

# PRIVATE NEW CAPITAL EXPENDITURE AND EXPECTED EXPENDITURE to June 2002 AUSTRALIA

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# SEPTEMBER QTR KEY FIGURES

#### TREND ESTIMATES (a)

	Sep 2000	Jun 2001	Sep 2001	% change Jun 2001 to	% change Sep 2000 to	
	\$m	\$m	\$ <i>m</i>	Sep 2001	Sep 2001	
Total new capital						
expenditure	10 434	9 625	9 611	-0.1	-7.9	
Buildings & structures	2 741	2 336	2 424	3.8	-11.6	
Equipment, plant &						
machinery	7 699	7 289	7 177	-1.5	-6.8	

#### SEASONALLY ADJUSTED(a)

	Sep 2000	Jun 2001	Sep 2001	•	% change Sep 2000 to
	\$m	\$m	\$m	Sep 2001	Sep 2001
Total new capital					
expenditure	10 439	9 631	9 685	0.6	-7.2
Buildings & structures	2 710	2 501	2 428	-2.9	-10.4
Equipment, plant &					
machinery	7 728	7 129	7 257	1.8	-6.1
(a) In volume terms.					

## SEPTEMBER QTR KEY POINTS

#### ACTUAL EXPENDITURE

- The trend estimate for total new capital expenditure (in volume terms) recorded a slight decrease of 0.1%. This is the sixth consecutive quarter of small decreases.
- In trend terms, expenditure on buildings and structures rose 3.8%, while expenditure on equipment, plant and machinery fell by 1.5%.
- Expenditure by Mining increased by 8.0%, continuing the strong growth in the previous four quarters. Manufacturing fell for the sixth consecutive quarter, decreasing by 4.8% in the current quarter.

#### EXPECTED EXPENDITURE

 Estimate 4 for 2001-2002 is \$41,011m, which is 6.5% higher than Estimate 3 for 2001-2002. This increase has been driven by a small number of larger businesses in Mining, Retail trade and Transport and storage.

 For further information about these and related statistics, contact
 John Blanchette on 02 9268 4357, or the National Information and Referral Service on 1300 135 070.

# NOTES

FORTHCOMING ISSUES ISSUE (Quarter) RELEASE DATE

December 2001 28 February 2002

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CHANGES IN THIS ISSUE There are no changes to this issue.

REVISIONS TO TREND Readers should exercise care in the interpretation of the trend data as the data

for the last three observations, in particular, are likely to be revised with the addition of subsequent quarters' data. For further information refer to Trend Estimates in paragraph 37 of the explanatory notes, and for examples showing the effect of new seasonally adjusted estimates on trend estimates, refer to

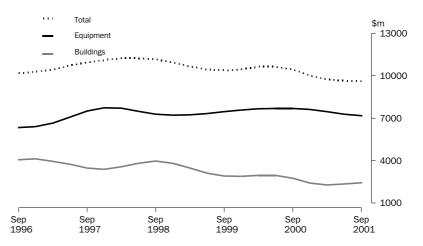
page 22.

Dennis Trewin Australian Statistician

## QUARTERLY TREND ESTIMATES OF CHAIN VOLUME MEASURES

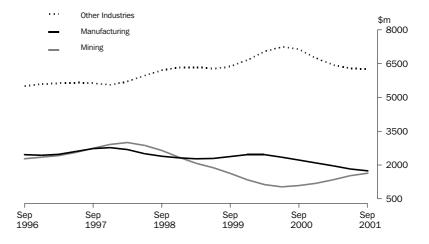
BY ASSET

The trend estimate of total new capital expenditure (in volume terms) fell by 0.1% in the September quarter after falls of between 0.1% and 4.0% in the previous five quarters. The trend estimate for expenditure on buildings and structures has increased for the past two quarters, due to strong increases in expenditure by Mining. The trend estimate for equipment, plant and machinery has fallen for the past four quarters after small increases in the previous seven quarters. Expenditure on equipment, plant and machinery by Mining was flat in the September quarter 2001, while Manufacturing and Other selected industries each fell, by 3.4% and 0.8% respectively.



BY INDUSTRY

The trend estimate for total new capital expenditure by the Mining industry rose by 8.0% this quarter following strong increases during 2000-2001. Despite this strong growth, expenditure by Mining is only a little over half the level recorded in the December quarter 1997. In the current quarter all the increase in expenditure was in buildings and structures. Expenditure by Manufacturing has declined for the past six quarters. The trend estimate for Other selected industries fell slightly (by 0.5%) this quarter, with expenditure on buildings and structures increasing by 1.0% and expenditure on equipment, plant and machinery falling by 0.8%.

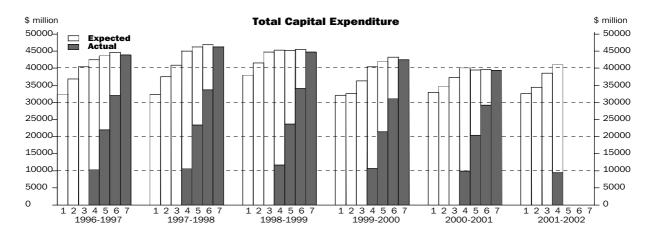


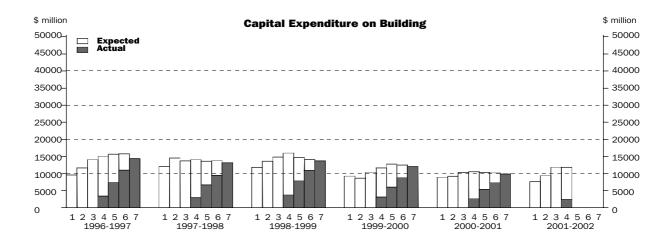
#### ACTUAL AND EXPECTED NEW CAPITAL EXPENDITURE

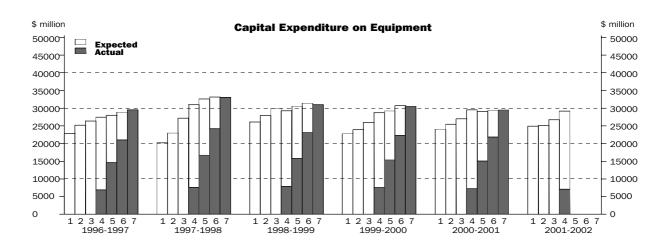
#### FINANCIAL YEARS AT CURRENT PRICES

**EXPENDITURE** 

The estimates of actual and expected expenditure appearing below relate to data contained in table 4. Information about the timing and construction of these estimates are contained on pages 13 and 14 and advice about the usefulness of the realisation ratios is on page 15 and 16.









	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
Period	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
• • • • • • • • • • • •	• • • • • •	• • • • • • •		• • • • • • • •	• • • • • • •			• • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • •
					ORIGINA	AL (Actua	l)					
1999–2000 2000–2001	2 534 2 268	1 501 1 233	7 968 6 369	12 003 9 870	2 753 2 980	8 184 7 163	19 507 19 344	30 444 29 486	5 288 5 248	9 685 8 397	27 475 25 712	42 447 39 357
1999-2000												
June <b>2000–2001</b>	544	404	2 280	3 228	696	2 037	5 400	8 133	1 239	2 441	7 681	11 361
September	453	389	1 754	2 596	542	1 804	4 961	7 307	995	2 193	6 715	9 903
December	541	349	1 861	2 752	722	1 897	5 101	7 720	1 264	2 246	6 962	10 472
March	476	233	1 229	1 939	850	1 577	4 408	6 835	1 326	1 810	5 638	8 774
June	798	262	1 524	2 584	866	1 885	4 874	7 625	1 663	2 148	6 397	10 209
2001–2002												
September	869	172	1 324	2 365	857	1 439	4 758	7 053	1 726	1 610	6 082	9 419
• • • • • • • • • • • • • • • • • • • •	• • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • •	• • • • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • •
2001-2002					ORIGINAL	(Expected	l)(a)					
3 mths to Dec	1 205	292	1 749	3 246	1 424	2 187	4 337	7 948	2 629	2 479	6 087	11 195
6 mths to Jun	2 356	682	3 197	6 234	2 790	3 452	7 921	14 163	5 146	4 134	11 118	20 398
Total 2001-2002	4 430	1 146	6 271	11 846	5 070	7 078	17 017	29 165	9 500	8 224	23 287	41 011
• • • • • • • • • • • • • •	• • • • •	• • • • • • •	• • • • • •	SEAS	SONALLY A	DJUSTED	(Actual)	• • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • •
1999–2000	2 554	1 505	7 997	12 055	2 747	8 205	19 525	30 476	5 299	9 710	27 522	42 531
2000-2001	2 254	1 209	6 361	9 824	2 981	7 175	19 361	29 516	5 234	8 384	25 722	39 340
1999–2000												
June	511	492	2 263	3 266	667	1 865	5 039	7 571	1 178	2 357	7 302	10 837
2000–2001	100	222			= 40	4.004	4.00=	= 440	4 0 4 0		0.040	10.111
September	469	328	1 875	2 672	543	1 934	4 965	7 442	1 012	2 262	6 840	10 114
December	509	294	1 613	2 416	715	1 787	4 988	7 490	1 224	2 081	6 601	9 906
March	526	243	1 336	2 105	891	1 725	4 847	7 463	1 417	1 968	6 183	9 568
June <b>2001–2002</b>	750	344	1 537	2 631	831	1 729	4 561	7 121	1 581	2 073	6 098	9 752
September	897	142	1 418	2 457	859	1 541	4 745	7 145	1 756	1 683	6 163	9 602
				TF	REND ESTI	MATES (A	ctual)					
1999–2000	2 235	1 143	7 662	11 041	2 642	8 186	19 449	30 277	4 879	9 329	27 110	41 318
2000–2001	2 285	1 107	6 331	9 722	3 000	7 092	19 471	29 563	5 284	8 199	25 802	39 285
1999–2000												
June	477	302	2 033	2 812	556	1 959	5 005	7 520	1 033	2 261	7 038	10 332
2000–2001							- 300	. 020	_ 000		. 000	002
September	479	289	1 850	2 618	607	1 867	5 026	7 500	1 086	2 156	6 876	10 118
December	495	285	1 584	2 364	718	1 810	4 932	7 460	1 213	2 095	6 516	9 824
March	586	276	1 457	2 319	812	1 747	4 808	7 367	1 398	2 023	6 265	9 686
June	724	257	1 440	2 421	863	1 668	4 705	7 236	1 587	1 925	6 145	9 657
2001–2002												
September	855	210	1 433	2 498	873	1 608	4 646	7 127	1 728	1 818	6 079	9 625

<sup>(</sup>a) Not directly comparable with estimates of actual expenditure due to likely over/under realisation

<sup>—</sup> see paragraphs 26 to 29 of the Explanatory Notes.



	MINING	MANUFA	CTURING								
	Total mining	Food, beverage and tobacco	Textile, clothing, footwear and leather	Wood and paper product	Printing, publishing and recorded media	Petroleum, coal, chemical and assoc. product	Non- metallic mineral product	Metal product	Machinery and equipment	Other manu- facturing	Total manu- facturing
Period	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
• • • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • •	• • • • • • •		• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • •		• • • • • •
				ORIGIN	AL (Actual	1)					
1999–2000 2000–2001	5 288 5 248	2 221 2 035	196 233	987 580	782 678	1 801 1 379	469 511	1 482 1 099	1 524 1 702	221 179	9 685 8 397
1999–2000	4 000	504		0=4	400	400			000	4.0	0.444
June <b>2000–2001</b>	1 239	584	55	251	169	496	149	330	360	46	2 441
September	995	427	54	151	163	327	170	240	612	49	2 193
December	1 264	549	46	133	208	464	129	333	347	37	2 246
March	1 326	498	38	124	130	297	89	208	375	51	1 810
June	1 663	561	95	173	176	291	124	318	367	43	2 148
2001–2002 September	1 726	389	36	94	116	320	105	235	275	40	1 610
• • • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • •		ORIGINAL	(Expected		• • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •
2001-2002											
3 mths to Dec	2 629	612	54	220	185	472	111	300	482	43	2 479
6 mths to Jun Total 2001-2002	5 146 9 500	1 010 2 011	57 147	241 556	206 506	716 1 508	182 398	946 1 481	708 1 464	68	4 134
10tal 2001-2002	9 500	2 011	147	336	506	1 308	398	1 481	1 404	151	8 224
• • • • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • •	SEAS	ONALLY A	DJUSTED	(Actual)	• • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • •
1999–2000	5 299	2 216	197	985	787	1 829	470	1 500	1 506	221	9 710
2000–2001	5 234	2 030	228	582	681	1 367	509	1 091	1 716	179	8 384
1999–2000	4.470	- 4-	40		4.40	540	4.40		400		
June <b>2000–2001</b>	1 178	545	49	205	148	518	146	300	402	44	2 357
September	1 012	478	58	142	192	328	166	260	592	46	2 262
December March	1 224 1 417	524 503	42 44	152 148	190 144	400 335	121 101	315 225	298 414	39 54	2 081 1 968
June	1 581	525	84	140	156	303	121	291	412	41	2 073
2001–2002											
September	1 756	437	39	88	136	323	102	255	265	38	1 683
• • • • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • •	• • • • • • •				• • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • •
			TR		MATES (Ad	ctual)					
1999–2000 2000–2001	4 879 5 284	2 198 2 024	205 212	880 584	808 660	1 530 1 398	472 500	1 479 1 088	1 537 1 559	217 177	9 329 8 199
1999–2000											
June	1 033	546	54	188	182	379	141	313	414	44	2 261
<b>2000–2001</b> September	1 086	512	49	163	175	374	147	285	408	43	2 156
December	1 213	512 506	49 50	163 150	175 175	374 358	131	285 270	408 410	43 45	2 156
March	1 398	510	55	143	163	342	114	268	383	45	2 023
June	1 587	496	58	128	147	323	108	264	358	43	1 925
<b>2001–2002</b> September	1 728	465	57	107	139	309	107	259	335	40	1 818

<sup>(</sup>a) Not directly comparable with estimates of actual expenditure due to likely over/under realisation

<sup>—</sup> see paragraphs 26 to 29 of the Explanatory Notes.



	Construction	Wholesale trade	Retail trade	Transport and storage	Finance and insurance	Property and business services	Other services etc.	Total other selected industries	Total new capital expenditure
Period	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
• • • • • • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • •	ODICIN	AL (Actual)	• • • • • • • •	• • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • • •
				ORIGIN	AL (Actual)				
1999–2000	1 435	2 599	3 093	3 659	2 925	6 163	7 601	27 475	42 447
2000–2001	1 268	2 071	2 771	3 040	3 187	5 848	7 527	25 712	39 357
1999–2000									
June	459	614	803	1 095	721	1 726	2 262	7 681	11 361
2000–2001									
September	333	583	723	602	986	1 552	1 936	6 715	9 903
December	381	554	843	859	798	1 504	2 022	6 962	10 472
March	247	420	475	871	566	1 269	1 789	5 638	8 774
June <b>2001–2002</b>	307	514	729	707	837	1 522	1 781	6 397	10 209
September	292	554	835	861	687	1 181	1 673	6 082	9 419
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • • •
				ORIGINAL	(Expected)(a	1)			
2001-2002	040	400	000	000	010	4.400	0.007	0.007	44.405
3 mths to Dec	212	439	889	668	618	1 163	2 097	6 087	11 195
6 mths to Jun Total 2001-2002	248 752	800 1 793	1 310 3 034	2 282 3 811	1 402 2 708	2 032 4 375	3 044 6 814	11 118 23 287	20 398 41 011
10tai 2001 2002	132	1 195	3 034	3 011	2 100	4313	0.014	25 261	41 011
• • • • • • • • • • • • • • •		• • • • • • • •	S	EASONALLY A	DJUSTED (Ac	ctual)	• • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • • •
1999–2000	1 433	2 573	3 107	3 662	2 969	6 178	7 600	27 522	42 531
2000–2001	1 279	2 067	2 757	3 050	3 171	5 851	7 550	25 722	39 340
1999–2000									
June	391	596	747	1 085	698	1 608	2 177	7 302	10 837
2000-2001									
September	378	552	717	591	969	1 579	2 054	6 840	10 114
December	363	515	724	851	724	1 419	2 005	6 601	9 906
March	276	501	636	901	667	1 434	1 768	6 183	9 568
June <b>2001–2002</b>	261	498	680	706	811	1 419	1 723	6 098	9 752
September	332	525	825	840	677	1 201	1 763	6 163	9 602
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • •	TDEND ECT	MATES (Actua	<b></b>	• • • • • • • • •	• • • • • • • • • •	• • • • • • • • • • •
1000 2000	1 116	0.550	2.077			•	7 520	27 110	41 210
1999–2000 2000–2001	1 446 1 308	2 553 2 077	3 077 2 800	3 491 3 240	2 833 2 938	6 179 5 811	7 532 7 631	27 110 25 802	41 318 39 285
1999–2000									
June	385	567	751	865	764	1 625	2 081	7 038	10 332
2000-2001									
September	382	544	727	823	748	1 556	2 096	6 876	10 118
December	339	524	685	796	734	1 478	1 960	6 516	9 824
March	300	504	678	805	730	1 423	1 825	6 265	9 686
June	287	505	709	816	725	1 354	1 749	6 145	9 657
<b>2001–2002</b> September	20.4	E40	757	700	700	1.070	1 704	6.070	0.005
September	294	513	757	790	726	1 278	1 721	6 079	9 625

 $<sup>\</sup>hbox{(a) Not directly comparable with estimates of actual expenditure due to likely over/under realisation}\\$ 

<sup>—</sup> see paragraphs 26 to 29 of the Explanatory Notes.

	ASSET			INDUSTRY				
	Buildings and structures	Equipment, plant and machinery	Total	Mining	Manufacturing	Other selected industries	Total	
Period	\$m	\$m	\$m	\$m	\$m	\$m	\$m	
••••••	• • • • • • • • • • • •	• • • • • • • • • •	ORIGINA	L	• • • • • • • • • • • • •	• • • • • • • • •	• • • • • • • • • • • •	
1999–2000	12 003	30 444	42 447	5 288	9 685	27 475	42 447	
2000-2001	9 668	30 041	39 709	5 073	8 203	26 433	39 709	
1999–2000								
June <b>2000–2001</b>	3 183	8 165	11 345	1 225	2 432	7 680	11 345	
September	2 555	7 601	10 156	978	2 184	6 993	10 156	
December	2 696	7 886	10 582	1 227	2 199	7 156	10 582	
March	1 893	6 910	8 802	1 279	1 762	5 762	8 802	
June	2 524	7 644	10 169	1 589	2 059	6 521	10 169	
2001-2002								
September	2 306	7 178	9 484	1 644	1 547	6 293	9 484	
• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
			SEASONALLY AI	DJUSTED				
1999-2000	12 003	30 444	42 447	5 288	9 685	27 475	42 447	
2000–2001	9 668	30 041	39 709	5 073	8 203	26 433	39 709	
1999–2000								
June <b>2000–2001</b>	3 126	7 595	10 710	1 163	2 245	7 293	10 710	
September	2 710	7 728	10 439	996	2 320	7 123	10 439	
December	2 387	7 645	10 033	1 191	2 058	6 784	10 033	
March	2 069	7 538	9 607	1 370	1 922	6 315	9 607	
June	2 501	7 129	9 631	1 515	1 904	6 212	9 631	
2001-2002								
September	2 428	7 257	9 685	1 669	1 640	6 376	9 685	
• • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • • •			• • • • • • • • •	• • • • • • • • • • • •	
			TREND ESTIM	MATES				
1999–2000	11 709	30 371	42 100	5 123	9 633	27 340	42 100	
2000–2001	9 754	30 074	39 827	5 138	8 101	26 582	39 827	
1999–2000	0.07-	<b>-</b>	40			7.05	10.5	
June <b>2000–2001</b>	2 948	7 677	10 622	1 030	2 347	7 236	10 622	
September	2 741	7 699	10 434	1 084	2 222	7 125	10 434	
December	2 399	7 623	10 021	1 185	2 096	6 741	10 021	
March	2 278	7 463	9 746	1 349	1 960	6 435	9 746	
June	2 336	7 289	9 625	1 521	1 823	6 281	9 625	
2001-2002								
September	2 424	7 177	9 611	1 642	1 735	6 250	9 611	

<sup>(</sup>a) Reference year for chain volume measures is 1999–2000.



# ACTUAL & EXPECTED CAPITAL EXPENDITURE, By Type of Asset—Current prices

	12 months	12 months							
	expectation as	expectation as		3 months actual	6 months actual	9 months actual			
	reported	reported	12 months	and 9 months	and 6 months	and 3 months			
	in Jan–Feb	in Apr–May	expectation as	expectation as	expectation as	expectation as			
	of previous	of previous	reported	reported	reported	reported	10		
Financial year	financial year (Estimate 1)	financial year (Estimate 2)	in Jul–Aug (Estimate 3)	in Oct–Nov (Estimate 4)	in Jan–Feb (Estimate 5)	in Apr–May (Estimate 6)	12 months actual (Estimate 7)		
• • • • • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
		BUI	LDINGS AND STF	RUCTURES (\$ mil	lion)				
1997–1998	12 085	14 505	13 668	14 014	13 593	13 740	13 150		
1998–1999	11 812	13 587	14 789	15 978	14 711	14 081	13 709		
1999–2000	9 258	8 655	10 287	11 663	12 731	12 488	12 003		
2000-2001	8 877	9 198	10 295	10 539	10 353	10 183	9 870		
2001–2002	7 623	9 329	11 762	11 846	n.y.a.	n.y.a.	n.y.a.		
BUILDINGS AND STRUCTURES (Realisation Ratio)(a)									
1009 1000	1 16	1.01	0.93	0.86	0.93	0.07	1.00		
1998–1999 1999–2000	1.16 1.30	1.39	0.93 1.17	1.03	0.93	0.97 0.96	1.00		
2000-2001	1.11	1.07	0.96	0.94	0.95	0.97	1.00		
5 year average	1.23	1.12	1.01	0.94	0.94	0.95	1.00		
5 year average	1.20	1.12	1.01	0.01	0.01	0.00	1.00		
• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	FOLUDA	ACNIT DI ANIT ANI	NACHINEDY (&	million)	• • • • • • • • • • • •			
1007 1000	00.000		1ENT, PLANT AND			22.454	22.000		
1997-1998	20 229	22 974	27 193	30 974	32 637 30 467	33 151	33 060		
1998–1999 1999–2000	26 104 22 787	27 905 23 912	29 948 25 977	29 276 28 713	29 203	31 386 30 728	30 973 30 444		
2000-2001	24 046	25 439	26 996	29 522	29 203	29 402	29 486		
2001-2002	24 886	25 064	26 738	29 165	n.y.a.	n.y.a.	n.y.a.		
					, ,		,		
EQUIPMENT, PLANT AND MACHINERY (Realisation Ratio)(a)									
1998–1999	1.19	1.11	1.03	1.06	1.02	0.99	1.00		
1999-2000	1.34	1.27	1.17	1.06	1.04	0.99	1.00		
2000-2001	1.23	1.16	1.09	1.00	1.01	1.00	1.00		
5 year average	1.33	1.23	1.13	1.05	1.03	1.00	1.00		
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •		• • • • • • • • • • • • •		• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
			TOTAL (S	\$ million)					
1997-1998	32 321	37 479	40 861	44 988	46 229	46 892	46 210		
1998-1999	37 916	41 492	44 737	45 253	45 178	45 467	44 682		
1999–2000	32 045	32 568	36 264	40 375	41 934	43 216	42 447		
2000–2001	32 923	34 638	37 291	40 061	39 444	39 584	39 357		
2001–2002	32 509	34 393	38 501	41 011	n.y.a.	n.y.a.	n.y.a.		
• • • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • •	TOTAL (Realis	ation Ratio)(a)	• • • • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • • •		
1998-1999	1.18	1.08	1.00	0.99	0.99	0.98	1.00		
1999-2000	1.32	1.30	1.17	1.05	1.01	0.98	1.00		
2000-2001	1.20	1.14	1.06	0.98	1.00	0.99	1.00		
5 year average	1.30	1.19	1.09	1.02	1.00	0.99	1.00		
• • • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • •		
	TOTA	AL (Percentage c	hange over previ	ous estimate for	same financial	year)			
1997–1998	n.a.	16.0	9.0	10.1	2.8	1.4	-1.5		
1998-1999	n.a.	9.4	7.8	1.2	-0.2	0.6	-1.7		
1999-2000	n.a.	1.6	11.4	11.3	3.9	3.1	-1.8		
2000-2001	n.a.	5.2 5.8	7.7	7.4 6.5	-1.5 n.v.2	0.4	-0.6		
2001–2002	n.a.	5.8	11.9	6.5	n.y.a.	n.y.a.	n.y.a.		
• • • • • • • • • • • • • • • • • • • •					• • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •		
	TOTAL (P	ercentage chang		· ·	or previous finan	cial year)			
1998–1999	17.3	10.7	9.5	0.6	-2.3	-3.0	-3.3		
1999–2000	-15.5	-21.5	-18.9	-10.8	-7.2	-5.0	-5.0		
2000–2001	2.7	6.4	2.8	-0.8	-5.9	-8.4	-7.3		

<sup>(</sup>a) Ratio of actual expenditure for the financial year to each progressive estimate for the financial year. For more information see paragraphs 26 to 29 of the Explanatory Notes.

# ACTUAL & EXPECTED CAPITAL EXPENDITURE, By Industry—Current prices

Financial year  1997–1998 1998–1999 1999–2000 2000–2001	12 months expectation as reported in Jan–Feb of previous financial year (Estimate 1)  7 727 8 679 8 735 8 909	12 months expectation as reported in Apr–May of previous financial year (Estimate 2)  8 826 10 412 8 587 9 528	10 108 11 257 9 015 9 923	3 months actual and 9 months expectation as reported in Oct–Nov (Estimate 4)  RING (\$ million)  10 936 10 456 9 594 9 383	6 months actual and 6 months expectation as reported in Jan–Feb (Estimate 5)  11 066 10 371 9 837 9 387	9 months actual and 3 months expectation as reported in Apr–May (Estimate 6) 11 451 9 963 9 987 8 787	12 months actual (Estimate 7) 10 996 9 435 9 685 8 397			
2001–2002	8 297	8 204	8 127	8 224	n.y.a.	n.y.a.	n.y.a.			
				(Realisation Ration						
1998–1999	1.09	0.91	0.84	0.90	0.91	0.95	1.00			
1999–2000	1.11	1.13	1.07	1.01	0.98	0.97	1.00			
2000–2001	0.94	0.88	0.85	0.89	0.89	0.96	1.00			
5 year average	1.12	1.04	0.96	0.95	0.95	0.96	1.00			
			MINING	(\$ million)						
1997-1998	8 592	9 588	11 027	11 908	12 090	11 551	11 029			
1998–1999	9 404	10 088	9 245	9 633	9 354	9 049	8 725			
1999–2000	6 510	5 524	5 991	6 334	5 598	5 556	5 288			
2000-2001	5 183	5 378	5 567	5 988	5 452	5 712	5 248			
2001–2002	5 673	7 137	8 300	9 500	n.y.a.	n.y.a.	n.y.a.			
• • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	MINING (Real	isation Ratio)(a)	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •			
1998–1999	0.93	0.86	0.94	0.91	0.93	0.96	1.00			
1999–2000	0.81	0.96	0.88	0.83	0.94	0.95	1.00			
2000-2001	1.01	0.98	0.94	0.88	0.96	0.92	1.00			
5 year average	1.03	0.97	0.93	0.89	0.94	0.95	1.00			
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •					• • • • • • • • • • • •	• • • • • • • • • • • • • •			
		ОТІ	HER SELECTED II	NDUSTRIES (\$ mi	llion)					
1997-1998	16 002	19 065	19 726	22 144	23 074	23 889	24 185			
1998–1999	19 833	20 992	24 235	25 165	25 453	26 455	26 522			
1999-2000	16 800	18 457	21 259	24 447	26 499	27 673	27 475			
2000-2001	18 830	19 732	21 801	24 690	24 605	25 085	25 712			
2001–2002	18 539	19 052	22 073	23 287	n.y.a.	n.y.a.	n.y.a.			
		OTHER S	ELECTED INDUS	TRIES (Realisatio	n Ratio)(a)					
1998–1999	1.34	1.26	1.09	1.05	1.04	1.00	1.00			
1999–2000	1.64	1.49	1.29	1.12	1.04	0.99	1.00			
2000-2001	1.37	1.30	1.18	1.04	1.05	1.03	1.00			
5 year average	1.50	1.36	1.21	1.09	1.04	1.01	1.00			
o year average	1.50	1.50	1.41	T.03	1.04	1.01	1.00			

<sup>(</sup>a) Ratio of actual expenditure for the financial year to each progressive estimate for the financial year. For more information see paragraphs 26 to 29 of the Explanatory Notes.

# RATIOS OF ACTUAL TO SHORT TERM EXPECTATION FOR SAME PERIOD(a)—Current prices

	3 MONTHS ENDING		6 MONTHS ENDING	
Financial year	31 December (collected in September Survey)	30 June (collected in March Survey)	31 December (collected in June Survey)	30 June (collected in December Survey)
• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • •	TYPE OF ASSE		• • • • • • • • • • • • • • • • • • • •
<b>Buildings and Struc</b>	ctures	1112 01 7,002	•	
1998–1999	0.87	0.88	0.90	0.85
1999–2000	0.98	0.87	1.05	0.89
2000-2001	0.94	0.89	1.03	0.90
5 year average	0.93	0.84	0.98	0.89
Equipment, Plant a	nd Machinery			
1998–1999	1.00	0.95	0.95	1.03
1999-2000	0.96	0.97	1.11	1.09
2000-2001	0.92	1.01	1.04	1.03
5 year average	0.98	1.00	1.06	1.06
Total	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	
4000 100-	0.05		0.5-	
1998–1999	0.95	0.93	0.93	0.98
1999–2000	0.97	0.94	1.09	1.02
2000–2001	0.93	0.98	1.03	1.00
5 year average	0.96	0.95	1.04	1.00
Mining		TYPE OF INDUST	RY	
1998–1999	0.91	0.85	0.97	0.86
1999–2000	0.75	0.82	0.92	0.88
2000-2001	0.79	0.78	0.84	0.94
		0.82	0.92	0.88
5 year average	0.64	0.82	0.92	0.00
Manufacturing				
1998–1999	0.85	0.81	0.80	0.83
1999–2000	0.93	0.89	0.98	0.97
2000-2001	0.86	0.85	0.84	0.80
	0.87	0.83		
5 year average	0.87	0.87	0.91	0.91
Other Selected Ind	ustries	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
1998–1999	1.01	1.01	0.97	1.09
1999-2000	1.04	0.97	1.19	1.07
2000-2001	0.98	1.11	1.16	1.10
		1.03	1.13	1.09
5 year average	1.04	1.03	1.13	1.09
Total	• • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • •
1998–1999	0.95	0.93	0.93	0.98
1999–2000	0.97	0.94	1.09	1.02
2000-2001	0.93	0.98	1.03	1.00
		0.95	1.04	1.00
5 year average	0.00	0.33	1.04	1.00

<sup>(</sup>a) For more information on Realisation Ratios see paragraphs 26 to 29 of the 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, 1993:

Mining (Division B)

Manufacturing (Division C)

Food, beverages and tobacco (21)

Textiles, clothing, footwear and leather (22)

Wood and paper products (23)

Printing, publishing and recorded media (24)

Petroleum, coal, chemical and associated products (25)

Non-metallic mineral products (26)

Metal products (27)

Machinery and equipment (28)

Other manufacturing (29)

Other Selected Industries

Construction (Division E)

Wholesale trade (Division F)

Retail trade (Division G)

Transport & storage (Division I)

Finance and insurance (Division K)

Property & business services (Division L)

Other selected services (including electricity & gas; communication; accommodation, cafes & restaurants; cultural & recreational services; and personal services (36, 37, 57, 71, 91–93, 95)

**3** The survey excludes the following industries

Agriculture, forestry and fishing

Government administration & defence

Education

Health and community services

Other services (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 the ABS Business Register which is primarily based on registrations to the Australian Taxation Office's Pay As You Go Witholding (PAYGW) scheme (and prior to 1 July 2000 it 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 GE registration). In addition, from September quarter 1999, businesses which did not remit under the GE scheme for the previous five quarters were removed from the frame. A similar process will be adopted to remove businesses who do not remit under the PAYGW scheme.

SCOPE OF THE SURVEY continued

**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.

CHANGES TO ABS BUSINESS REGISTER

SURVEY METHODOLOGY

- **8** The introduction of The New Tax System has a number of significant implications for ABS business statistics, and these are discussed in the *Information Paper: ABS Statistics And The New Tax System* (Cat. no. 1358.0). The replacement of the GE registration process by PAYGW registration resulted in a number of changes to most business survey frames. However, an adjustment has been made to the New Capital Expenditure series so that these changes will not affect broader level estimates of level and movement.
- **9** From the September quarter 2002, the ABS will make further changes including adopting a new units model and expanding its Register to include all units on the Australian Business Register, including non-employers. Further information on the impact of these changes will be provided before they are implemented.
- **10** The survey is conducted by mail on a quarterly basis. It is based on a random sample of approximately 6,800 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.
- **11** Respondents are asked to provide data on the same basis as their own management accounts. Where a particular business unit does not respond in a given survey period, an estimate is substituted. Revisions may be made to these estimates if data are provided subsequently from those businesses. Aggregates are calculated from all data using the 'number raised' estimation technique. Data are edited at both individual unit level and at aggregate level.
- **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. March quarter survey returns are completed during April and May). Full details of the reporting cycle are shown below.

TIMING AND CONSTRUCTION OF SURVEY CYCLE

**13** 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).

#### Period to which reported data relates 1999-2000 2000-2001 2001-2002 Survey quarter Sep Mar Jun Sep Dec Mar Jun Dec Mar E2 December 2000 Act E1 E2 Act Act E1 March 2001 Act Act Act E1 June 2001 E2 September 2001 Act E1 E2 E1 E2 December 2001 Act F2 March 2002 June 2002 E1

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). For example, as the table above shows, the first estimate for 2001–2002 was available from the December 2000 survey as a longer term expectation (E2). It was subsequently revised in the March 2001 survey (again as a longer term expectation) and in the June 2001 survey as the sum of two expectations (E1 + E2). In the September and subsequent surveys the estimate is derived as the sum of actual expenditure (for that part of the year completed) and expected expenditure (for the remainder of the year). The final (or seventh) estimate from the June quarter 2002 survey, will be derived by summing the actual expenditure for each of the four quarters.

EXPLANATION OF TIMING
OF ESTIMATES

**15** The graphs on page 4 and tables 4 and 5 of this publication contain 7 estimates of expenditure for each financial year.

#### COMPOSITION OF ESTIMATE.....

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

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 September quarter 2001 they represented about 2.6% of the total estimate of new capital expenditure.

STATISTICAL UNIT

19 The survey uses the management unit as the statistical unit. The management unit is the highest-level accounting unit within a business, having regard to industry homogeneity, for which accounts are maintained. In nearly all cases it coincides with the legal entity owning the business (i.e. company, etc.). In the case of large diversified businesses, however, there may be more than one management unit, each coinciding with a 'division' or 'line of business'. A division or line of business is recognised where separate and comprehensive accounts are compiled for it.

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. It replaces the Australian Standard Industrial Classification (ASIC) and the New Zealand Standard Industrial Classification (NZSIC).
- **21** For more information, users are referred to *Australian and New Zealand Standard Industrial Classification (ANZSIC)*, 1993 (Cat. no. 1292.0).

CLASSIFICATION BY INDUSTRY continued

CHAIN VOLUME MEASURES

- **22** In order to classify new capital expenditure by industry, each statistical unit (as defined above) is classified to the Australian and New Zealand Standard Industrial Classification (ANZSIC) industry in which it *mainly* operates.
- 23 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 1999–2000). 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 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 are benchmarked to annual chain volume estimates, so that quarterly estimates for a financial year sum to the corresponding annual estimate.
- **24** 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 2002 issue of this publication, the chain volume measures for 2001–2002 will have 2000–2001 (the previous financial year) as their base year rather than 1999–2000, and the reference year will be 2000–2001. 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 few years.
- 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 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 the *Information 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 6 estimates of expenditure for that financial year and the actual expenditure (see paragraphs 13-15 above 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).

DERIVATION AND USEFULNESS OF REALISATION RATIOS continued

- 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 2001–2002 based on the June 2001 survey results and compare this with 2000–2001 expenditure, it is necessary to apply the relevant realisation factors to the expectation 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 4 and 5.
- 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. Details of sampling errors are on pages 20 and 21 of this publication.
- **31** 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, non-response, inaccurate reporting by respondents, errors in the application of survey procedures, incorrect recording of answers, and errors in data entry and processing.
- **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.

SEASONAL ADJUSTMENT

- **33** The quarterly actual new capital expenditure series in this publication are affected to some extent by seasonal influences and it is useful to recognise and take account of this element of variation.
- **34** Seasonal adjustment is a means of removing the estimated effects of normal seasonal variations for the series so that the effects of other influences can be more clearly recognised.
- **35** Seasonal adjustment does not remove from the series the effect of irregular or non-seasonal influences (e.g. a change in interest rates) and reflect the sampling and other errors to which the original figures are subject. Particular care should be taken in interpreting quarterly movements in the adjusted figures in this publication, especially for detailed industry estimates. It should be noted that the seasonally adjusted figures necessarily reflect the sampling and other errors to which the original figures are subject.

SEASONAL ADJUSTMENT continued

**36** At least once each year the seasonally adjusted series are revised to take account of the latest available data. The most recent reanalysis takes into account data collected up to and including the March quarter 2001 survey. Data for periods after March 2001 are seasonally adjusted on the basis of extrapolation of historical patterns. The nature of the seasonal adjustment process is such that the magnitude of some revisions resulting from reanalysis may be quite significant, especially for data for more recent quarters.

TREND ESTIMATES

- **37** The trend estimates are derived by applying a 7-term Henderson moving average to the seasonally adjusted series. The 7-term Henderson average (like all Henderson averages) is symmetric, but as the end of a time series is approached, asymmetric forms of the average are applied. Unlike the weights of the standard 7-term Henderson moving average, the weights employed here have been tailored to suit the particular characteristics of individual series. While the asymmetric weights enable trend estimates for recent quarters to be produced, it does result in revisions to the estimates for the most recent three quarters as additional observations become available. There may also be revisions because of changes in the original data and as a result of the re-estimation of the seasonal factors.
- **38** For further information, see *Information Paper: A Guide to Interpreting Time Series Monitoring Trends, an Overview* (Cat. no. 1348.0) or contact the Assistant Director, Time Series Analysis on Canberra 02 6242 6345.

**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.

**42** A list of all members of the target population for a survey. The frame for this survey is a list of all businesses in the ANZSIC divisions, subdivisions and groups listed in paragraph 2. This is extracted from the ABS Business Register, which is a list of all employing Australian businesses, as described in paragraph 5.

FRAME

COMPARISON WITH OTHER ABS STATISTICS

- **43** 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 Survey of New Capital Expenditure. 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 dwelling and other building and structures items respectively.
  - 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.
  - For machinery and equipment, the National Accounts estimates relate to
    acquisitions less disposals of all fixed tangible assets whereas the survey figures
    are acquisitions of new fixed tangible assets only.
- **44** 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).

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 Operations and Industry Performance, Australia (Cat. no. 8140.0)
- Company Profits, Australia (Cat. no. 5651.0)
- 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)
- Introduction of Chain Volume Measures in the Australian National Accounts (Cat. no. 5248.0)
- Inventories and Sales, Selected Industries, Australia (Cat. no. 5629.0)
- Information Paper: Private New Capital Expenditure, State Estimates (Cat. no. 5646.0).

RELATED PUBLICATIONS 46 Current publications produced by the ABS are listed in the *Catalogue of* 

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from any ABS office.

ABS DATA AVAILABLE ON REQUEST 47 In addition to the data contained in this publication, more detailed industry

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.

SYMBOLS AND OTHER USAGES ANZSIC Australian and New Zealand Standard Industrial Classification

n.y.a. not yet available

#### STANDARD ERRORS

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.

LEVEL ESTIMATES

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 ( $$10,500m \pm $173m$ )
- There are approximately 19 chances in 20 that the real value falls within the ranges \$10,154m and \$10,846m (\$10,500m ± \$346m)

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

	Building and structures \$m	Equipment, plant and machinery \$m	Total \$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
Total	90	124	173

#### STANDARD ERRORS

#### MOVEMENT ESTIMATES

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.

	Building and structures	Equipment, plant and machinery	Total
	\$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 and insurance	5	40	32
Property and business services	74	84	114
Other services	98	46	119
Total	127	153	221

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

Each time new seasonally adjusted estimates become available, trend estimates are revised (see paragraphs 33 to 38 of the Explanatory Notes).

#### TREND REVISIONS

The examples in the tables below show two scenarios and the consequent revisions to previous trend estimates of capital expenditure by private businesses.

- **1** The December quarter seasonally adjusted estimate of chain volume measures is higher than the September quarter estimate by the percentage shown.
- **2** The December quarter seasonally adjusted estimate of chain volume measures is lower than the September quarter estimate by the percentage shown.

The percentages chosen are approximately the long term average movement, without regard to sign, in the seasonally adjusted series.

#### **BUILDINGS AND STRUCTURES** TREND AS **PUBLISHED** WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE: 2 1 \$m ₁4100 rises by 6.7% on Sep 2001 falls by 6.7% on Sep 2001 Published trend \$m % change % change % change \$m \$m 3600 2001 2 3100 March 2 2 7 8 -5.02 2 5 9 -5.82 2 7 2 -5.3June 2 3 3 6 2.5 2 3 4 1 3.6 2 3 3 7 2.9 2600 September 2 424 3.8 2 459 5.0 2 398 2.6 2100 December 0.6 2 548 3.6 2 413 D J 1999 2000 2001

ΕQ	UIPMENT, PLANT	AND		TREND AS					
MACHINERY				PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
_	1	\$m [10500				<b>1</b> rises by 4.9	9% on Sep 2001	<b>2</b> falls by 4.9	% on Sep 2001
_	Published trend			\$m	% change	\$m	% change	\$m	% change
	2	9500	2001						
			March	7 463	-2.1	7 436	-2.4	7 478	-1.9
		8500	June	7 289	-2.3	7 301	-1.8	7 286	-2.6
_		7500	September	7 177	-1.5	7 320	0.3	7 118	-2.3
	The state of the s		December	_		7 437	1.6	6 974	-2.0
D 199		6500 D							

TOTAL CAPITAL EXPENDITURE			TREND AS PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
<b>– 1</b>	\$m [14000				<b>1</b> rises by 4.	4% on Sep 2001	<b>2</b> falls by 4.4	% on Sep 2001
Published trend			\$m	% change	\$m	% change	\$m	% change
··· 2	12500	2001						
		March	9 746	-2.8	9 685	-3.4	9 761	-2.6
	11000	June	9 625	-1.2	9 647	-0.4	9 621	-1.4
77771	9500	September	9 611	-0.1	9 831	1.9	9 464	-1.6
,	3500	December	_	_	10 130	3.0	9 260	-2.2
D J D J 1999 2000 2001	D 8000							

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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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