is \$10,500m and the calculated standard error in this case is \$173m. The standard error is then used to interpret the level estimate of \$10,500m. For instance, the standard error of \$173m indicates that:

- There are approximately two chances in three that the real value falls within the range \$10,327m to \$10,673m ( $\$10,500\text{m} \pm \$173\text{m}$ )
- There are approximately 19 chances in 20 that the real value falls within the ranges \$10,154m and \$10,846m ( $\$10,500\text{m} \pm \$346\text{m}$ )

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 quarterly level estimates. These standard errors are based on a smoothed average of capital expenditure estimates.

	<i>Buildings and structures</i>	<i>Equipment, plant and machinery</i>	<i>Total</i>
	\$m	\$m	\$m
Mining	11	16	36
Manufacturing	16	51	62
Construction	7	35	40
Wholesale trade	5	57	65
Retail trade	7	22	34
Transport and storage	10	40	45
Finance and insurance	3	29	31
Property and business services	52	62	84
Other services	69	36	89
<b>Total</b>	<b>90</b>	<b>124</b>	<b>173</b>
New South Wales	17	77	92
Victoria	73	71	108
Queensland	10	35	44
South Australia	2	13	27
Western Australia	5	25	32
Tasmania	1	8	8
Northern Territory	na	na	2
Australian Capital Territory	na	na	6
<b>Australia</b>	<b>90</b>	<b>124</b>	<b>173</b>

na not available

## APPENDIX 1 SAMPLING ERRORS *continued*

### 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 \$10,500m, and the next quarter the published level estimate is \$11,100m. In this example the calculated standard error for the movement estimate is \$221m. The standard error is then used to interpret the published movement estimate of +\$600m.

For instance, the standard error of \$221m indicates that:

- There are approximately two chances in three that the real movement over the two quarter period falls within the range \$379m to \$821m ( $\$600m \pm \$221m$ )
- There are approximately nineteen chances in twenty that the real movement falls within the range \$158m to \$1,042m ( $\$600m \pm \$442m$ )

The following table shows the standard errors for national quarterly movement estimates. These standard errors are based on a smoothed average of capital expenditure estimates.

	<i>Buildings and structures</i>	<i>Equipment, plant and machinery</i>	<i>Total</i>
	\$m	\$m	\$m
Mining	15	23	49
Manufacturing	22	64	78
Construction	10	48	55
Wholesale trade	7	51	66
Retail trade	11	25	45
Transport and storage	12	49	53
Finance insurance	5	40	32
Property and business services	74	84	114
Other services	98	46	119
<b>Total</b>	<b>127</b>	<b>153</b>	<b>221</b>
New South Wales	26	99	103
Victoria	26	114	117
Queensland	63	75	100
South Australia	10	84	84
Western Australia	24	87	91
Tasmania	5	21	21
Northern Territory	na	na	33
Australian Capital Territory	na	na	67
<b>Australia</b>	<b>127</b>	<b>153</b>	<b>221</b>

na not available

## APPENDIX 2 DATA AVAILABLE ON AUSSTATS

### DATA AVAILABLE ON AUSSTATS

The full list of Ausstats tables is as follows:

- 1a Actual expenditure, By type of asset and broad industry, Australia, Original, Current price terms
- 1b Short-term expectations, By type of asset and broad industry, Australia, Original, Current price terms
- 1c Long-term expectations, By type of asset and broad industry, Australia, Original, Current price terms
- 1e Actual expenditure, By type of asset and broad industry, Australia, Seasonally adjusted, Current price terms
- 1f Actual expenditure, By type of asset and broad industry, Australia, Trend, Current price terms
- 2a Actual expenditure, By detailed industry, Australia, Original, Current price terms
- 2b Short-term expectations, By detailed industry, Australia, Original, Current price terms
- 2c Long-term expectations, By detailed industry, Australia, Original, Current price terms
- 2e Actual expenditure, By detailed industry, Australia, Seasonally adjusted, Current price terms
- 2f Actual expenditure, By detailed industry, Australia, Trend, Current price terms
- 3a Actual expenditure, By type of asset, Australia, Original, Seasonally adjusted, Trend, Chain volume measures
- 3b Actual expenditure, By industry, Australia, Original, Seasonally adjusted, Trend, Chain volume measures
- 4a Actual expenditure, By type of asset, States and Australia, Original, Current price terms
- 4b Actual expenditure, By type of asset, States and Australia, Seasonally adjusted, Current price terms
- 4c Actual expenditure, By type of asset, States and Australia, Trend, Current price terms
- 5a Actual expenditure, By type of asset, States and Australia, Original, Chain volume measures
- 5b Actual expenditure, By type of asset, States and Australia, Seasonally adjusted, Chain volume measures
- 5c Actual expenditure, By type of asset, States and Australia, Trend, Chain volume measures
- 6a Actual and expected expenditure, By type of asset, New South Wales, Original, Current price terms
- 6b Actual and expected expenditure, By industry, New South Wales, Original, Current price terms
- 7a Actual and expected expenditure, By type of asset, Victoria, Original, Current price terms
- 7b Actual and expected expenditure, By industry, Victoria, Original, Current price terms
- 8a Actual and expected expenditure, By type of asset, Queensland, Original, Current price terms
- 8b Actual and expected expenditure, By industry, Queensland, Original, Current price terms
- 9a Actual and expected expenditure, By type of asset, South Australia, Original, Current price terms
- 9b Actual and expected expenditure, By industry, South Australia, Original, Current price terms
- 10a Actual and expected expenditure, By type of asset, Western Australia, Original, Current price terms

## APPENDIX 2 DATA AVAILABLE ON AUSSTATS *continued*

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DATA AVAILABLE ON  
AUSSTATS *continued*

10b Actual and expected expenditure, By industry, Western Australia, Original,  
Current price terms

11a Actual and expected expenditure, By type of asset, Tasmania, Original, Current  
price terms

11b Actual and expected expenditure, By industry, Tasmania, Original, Current price  
terms





FOR MORE INFORMATION . . .

- INTERNET* **www.abs.gov.au** the ABS web site is the best place to start for access to summary data from our latest publications, information about the ABS, advice about upcoming releases, our catalogue, and Australia Now—a statistical profile.
- LIBRARY* A range of ABS publications is available from public and tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.
- CPI INFOLINE* For current and historical Consumer Price Index data, call 1902 981 074 (call cost 77c per minute).
- DIAL-A-STATISTIC* For the latest figures for National Accounts, Balance of Payments, Labour Force, Average Weekly Earnings, Estimated Resident Population and the Consumer Price Index call 1900 986 400 (call cost 77c per minute).

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