Australian Bureau of Statistics

CATALOGUE NO. 5646.0

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STATE ESTIMATES OF PRIVATE NEW CAPITAL EXPENDITURE SEPTEMBER QUARTER 1988 SURVEY

PHONE INQUIRIES • about *these statistics and the availability of related unpublished statistics*—contact Jack Brzozowski on Canberra (062) 52 5611 or any ABS State office.
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MAIN FEATURES

Note: This publication provides a State dissection of Australian estimates for the September Quarter 1988 survey published on 19 January 1989.

September Quarter 1988

Seasonally adjusted current price estimates of private new capital expenditure in each State for the September Quarter 1988 are shown below together with percentage changes from revised June Quarter estimates. Graphs for each State are shown on page 2.

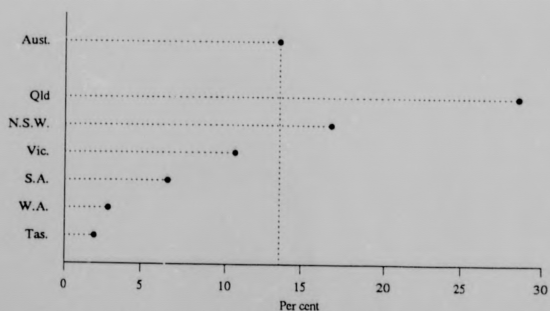
	September Qtr 1988—Seasonally Adjusted	
State	*Value $ m*	*% Change on June Qtr 1988*
N.S.W	2,295	+6
Vic.	1,536	-10
Qld.	836	+1
S.A.	366	-25
W.A.	851	-12
Tas.	133	+23
Aust.(a)	6,094	-5

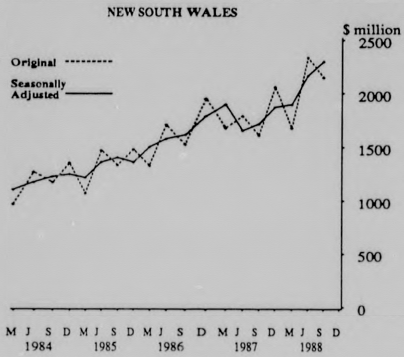
(a) Includes N.T. and A.C.T.

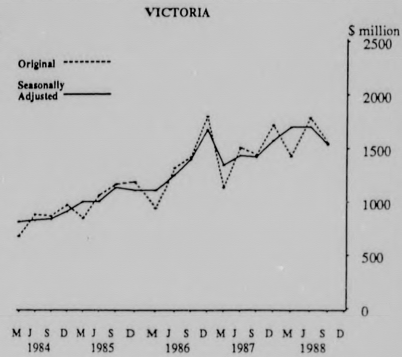
Year on year changes in expenditure

Quarter to quarter changes in State capital expenditure can be misleading because of the volatility of the estimates. Looking at the original series for the twelve months ending September 1988 compared with the previous twelve months, Queensland recorded the largest increase (+29%). New South Wales (+17%) also exceeded the Australia average. Tasmania (+2%) and Western Australia (+3%) recorded the smallest increases. These annual changes are shown graphically below.

PERCENTAGE CHANGE 12 MONTHS TO SEPTEMBER 1988 OVER 12 MONTHS TO SEPTEMBER 1987




NEW SOUTH WALES
$ million
Original
Seasonally Adjusted
2500
2000
1500
1000
500
0
M J S D M J S D M J S D M J S D M J S D
1984 1985 1986 1987 1988


VICTORIA
$ million
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Seasonally Adjusted
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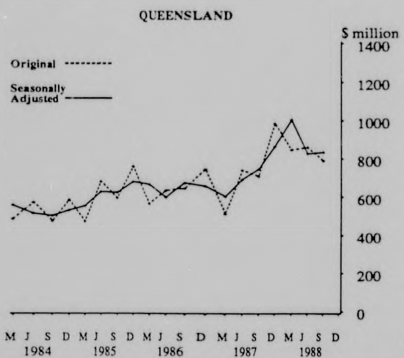
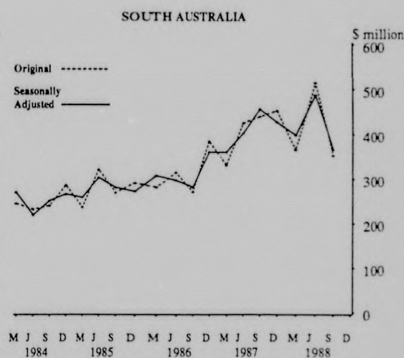
1500
1000
500
0
M J S D M J S D M J S D M J S D M J S D
1984 1985 1986 1987 1988


QUEENSLAND
$ million
Original
Seasonally Adjusted
1400
1200
1000
800
600
400
200
0
M J S D M J S D M J S D M J S D M J S D
1984 1985 1986 1987 1988


SOUTH AUSTRALIA
$ million
Original
Seasonally Adjusted
600
500
400
300
200
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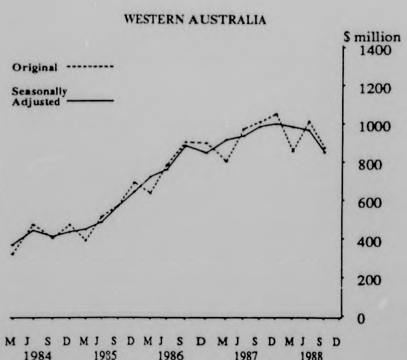
0
M J S D M J S D M J S D M J S D M J S D
1984 1985 1986 1987 1988


WESTERN AUSTRALIA
$ million
Original
Seasonally Adjusted
1400
1200
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M J S D M J S D M J S D M J S D M J S D
1984 1985 1986 1987 1988

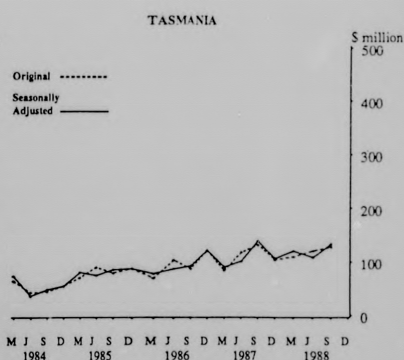
TASMANIA
$ million
Original
Seasonally Adjusted
500
400
300
200
100
0
M J S D M J S D M J S D M J S D M J S D
1984 1985 1986 1987 1988

TABLE 1 - PRIVATE NEW CAPITAL EXPENDITURE BY STATE (a)
($ million)

State	1986-87	1987-88	1986-87 June Qtr	1987-88 Sept. Qtr	1987-88 Dec. Qtr	1987-88 March Qtr	1987-88 June Qtr	1988-89 Sept. Qtr
NEW SOUTH WALES	6,936	r 7,675	1,787	r 1,609	r 2,059	r 1,675	r 2,332	2,147
VICTORIA	5,834	6,366	1,503	1,437	1,716	1,426	1,786	1,551
QUEENSLAND	2,645	3,404	741	709	985	848	861	792
SOUTH AUSTRALIA	1,409	1,770	425	439	452	365	514	352
WESTERN AUSTRALIA	3,573	3,919	970	1,007	1,048	856	1,009	873
TASMANIA	407	463	117	131	103	109	120	127
AUSTRALIA	**21,214**	**24,145**	**5,654**	**5,459**	**6,564**	**5,373**	**6,750**	**6,006**

(a) Estimates for N.T. and A.C.T. are not available for publication but are included in the total.

TABLE 2 - PRIVATE NEW CAPITAL EXPENDITURE BY STATE (a)
SEASONALLY ADJUSTED SERIES
($ million)

State	1986-87	1987-88	1986-87 June Qtr	1987-88 Sept. Qtr	1987-88 Dec. Qtr	1987-88 March Qtr	1987-88 June Qtr	1988-89 Sept. Qtr
NEW SOUTH WALES	6,948	7,643	1,653	1,714	1,870	1,895	2,164	2,295
VICTORIA	5,826	6,389	1,430	1,419	1,571	1,697	1,702	1,536
QUEENSLAND	2,632	3,444	693	747	865	1,004	828	836
SOUTH AUSTRALIA	1,402	1,768	401	456	427	398	487	366
WESTERN AUSTRALIA	3,579	3,924	934	982	996	981	964	851
TASMANIA	402	471	100	138	106	120	108	133
AUSTRALIA	**21,216**	**24,143**	**5,352**	**5,540**	**6,045**	**6,162**	**6,396**	**6,094**

(a) Estimates for N.T. and A.C.T. are not available for publication but are included in the total.

TABLE 3 - PRIVATE NEW CAPITAL EXPENDITURE BY SELECTED INDUSTRIES AND TYPE OF ASSET - NEW SOUTH WALES
($ million)

Type of Asset and Selected Industries	*1986-87*	*1987-88*	*1986-87* *June Qtr*	*1987-88* *Sept. Qtr*	*Dec. Qtr*	*March Qtr*	*June Qtr*	*1988-89* *Sept. Qtr*
Finance, Property and Business Services	1,674	r 2,521	431	r 463	r 644	r 484	r 931	803
Mining	600	321	89	67	70	80	104	98
Manufacturing	2,187	2,105	607	510	547	492	555	512
Other Selected Industries	2,476	2,727	660	568	798	619	742	733
Total New Capital Expenditure	**6,936**	**7,675**	**1,787**	**1,609**	**2,059**	**1,675**	**2,332**	**2,147**
New Buildings and Structures	1,860	2,694	496	545	757	578	814	886
Equipment, Plant and Machinery	5,076	4,981	1,291	1,064	1,302	1,097	1,518	1,261

TABLE 4 - PRIVATE NEW CAPITAL EXPENDITURE BY SELECTED INDUSTRIES AND TYPE OF ASSET - VICTORIA
($ million)

Type of Asset and Selected Industries	*1986-87*	*1987-88*	*1986-87* *June Qtr*	*1987-88* *Sept. Qtr*	*Dec. Qtr*	*March Qtr*	*June Qtr*	*1988-89* *Sept. Qtr*
Finance, Property and Business Services	1,206	r 1,866	314	r 414	r 541	r 425	r 486	532
Mining	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Manufacturing	2,447	2,598	639	591	626	592	790	545
Other Selected Industries	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total New Capital Expenditure	**5,834**	**6,366**	**1,503**	**1,437**	**1,716**	**1,426**	**1,786**	**1,551**
New Buildings and Structures	1,577	1,933	415	440	537	402	553	547
Equipment, Plant and Machinery	4,256	4,433	1,088	997	1,179	1,024	1,233	1,004

TABLE 5 - PRIVATE NEW CAPITAL EXPENDITURE BY SELECTED INDUSTRIES AND TYPE OF ASSET - QUEENSLAND
($ million)

Type of Asset and Selected Industries	1986-87	1987-88	1986-87	1987-88				1988-89
			June Qtr	Sept. Qtr	Dec. Qtr	March Qtr	June Qtr	Sept. Qtr
Finance, Property and Business Services	632	r 934	152	166	305	207	r 256	207
Mining	451	329	101	63	81	95	91	78
Manufacturing	482	760	156	156	161	258	185	174
Other Selected Industries	1,080	1,380	332	324	438	288	330	333
Total New Capital Expenditure	**2,645**	**3,404**	**741**	**709**	**985**	**848**	**861**	**792**
New Buildings and Structures	1,150	1,572	274	314	467	356	435	337
Equipment, Plant and Machinery	1,496	1,832	467	396	518	493	426	454

TABLE 6 - PRIVATE NEW CAPITAL EXPENDITURE BY SELECTED INDUSTRIES AND TYPE OF ASSET - SOUTH AUSTRALIA
($ million)

Type of Asset and Selected Industries	1986-87	1987-88	1986-87	1987-88				1988-89
			June Qtr	Sept. Qtr	Dec. Qtr	March Qtr	June Qtr	Sept. Qtr
Finance, Property and Business Services	300	r 365	84	88	91	81	r 105	72
Mining	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Manufacturing	494	657	131	177	145	120	216	133
Other Selected Industries	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total New Capital Expenditure	**1,409**	**1,770**	**425**	**439**	**452**	**365**	**514**	**352**
New Buildings and Structures	472	501	122	126	114	104	158	104
Equipment, Plant and Machinery	937	1,269	303	313	338	261	357	248

TABLE 7 - PRIVATE NEW CAPITAL EXPENDITURE BY SELECTED INDUSTRIES AND TYPE OF ASSET - WESTERN AUSTRALIA
($ million)

Type of Asset and Selected Industries	1986-87	1987-88	1986-87 June Qtr	1987-88 Sept. Qtr	1987-88 Dec. Qtr	1987-88 March Qtr	1987-88 June Qtr	1988-89 Sept. Qtr
Finance, Property and Business Services	415	r 432	116	109	127	r 103	r 93	80
Mining	1,972	2,211	547	616	615	496	485	461
Manufacturing	525	658	148	163	146	140	208	163
Other Selected Industries	661	618	160	119	159	116	224	170
Total New Capital Expenditure	**3,573**	**3,919**	**970**	**1,007**	**1,048**	**856**	**1,009**	**873**
New Buildings and Structures	1,587	1,419	389	439	338	302	341	327
Equipment, Plant and Machinery	1,986	2,501	581	568	710	554	669	546

TABLE 8 - PRIVATE NEW CAPITAL EXPENDITURE BY SELECTED INDUSTRIES AND TYPE OF ASSET - TASMANIA
($ million)

Type of Asset and Selected Industries	1986-87	1987-88	1986-87 June Qtr	1987-88 Sept. Qtr	1987-88 Dec. Qtr	1987-88 March Qtr	1987-88 June Qtr	1988-89 Sept. Qtr
Finance, Property and Business Services	n.p.	r n.p.	n.p.	n.p.	r n.p.	n.p.	n.p.	n.p.
Mining	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Manufacturing	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Other Selected Industries	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total New Capital Expenditure	**407**	**463**	**117**	**131**	**103**	**109**	**120**	**127**
New Buildings and Structures	105	84	14	14	20	27	23	26
Equipment, Plant and Machinery	302	379	103	117	84	82	97	101

TABLE 9 - RELATIVE STANDARD ERRORS OF ESTIMATES OF NEW CAPITAL EXPENDITURE
(Percentage)

State	*Selected Industry*					*Type of Asset*	
	Finance, etc (a)	*Mining*	*Manufacturing*	*Other Selected Industries*	*Total*	*New Buildings and Structures (b)*	*Equipment Plant and Machinery*
N.S.W	4	2	3	7	3	7	2
Vic.	4	..	4	..	4	7	4
Qld	3	2	4	13	3	5	3
S.A.	4	..	7	..	5	6	7
W.A.	10	1	6	9	4	7	3
Tas.	..	..	..	..	7	8	7
Australia (c)	**3**	**1**	**2**	**5**	**2**	**5**	**2**

(a) Finance, property and business services. (b) Includes mine development. (c) Includes N.T. and A.C.T.

EXPLANATORY NOTES

Introduction

1. This publication contains estimates of new capital expenditure by private enterprises in selected industries in Australia dissected by State. More detailed estimates for Australia were published in *Private New Capital Expenditure, Australia* (5626.0) released on 19 January 1989.

2. The series contained in this publication have been compiled from data collected in a quarterly survey of private enterprises. The survey is based on a stratified random sample of private enterprises recorded in the Australian Bureau of Statistics (ABS) central register of economic units. The figures obtained from the selected informants are supplemented by data from units which have large capital expenditure and which are outside the sample survey framework, or not adequately covered by it. These data are used to calculate estimates of new capital expenditure by *all* enterprises in the private sector of the Australian economy which fall within the industry scope of the survey.

Scope of the survey

3. This survey aims to measure the value of new capital expenditure by all private enterprises in Australia. However, because of various collection and compilation difficulties, the statistics in this publication exclude estimates relating to the enterprises classified to agriculture, construction and community services industries.

4. Private households and public sector enterprises (i.e. all departments, authorities and other organisations owned and/or controlled by Commonwealth, State or Local Government) are outside the present scope of the survey.

Statistical unit

5. In the main, the statistical unit is the enterprise as recorded on the ABS central register of economic units. There are however, two exceptions:

(a) where an enterprise has significant activities in more than one industry. A statistical unit has been created for each significant activity.

(b) there are cases where data for the enterprise are not available but data are available for the enterprise group (the parent enterprise and its subsidiary enterprises). Where possible in these cases, a statistical unit has been created for each operating division of the enterprise group.

Classification by industry

6. In order to classify new capital expenditure by industry in these series, each enterprise listed on the ABS central register of economic units (and therefore each selected enterprise) is classified to the Australian Standard Industrial Classification (ASIC) industry in which it *mainly* operates.

7. Except for the special statistical units (see paragraph 5(a) and (b)), the total value of all of the new capital assets acquired by each selected enterprise either on own account or under a finance lease is classified to the enterprise's industry even though it may have activities in other industries. In the case of the special statistical units, each unit was classified to the industry in which it mainly operates. It is thought that this practice will allow the estimates to approximate those that would be obtained if data were collected, and classified to industry, on an establishment basis.

8. The industries shown in this publication are detailed below. The numbers in brackets relate to the ASIC subdivisions as defined in the 1983 edition of ASIC.

MINING (11-16)
MANUFACTURING (21-34)
FINANCE, PROPERTY AND BUSINESS SERVICES (61-63)
OTHER SELECTED INDUSTRIES (36,37,47-56,91-93)

State dissection

9. The survey is designed to produce Australian estimates. The State dissection is achieved by requesting all surveyed enterprises identified on the ABS central register of economic units as having operations in more than one State, to allocate their expenditure to the State in which the assets have been or will be used. In cases where enterprises have been unable to allocate their expenditure to an individual State because the assets are mobile (e.g. trucks, aeroplanes, etc.) and are used in more than one State, the expenditure has been allocated to the State of the Australian Head Office of the enterprise. Expenditure by 'single State' enterprises in the survey is allocated to the State in which the enterprise head office is located.

10. Statistics for N.T. and A.C.T. are not separately available because of the high sampling variability associated with estimates for these Territories. They are included in totals for Australia and while a residual for the Territories can be derived, the measure is not reliable.

Reporting cycle

11. State estimates of actual new capital expenditure by private enterprises are compiled quarterly. State estimates of expected expenditure are only collected in the December quarter survey. The expected expenditure information relates to the 6 months ending the following June and the following financial year. Users should refer to the December Quarter 1987 issue of this publication released on 27 June 1988 for State estimates of businesses' expectations. Paragraphs 23 to 27 of that publication also provide a more detailed discussion of the predictive value of the expectation series.

Description of terms

12. *Enterprise.* For statistical purposes, the concept of an enterprise is broadly that of a unit comprising all the operations in Australia of a single operating legal entity, e.g. company, partnership, sole proprietor.

13. *New capital expenditure* refers to the acquisition of new tangible assets either on *own account* or under a *finance lease* including 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 from overseas.

14. Certain estimates are dissected by type of asset:

(a) *New buildings and structures.* Includes industrial and commercial buildings, houses, flats and home units, etc., 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 undertaken primarily for commencing or extending production). Excludes purchases of land or previously occupied buildings.

(b) *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. Excludes goods previously used in Australia.

Accruals basis

15. Enterprises have been asked to report all expenses *incurred* (except capitalised interest) during the period under review in acquiring new fixed tangible assets (including design, technical and legal fees and assembly, installation and transport costs) irrespective of when the *payments* are made.

Seasonal adjustment

16. The quarterly state 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.

17. Seasonal adjustment may be carried out by various methods and the results may vary slightly according to the procedure adopted. Accordingly, seasonally adjusted statistics are in fact only estimates and should not be regarded as in any way definitive. In interpreting particular seasonally adjusted statistics it is important, therefore, to bear in mind the methods by which they have been derived and the limitations to which the methods used are subject. Particular care should be taken in interpreting quarter to quarter movements in the adjusted figures in this publication.

18. Seasonally adjusted estimates in this publication have been derived by independently adjusting state estimates by type of asset and then adding them to form state total capital expenditure estimates. Prior to the June Quarter 1988 survey state total capital expenditure estimates were seasonally adjusted directly.

19. The seasonally adjusted Australian estimates of new capital expenditure included in this publication are consistent with those published in *Private New Capital Expenditure, Australia* (5626.0). These estimates are derived independently of the seasonally adjusted State estimates and as such the residual difference between the States and Australia estimates should in no way be regarded as a seasonally adjusted estimate for A.C.T. and N.T. (see also paragraph 10).

20. At least once each year the seasonally adjusted series are reanalysed to take into account the latest available data. The most recent reanalysis of the new capital expenditure series takes into account data collected up to and including the March Quarter 1988 survey. 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. For this reason, additional care should be exercised when interpreting movements in seasonally adjusted data for recent quarters.

21. It should be noted that the seasonally adjusted figures necessarily reflect the sampling and other errors to which the original figures are subject.

22. Details of the seasonal adjustment methods used, together with selected measures of variability for these series are available on request.

Reliability of the estimates

23. Since estimates are based on information obtained from a sample drawn from units in the surveyed population, the estimates and the movements derived from them are subject to sampling variability; that is, they may differ from the figures that would have been produced if all units had been included in the survey. One measure of the likely difference is given by the *standard error*, which indicates the extent to which an estimate might have varied by chance because only a sample of units was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all units had been included, and about nineteen chances in twenty that the difference will be less than two standard errors. Another measure of sampling variability is the *relative standard error* which is obtained by expressing the standard error as a percentage of the estimate to which it refers. The relative standard error is a useful measure in that it provides an immediate indication of the percentage errors likely to have occurred due to sampling, and thus avoids the need to refer also to the size of the estimate. The sample estimates of quarter to quarter movement in the value of new capital expenditure are also subject to sampling variability. The relative standard error of the estimate of movement is expressed as a percentage of the quarterly estimate of the level of capital expenditure.

24. Estimates of standard error of movement are not available. However, in absolute terms, these are expected to be similar to or less than estimates of standard error for the level estimates.

25. The imprecision due to sampling, which is measured by the standard error, is not of course the only type of inaccuracy to which the estimates are subject. Other inaccuracies, referred to collectively as non-sampling error, may occur for a number of reasons. The major ones of concern and which may affect the new basis data are:

(a) misreporting of data by respondents

(b) deficiencies in the central register of economic units particularly in respect of small units.

Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, efficient editing and operating procedures and appropriate methodology.

26. The statistics contained in this publication provide a broad indication of the distribution of Australian estimates of expenditure across States. However, the data should be used with care for the reasons outlined above.

Comparison with other statistics published by the ABS

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

(a) The national accounts estimates incorporate data from other sources as well as information from the capital expenditure survey. For example, income tax tabulations provide the benchmark data for estimating the national accounts private gross fixed capital expenditure on 'equipment' and the ABS's quarterly building collection is the main data source for estimating the national accounts 'dwellings' item.

(b) The national accounts estimates include the capital expenditure by private enterprises classified to the agriculture, forestry, fishing and hunting, construction and community services industries and the capital expenditure on dwellings by households, statistics of which are excluded from this publication (see paragraphs 3 and 4).

(c) The 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 include the value of work done on speculative construction projects as new capital expenditure when the project is sold.

(d) For '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.

Unpublished data

28. This publication contains only limited industry data. More detailed industry data may be made available on request.

Related publications

29. Users may also wish to refer to the following publications:

Private New Capital Expenditure, Australia (5626.0)—*issued quarterly*

Australian National Accounts, National Income and Expenditure, (5204.0)—*issued annually*

Quarterly Estimates of National Income and Expenditure, Australia (5206.0)—*issued quarterly*

30. Current publications produced by the ABS are listed in the *Catalogue of Publications, Australia*, (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

Symbols and other usages

n.p.	not available for separate publication but included in totals
. .	not applicable
r	figure or series revised since previous issue
ASIC	Australian Standard Industrial Classification 1983 edition.

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