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COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, AUSTRALIA

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CAPITAL AND MAINTENANCE EXPENDITURE BY PRIVATE BUSINESSES IN AUSTRALIA

DECEMBER QUARTER 1969 (ACTUAL)

JANUARY TO JUNE 1970 (ANTICIPATED)

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INTRODUCTION

General

This bulletin contains estimates based on returns obtained from a sample of businesses subject to pay-roll tax (i.e., businesses paying more than $400 a week in wages), supplemented by returns from other businesses not subject to pay-roll tax which are known to be undertaking capital expenditure projects entailing expenditure of $500,000 or more in a six-monthly period.

2. Annual and half-yearly figures are shown for actual and anticipated capital expenditure and for expenditure on repairs and maintenance, and in addition quarterly estimates are shown for actual capital expenditure. Preliminary estimates of actual capital expenditure for December quarter 1969, previously published in bulletin (Reference No. 5.7) of 18 February 1970 are revised in this bulletin.

3. As the estimates are derived from returns received from a sample of businesses, they may differ from the results which would have been obtained by a comparable complete collection. A measure of the likely difference is given by the standard error of the estimates. The standard error of the revised quarterly estimates of actual capital expenditure is approximately 1.5 per cent for the total value for Australia and 2 per cent for the totals of the manufacturing and non-manufacturing industries. The standard error for the individual industry groups varies between 2 and 7 per cent for the manufacturing industries and between 1 and 4 per cent for non-manufacturing. There are about 2 chances in 3 that a sample estimate will differ from results which would be obtained from a comparable complete collection by less than 1 standard error, and 19 chances in 20 that the difference would be less than 2 standard errors. For example, the December quarter 1969 revised estimate of total capital expenditure is $645 million with a standard error of approximately 1.5 per cent, which means that there are 2 chances in 3 that a complete collection would give an estimate within the range of approximately $635 million to $655 million, and 19 chances in 20 that the estimate would be within the range of $626 million to $664 million.

4. The revised estimates differ to some extent from the corresponding preliminary estimates published on 18 February 1970 due to sampling variability between the two estimates. The standard errors of the preliminary estimates, which are based on returns from 70-75 per cent of the businesses included in the sample, vary from quarter to quarter but are approximately 2 per cent for "Total all Industries" and 2.5 per cent for "Total Manufacturing" and "Total Non-Manufacturing". As can be seen by reference to paragraph 3, the revised estimates, being based on returns from the full sample, have a lower sampling error.

5. The standard errors of the estimates, quoted above, relate to the level of the estimates of capital expenditure. The sample estimates of quarter to quarter movement in the value of capital expenditure (i.e. the difference between the estimates for the current quarter and those for the preceding quarter) are, likewise, subject to sampling variability. A measure of the likely difference between the sample estimate of movement, and the movement indicated by the results of comparable

complete collections, is given by the standard error of the estimate of movement. This is expressed as a percentage of the level of the current quarterly estimate. For example the revised estimates show an increase of $85 million between the September and December quarters of 1969. If the standard error of movement were 1.5 per cent, then there would be 2 chances in 3 that the increase would be between $75 million and $95 million, and 19 chances in 20 that the increase would be between $66 million and $104 million. The standard errors of estimates of quarter to quarter movement in the value of capital expenditure have not yet been calculated, but these errors can in most cases be taken to be slightly less than the standard errors of the estimates of the level of capital expenditure.

Seasonally adjusted estimates

6. Revised seasonally adjusted estimates of quarterly new capital expenditure are presented in Table 1, part C, page 5. Percentage changes in the revised seasonally adjusted estimates of half-yearly anticipated and actual new capital expenditure are shown in Table 1, part B, page 4. The revisions to these seasonally adjusted series are the result of the annual re-analysis, details of which will be given in the forthcoming issue of "Seasonally Adjusted Indicators" (Reference No. 1.10), together with details of the methods used.

Industrial field covered

7. This survey is designed primarily to measure trends in expenditure by private businesses on the tangible assets specified. With current statistical resources it is not practicable to include all private industry in the survey. The fields of private industry excluded are :

(a) Businesses whose pay-roll is below the exemption limit for pay-roll tax (unless included in the supplementary collection from businesses known to be undertaking capital expenditure projects involving expenditure of $500,000 or more in a six-monthly period).

(b) Organisations "exempted" from pay-roll tax such as religious or benevolent institutions.

(c) Rural.

(d) Certain businesses such as accountants, trade associations, consultant engineers, etc. Capital expenditure by these businesses is considered too small to affect trends.

(e) Gas and electricity.

8. Although governmental undertakings in general are excluded from the survey, government airlines and banks are included for the sake of completeness in these industrial fields.

9. Since the pay-roll tax exemption limit is fixed in money terms, the coverage of the pay-roll tax field in terms of employment may vary in accordance with changes in wage-rates, etc. At the head of each column in tables 1 (Part A), 2 (Part A), and 3 herein, employment in the field of business for which estimates of capital and maintenance expenditure are shown is expressed as a percentage of total private employment (other than rural and private domestic) plus employment in government airlines and banks. The percentages relating to periods from 1966-67 have been revised in this bulletin to correspond with revisions to the scope of the employment statistics from which they are derived. The revisions to the employment statistics are described in the statistical bulletin "Employment and Unemployment March 1969 to September 1969" (Reference No. 6.4.) The percentage shown for 1965-66 is not comparable with the percentages shown for subsequent periods. In relation to the measurement of capital and maintenance expenditure, these employment percentages are shown merely as a broad indication of the extent of the field surveyed and of changes in coverage.

Industrial dissection

10. Returns are obtained on a State basis and, in general, businesses are classified according to their predominant activity in each State. Certain large organisations having extensive operations in more than one industry supply information for their separate industries.

Scope of estimates

11. Prior to the December quarter 1966, "New capital expenditure" was defined as total payments from any source (including receipts from insurance claims and trade-in allowances) by businesses, during the periods specified, for the purchase or installation of new buildings and structures and other new capital equipment, whether or not the assets were acquired during the period in which payment was made. As from the December quarter 1966, "New capital expenditure" also includes large items of capital equipment which are imported for the purpose of leasing (e.g. ships, oil drilling rigs, etc.) to a business in Australia for a period expected to exceed one year, irrespective of whether any payment is made for such equipment by the importer. Statistics for earlier periods have not been revised as the amounts involved are thought to be relatively minor.

12. "Repairs and maintenance expenditure" relates to payments, during the period specified, for the repair and maintenance of capital equipment, irrespective of when the repairs, etc. were made. Expenditure on alterations and additions to existing buildings and structures is treated as "New capital expenditure".

13. The component "Buildings and structures" covers assets such as buildings, wharves, railway and harbour constructions, roads and also lifts, heating and ventilation equipment and the like forming an integral part of the structure. The component "Other capital equipment" covers all machinery and equipment including vehicles, aircraft and ships, and such items as new motors, lathes, office equipment and fixtures.

14. The estimates exclude expenditure on the purchase of land, existing buildings and other structures, and second-hand equipment (unless bought from overseas suppliers).

NEW CAPITAL EXPENDITURE BY TYPE OF ASSET

15. Part A of Table 1 shows the estimated yearly expenditure on new buildings and other new capital equipment for each of the years 1965-66 to 1968-69 and estimated half-yearly expenditure for the second half of 1968-69 and the first half of 1969-70. Details of anticipated expenditure for the half-year ending 30 June 1970, are also shown. Part B shows anticipated and actual expenditure for each half-year as a percentage change from actual expenditure in the previous half-year. Part C shows the estimated quarterly expenditure on new buildings and other new capital equipment from the September quarter 1965 to December quarter 1969.

16. In the interpretation of figures of anticipated expenditure it should be kept in mind that they represent the total of expenditure anticipated by individual businesses at the beginning of the half-year. Subsequent changes in economic conditions may cause revision of plans and affect the timing of construction or the deliveries of equipment, or their cost. On occasions, individual plans may prove to be collectively beyond the capacity of the economy.

TABLE 1. - NEW CAPITAL EXPENDITURE BY TYPE OF ASSET : JULY 1965 TO JUNE 1970

(By private businesses subject to pay-roll tax, excluding rural industries - see paragraphs 1 to 9, pages 1 and 2)

PART A. - YEARLY AND HALF-YEARLY NEW CAPITAL EXPENDITURE

Particulars	1965-66	1966-67	1967-68	1968-69	1969 January to June	1969 July to December	1970 January to June
Business field covered (a)	78%	77%	77%	77%	77%	78%	78%
	$ million						
Capital expenditure on -	Actual expenditure						Anticipated (b)
New buildings and structures	580.8	560.5	674.7	816.2	399.6	483.3	518.9
Other new capital equipment	1177.4	1136.7	1197.1	1275.4	632.4	721.5	772.0
Total new capital expenditure	1758.2	1697.2	1871.8	2091.6	1032.0	1,204.8	1,290.9

(a) See paragraph 9, page 2.
(b) Anticipated by businesses at the beginning of the period. See paragraph 16, page 3.

PART B. - PERCENTAGE CHANGE IN HALF-YEARLY (ANTICIPATED AND ACTUAL) NEW CAPITAL EXPENDITURE-ORIGINAL AND SEASONALLY ADJUSTED SERIES (a)

(Change from actual expenditure in previous half-year)

	ORIGINAL				SEASONALLY ADJUSTED			
	July to Dec.		Jan. to June		July to Dec.		Jan. to June	
	Antic. (b)	Actual	Antic. (b)	Actual	Antic. (b)	Actual	Antic. (b)	Actual
NEW BUILDINGS AND STRUCTURES								
1965-66	+ 34	+ 30	- 1	- 12	+ 23	+ 16	+ 9	..
1966-67	+ 8	+ 6	- 2	- 7	- 2	- 6	+ 9	+ 7
1967-68	+ 28	+ 33	- 9	- 12	+ 16	+ 16	+ 1	+ 1
1968-69	+ 33	+ 32	+ 14	- 4	+ 19	+ 15	+ 27	+ 9
1969-70	+ 33	+ 21	+ 7	(c)	+ 21	+ 6	+ 19	(c)
OTHER NEW CAPITAL EQUIPMENT								
1965-66	+ 12	+ 19	- 4	- 5	+ 8	+ 15	+ 1	..
1966-67	- 6	+ 3	- 11	- 9	- 11	- 2	- 7	- 4
1967-68	+ 13	+ 10	+ 1	..	+ 8	+ 4	+ 7	+ 6
1968-69	+ 6	+ 7	- 5	- 2	+ 2	+ 2	..	+ 3
1969-70	+ 9	+ 14	+ 7	(c)	+ 4	+ 8	+ 12	(c)
TOTAL NEW CAPITAL EXPENDITURE								
1965-66	+ 19	+ 23	- 3	- 7	+ 13	+ 14	+ 4	+ 1
1966-67	- 2	+ 4	- 8	- 8	- 8	- 4	- 1	..
1967-68	+ 18	+ 18	- 3	- 4	+ 10	+ 7	+ 5	+ 5
1968-69	+ 15	+ 16	+ 3	- 2	+ 8	+ 5	+ 11	+ 7
1969-70	+ 18	+ 17	+ 7	(c)	+ 10	+ 7	+ 16	(c)

(a) See paragraph 6, page 2.
(b) Anticipated by businesses at the beginning of the period. See paragraph 16, page 3.
(c) Not yet available.

PART C. - QUARTERLY NEW CAPITAL EXPENDITURE - ORIGINAL AND SEASONALLY ADJUSTED SERIES (a)

$ million

Year	Original				Seasonally adjusted			
	Sept. qtr	Dec. qtr	March qtr	June qtr	Sept. qtr	Dec. qtr	March qtr	June qtr
NEW BUILDINGS AND STRUCTURES								
1965-66	149.4	158.9	118.3	154.2	146.6	143.7	140.7	149.6
1966-67	141.3	148.4	122.0	148.8	139.1	133.0	145.6	144.3
1967-68	167.1	191.8	143.0	172.8	155.4	170.6	170.8	167.9
1968-69	181.7	234.9	160.7	238.9	181.2	207.5	191.5	232.8
1969-70	220.0	263.3	(b)	(b)	219.8	231.4	(b)	(b)
OTHER NEW CAPITAL EQUIPMENT								
1965-66	286.4	316.3	270.4	304.3	294.0	295.3	310.4	281.2
1966-67	291.1	303.1	245.8	296.7	298.9	282.0	282.2	275.2
1967-68	266.7	331.0	261.2	338.2	274.1	307.3	298.9	314.9
1968-69	302.7	340.3	279.1	353.3	311.4	315.1	319.0	329.0
1969-70	339.7	381.8	(b)	(b)	350.6	352.2	(b)	(b)
TOTAL NEW CAPITAL EXPENDITURE								
1965-66	435.8	475.2	388.7	458.5	439.3	437.2	451.5	433.4
1966-67	432.4	451.5	367.8	445.5	437.2	411.6	429.2	421.9
1967-68	433.8	522.8	404.2	511.0	439.5	473.6	472.7	484.8
1968-69	484.4	575.2	439.8	592.2	492.8	518.2	515.0	562.4
1969-70	559.7	645.1	(b)	(b)	571.1	578.0	(b)	(b)

PART D. - PERCENTAGE CHANGE IN QUARTERLY NEW CAPITAL EXPENDITURE - ORIGINAL AND SEASONALLY ADJUSTED SERIES (a)

(change from actual expenditure in previous quarter)

Year	Original				Seasonally adjusted			
	June to Sept.	Sept. to Dec.	Dec. to March	March to June	June to Sept.	Sept. to Dec.	Dec. to March	March to June
NEW BUILDINGS AND STRUCTURES								
1965-66	+ 8	+ 6	- 26	+ 30	+ 9	- 2	- 2	+ 6
1966-67	- 8	+ 5	- 18	+ 22	- 7	- 4	+ 9	- 1
1967-68	+12	+15	- 25	+ 21	+ 15	+ 3	..	- 2
1968-69	+ 5	+29	- 32	+ 49	+ 8	+ 15	- 8	+ 22
1969-70	- 8	+20	(b)	(b)	- 6	+ 5	(b)	(b)
OTHER NEW CAPITAL EQUIPMENT								
1965-66	- 3	+10	- 15	+ 13	+ 8	..	+ 5	- 9
1966-67	- 4	+ 4	- 19	+ 21	+ 6	- 6	..	- 2
1967-68	-10	+24	- 21	+ 29	..	+ 12	- 3	+ 5
1968-69	-10	+12	- 18	+ 27	- 1	+ 1	+ 1	+ 3
1969-70	- 4	+12	(b)	(b)	+ 7	..	(b)	(b)
TOTAL NEW CAPITAL EXPENDITURE								
1965-66	..	+ 9	- 18	+ 18	+ 7	..	+ 3	- 4
1966-67	- 6	+ 4	- 19	+ 21	+ 1	- 6	+ 4	- 2
1967-68	- 3	+21	- 23	+ 26	+ 4	+ 8	..	+ 3
1968-69	- 5	+19	- 24	+ 35	+ 2	+ 5	- 1	+ 9
1969-70	- 5	+15	(b)	(b)	+ 2	+ 1	(b)	(b)

(a) See paragraph 6, page 2. (b) Not yet available.

NEW CAPITAL EXPENDITURE BY INDUSTRY GROUPS

17. Part A of Table 2 shows new capital expenditure in the principal industry groups from July 1965 to December 1969, together with the anticipated expenditure for January to June 1970. Part B shows quarterly figures.

TABLE 2. - NEW CAPITAL EXPENDITURE BY INDUSTRY GROUPS

(By private businesses subject to pay-roll tax, excluding rural industries - see paragraphs 1 to 9, pages 1 and 2)

PART A. - YEARLY AND HALF-YEARLY NEW CAPITAL EXPENDITURE : JULY 1965 TO JUNE 1970

Particulars	1965-66	1966-67	1967-68	1968-69	1969 January to June	1969 July to December	1970 January to June
Business field covered (a)	78%	77%	77%	77%	77%	78%	78%
Industry Group	$ million						
	Actual expenditure						Anticipated (b)
Manufacturing -							
Extracting, refining, founding	174.6	184.0	165.6	146.0	64.9	87.1	122.2
Engineering (c)	121.8	128.4	119.6	145.4	72.6	81.1	78.0
Vehicles (d)	79.9	42.3	53.6	52.4	26.9	27.9	39.4
Chemicals (e)	148.9	126.7	129.5	149.0	67.2	71.4	84.5
Textiles and clothing	41.0	34.2	30.4	42.6	22.6	28.5	30.4
Food, drink and tobacco	146.9	136.9	146.6	130.6	62.9	76.2	74.0
Paper and printing	60.5	68.7	78.2	71.6	34.2	36.9	40.7
Other manufacturing (f)	111.3	108.9	107.6	124.7	69.8	72.0	83.4
Total manufacturing	884.9	830.1	831.1	862.3	421.1	481.1	552.6
Non-manufacturing -							
Wholesale and retail trade	253.2	246.4	252.8	297.0	138.8	185.7	172.5
Mining	217.1	242.8	325.3	435.0	222.2	256.8	288.8
Transport (g)	130.7	129.5	171.6	158.7	75.6	96.3	91.1
Other non-manufacturing (h)	272.3	248.4	291.0	338.6	174.3	184.9	185.9
Total non-manufacturing	873.3	867.1	1,040.7	1,229.3	610.9	723.7	738.3
ALL INDUSTRIES	1,758.2	1,697.2	1,871.8	2,091.6	1,032.0	1,204.8	1,290.9

(a) See paragraph 9, page 2.

(b) Anticipated by businesses at the beginning of the period. See paragraph 16, page 3.

(c) Engineering, metalworking, electrical equipment.

(d) Vehicles, aircraft and ships, parts and accessories. Includes assembly and repairs.

(e) Chemicals, fertilisers, paints, explosives, cosmetics and oil refining.

(f) Sawmilling, furniture, plastics, leather, rubber, etc.

(g) Road, rail and air transport, shipping and stevedoring.

(h) Building, construction, banking, insurance, other finance and property, amusements, hotels, cafes, personal services, etc.

PART B. - QUARTERLY NEW CAPITAL EXPENDITURE

SEPTEMBER QUARTER 1967 TO DECEMBER QUARTER 1969

$ million

Industry group	1967-68 Sept. qtr	1967-68 Dec. qtr	1967-68 March qtr	1967-68 June qtr	1968-69 Sept. qtr	1968-69 Dec. qtr	1968-69 March qtr	1968-69 June qtr	1969-70 Sept. qtr	1969-70 Dec. qtr
Manufacturing -										
Extracting, refining, founding	42.2	48.5	32.8	42.1	39.2	41.9	28.5	36.4	40.2	46.9
Engineering (a)	29.3	34.2	24.2	31.9	32.6	40.2	29.3	43.3	40.3	40.8
Vehicles (b)	13.6	12.9	13.3	13.8	13.5	12.0	11.2	15.7	13.9	14.0
Chemicals (c)	26.1	33.4	26.9	43.1	39.0	42.8	27.9	39.3	34.5	36.9
Textiles and clothing	6.7	7.8	6.7	9.2	8.0	12.0	8.8	13.8	12.5	16.2
Food, drink and tobacco	35.2	44.6	28.7	38.1	31.9	35.8	30.6	32.3	34.8	41.4
Paper and printing	18.5	22.8	17.5	19.4	20.4	17.0	14.9	19.3	18.5	18.4
Other manufacturing (d)	25.5	28.5	23.8	29.8	24.9	30.0	31.3	38.5	25.0	23.0
Total manufacturing	197.1	232.7	173.9	227.4	209.5	231.7	182.5	238.6	223.5	257.6
Non-manufacturing -										
Wholesale and retail trade	65.6	60.7	58.8	67.7	76.5	81.7	55.3	83.5	82.6	103.1
Mining	70.4	97.1	72.2	85.6	90.7	122.1	100.0	122.2	122.7	134.1
Transport (e)	35.7	50.8	34.2	50.9	38.5	44.6	27.8	47.8	45.7	50.6
Other non-manufacturing (f)	65.0	81.5	65.1	79.4	69.2	95.1	74.2	100.1	85.2	99.7
Total non-manufacturing	236.7	290.1	230.3	283.6	274.9	343.5	257.3	353.6	336.2	387.5
ALL INDUSTRIES	433.8	522.8	404.2	511.0	484.4	575.2	439.8	592.2	559.7	645.1

(a) Engineering, metalworking, electrical equipment. (b) Vehicles, aircraft and ships, parts and accessories. Includes assembly and repairs. (c) Chemicals, fertilisers, paints, explosives, cosmetics and oil refining. (d) Sawmilling, furniture, plastics, leather, rubber, etc. (e) Road, rail and air transport, shipping and stevedoring. (f) Building, construction, banking, insurance, other finance and property, amusements, hotels, cafes, personal services, etc.

REPAIRS AND MAINTENANCE EXPENDITURE

18. Table 3 shows estimated expenditure on repairs and maintenance of buildings, and other capital equipment since July 1965.

TABLE 3. - REPAIRS AND MAINTENANCE EXPENDITURE BY TYPE OF ASSET

JULY 1965 TO DECEMBER 1969

(By private businesses subject to pay-roll tax, excluding rural industries - see paragraphs 1 to 9, pages 1 and 2)

Particulars	1965-66	1966-67	1967-68	1968-69	1969 January to June	1969 July to December
Business field covered (a)	78%	77%	77%	77%	77%	78%
	$ million					
Buildings and structures	76.4	80.9	91.9	105.9	55.8	55.1
Other capital equipment	543.3	574.5	658.9	740.8	386.4	399.7
Total	619.7	655.4	750.8	846.7	442.2	454.8

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COMMONWEALTH BUREAU OF CENSUS AND STATISTICS
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NOTE. Inquiries concerning these statistics may be made in Canberra by telephoning 490211 extension 523 or, in each State capital, by telephoning the office of the Bureau of Census and Statistics.