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THE TYPICAL YEAR DATA BASE FOR THE

AGRICULTURAL SECTOR OF ORANI 78

by

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# THE TYPICAL YEAR DATA BASE FOR THE

## AGRICULTURAL SECTOR OF ORANI 78

by

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### 1. INTRODUCTION

ORANI 78 is a large fully computable general equilibrium model of the Australian economy (see Dixon, Parmenter, Sutton and Vincent (1982) (hereafter DPSV)). As with most models of this type, ORANI 78 is highly non-linear. Following the approach pioneered by Johansen (1960), the structural form of the model is approximated by a system of linear equations in percentage changes of the variables. This ameliorates the computational difficulties which otherwise would follow. Accordingly, projections made with the model take the form: given a policy change A, then, in the macro environment B, variable C will differ in the short term by x per cent from the value it would have taken in the absence of the policy change (see DPSV, p.63).

The data base of ORANI 78 has two distinct sections. The larger of these contains input/output data for the 114 commodities and 112 industries identified in the model. These data are used to compute the base period cost and sales shares required to solve the model in its

'Johansen form'. The smaller section contains values of miscellaneous parameters which have been, where possible, estimated by econometric techniques. Information contained within the data base is sufficient to derive a numerical solution to the model. This solution reflects the economy in a state of equilibrium immediately prior to a shock.

The specification of the agricultural sector in ORANI 78 (see Dixon, Parmenter, Powell and Vincent (1983)) makes allowance for the multiproduct nature of Australian agriculture. The three largest agricultural industries distinguished, namely, the Pastoral, the Wheat-Sheep and the High Rainfall Zone, are modelled as multiproduct industries producing in total nine separate commodities. The remaining five industries, namely, Northern Beef, Milk Cattle and Pigs, Other Farming (Export), Other Farming (Import Competing) and Poultry, are modelled essentially as single product industries. It is assumed that the input and output decisions of each industry are made separately. Costs are minimised under CRESH (Constant Ratios of Elasticities of Substitution, Homothetic) input technology and revenue is maximised under CRETH (Constant Ratios of Elasticities of Transformation, Homothetic) output technology. Vincent, Dixon and Powell (1980) (hereafter VDP (1980)) give details of the estimation of the CRESH/CRETH supply system. Econometric estimation of the system parameters were based on time series data spanning the years 1952-53 through 1973-74. The parameters to be estimated consisted of:

- (i) 13 CRETH transformation parameters (denoted  $\phi_r(j)$ , indicating the general ease of transformability of the other composite commodities produced in industry  $j$  into composite commodity  $r$ );

- (ii) a number of CRESH and CES (Constant Elasticity of Substitution) substitution parameters reflecting, for each industry, the ease of substitution between primary factors, the ease of substitution within aggregate labour services of different occupational groups, and the ease of substitution between imported and domestically produced intermediate inputs of the same name;

and

- (ii) a number of cost and revenue shares.

Unfortunately, due to the paucity of the available data, VDP were able to estimate only the 13 transformation parameters. There was insufficient variation in the relative prices of inputs to allow the estimation of the CRESH parameters. A CES specification was adopted on the input side with the substitution elasticity set arbitrarily to 0.5. The remaining parameters, all of which are shares, were treated as constants and set at their sample mean value.

Since the work of VDP, the input/output section of the ORANI 78 data base has been twice updated. Values of the cost and revenue shares implied by the current data base differ from those used by VDP to estimate the CRETH transformation parameters of the ORANI 78 agricultural production system. Currently, this difference is significant, implying that the numerical solution imposed on agricultural industry output and agricultural commodity prices by the current data base (centred on 1977-78) is inconsistent with values assigned the CRETH transformation parameters.

The aim of this paper is to synthesise a set of agricultural sector input/output data for a typical year in recent history. These data will impose an initial numerical solution on the model which is consistent with the values assigned the agricultural transformation parameters  $\phi_r(j)$ . Furthermore, these data will be free from major droughts and other transient exogenous influences affecting the agricultural production system, thereby ensuring that projections of ORANI 78 are based on a representation of the agricultural sector in a typical year.

The remainder of this paper is organised as follows. In Section 2 we define the Gross Operating Surplus of an agricultural industry and a method to disaggregate this into:

- (i) returns to Owner-Operators;
- (ii) returns to owners of Working Capital;
- (iii) returns to owners of Fixed Capital;

and

- (iv) returns to owners of Land.

We begin Section 3 by detailing our approach to deriving the typical year data base. Then we present in tabular form, for each of the thirteen years 1967-68 to 1979-80:

- (a) operating costs, gross farm returns and the gross operating surplus of each agricultural industry;
- (b) the capital structure of each agricultural industry;

- (c) returns to Owner-Operators, Land, Fixed Capital and Working Capital employed in each agricultural industry;
  - (d) returns to 'other' labour, the shares of fixed factors (Land and Fixed Capital), and variable factors (Labour) in total primary inputs, and the share of primary inputs in the total inputs to current production of each agricultural industry;
- and
- (e) the commodity composition of the total output of each agricultural industry.

In Section 4, the typical year data base is presented. Each element is an average value over the 13 years spanning 1967-68 through 1979-80.

## 2. DISAGGREGATION OF THE GROSS OPERATING SURPLUS OF EACH AGRICULTURAL INDUSTRY IN ORANI 78

There are four categories of cost shares required to compute a solution of the CRESH/CRETH agricultural production system in ORANI 78 (see eqn. (45.19) in DPSV for the requirements of the system in short-run applications of ORANI). These are, for each agricultural industry:

- (i) the share of fixed primary factors in total factor payments;
- (ii) the share of variable primary factors in total factor payments;

- (iii) the share of primary inputs in the total inputs to current production;

and

- (iv) shares of effective intermediate inputs in total intermediate inputs to current production (effective commodities are CES combinations of domestically produced and imported commodities having the same name).

The computation of a typical year value for the last of these four categories is outside the scope of this paper. To derive values for the first three categories of shares we require estimates of the Gross Operating Surplus of agricultural industries (hereafter GOSA) and a method to disaggregate these estimates into:

- (a) returns to Owner-Operators;
- (b) returns to owners of Working Capital;
- (c) returns to owners of Land;

and

- (d) returns to owners of Fixed Capital.

GOSA is the sum of returns to Owner-Operator's labour, Fixed Capital, Land and Working Capital. The Australian Bureau of Statistics (hereafter ABS) estimates the Gross Operating Surplus of industries as a residual

'... after subtracting from the value of output all intermediate inputs, indirect taxes and wages, salaries and supplements.

In light of investigations into other income and other expenses of industries, adjustments are made to the census or survey figures to exclude elements of non-operating income (such as interest, dividends, profit on sale of assets) and to add back elements of non-operating expenses (such as income tax, bad debts written off)' (see ABS (1983a, p.20).)

This is close to the definition employed in ORANI 78 and in this paper; changes in inventories, however, are handled slightly differently.

"...In the non-agricultural part of the ORANI data base, changes in inventories were excluded from the final demand categories! (See DPSV, p.173.) 'In the agricultural sector, however, changes in inventories (e.g., livestock born during the base year but not sold) are treated as an intra-industry flow for the purpose of current production. Therefore our definition of GOSA is the sum of cash receipts from the sale of agricultural outputs plus the market value of changes in inventories less all cash production costs, where the last-mentioned includes wages paid to hired labour [and the imputed cost of unpaid helpers and family workers] but not interest and rent payments". (See Adams and Higgs (1983, p.4).)

To disaggregate GOSA we have used the method employed in Vincent and Parmenter (1978). Returns to owner operators (hereafter OOA) are firstly imputed and then subtracted from GOSA, for each agricultural industry, so leaving (GOSA - OOA). The returns to Land, Working Capital and Fixed Capital are then obtained by splitting (GOSA - OOA) using shares

of each of these inputs in the value of the total stock of these primary factors for each agricultural industry. The value of Land was calculated as the market value of land including 'first stage improvements' (the value of clearing, pasture development and soil conservation). Fixed Capital was calculated as the replacement costs of buildings, machinery, fences, dams and other farm structures (see, e.g., BAE (1976a, p.16)). Working Capital was calculated according to the definition used in BAE (1972a) (50 per cent of total cash costs excluding payments to shareholders).

### 3. INTERVENING STEPS IN THE CALCULATION OF THE TYPICAL YEAR DATA BASE

The concept of a typical year data base is outlined in the introduction. In practical terms, information is required for the thirteen years spanning 1967-68 through 1979-80. In this section, full documentation is provided for each of the five intervening steps leading to full synthesis of the typical year data base. On the cost side, there are four steps for each of the 13 years. The first is to compute total farm returns and operating costs for the average establishment in each of the eight agricultural industries and then derive GOSA as the product of the number of establishments in the industry (its population), and the difference between returns and costs. The second step is to derive, again for the average establishment in each industry, the structure of the stock of capital, which in turn allows the shares of Working Capital, Fixed Capital and Land in the the total capital stock (less livestock) to be computed. Information derived in steps 1 and 2 is combined in step 3 in conjunction with an imputed value for the total returns to Owner-Operators

in each industry, to compute total industry returns to owners of Working Capital, of Land and of Fixed Capital. Step 4 juxtaposes an estimate of the return to 'other labour' with the estimates derived in step 3, enabling computation of shares of variable and fixed factors in total primary inputs. The shares of primary inputs in total inputs to current production are also computed by utilising information on the cost of materials used in each industry.

On the revenue side, only one step is involved. This is to compute, for each of the thirteen years, the shares of each commodity in the value of total production of each agricultural industry.

Throughout our calculations, two categories of labour input are recognised; that of 'other labour' and that of Owner-Operators. 'Other labour' consists of the physical labour contributed to the operations of an agricultural establishment by hired workers, family helpers and all other unpaid workers. The labour input of an Owner-Operator consists of a contribution of both physical labour and entrepreneurial expertise. The return to 'other labour' is the sum of:

- (i) cash payments in the form of wages, salaries and supplements (including rations), and labour intensive contracts (including shearing and crutching);

and

- (ii) imputed costs based on the number of hours worked on farm by family helpers and all other unpaid workers, costed according to the relevant industry award wage rate.

The return to Owner-Operators is imputed according to the number of hours worked on farm by the single Owner-Operator and costed by the relevant industry award wage rate.

Table 3.1 lists each commodity identified in ORANI 78, along with its description at the farm gate. In Table 3.2 a description of each agricultural industry is presented. Steps 1 through 5 respectively are fully documented in Tables 3.3 through 3.7. Each table contains a complete source listing as well as comprehensive footnotes which detail all assumptions and approximations employed to complete the tables.

#### 4. THE TYPICAL YEAR DATA BASE

Simple average, over the thirteen years spanning 1967-68 through 1979-80, of each item in Tables 3.6 and 3.7 form the basis of the typical year data base. In Table 4.1, a compendium of estimates for each agricultural industry is presented. The typical year data base (with each element expressed as a share) is presented in Table 4.2.

TABLE 3.1 : AGRICULTURAL INDUSTRIES IN ORANI 78

j	ORANI 78 Industry	Description
1	Pastoral Zone	<p>Properties carrying 200 sheep or more in the Pastoral Zone of the BAE Australian Sheep Industry Survey. It includes the arid and most of the semi-arid parts of Australia which support a sheep population. Apart from some fringe areas, cropping is not feasible due to inadequate and unreliable rainfall. Livestock are generally grazed on natural vegetation. Sheep are grazed almost entirely for their wool then sold for their meat when aged. This meat production occurs essentially in fixed proportions with that of wool.</p>
2	Wheat-Sheep Zone	<p>Properties carrying 200 sheep or more in the Wheat-Sheep Zone of the BAE Australian Sheep Industry Survey. It is the largest of the BAE zones in terms of sheep numbers and sheep properties. Rainfall is generally sufficient for crop production, and nearly all dry land cropping of cereals is carried out in this Zone. The Zone has become an important source of cattle output. The climate, topography and soil type characteristics of the Zone are such that opportunities for diversification into various cropping and livestock activities are large.</p>
3	High Rainfall Zone	<p>Properties carrying 200 sheep or more in the High Rainfall Zone of the BAE Australian Sheep Industry Survey. Sheep concentration is highest in this Zone and they are often grazed in association with beef cattle. To a lesser extent, livestock are grazed in rotation with crop production. As in the Wheat-Sheep Zone, a large proportion of properties combine wool growing with prime lamb production.</p>
4	Northern Beef	<p>All properties located in the Kimberley region in W.A., the Northern Territory, and the Peninsular Gulf and Coastal Central regions of Queensland. The principal agricultural industry in this region is beef cattle, with characteristics significantly different from beef grazing in each of the previous three industries. Most of the product from this industry is exported as lower quality manufacturing beef. Climate and biological factors are such that there is virtually no alternative commodity to Beef Cattle.</p>

TABLE 3.1 (continued)

J	ORANI 78 Industry	Description
5	Milk Cattle and Pigs	Farms that produce Milk Cattle and Pigs but do not carry more than 200 sheep. Milk Cattle and Pigs are assumed to be produced in fixed proportions.
6	Other Farming (Export)	Farms that produce the commodity Other Farming (Export) but do not carry more than 200 sheep.
7	Other Farming (Import Competing)	Farms that produce the commodity Other Farming (Import Competing) but do not carry more than 200 sheep.
8	Poultry	Poultry farms

TABLE 3.2 : AGRICULTURAL COMMODITIES IN ORANI 78

i	ORANI 78 Commodity	Description of commodity at farm gate
1	Wool	Shorn greasy wool, wool on skins and dead and fellmongered wool
2	Sheep	Sheep sold for slaughter
3	Wheat	Wheat
4	Barley	Barley
5	Other cereal grains	Maize, Millet, Oats, Panicum, Rice, Rye, Setaria and Sorghum
6	Meat Cattle	Cattle kept or intended mainly for production of meat and sold for slaughter. Cattle kept or intended mainly for the production of manufacturing or market milk but sold for slaughter
7	Milk Cattle and Pigs	Milk for manufacturing or market; and pigs sold for slaughter
8	Other Farming (Export)	Grapes for wine, manufacturing and retail markets Dried grapes and sultanas Other fruits for drying or retail market or manufacturing: Almonds, Apples, Apricots, Avocados, Bananas, Berry fruits, Cape gooseberries, Cashew Nuts, Cherries, Chestnuts, Citrus fruit, Coconuts, Cumquats, Currants, Custard Apples, Figs, Gooseberries, Granadillas, Grapefruit, Lemons, Limes, Loganberries, Loquats, Macademia nuts, Mandarins, Mangoes, Mulberries, Nectarines, Oranges, Passion Fruit, Pawpaws, Peaches, Pears, Pecan Nuts, Persimmons, Pineapples, Plums, Raspberries, Strawberries, Tree Nuts and Walnuts Sugar Cane growing

TABLE 3.2 (continued)

i	ORANI 78 Commodity	Description of commodity at farm gate
9	Other Farming (Import Competing)	<p>Vegetables for retail market manufacturing:                      Aniseeds, Artichokes, Asparagus, Beans, Beetroot, Blue peas, Broccoli, Brussel Sprouts, Cabbages, Cantaloupes, Carrots, Cauliflowers, Celery, Chives, Chokoes, Cucumber, Egg Fruit, Endive, French Beans, Garlic, Gourds, Grammas, Green Peas, Grey Peas, Herbs, Horse Beans, Horseradish, Leeks, Lettuce, Marrows, Melons, Mint, Mushrooms, Onions, Parsley, Parsnips, Peas, Peppers, Pumpkins, Radishes, Rhubarb, Rockmelons, Shallots, Silver Beet, Soy Beans, Soya Beans, Spinach, Squashes, Swedes, Sweet Potatoes, Tomatoes, Turnips and Watermelons                      Tobacco growing and Tobacco leaf drying                      Cotton growing                      Other commodities:                      Bees wax, Arrowroot, Bamboo, Birds (breeding (except poultry)), Broom Millet, Canary Seed, Cats (breeding), Chicory, Coffee, Dogs (breeding), Flax, Flowers, Crops for fodder, Fruit Trees, Fur Skins, Ginger, Goat Hair, Goat Milk, Goat Meat and live Goats, Hay, Hops, Horses (breeding), Lavender, Linseed, Lucerne, Mustard, Peanuts, Rabbits, Pet breeding, Ramie, Safflower, Seed, Crops for silage, Snake farming, Stud farm (horses), Sudan Grass and Sunflowers</p>
10	Poultry	<p>Broiler, Chicken, Duck, Goose and Turkey farming for meat production                      Chicken and Poultry farming for egg production and poultry hatchery (egg breeds)</p>

TABLE 3.3 : THE GROSS OPERATING SURPLUS OF EACH AGRICULTURAL INDUSTRY IN ORANI 78, 1967-68 TO 1979-80\*

J ORANI 78 Industry	1967-68 (\$m. (1967-68 Prices))			1968-69 (\$m. (1968-69 Prices))		
	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population
1 Pastoral Zone	0.0322	0.0209	7214	0.0417	0.0219	7214
2 Wheat-Sheep Zone	0.0170	0.0094	50002	0.0238	0.0112	50002
3 High Rainfall Zone	0.0141	0.0093	34404	0.0170	0.0095	34404
4 Northern Beef (a)(f)	0.0229	0.0122	3518	0.0276	0.0132	3469
5 Milk Cattle and Pigs	0.0129	0.0068	36279	0.0131	0.0071	36279
6 Other Farming (Export) (b)	0.0202	0.0126	29194 <sup>(d)</sup>	0.0202	0.0126	29194
7 Other Farming (c) (Import Competing)	0.0223	0.0139	15475 <sup>(d)</sup>	0.0294	0.0183	15475
8 Poultry (e) (g)	0.0426	0.0358	3558 <sup>(d)</sup>	0.0356	0.0300	3558

TABLE 3.3 (continued)

j ORANI 78 Industry	1969-70 (\$m. (1969-70 Prices))			1970-71 (\$m. (1970-71 Prices))		
	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population
1 Pastoral Zone	0.0321	0.0222	71.89	0.0234	0.0174	42.76
2 Wheat-Sheep Zone	0.0188	0.0106	406.77	0.0185	0.0102	399.03
3 High Rainfall Zone	0.0173	0.0093	274.96	0.0153	0.0103	161.48
4 Northern Beef <sup>(f)</sup>	0.0276	0.0132	49.99	0.0276	0.0132	49.99
5 Milk Cattle and Pigs <sup>(j)</sup>	0.0150	0.0073	279.31	0.0169	0.0084	278.50
6 Other Farming (Export) <sup>(h)</sup>	0.0292	0.0203	242.72	0.0302	0.0210	233.21
7 Other Farming <sup>(c)</sup> (Import Competing)	0.0273	0.0190	112.87	0.0306	0.0213	109.02
8 Poultry <sup>(g)(l)</sup>	0.0401	0.0325	26.21	0.0398	0.0345	17.67

TABLE 3.3 (continued)

J ORANI 78 Industry	1971-72 (\$m. (1971-72 Prices))			1972-73 (\$m. (1972-73 Prices))		
	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population
1 Pastoral Zone	0.0336	0.0192	6807	0.0541	0.0229	6495
2 Wheat-Sheep Zone	0.0207	0.0119	47225	0.0276	0.0137	44400
3 High Rainfall Zone	0.0176	0.0096	30979	0.0298	0.0135	28762
4 Northern Beef (a)	0.0277	0.0139	3264	0.0411	0.01714	3059
5 Milk Cattle and Pigs	0.0189	0.0096	29252	0.0205	0.0108	29252
6 Other Farming (Export) (m)	0.0277	0.0213	26774(n)	0.0351	0.0243	26774(n)
7 Other Farming (Import Competing) (c)	0.0271	0.0208	13644(n)	0.0272	0.0188	13644(n)
8 Poultry (e)	0.0522	0.0438	2890(n)	0.0743	0.0624	2890(n)

TABLE 3.3 (continued)

j ORANI 78 Industry	1973-74 (\$m. (1973-74 Prices))			1974-75 (\$m. (1974-75 Prices))		
	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population
1 Pastoral Zone	0.0615	0.0258 <sup>(o)</sup>	233.47	0.0479	0.0291	121.41
2 Wheat-Sheep Zone	0.0396	0.0154 <sup>(o)</sup>	995.30	0.0374	0.0170	820.35
3 High Rainfall Zone	0.0360	0.0149 <sup>(o)</sup>	541.12	0.0211	0.0134	192.10
4 Northern Beef (p)(r)	0.0337	0.0172	77.28	0.0347	0.0247	29.81
5 Milk Cattle and Pigs <sup>(s)</sup>	0.0213	0.0119	273.16	0.0233	0.0155	207.32
6 Other Farming (Export) <sup>(q)(t)</sup>	0.0450	0.0334	326.67	0.0353	0.0265	248.75
7 Other Farming (c) (Import Competing)	0.0360	0.0267	144.75	0.0474	0.0346	148.54
8 Poultry (e)	0.1075	0.0903	41.95	0.1246	0.1047	45.73
			6538			6455
			41113			40170
			25579			24997
			4681			2987
			29252			26580
			28200			25339
			15565			11605
			2439			2298

TABLE 3.3 (continued)

j ORANI 78 Industry	1975-76 (\$m. (1975-76 Prices))			1976-77 (\$m. (1976-77 Prices))		
	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population
1 Pastoral Zone	0.0530	0.0318	6224	0.0613	0.0372	5941
2 Wheat-Sheep Zone	0.0420	0.0211	40044	0.0517	0.0277	39497
3 High Rainfall Zone	0.0241	0.0157	24472	0.0310	0.0186	24332
4 Northern Beef(u)(w)	0.0260	0.0207	4989	0.0452	0.0239	5133
5 Milk Cattle and Pigs(s)	0.0233	0.0155	26580	0.0252	0.0192	23909
6 Other Farming (Export) <sup>(v)(x)</sup>	0.0369	0.0287	24233	0.0440	0.0322	23032
7 Other Farming (c) (Import Competing)	0.0433	0.0337	13091	0.0565	0.0413	10463
8 Poultry (e)	0.1514	0.1271	2017	0.1780	0.1495	1886

TABLE 3.3 (continued)

j ORANI 78 Industry	1977-78 (\$m. (1977-78 Prices))			1978-79 (\$m. (1978-79 Prices))		
	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	Population
1 Pastoral Zone	0.0687	0.0570	5941	0.0944	0.0612	3316
2 Wheat-Sheep Zone	0.0470	0.0325	39497	0.0654	0.0382	43128
3 High Rainfall Zone	0.0385	0.0253	24332	0.0489	0.0301	21706
4 Northern Beef (y)(aa)	0.0370	0.0282	6272	0.0687	0.0399	6235
5 Milk Cattle and Pigs	0.0302	0.0221	23909	0.0424	0.0273	20952
6 Other Farming (Export) <sup>(z)(bb)</sup>	0.0488	0.0352	23189	0.0576	0.0443	24279
7 Other Farming (Import Competing) (c)	0.0665	0.0480	10683	0.0681	0.0524	12187
8 Poultry (e)	0.2017	0.1693	1939	0.2129	0.1788	1874

TABLE 3.3 (continued)

		1979-80 (\$m. (1979-80 Prices))			
J	ORANI 78 Industry	Total Farm Returns (ave., per establishment)	Operating Costs (ave., per establishment)	GOSA	Population
1	Pastoral Zone	0.1133	0.0718	135.10	3258
2	Wheat-Sheep Zone	0.0829	0.0480	1463.43	41875
3	High Rainfall Zone	0.0648	0.0412	533.39	22636
4	Northern Beef (cc)	0.0773	0.0449	205.15	6321
5	Milk Cattle and Pigs	0.0489	0.0230	521.22	20072
6	Other Farming (Export) <sup>(dd)</sup>	0.0582	0.0380	489.64	24280
7	Other Farming (Import Competing) <sup>(c)</sup>	0.0657	0.0429	312.08	13688
8	Poultry <sup>(e)</sup>	0.2709	0.2276	78.81	1820

- \* The following 3-step procedure was employed to calculate GOSA. Firstly, for the average industry establishment, estimates of total farm returns and operating costs were computed. The estimate of total farm returns was obtained by summing cash returns received during the year from sales of agricultural commodities, and the livestock operating gain (equal to closing livestock inventories less opening inventories, multiplied by the closing unit values). The estimate of operating costs included an imputed component representing returns to the labour of family helpers and working partners other than the owner-operator, and excluded interest and net rent payments. Secondly, the estimate of operating costs including imputed labour payments was deducted from the estimate of gross value of farm production to form the gross operating surplus of the average establishment. Finally, this estimate was multiplied by the number of establishments in the industry (its population) to derive the industry GOSA.

Numbers in italics involve extrapolation and/or other subjective inferences not present in the remaining estimates (which are based firmly in BAE data.)

- (a) Information which would have enabled the estimation of total farm returns, operating costs and the number of establishments in the industry was unavailable for the years 1967-68, 1970-71 and 1971-72. Recourse was therefore made to approximations computed using two procedures. The first procedure was based on observed ratios, for the average of the three years 1968-69 to 1970-71, between gross returns and operating costs of the average establishment operating in the geographic area covered by the Pastoral, Wheat-Sheep and High Rainfall Zones, and values of the corresponding items for the average Northern Beef establishment. The second procedure, used to approximate the population of the industry, was based on the observed ratio, for the average of the three years 1968-69 to 1970-71, between the number of establishments operating in the geographic area covered by the three zonal industries and the number in the Northern Beef industry. In summary, for each financial year (t):

$$(\text{total farm returns (Northern Beef)})_t = 1.3438 \times (\text{total farm returns (Ave Zone)})_t;$$

$$(\text{operating costs (Northern Beef)})_t = 1.1904 \times (\text{operating costs (Ave Zone)})_t;$$

and

$$(\text{population of the Northern Beef industry})_t = 0.0384 \times (\text{population of the Zonal industry})_t;$$

where (Ave Zone) refers to the average establishment in the geographic area covered by the Pastoral, Wheat-Sheep and High Rainfall Zones.

- (b) The Other Farming (Export) industry produces essentially two products, Fruit and Sugar Cane. Information on the operations of sugar cane establishments is unavailable. However, information pertaining to average fruit establishments and relevant to our needs, is available and was used herein as the primary data source. The values of total farm returns and operating costs, for the years 1967-68 and 1968-69 were based on average 1965-66 to 1968-69 data for average establishments in the Deciduous Canning Fruit and Apple and Pear sub-industries. Data for the average establishment in each sub-industry were weighted according to the number of establishments in each sub-industry (Deciduous Canning Fruit (weight = 0.4530) and Apple and Pear (0.5470)) to form estimates of total farm returns and operating costs for the average Other Farming (Export) establishment. The population of the industry was derived as the sum of rural holdings classified by the ABS as: vineyards, fruit (other than vine), sugar, 'other' (50 per cent) and 'multi-purpose' (50 per cent); during the year 1968-69. Note that 50 per cent of holdings classified as either 'Other' or 'Multi-purpose' were assumed to be part of the Other Farming (Export) industry, while the other 50 per cent were allocated to the Other Farming (Import Competing) industry.
- (c) The Other Farming (Import Competing) industry consists of essentially two types of establishments, those that produce Tobacco as their main product and those that produce vegetables only. Information relevant to our requirements and which pertains to Tobacco growing establishments, is available, but must be considered a poor representation of the industry as a whole since it covers only a small proportion of the population (in 1974-75 for example, tobacco accounted for 11.7 per cent of establishments in the industry (see ABS (1977a, p.10)). Therefore, the following procedure to derive estimates of total farm returns and operating costs for the average industry establishment and the population of the industry, was employed. Firstly, the population of the industry was calculated as the sum of the number of establishments classified as either vegetable, peanut, tobacco, cotton, nurseries, 'multi-purpose' (50 per cent) or 'other' (50 per cent), by the ABS. Secondly, the estimate of total farm returns for the average industry establishment was calculated by utilizing the population estimate and information supplied by the ABS on the value of industry output (pastures and grasses harvested for hay and seed, hops, other crops (50 per cent), vegetables, sunflower, safflower, rapeseed, linseed, peanuts, cotton, tobacco and crops for hay). Finally the estimate of operating costs for the average industry establishment was approximated using the ratio of operating costs to total farm returns, for the average Other Farming (Export) establishment.
- (d) The population of the industry was based on 1968-69 data.
- (e) The poultry industry consists of establishments which produce poultry for meat and/or poultry for eggs. For 1967-68, and the years 1971-72 onwards, the population of the industry and the value of total farm returns for the average industry establishment were

derived from information published by the ABS. The value of operating costs for the average establishment was approximated by the product of the value of total farm returns and the average (1968-69 to 1970-71) ratio of average establishment operating costs to average establishment farm returns.

- (f) The estimates for the three years 1968-69 to 1970-71 were derived from data for the Peninsular and Gulf, and Coastal Central regions of Queensland contained in BAE (1974b), and for the Kimberley region and the Northern Territory contained in BAE (1974c). Each item of data from these two sources was an average of that item during the three years 1968-69 to 1970-71. Appropriate data for the average establishment in each region were weighted according to the population of the region (Peninsular and Gulf (weight = 0.0360), Coastal Central (0.8899), Kimberley (0.0239) and Northern Territory (0.0502)) to form estimates of total farm returns and operating costs for the average Northern Beef establishment.
- (g) The estimates, for the three years 1968-69 to 1970-71, of total farm returns and operating costs for the average industry establishment were derived from information pertaining to poultry for eggs establishments contained in BAE (1974a). The population of the industry was calculated using information supplied by the ABS.
- (h) The estimates for 1969-70 and 1970-71 of total farm returns for the average industry establishment were obtained by utilising information supplied by the ABS for the population and total value of output (sugar cane, fruit, grapevines and 'other' (50 per cent)) of the industry during those two years. These estimates were used to derive the values of operating costs using the average (1968-69 and 1971-72) ratio of operating costs to total farm returns.
- (i) The population of the industry is an average of the population in 1968-69 and 1970-71.
- (j) The 1970-71 estimates are simple averages of estimates for 1969-70 and 1971-72.
- (k) The population of the industry was based on 1970-71 data.
- (l) See footnote (g). Also note that average establishment estimates were weighted averages of data for the average establishments in Victoria, N.S.W. and Tasmania. The weights used, 0.499, 0.468 and 0.033 respectively, reflect the relative number of establishments in each of these three States.
- (m) The 1971-72 and 1972-73 estimates of receipts and costs for the average industry establishment were based on data for the average Apple and Pear growing establishment tabulated in BAE (1975a). The industry population was derived from information for the year 1970-71, contained in ABS (1976a, p.6). Note that as before 50 per cent of the number of establishments classified as 'other' and 'multi-purpose' were allocated to the Other Farming (Export) industry.
- (n) The population of the industry is an average of the population in 1970-71 and 1973-74.

- (o) Excludes marketing costs.
- (p) The estimates for 1973-74 were derived as population weighted averages of the respective estimates for average establishments in the Peninsular and Gulf (weight = 0.0765) and Coastal Central (0.8513) regions of Queensland, the Kimberley region (0.0271) and the Northern Territory (0.0451).
- (q) The 1973-74 estimates of farm returns and operating costs for the average industry establishment were derived as population weighted averages of the respective values for the average Apple and Pear (weight = 0.5771) and Deciduous Canning Fruit (0.4229) establishments. The population of the industry was derived from information supplied by the ABS.
- (r) The revised weights for 1974-75 were: Peninsular and Gulf (weight = 0.2129), Coastal Central (0.6578), Kimberley (0.0488) and Northern Territory (0.0803).
- (s) The value of each item in 1974-75 and 1975-76 is a simple average of that item's value in 1973-74 and 1976-77.
- (t) The 1974-75 values of farm returns and operating costs for the average industry establishment were derived as population weighted averages of the respective estimates for the average establishment in the Citrus (weight = 0.2842), Apple and Pear (0.2194), Deciduous Canning Fruit (0.1645) and Multipurpose Grape (0.3319) sub-industries. Information supplied by the ABS was used to derive the population of the industry.
- (u) The revised weights for 1975-76 were: Peninsular and Gulf (weight = 0.1172), Coastal Central (0.8016), Kimberley (0.0311) and Northern Territory (0.0501).
- (v) See footnote (t). The 1975-76 sub-industry population weightings were: Apple and Pear (weight = 0.2340); Citrus (0.2531); Deciduous Canning Fruit (0.1788); Multipurpose Grape (0.3341).
- (w) The revised weights for 1976-77 were: Peninsular and Gulf (weight = 0.1262), Coastal Central (0.8256), Kimberley (0.0086) and Northern Territory (0.0395).
- (x) For 1976-77 see footnote (t). In addition, information pertaining to the average wine grape establishment was used. Estimates of farm returns and operating costs for the average wine establishment were constructed as population weighted averages of the respective estimate for the average wine establishment in the following regions: Murrumbidgee Irrigation area (weight = 0.1099); Sunrasia (NSW) (0.0287); Hunter Valley (0.0178); Sunrasia (Vic.) (0.0517); Non-Murray (Vic.) (0.0229); Riverland (S.A.) (0.4479); Barossa Clare (0.2026); McLaren - Southern Vales (0.0726); and Western Australia (0.0459). The 1976-77 sub-industry population weightings were: Citrus (weight = 0.1548), Apple and Pear (0.1703), Deciduous Canning Fruit (0.1309), Multipurpose Grape (0.2557) and Wine Grape (0.2905).

- (y) The estimates for 1977-78 were derived as population weighted averages of the respective estimates for average establishments in the Peninsular and Gulf (weight = 0.0213) region of Queensland, regions 314 (0.0612), 322 (0.3964) and 331 (0.4668) (BAE nomenclature), the Kimberley region (0.0156) and the Northern Territory (0.0368). Note that the geographic area encompassed by regions 314, 322 and 331 includes both the Coastal Central region and areas covered by other previously defined regions. Therefore the weights allocated to regions 314, 322 and 331 only represent approximately 50% of their respective populations.
- (z) The 1977-78 sub-industry population weightings are identical to those used for the 1976-77 estimates.
- (aa) The revised weights for 1978-79 were: Peninsular and Gulf (0.0215), 314 (0.0599), 322 (0.3987), 331 (0.4637), Kimberley (0.0163) and Northern Territory (0.0398).
- (bb) The 1978-79 sub-industry population weightings are identical to those used for the 1976-77 estimates. The value of the return to family workers and unpaid helpers was imputed from the value of 'operator and family labour costs' (BAE nomenclature) according to the number of man-weeks worked on farm by each category of worker.
- (cc) The revised weights for 1979-80 were: Peninsular and Gulf (0.0213), 314 (0.0612), 322 (0.3964), 331 (0.4668), Kimberley (0.0156) and Northern Territory (0.0386).
- (dd) The 1979-80 sub-industry population weightings were: Citrus (weight = 0.1697), Apple and Pear (0.1575), Deciduous Canning Fruit (0.1430), Multipurpose Grape (0.3275) and Wine Grape (0.2023). Note the procedure for imputing the value of the return to family workers and unpaid helpers was identical to that detailed in footnote (bb).

## SOURCES

1967-68

- Pastoral Zone - BAE (1972b, pp.viii, 50 and 59);  
 Wheat-Sheep Zone - BAE (1972b, pp.viii, 143 and 152);  
 High-Rainfall Zone - BAE (1972b, pp.ix, 235 and 244);  
 Milk Cattle and Pigs - BAE (1975c, pp.8, 28, 31 and 32);  
 Other Farming (Export) - BAE (1971, pp.4, 62 and 70; 1972a, pp.10, 34 and 39) and Commonwealth Bureau of Census and Statistics (1971, p.139);  
 Other Farming (Import Competing) - Commonwealth Bureau of Census and Statistics (1970, p.13; 1971, p.139);  
 Poultry - Commonwealth Bureau of Census and Statistics (1970, p.8; 1971, p.139).

1968-69

- Pastoral Zone - BAE (1972b, pp.viii, 50 and 60);  
 Wheat-Sheep Zone - BAE (1972b, pp.viii, 143 and 153);  
 High Rainfall Zone - BAE (1972b, pp.ix, 235 and 246);  
 Northern Beef - BAE (1974b, pp.4, 48 and 49; 1974c, pp.4, 19 and 21);  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 28, 31 and 32);  
 Other Farming (Export) - BAE (1971, pp.4, 62 and 70; 1972a, pp.10, 34 and 39) and Commonwealth Bureau of Census and Statistics (1971, p.139);  
 Other Farming (Import Competing) - Commonwealth Bureau of Census and Statistics (1971, p.139; 1971b, p.13);  
 Poultry - BAE (1974a, pp.34 and 38) and Commonwealth Bureau of Census and Statistics (1971, p.139).

1969-70

- Pastoral Zone - BAE (1972b, pp.viii, 51 and 61);  
 Wheat-Sheep Zone - BAE (1972b, pp.viii, 144 and 154);  
 High Rainfall Zone - BAE (1972b, pp.ix, 235 and 246);  
 Northern Beef - BAE (1974b, pp.4, 48 and 49; 1974c, pp.4, 19 and 21);  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 28, 31 and 32);  
 Other Farming (Export) and  
 Other Farming (Import Competing) - Commonwealth Bureau of Census and Statistics (1971, p.139; 1972, p.9) and ABS (1975, p.10);  
 Poultry - BAE (1974a, pp.34 and 38) and Commonwealth Bureau of Census and Statistics (1972, p.9).

1970-71

- Pastoral Zone - BAE (1976a, pp.10, 121 and 125);  
 Wheat-Sheep Zone - BAE (1976a, pp.10, 177 and 181);  
 High Rainfall Zone - BAE (1976a, pp.10, 229 and 233);  
 Other Farming (Export) and Other Farming (Import Competing) - Commonwealth Bureau of Census and Statistics (1972, p.9) and ABS (1975, p.10);  
 Northern Beef - BAE (1974b, pp.4, 48 and 49; 1974c pp.4, 19 and 21);  
 Poultry - BAE (1974a, pp.4, 73 and 74) and Commonwealth Bureau of Census and Statistics (1972, p.9).

1971-72

- Pastoral Zone - BAE (1976a, pp.10, 121 and 126);  
 Wheat-Sheep Zone - BAE (1976a, pp.10, 177 and 182);  
 High Rainfall Zone - BAE (1976a, pp.10, 229 and 234);  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 28, 31 and 32);  
 Other Farming (Export) - BAE (1975a, pp.126 and 114) and ABS (1976 a., p.6);  
 Other Farming (Import Competing) - Australian Bureau of Census and Statistics (1971, p.9) and ABS (1975, p.10; 1976 a., p.6);  
 Poultry - ABS (1975, pp.19 and 22; 1976 a., p.6).

1972-73

- Pastoral Zone - BAE (1976a, pp.10, 121 and 127);  
 Wheat-Sheep Zone - BAE (1976a, pp.10, 177 and 183);  
 High Rainfall Zone - BAE (1976a, pp.10, 229 and 235);  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 28, 31 and 32);  
 Other Farming (Export) - BAE (1975a, pp.126 and 114) and ABS (1976a, p.6);  
 Other Farming (Import Competing) - ABS (1976 a, p.6; 1976b, p.11);  
 Poultry - ABS (1975, pp.19 and 22; 1976 a, p.6).

1973-74

- Pastoral Zone - BAE (1976b, pp.37, 39 and 43);  
 Wheat-Sheep Zone - BAE (1976b, pp.37, 47 and 53);  
 High Rainfall Zone - BAE (1976b, pp.37, 59 and 63);  
 Northern Beef - Unpublished BAE microfiche containing results of the 1973-74 Australian Grazing Industry Survey;  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 28, 31 and 32);  
 Other Farming (Export) - BAE (1977a, pp.46, 51, 53 and 79; 1977b, pp.112, 118, 124, 149, 150 and 151) and ABS (1976a, p.6);  
 Other Farming (Import Competing) - ABS (1976a, p.6; 1977b, p.11);  
 Poultry - ABS (1976a, p.6; 1976b, pp.20 and 24).

1974-75

- Pastoral Zone, Wheat Sheep  
Zone, High Rainfall Zone  
and Northern Beef - unpublished BAE microfiche containing  
results of the 1974-75 Australian  
Grazing Industry Survey;
- Other Farming (Export) - BAE (1978 , pp.31, 32, 33, 65, 75 and  
77; 1980b, pp.21, 23, 25 and 40; 1980c,  
pp.42, 48, 56, 78, 79 and 80; 1980d,  
pp.46, 48, 52, 86 and 87) and ABS  
(1977a, p.10);
- Other Farming (Import Competing) - ABS (1977a p.10; 1977b, p.11);  
Poultry - ABS (1977a, p.10; 1977b, pp.20 and 24).

1975-76

- Pastoral Zone, Wheat Sheep  
Zone, High Rainfall Zone  
and Northern Beef - unpublished BAE microfiche containing  
results of the 1975-76 Australian  
Grazing Industry Survey;
- Other Farming (Export) - BAE (1980a, pp.40, 46, 50, 80 and 81;  
1980b, pp.21, 23, 25 and 40; 1980c,  
pp.42, 48, 56, 78 and 80; 1980d, pp.46,  
48, 52, 86 and 87) and ABS (1977a,  
p.10).
- Other Farming (Import Competing) - ABS (1977a, p.10; 1979b, p.11);  
Poultry - ABS (1977a, p.10; 1977b, pp.20 and 24).

1976-77

- Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef - unpublished BAE microfiche containing  
results of the 1976-77 Australian  
Grazing Industry Survey;
- Milk Cattle and Pigs - BAE (1981b, pp.1, 21 and 22);  
Other Farming (Export) - BAE (1979 , pp.28, 50, 54; 1980a,  
pp.40, 46, 50, 80 and 81; 1980b, pp.21,  
23, 25 and 40; 1980c, pp.42, 48, 56, 78  
and 80; 1980d, pp.46, 48, 52, 86 and  
87) and ABS (1978b, p.9);
- Other Farming (Import Competing) - ABS (1978b, p.9; 1979b , p.11);  
Poultry - ABS (1978b, p.9; 1979b, pp.20 and 24).

1977-78

Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef

- unpublished BAE microfiche containing results of the 1977-78 Australian Agricultural Grazing Industries Survey;

Milk Cattle and Pigs  
Other Farming (Export)

- BAE (1981b, pp.1, 21 and 22);  
- BAE (1979., p.28; 1980a, pp.80 and 81; 1980b, p.40; 1980c, pp.78, 79 and 80; 1980d, pp.86 and 87; 1981a, pp.15, 16, 26, 27, 36, 37, 45, 46, 56 and 57) and ABS (1979a, p.9);

Other Farming (Import Competing)  
Poultry

- ABS (1979a, p.9; 1981, p.8);  
- ABS (1979a; p.9; 1981, pp.17 and 21).

1978-79

Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef

- unpublished BAE microfiche containing results of the 1978-79 Australian Agricultural and Grazing Industries Survey;

Milk Cattle and Pigs

- BAE (1983c pp.1) and unpublished BAE microfiche containing results of the 1978-79 Dairy Industry Survey;

Other Farming (Export)

- BAE (1979., p.28; 1980a, pp.80 and 81; 1980b, p.40; 1980c, pp.78, 79 and 80; 1980d, pp.86 and 87;

Other Farming (Import Competing)  
Poultry

- ABS (1980, p.9; 1982, p.7);  
- ABS (1980, p.9; 1982, pp.15 and 18).

1979-80

Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef

- unpublished BAE microfiche containing results of the 1979-80 Australian Agricultural and Grazing Industries Survey;

Milk Cattle and Pigs

- unpublished BAE microfiche containing results of the 1979-80 Australian Dairy Industry Survey.

Other Farming (Export)

- BAE (1983c, pp.2, 13, 14, 15, 17, 29, 30, 31, 33, 44, 45, 46, 48, 58, 59, 60, 62, 71, 72, 73 and 75) and ABS (1981, p.7);

Other Farming (Import Competing)  
Poultry

- ABS (1981, p.7; 1983b, p.8);  
- ABS (1981, p.7; 1983b, pp.16 and 19).

TABLE 3.4 : THE PROPORTION OF TOTAL CAPITAL (LESS LIVESTOCK) ACCOUNTED FOR BY LAND, FIXED CAPITAL AND WORKING CAPITAL, IN THE AVERAGE ESTABLISHMENT OF EACH AGRICULTURAL INDUSTRY IN ORANI 78, 1967-68 TO 1979-80\*

j	ORANI 78 Industry	1967-68 (\$ (1967-68 Prices))				1968-69 (\$ (1968-69 Prices))			
		Value of Land #	Value of Fixed Capital <sup>+</sup>	Value of Working Capital <sup>o</sup>	Total Value of Capital (Less Livestock)	Value of Land #	Value of Fixed Capital <sup>+</sup>	Value of Working Capital <sup>o</sup>	Total Value of Capital (Less Livestock)
1	Pastoral Zone	73755 (a) (0.4815)	69008 (a) (0.4505)	10425 (0.0681)	153188	74682 (a) (0.4819)	69334 (a) (0.4474)	10942 (0.0706)	154958
2	Wheat-Sheep Zone	70272 (a) (0.6262)	36983 (a) (0.3295)	4970 (0.0443)	112225	71165 (a) (0.6214)	37772 (a) (0.3298)	5583 (0.0488)	114520
3	High Rainfall Zone	72519 (a) (0.6927)	27506 (a) (0.2627)	4669 (0.0446)	104694	73156 (a) (0.6907)	28035 (a) (0.2647)	4729 (0.0446)	105920
4	Northern Beef (b)(g)	75662 (0.6053)	43387 (0.3471)	5941 (0.0475)	124990	77670 (0.6041)	44779 (0.3483)	6127 (0.0477)	128576
5	Milk Cattle and Pigs	40124 (c) (0.6694)	17090 (c) (0.2851)	2730 (0.0455)	59944	40124 (c) (0.6683)	17090 (c) (0.2847)	2822 (0.0470)	60036
6	Other Farming (Export) (d)	41962 (0.6424)	17000 (0.2602)	6361 (0.0974)	65323	41962 (0.6424)	17000 (0.2602)	6361 (0.0974)	65323
7	Other Farming (Import Competing) (e)	46289 (0.6424)	18753 (0.2602)	7017 (0.0974)	72059	60947 (0.6424)	24691 (0.2602)	9239 (0.0974)	94877
8	Poultry (f)(h)	0.0000 (0.0000)	32398 (0.6581)	16835 (0.3419)	49233	0.0000 (0.0000)	28989 (0.6674)	14448 (0.3326)	43437

TABLE 3.4 (continued)

j	ORANI 78 Industry	1969-70 (\$1969-70 Prices)				1970-71 (\$1970-71 Prices)			
		Value of Land #	Value of Fixed Capital +	Value of Working Capital	Total Value of Capital (Less Livestock)	Value of Land #	Value of Fixed Capital +	Value of Working Capital	Total Value of Capital (Less Livestock)
1	Pastoral Zone	75810 (a) (0.4824)	70256 (a) (0.4471)	11086 (0.0705)	157152	71625 (a) (0.4894)	66043 (a) (0.4513)	8680 (0.0593)	146348
2	Wheat-Sheep Zone	71856 (a) (0.6205)	38636 (a) (0.3336)	5318 (0.0459)	115810	74850 (a) (0.6333)	38244 (a) (0.3236)	5101 (0.0432)	118195
3	High Rainfall Zone	73540 (a) (0.6871)	28821 (a) (0.2693)	4664 (0.0436)	107025	75820 (a) (0.6909)	29509 (a) (0.2689)	4404 (0.0401)	109733
4	Northern Beef (g)	77670 (0.6041)	44779 (0.3483)	6127 (0.0477)	128576	77670 (0.6041)	44779 (0.3483)	6127 (0.0477)	128576
5	Milk Cattle and Pigs (j)	40124 (c) (0.6678)	17090 (c) (0.2844)	2868 (0.0477)	60082	60684 (0.7161)	20752 (0.2449)	3307 (0.0390)	84743
6	Other Farming (Export) (i)	47086 (0.5899)	24748 (0.3101)	7974 (0.0999)	79808	47086 (0.5899)	24748 (0.3101)	7974 (0.0999)	79808
7	Other Farming (e) (Import Competing)	44074 (0.5899)	23165 (0.3101)	7464 (0.0999)	74703	47759 (0.5899)	25102 (0.3101)	8088 (0.0999)	80949
8	Poultry (h) (k)	0.0000 (0.0000)	29608 (0.6553)	15577 (0.3447)	45185	0.0000 (0.0000)	28969 (0.6511)	15523 (0.3489)	44492

TABLE 3.4 (continued)

j	ORANI 78 Industry	1971-72 (\$ (1971-72 Prices))				1972-73 (\$ (1972-73 Prices))			
		Value of Land#	Value of Fixed Capital +	Value of Working Capital	Total Value of Capital (Less Livestock)	Value of Land#	Value of Fixed Capital +	Value of Working Capital	Total Value of Capital (Less Livestock)
1	Pastoral Zone	80499 (a) (0.5097)	67845 (a) (0.4295)	9604 (0.0608)	157948	91547 (a) (0.5110)	76175 (a) (0.4252)	11447* (0.0639)	179169
2	Wheat-Sheep Zone	80384 (a) (0.6318)	40894 (a) (0.3214)	5950 (0.0468)	127228	87440 (a) (0.6204)	46647 (a) (0.3310)	6856 (0.0486)	140943
3	High Rainfall Zone	88524 (a) (0.7158)	30316 (a) (0.2451)	4824 (0.0390)	123664	102668 (a) (0.7146)	34247 (a) (0.2384)	6755 (0.0470)	143670
4	Northern Beef (b)	88347 (0.6538)	40220 (0.2977)	6554 (0.0485)	135121	98855 (0.6150)	53805 (0.3347)	8084 (0.0503)	160744
5	Milk Cattle and Pigs	81244 (L) (0.7426)	24414 (L) (0.2232)	3746 (0.0342)	109404	81244 (L) (0.7396)	24414 (L) (0.2223)	4183 (0.0381)	109841
6	Other Farming (Export) (m)	52211 (0.5537)	32496 (0.3446)	9588 (0.1017)	94295	57071 (0.5654)	32874 (0.3257)	10996 (0.1089)	100941
7	Other Farming (Import Competing) (e)	50986 (0.5537)	31733 (0.3446)	9363 (0.1017)	92082	44153 (0.5654)	25433 (0.3257)	8507 (0.1089)	78093
8	Poultry (f)	0.0000 (0.0000)	39556 (0.6583)	20529 (0.3417)	60085	0.0000 (0.0000)	56353 (0.6583)	29247 (0.3417)	85600

TABLE 3.4 (continued)

j	ORANI 78 Industry	1973-74 (\$ (1973-74 Prices))				1974-75 (\$ (1974-75 Prices))			
		Value of Land#	Value of Fixed Capital +	Value of Working Capital	Total Value of Capital (Less Livestock)	Value of Land#	Value of Fixed Capital +	Value of Working Capital	Total Value of Capital (Less Livestock)
1	Pastoral Zone	90028 (a) (0.5071)	74612 (a) (0.4202)	12910 (0.0727)	177550	82649 (0.5058)	67653 (0.4140)	13094 (0.0801)	163396
2	Wheat-Sheep Zone	86187 (a) (0.6193)	45275 (a) (0.3253)	7707 (0.0554)	139169	83200 (0.6313)	41203 (0.3126)	7389 (0.0561)	131792
3	High Rainfall Zone	104836 (a) (0.7212)	33081 (a) (0.2276)	7441 (0.0152)	145358	102037 (0.7470)	28930 (0.2118)	5632 (0.0412)	136599
4	Northern Beef (n)(p)	95925 (0.5768)	61767 (0.3714)	8608 (0.0518)	166299	141597 (0.6258)	72292 (0.3195)	12357 (0.0546)	226246
5	Milk Cattle and Pigs (q) (o)(r)	81244 (e) (0.7376)	24414 (0.2117)	4486 (0.0407)	110144	90623 (0.6343)	46175 (0.3232)	6068 (0.0425)	142866
6	Other Farming (Export)	64218 (0.5648)	34089 (0.2998)	15400 (0.1354)	113707	56023 (0.5888)	27382 (0.2878)	11742 (0.1234)	95147
7	Other Farming (e) (Import Competing)	51337 (0.5648)	27251 (0.2998)	12311 (0.1354)	90899	73147 (0.5888)	35751 (0.2878)	15331 (0.1234)	124229
8	Poultry (f)	0.0000 (0.0000)	81550 (0.6583)	42324 (0.3417)	123874	0.0000 (0.0000)	94555 (0.6583)	49073 (0.3417)	143628

TABLE 3.4 (continued)

j	ORANI 78 Industry	1975-76 (\$ (1975-76 Prices))				1976-77 (\$ (1976-77 Prices))			
		Value of Land #	Value of Fixed Capital <sup>+</sup>	Value of Working Capital <sup>o</sup>	Total Value of Capital (Less Livestock)	Value of Land #	Value of Fixed Capital <sup>+</sup>	Value of Working Capital <sup>o</sup>	Total Value of Capital (Less Livestock)
1	Pastoral Zone <sup>(v)</sup>	84914 (0.4851)	75725 (0.4326)	14395 (0.0822)	175034	84486 (0.4676)	80118 (0.4435)	16058 (0.0889)	180662
2	Wheat-Sheep Zone <sup>(v)</sup>	96688 (0.6052)	54083 (0.3385)	8997 (0.0563)	159768	132485 (0.5997)	76811 (0.3477)	11618 (0.0526)	220914
3	High Rainfall Zone <sup>(v)</sup>	103188 (0.7014)	37454 (0.2546)	6467 (0.0440)	147109	137067 (0.7086)	48385 (0.2501)	7976 (0.0412)	193428
4	Northern Beef <sup>(s)(w)(x)</sup>	102980 (0.5680)	67961 (0.3749)	10352 (0.0571)	181293	95368 (0.5705)	58455 (0.3497)	13334 (0.0798)	167157
5	Milk Cattle and Pigs <sup>(y)</sup>	90623 (0.6343)	46175 (0.3232)	6068 (0.0425)	142866	100001 (0.6787)	39681 (0.2693)	7650 (0.0519)	147332
6	Other Farming (Export) <sup>(t)(u)(z)</sup>	55139 (0.5267)	36975 (0.3532)	12570 (0.1201)	104684	63896 (0.5297)	42673 (0.3537)	14081 (0.1167)	120650
7	Other Farming (e) (Import Competing)	64745 (0.5267)	43417 (0.3532)	14760 (0.1201)	122922	81952 (0.5296)	54731 (0.3537)	18060 (0.1167)	154743
8	Poultry <sup>(f)</sup>	0.0000 (0.0000)	114784 (0.6583)	59572 (0.3417)	174356	0.0000 (0.0000)	135012 (0.6583)	70070 (0.3417)	205081

TABLE 3.4 (continued)

ORANI 78 Industry	1977-78 (\$ (1977-78 Prices))				1978-79 (\$ (1978-79 Prices))			
	Value of Land#	Value of Fixed Capital+	Value of Working Capital <sup>o</sup>	Total Value of Capital (Less Livestock)	Value of Land#	Value of Fixed Capital+	Value of Working Capital <sup>o</sup>	Total Value of Capital (Less Livestock)
Pastoral Zone (v)	86861 (0.4549)	78334 (0.4103)	25744 (0.1348)	190939	94555 (0.4532)	86921 (0.4166)	27166 (0.1302)	208642
Wheat-Sheep Zone (v)	166266 (0.6090)	93022 (0.3407)	13705 (0.0502)	272993	178729 (0.7077)	57311 (0.2269)	16509 (0.0654)	252549
High Rainfall Zone (v)	160967 (0.7058)	56387 (0.2472)	10707 (0.0469)	228061	158973 (0.6896)	58622 (0.2543)	12944 (0.0561)	230539
Northern Beef (x)(aa)(cc)	115541 (0.6046)	62134 (0.3251)	13426 (0.0703)	191101	113745 (0.5908)	61352 (0.3187)	17436 (0.0906)	192533
Milk Cattle and Pigs (y)	106741 (0.7004)	37490 (0.2460)	8168 (0.0536)	152399	101283 (0.5897)	59914 (0.3488)	10567 (0.0615)	171764
Other Farming (Export) (u)(bb)	66966 (0.5100)	47954 (0.3653)	16365 (0.1247)	131285	73518 (0.5011)	53412 (0.3641)	19767 (0.1347)	146691
Other Farming (e) (Import Competing)	91318 (0.5100)	65392 (0.3653)	22316 (0.1247)	179026	86959 (0.5011)	63177 (0.3641)	23381 (0.1347)	173517
Poultry (f)	0.0000 (0.0000)	152895 (0.6583)	79351 (0.3417)	232246	0.0000 (0.0000)	161473 (0.6583)	83803 (0.3417)	245276

TABLE 3.4 (continued)

		1979-80 (\$1979-80 Prices)			
J	ORANI 78 Industry	Value of Land#	Value of Fixed Capital <sup>+</sup>	Value of Working Capital <sup>o</sup>	Total Value of Capital (Less Livestock)
1	Pastoral Zone (v)	103552 (0.4563)	90775 (0.4000)	32611 (0.1437)	226938
2	Wheat-Sheep Zone (v)	220921 (0.6089)	120657 (0.3326)	21236 (0.0585)	362814
3	High Rainfall Zone (v)	226408 (0.6957)	80728 (0.2481)	18280 (0.0562)	325416
4	Northern Beef <sup>(x)</sup> (dd)	182229 (0.6080)	97638 (0.3258)	19851 (0.0662)	299718
5	Milk Cattle and Pigs (y)	137652 (0.6942)	48014 (0.2421)	12623 (0.0637)	198289
6	Other Farming (Export) <sup>(u)</sup> (ee)	72059 (0.5122)	52288 (0.3717)	16340 (0.1161)	140687
7	Other Farming <sup>(e)</sup> (Import Competing)	81351 (0.5122)	59030 (0.3717)	18447 (0.1161)	158828
8	Poultry (f)	0.0000 (0.0000)	205545 (0.6583)	106676 (0.3417)	312221

- \* Numbers in parentheses refer to the share of each item of capital in the total value of capital (less livestock). Numbers in italics involve extrapolation and/or subjective inferences not present in the remaining estimates (which are based firmly in BAE data).
- # Includes 'stage-one improvements': land clearing, pasture development and soil conservation, but does not include fencing, buildings and other structures such as water facilities.
- + Includes water facilities, fencing, yards, buildings, motor vehicles, plant and machinery and aircraft.
- o Working capital was defined as 50 per cent of total cash costs excluding payments to shareholders (see BAE (1972a, p.75)).

- (a) The values of land and of fixed capital were derived as averages of each item's value at the beginning and end of the financial year.
- (b) Information on the capital structure of the average industry establishment was unavailable for the years 1967-68, 1971-72 and 1972-73. Therefore approximations were used, based on the relationship for the average of the three years 1968-69 to 1970-71, between the capital structure of the average Northern Beef establishment and the capital structure of the average establishment in a geographic area covered by the Pastoral, Wheat-Sheep and High Rainfall Zones. In summary, for each financial year (t):

$$(\text{Value of Land (Northern Beef)})_t = 1.0598 \times (\text{Value of Land (Ave Zone)})_t;$$

$$(\text{Value of Fixed Capital (Northern Beef)})_t = 1.2070 \times (\text{Value of Fixed Capital (Ave Zone)})_t;$$

and

$$(\text{Value of Working Capital (Northern Beef)})_t = 1.1237 \times (\text{Value of Working Capital (Ave. Zone)});$$

where (Northern Beef) refers to the average Northern Beef establishment and (Ave Zone) refers to the average establishment in the geographic area encompassing the Pastoral, Wheat-Sheep and High Rainfall Zones.

- (c) The values of land and fixed capital are approximations derived as averages of their values during the three years 1967-68 to 1969-70.
- (d) The estimates for the years 1967-68 and 1968-69 were based on data for the average of the four years 1965-66 to 1968-69. Data pertaining to average establishments in the Deciduous Canning Fruit, and Apple and Pear sub-industries were weighted according to the respective sub-industry populations (Deciduous Canning Fruit (weight = 0.4530) and Apple and Pear (0.5470)) to form estimates for the average industry establishment.

- (e) The values of each item of capital were approximated using the following procedure. Firstly, the value of working capital was derived as the product of the operating costs of the average Other Farming (Import Competing) establishment and the ratio, for the average Other Farming (Export) establishment, of the value of working capital to operating costs. The values of fixed capital and land were then imputed using the primary factor shares calculated for the average Other Farming (Export) establishment.
- (f) The values of each item of capital in the years 1967-68 and 1971-72 onwards are approximations. The value of working capital was derived as a product of the value of operating costs and the average, over the three years 1968-69 to 1970-71, ratio of working capital to operating costs. This estimate was then used in conjunction with the average 1968-69 to 1970-71 ratio of fixed capital to working capital to derive the value of fixed capital.
- (g) The estimates for the three years 1968-69 to 1970-71 of each item of capital were based on data for the average of the three years 1968-69 to 1970-71. These data, which were for the average establishment in each of the four regions which constitute the industry, were weighted according to the population of the respective region (Peninsular and Gulf (weight = 0.0360), Coastal Central (0.8899), Kimberley (0.0239) and Northern Territory (0.0502)) to form estimates for the average industry establishment.
- (h) The estimated value of each item of capital for the three years 1968-69 to 1970-71 were derived from information pertaining to the average poultry for eggs establishment, detailed in BAE (1974a). Note that since the value of land for this industry is constrained to be zero, the value of 'Land (UCV)' in BAE (1974a) has been treated here as value of an item of fixed capital.
- (i) The value of each item of capital was approximated by the average value of that item in the two years 1968-69 and 1971-72.
- (j) The value of each item of capital during 1970-71 and 1971-72 was approximated by the average value of that item in the two years 1969-70 and 1971-72.
- (k) For 1970-71 see footnote (h). Estimates for the average industry establishment were based on data for the average establishment in the three states Victoria, NSW and Tasmania weighted according to the respective number of establishment in each state (Vic. (weight = 0.499), NSW (0.468) and Tas. (0.033)).
- (l) The values of land and fixed capital were both derived from data for the average of the three years 1971-72 to 1973-74.
- (m) The value of each item of capital was based on data for the average Apple and Pear establishment.
- (n) The value of each item of capital in 1973-74 was derived as a population weighted average of the value of that item in the Peninsular and Gulf (weight = 0.0765) and Coastal Central (0.8513) regions of Queensland; the Kimberley region (0.0271) and the Northern Territory (0.0451).

- (o) The value of each item of capital in 1973-74 was derived as a population weighted average of the value of that item in the average establishment of the Apple and Pear (weight = 0.5771) and Deciduous Canning Fruit (0.4229) sub-industries.
- (p) The revised population weighting for 1974-75 was: Peninsular and Gulf (weight = 0.2129), Coastal Central (0.6578), Kimberley (0.0488) and Northern Territory (0.0803).
- (q) The value of each item of capital in 1974-75 was approximated by the average value of that item in the two years 1973-74 and 1976-77.
- (r) The value of each item of capital in 1974-75 was derived as a population weighted average of the value of that item in the average establishment of the Apple and Pear (weight = 0.2194), Deciduous Canning Fruit (0.1643), Citrus (0.2842) and Multipurpose Grape (0.3319) sub-industries. With respect to the value of land (plus 'first stage improvements'), for the average Multipurpose Grape establishment, data were only available for the item 'Land and Fixed Improvements' (BAE nomenclature). To split this item into its two constituent parts, use was made of the fact that in 1976-77, for the average grape and wine establishment (BAE (1979, p.33)), the value of land (plus 'first stage improvements') contributed 88.61 per cent of the total value of land (plus 'first stage improvements') and water supply and irrigation structures.
- (s) The revised population weighting for 1975-76 was: Peninsular and Gulf (weight = 0.1172), Coastal Central (0.8016), Kimberley (0.0311) and Northern Territory (0.0501).
- (t) See footnote (r). The revised sub-industry weighting (for 1975-76) was: Apple and Pear (weight = 0.2340), Deciduous Canning Fruit (0.1788), Citrus (0.2531) and Multipurpose Grape (0.3341).
- (u) From the 1975-76 set of survey statistical reports onward, the BAE has only reported values for the composite item 'Land (plus 'first stage improvements') and fixed improvements' (their nomenclature) for the average establishment in each sub-industry. To separate this item into its two components the following information was utilised. In 1974-75 the value of Land plus 'first stage improvements' constituted 88.60, 93.72 and 86.77 per cent of the value of Land (plus 'first stage improvements') plus water supply and irrigation structures, fences, yards and roads respectively employed in the average Citrus, Deciduous Canning Fruit, and Apple and Pear establishments (see BAE (1977a, p.39; 1977b, p.102; 1978, p.58)). In 1976-77 the value of Land (plus first stage improvements) constituted 88.61 per cent of the value of Land (plus 'first stage improvements'), water supply and irrigation structures employed in the average grape and wine establishment (see BAE (1979, p.33)). This figure was applied to the Multipurpose Grape component of the industry in computing the value of Land.

- (v) From the 1976-77 survey report onwards, the BAE only reported the value of the composite item 'Land (plus 'first stage improvements') and structures' (their nomenclature) for the average industry establishment. To separate this item into its two components the following information was utilized. In 1975-76, Land (plus 'first stage improvements') constituted 59.28, 75.72 and 79.80 per cent of the sum of Land and 'Structures' respectively employed in average Pastoral Zone, Wheat-Sheep Zone and High Rainfall Zone establishments. (Source: unpublished BAE microfiche containing results of the 1975-76 Australian Grazing Industries Survey).
- (w) The revised population weighting for 1976-77 was: Peninsular and Gulf (weight = 0.1262), Coastal Central (0.8256), Kimberley (0.0086) and Northern Territory (0.0395).
- (x) From the 1976-77 survey report onwards, the BAE only reported the value of the composite item 'Land and Structures' (their nomenclature) for the average establishment in each region. To separate this item into its two components the following information was utilized. In 1975-76, Land (plus 'first stage improvements') constituted 52.91, 66.08, 51.41 and 54.15 per cent of the sum of land and structures respectively employed in average Peninsular and Gulf, Coastal Central, Kimberley and Northern Territory establishments.
- (y) From the 1976-77 survey report onwards, for the average industry establishment, the BAE only reported values for the composite item 'Land (plus 'first stage improvements') and fixed improvements'. To separate this item into its two components, use was made of the fact that for the average of the three years 1971-72 to 1973-74, Land (plus first stage improvements) constituted 84.01 per cent of the composite (see BAE (1975), p.27)).
- (z) The value of each item of capital in 1976-77 was derived as a population weighted average of the value of that item in the average establishment of the Apple and Pear (weight = 0.1703), Deciduous Canning Fruit (0.1309), Citrus (0.1539), Multipurpose Grape (0.2542) and Wine Grape (0.2905) sub-industries. Estimates for the average wine establishment were constructed as population weighted averages of the respective estimates for the average wine establishment in the following regions: Murrumbidgee Irrigation Area (weight = 0.1099); Sunrasia (NSW) (0.0287); Hunter Valley (0.0178); Sunrasia (Vic.) (0.0517); Non-Murray (Vic.) (0.0229); Riverland (S.A.) (0.4479); Barossa Clare (0.2026); McLaren and Southern Vales (0.0726); and Western Australia (0.0459).
- (aa) The revised population weighting for 1977-78 was Peninsular and Gulf (weight = 0.0213), 314 (0.0612), 322 (0.3964), 331 (0.4668), Kimberley (0.0156) and Northern Territory (0.0386). Note that the geographic area encompassed by regions 311, 314 and 322 (BAE nomenclature) includes both the Coastal Central region and other areas of previously defined regions. In light of this fact, the population weighting of 311, 314 and 322 was adjusted to reflect only 50 per cent of the population of each of the three regions.

- (bb) The value of each item of capital was derived as a (1976-77) population weighted average of the respective estimate for the average establishment in the Apple and Pear (weight = 0.1703), Citrus (0.1539), Deciduous Canning Fruit (0.1309), Multipurpose Grape (0.2542) and Wine Grape (0.2905) sub-industries.
- (cc) The revised population weighting for 1978-79 was Peninsular and Gulf (weight = 0.0215), 314 (0.0599), 322 (0.3987), 331 (0.4637), Kimberley (0.0163) and Northern Territory (0.0398).
- (dd) The revised population weighting for 1979-80 was Peninsular and Gulf (weight = 0.0212), 314 (0.0649), 322 (0.4131), 331 (0.4467), Kimberley (0.0168) and Northern Territory (0.0373).
- (ee) The revised (1979-80) sub-industry population weighting was: Apple and Pear (weight = 0.1575), Citrus (0.1697), Deciduous Canning Fruit (0.1430), Multipurpose Grape (0.3275) and Wine Grape (0.2023).

## SOURCES

1967-68

- Pastoral Zone - BAE (1972b, pp.39 and 59);  
 Wheat-Sheep Zone - BAE (1972b, pp.130 and 152);  
 High Rainfall Zone - BAE (1972b, pp.222 and 244);  
 Milk Cattle and Pigs - BAE (1975b, pp.27, 31 and 34);  
 Other Farming (Export) - BAE (1971, pp.4, 50 and 70; 1972a, pp.10, 30 and 39);  
 Other Farming (Import Competing) and Poultry - table 3.3.

1968-69

- Pastoral Zone - BAE (1972b, pp.39, 40 and 60);  
 Wheat-Sheep Zone - BAE (1972b, pp.130, 131 and 153);  
 High Rainfall Zone - BAE (1972b, pp.222, 223 and 245);  
 Northern Beef - BAE (1974b, pp.4, 46 and 49; 1974c, pp.4, 18 and 21);  
 Milk Cattle and Pigs - BAE (1975b, pp.27, 31 and 34);  
 Other Farming (Export) - BAE (1971, pp.4, 50 and 70; 1972a, pp.10, 30, and 39);  
 Other Farming (Import Competing) Poultry - table 3.3  
 - BAE (1974a, pp.29 and 38).

1969-70

- Pastoral Zone - BAE (1972b, pp.40 and 61);  
 Wheat-Sheep Zone - BAE (1972b, pp.131 and 154);  
 High Rainfall Zone - BAE (1972b, pp.223 and 246);  
 Northern Beef - BAE (1974b, pp.4, 46 and 49; 1974c, pp.4, 18 and 21);  
 Milk Cattle and Pigs - BAE (1975b, pp.27, 31 and 34);  
 Other Farming (Import Competing) Poultry - table 3.3;  
 - BAE (1974a, pp.29 and 38).

1970-71

- Pastoral Zone - BAE (1976a, pp.112 and 125);  
 Wheat-Sheep Zone - BAE (1976a, pp.168 and 181);  
 High Rainfall Zone - BAE (1976a, pp.222 and 233);  
 Northern Beef - BAE (1974b, pp.4, 46 and 49; 1974c, pp.4, 18 and 21);  
 Other Farming (Import Competing) Poultry - table 3.3;  
 - BAE (1974a, pp.4, 73 and 74).

1971-72

- Pastoral Zone - BAE (1976a, pp.112 and 126);
- Wheat-Sheep Zone - BAE (1976a, pp.168, 170 and 182);
- High Rainfall Zone - BAE (1976a, pp.222 and 234);
- Milk Cattle and Pigs - BAE (1975b, pp.27, 31 and 34);
- Other Farming (Export) - BAE (1975a, pp.106);
- Other Farming (Import Competing) and Poultry - table 3.3.

1972-73

- Pastoral Zone - BAE (1976a, pp.127; 1976b, pp.45);
- Wheat-Sheep Zone - BAE (1976a, pp.183; 1976b, pp.55);
- High Rainfall Zone - BAE (1976a, pp.235; 1976b, pp.65);
- Milk Cattle and Pigs - BAE (1975b, pp.27, 31 and 34);
- Other Farming (Export) - BAE (1975a, pp.106);
- Other Farming (Import Competing) and Poultry - table 3.3.

1973-74

- Pastoral Zone - BAE (1976b, pp.43 and 45; and unpublished BAE microfiche containing results of the 1974-75 Australian Grazing Industry Survey);
- Wheat-Sheep Zone - BAE (1976b, pp.53 and 55; and unpublished BAE microfiche containing results of the 1974-75 Australian Grazing Industry Survey);
- High Rainfall Zone - BAE (1976b, pp.63 and 65; and unpublished BAE microfiche containing results of the 1974-75 Australian Grazing Industry Survey);
- Northern Beef - unpublished BAE microfiche containing results of the 1974-75 Australian Grazing Industry Survey;
- Milk Cattle and Pigs - BAE (1975b, pp.27, 31 and 34);
- Other Farming (Export) - BAE (1977a, pp.39 and 79; 1977b, pp.102, 149, 150 and 151);
- Other Farming (Import Competing) and Poultry - table 3.3.

1974-75

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results from the 1974-75 Australian Grazing Industry Survey;
- Other Farming (Export) - BAE (1978, pp.31, 32, 33 and 58; 1980b, p.40; 1980c, pp.34, 42, 78, 79 and 80; 1980d, pp.38, 46, 86 and 87);
- Other Farming (Import Competing) and Poultry - table 3.3.

1975-76

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results of the 1975-76 Australian Grazing Industry Survey;
- Other Farming (Export) - BAE (1980a, pp.32, 40, 80 and 81; 1980b, pp.18, 21 and 40; 1980c, pp.34, 42, 78, 79 and 80; 1980d, pp.38, 46, 86 and 87);
- Other Farming (Import Competing) and Poultry - table 3.3.

1976-77

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results of the 1976-77 Australian Agricultural Grazing Industries Survey;
- Milk Cattle and Pigs - BAE (1981b, pp.17 and 20);
- Other Farming (Export) - BAE (1979, pp.28 and 33; 1980a, pp.32, 40, 80 and 81; 1980b, pp.18, 21 and 40; 1980c, pp.34, 42, 78, 79 and 80; 1980d, pp.38, 46, 86 and 87);
- Other Farming (Import Competing) and Poultry - table 3.3.

1977-78

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results of the 1977-78 Australian Agricultural and Grazing Industries Survey;
- Milk Cattle and Pigs - BAE (1981b, pp.35 and 38);
- Other Farming (Export) - BAE (1981a, pp.14, 15, 25, 26, 35, 36, 45, 46, 55 and 56);
- Other Farming (Import Competing) and Poultry - table 3.3.

1978-79

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results of the 1978-79 Australian Grazing Industries Survey;
- Milk Cattle and Pigs - BAE (1983a, pp.10 and 13);
- Other Farming (Export) - BAE (1983b, pp.10, 11, 21, 23, 32, 33, 42, 44, 52 and 54);
- Other Farming (Import Competing) and Poultry - table 3.3.

1979-80

Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef

- unpublished BAE microfiche containing  
results of the 1979-80 Australian  
Grazing Industries Survey;

Milk Cattle and Pigs

- unpublished BAE microfiche containing  
results of the 1979-80 Australian Dairy  
Industry Survey;

Other Farming (Export)

- BAE (1983c, pp.2, 15, 16, 31, 32, 46,  
47, 60, 61, 73 and 74) and ABS (1981,  
p.7);

Other Farming (Import Competing)  
and Poultry

- table 3.3.

TABLE 3.5 : RETURNS TO OWNER-OPERATORS AND OWNERS OF LAND,  
FIXED CAPITAL AND WORKING CAPITAL EMPLOYED IN  
EACH AGRICULTURAL INDUSTRY OF ORANI 78,  
1967-68 TO 1979-80\*

j	ORANI 78 Industry	1967-68 (\$m. (1967-68 Prices))				1968-69 (\$m. (1968-69 Prices))			
		Return to Owner- Operators <sup>+</sup> (00A)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital**	Return to Owner- Operators <sup>+</sup> (00A)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital**
1	Pastoral Zone	14.88	32.02	29.96	4.53	15.22	61.46	57.06	9.00
2	Wheat-Sheep Zone	103.10	156.09	82.13	11.04	105.50	327.43	173.78	25.71
3	High Rainfall Zone	70.94	107.22	40.66	6.90	72.59	130.08	49.85	8.40
4	Northern Beef	5.49 <sup>(a)</sup>	19.46	11.16	1.53	5.79 <sup>(e)</sup>	26.70	15.39	2.11
5	Milk Cattle and Pigs	68.75 <sup>(b)</sup>	102.55	43.68	6.97	69.33 <sup>(b)</sup>	99.24	42.28	6.98
6	Other Farming (Export)	57.11 <sup>(c)</sup>	105.96	42.92	16.06	57.11 <sup>(c)</sup>	105.96	42.92	16.06
7	Other Farming (Import Competing)	31.92 <sup>(d)</sup>	62.99	25.51	9.55	35.14 <sup>(d)</sup>	87.77	35.55	13.31
8	Poultry	7.34 <sup>(d)</sup>	0.00	11.09	5.76	8.08 <sup>(f)</sup>	0.00	8.07	3.93

TABLE 3.5 (continued)

j	ORANI 78 Industry	1969-70 (\$m. (1969-70 Prices))				1970-71 (\$m. (1970-71 Prices))			
		Return to Owner-Operators <sup>+</sup> (OOA)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital <sup>**</sup>	Return to Owner-Operators <sup>+</sup> (OOA)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital <sup>**</sup>
1	Pastoral Zone	15.63	27.14	25.15	3.97	15.89	13.15	12.13	1.59
2	Wheat-Sheep Zone	108.35	185.17	99.55	13.70	108.72	183.85	93.94	12.54
3	High Rainfall Zone	74.55	137.70	53.97	8.74	72.73	61.32	23.86	3.56
4	Northern Beef	5.79(e)	26.70	15.39	2.11	5.79(e)	26.70	15.39	2.11
5	Milk Cattle and Pigs	72.09(b)	138.38	58.93	9.88	73.78(d)	146.60	50.14	7.98
6	Other Farming (Export)	59.08(d)	108.33	56.95	18.35	57.08(d)	103.90	54.62	17.60
7	Other Farming (Import Competing)	28.66(d)	46.68	26.11	8.41	26.39(d)	48.74	25.62	8.25
8	Poultry	7.27(f)	0.00	12.41	6.53	7.60(f)	0.00	6.56	3.51

TABLE 3.5 (continued)

j	ORANI 78 Industry	1971-72 (\$m. (1971-72 Prices))				1972-73 (\$m. (1972-73 Prices))			
		Return to Owner-Operators <sup>+</sup> (00A)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital <sup>**</sup>	Return to Owner-Operators <sup>+</sup> (00A)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital <sup>**</sup>
1	Pastoral Zone	16.53	41.42	34.90	4.94	17.16	94.68	78.78	11.84
2	Wheat-Sheep Zone	114.66	189.17	96.23	14.01	112.82	313.06	167.02	24.52
3	High Rainfall Zone	75.22	122.71	42.02	6.69	70.93	283.12	94.45	18.62
4	Northern Beef	6.03 (a)	25.50	11.61	1.89	5.87 (a)	41.54	22.61	3.40
5	Milk Cattle and Pigs	73.69 (b)	148.58	44.66	6.84	84.59 (b)	148.40	44.60	7.64
6	Other Farming (Export)	66.21 (g)	58.22	36.23	10.69	72.74 (g)	122.36	70.50	23.57
7	Other Farming (Import Competing)	33.13 (d)	29.25	18.20	5.37	36.05 (d)	44.42	25.59	8.56
8	Poultry	7.02 (d)	0.00	11.36	5.90	7.63 (d)	0.00	17.63	9.15

TABLE 3.5 (continued)

J	ORANI 78 Industry	1973-74 (\$m. (1973-74 Prices))				1974-75 (\$m. (1974-75 Prices))			
		Return to Owner-Operators <sup>+</sup> (OOA)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital <sup>**</sup>	Return to Owner-Operators <sup>+</sup> (OOA)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital <sup>**</sup>
1	Pastoral Zone	21.23 <sup>(d)</sup>	107.63	89.18	15.43	28.28	47.10	38.56	7.46
2	Wheat-Sheep Zone	133.51 <sup>(d)</sup>	533.71	280.34	47.74	180.84	403.72	199.91	35.88
3	High Rainfall Zone	83.07 <sup>(d)</sup>	330.35	104.25	23.45	112.10	59.76	16.94	3.30
4	Northern Beef	13.49 <sup>(h)</sup>	36.79	23.69	3.30	11.89 <sup>(h)</sup>	11.21	5.72	0.97
5	Milk Cattle and Pigs	98.37 <sup>(b)</sup>	128.93	37.00	7.11	117.02 <sup>(j)</sup>	57.28	29.18	3.84
6	Other Farming (Export)	88.15 <sup>(i)</sup>	134.72	71.51	32.30	80.34 <sup>(k)</sup>	99.16	48.47	20.78
7	Other Farming (Import Competing)	50.54 <sup>(d)</sup>	53.21	28.24	12.76	48.69 <sup>(d)</sup>	58.79	28.74	12.32
8	Poultry	7.92 <sup>(d)</sup>	0.00	22.40	11.63	8.46 <sup>(d)</sup>	0.00	24.53	12.74

TABLE 3.5 (continued)

j	ORANI 78 Industry	1975-76 (\$m. (1975-76 Prices))				1976-77 (\$m. (1976-77 Prices))			
		Return to Owner-Operators <sup>+</sup> (00A)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital <sup>**</sup>	Return to Owner-Operators <sup>+</sup> (00A)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital <sup>**</sup>
1	Pastoral Zone	29.65	49.72	44.34	8.42	33.86	51.26	48.62	9.74
2	Wheat-Sheep Zone	199.81	384.56	215.09	35.77	219.84	437.14	253.45	38.34
3	High Rainfall Zone	108.63	68.41	24.83	4.29	132.85	118.37	41.78	6.88
4	Northern Beef	19.10 <sup>(h)</sup>	4.12	2.72	0.41	26.63 <sup>(h)</sup>	47.04	28.83	6.58
5	Milk Cattle and Pigs	117.02 <sup>(j)</sup>	57.28	29.18	3.84	135.68	4.92	1.95	0.37
6	Other Farming (Export)	121.24 <sup>(k)</sup>	40.65	27.26	9.27	126.15 <sup>(l)</sup>	99.49	39.48	7.61
7	Other Farming (Import Competing)	62.36 <sup>(d)</sup>	33.35	22.36	7.60	59.63 <sup>(d)</sup>	52.65	35.16	11.60
8	Poultry	10.35 <sup>(d)</sup>	0.00	25.45	13.21	10.89 <sup>(d)</sup>	0.00	28.21	14.65

TABLE 3-5 (continued)

j	ORANI 78 Industry	1977-78 (\$m. (1977-78 Prices))				1978-79 (\$m. (1978-79 Prices))			
		Return to Owner-Operators + (00A)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital**	Return to Owner-Operators + (00A)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital**
1	Pastoral Zone	36.45	15.35	13.84	4.55	22.19	39.84	36.62	11.45
2	Wheat-Sheep Zone	245.77	200.48	112.16	16.53	284.83	627.21	201.09	57.96
3	High Rainfall Zone	152.44	119.70	41.92	7.95	139.91	185.07	68.25	15.06
4	Northern Beef	38.02 <sup>(m)</sup>	10.65	5.72	1.24	39.92 <sup>(m)</sup>	82.56	44.54	12.66
5	Milk Cattle and Pigs	147.54	33.19	11.66	2.54	140.92	102.54	60.65	10.69
6	Other Farming (Export)	140.66 <sup>(e)</sup>	82.32	58.97	20.13	157.81 <sup>(n)</sup>	82.93	60.25	22.29
7	Other Farming (Import Competing)	65.54 <sup>(d)</sup>	67.36	48.25	16.47	81.55 <sup>(d)</sup>	55.01	39.97	14.79
8	Poultry	12.39 <sup>(d)</sup>	0.00	33.20	15.72	12.00 <sup>(d)</sup>	0.00	34.17	17.73

TABLE 3.5 (continued)

		1979-80 (\$m. (1979-80 Prices))			
J	ORANI 78 Industry	Return to Owner- Operators <sup>+</sup> (00A)	Return to Owners of Land <sup>x</sup>	Return to Owners of Fixed Capital <sup>o</sup>	Return to Owners of Working Capital <sup>**</sup>
1	Pastoral Zone	23.72	50.82	44.55	16.00
2	Wheat-Sheep Zone	296.52	710.53	388.11	68.26
3	High Rainfall Zone	157.42	261.56	93.28	21.13
4	Northern Beef	42.34(m)	98.99	53.04	10.17
5	Milk Cattle and Pigs	141.02	263.93	92.05	24.22
6	Other Farming (Export)	180.09(n)	158.55	115.06	35.94
7	Other Farming (Import Competing)	99.66(d)	108.80	78.96	24.66
8	Poultry	13.25(d)	0.00	43.16	22.40

- \* Numbers in italics involve extrapolation and/or other subjective inferences not present in the remaining estimate (which are based firmly in BAE data).
- + The return to the physical labour of owner-operators (OOA) in each agricultural industry was calculated according to the number of hours worked on farm by the owner-operator in the average industry establishment and costed by the award wage rate payable to general labourers in that particular industry.
- x The return to owners of agricultural land used in each agricultural industry was calculated using the following procedure. Firstly, for each industry, the ratio of the value of land plus 'stage-one' improvements (land clearing, pasture development and soil conservation but not involving fencing, buildings and other structures such as water facilities) to the total value of capital (excluding livestock inventories) was obtained (see table 3.4).  $(GOSA-OOA)_j$  was then apportioned according to this ratio to obtain the imputed value of the return to owners of agricultural land in agricultural industry j.
- o The return to owners of fixed capital employed in each agricultural industry was calculated using a procedure similar to that explained in footnote x. The ratio of the value of fixed capital to the total value of capital was used to apportion  $(GOSA-OOA)_j$  to obtain the imputed value of the return to owners of fixed capital in agricultural industry j.
- \*\* Working capital is the short-term outlay involved in providing money for hired labour and cash inputs. The return to owners of working capital used in each agricultural industry was calculated using a procedure similar to that explained in footnote x. The ratio of the value of working capital to the total value of capital was used to apportion  $(GOSA-OOA)$  to obtain the imputed value of the return to owners of working capital. The value of working capital for each industry was calculated according to the definition used in BAE (1972) (50 per cent of total cash costs excluding payments to shareholders).
- (a) Information required to estimate OOA was not available in the three years 1967-68, 1970-71 and 1971-72. Therefore, an approximation was used, based on the average value, over the three years 1968-69 to 1970-71, of the ratio of the return to owner-operators in the average Northern Beef establishment, to the return to owner-operators in the average establishment operating in the geographic area covered by the Pastoral, Wheat-Sheep and High Rainfall Zones. In summary, for each financial year (t):

$$(OOA (\text{Northern Beef}))_t = 0.06526 \times (OOA(\text{Ave Zone}))_t,$$

where (Northern Beef) refers to the average Northern Beef establishment and (Ave Zone) refers to the average establishment operating in the geographic area covered by the Pastoral, Wheat-Sheep and High Rainfall Zones.

- (b) Equal to the population of the industry multiplied by the difference between Gross farm costs ('excluding interest on capital investment only') and Gross farm costs ('excluding interest on capital investment and operator's labour') (BAE nomenclature) of the average industry establishment (BAE(1975b, p.31)).
- (c) The return to Owner-Operators (denoted OOA) was based on data (contained in BAE (1971 and 1972a)) pertaining to average establishments in the Deciduous Canning Fruit and Apple and Pear sub-industries for the average of the four years 1965-66 to 1968-69. These data were weighted according to the respective sub-industry populations (Deciduous Canning (weight = 0.4530) and Apple and Pear (0.5470)) to form the estimate of OOA for the average industry establishment. This was multiplied by the population of the industry (ABS(1971, p.391)) to derive the total industry estimate.
- (d) The estimate of OOA was derived by assuming that there is one owner-operator per establishment who works 50 weeks a year. Costing was imputed according to the pastoral industry award wage rate (communicated by ABS officer by phone).
- (e) The estimate of OOA was based on data for the average of the three years 1968-69 to 1970-71. Data for the average establishment in each of the four regions which constitute the industry were weighted according to the population of the region (Peninsular and Gulf (weight = 0.0360), Coastal Central (0.8899), Kimberley (0.0239) and Northern Territory (0.0502)) to form the estimate for the average industry establishment. This was then multiplied by the population of the industry to derive the estimates tabulated herein.
- (f) The estimate of OOA was based on data pertaining to the average poultry for eggs establishment.
- (g) The estimate of OOA was based on data for the average Apple and Pear establishment and for the average population of the industry during 1970-71 to 1973-74.
- (h) The estimate of OOA was based on data for average establishments in the Peninsular and Gulf and Coastal - Central regions of Queensland, the Kimberley region and the Northern Territory.
- (i) The estimate of OOA was based on data for the population of the industry, and for the operations of average establishments in the Apple and Pear and Deciduous Canning Fruit sub-industries.
- (j) The value of OOA is a simple average of that item's value in 1973-74 and 1976-77.
- (k) The estimate of OOA was based on data for the population of the industry, and for the operations of average establishments in the Apple and Pear, Citrus, Deciduous Canning Fruit and Multipurpose Grape sub-industries.

- (l) See footnote (k). Note that information pertaining to the average Wine Grape establishment was also used.
- (m) The estimate of OOA was based on data for average establishments in the Peninsular and Gulf region of Queensland, regions 314, 322 and 331 of Queensland, the Kimberley region and the Northern Territory.
- (n) See footnote (l). The estimate of OOA was imputed using information on the value of 'Operator and family labour costs' (BAE nomenclature), the number of man-weeks worked on farm by the owner-operator, and the number of man-weeks worked on-farm by the family of the operator.

## SOURCES

1967-68

- Pastoral Zone - BAE (1972b, pp.viii and 71), and tables 3.3 and 3.4)
- Wheat-Sheep Zone - BAE (1972b, pp.viii and 164), and tables 3.3 and 3.4);
- High Rainfall Zone - BAE 1972b, pp.ix and 256), and tables 3.3 and 3.4);
- Northern Beef - tables 3.3 and 3.4;
- Milk Cattle and Pigs - BAE (1975b, pp.8 and 31), and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1971, pp.4 and 70; 1972a, pp.10 and 39), Commonwealth Bureau of Census and Statistics (1971, p.39), and tables 3.3 and 3.4;
- Other Farming (Import Competing) and Poultry - tables 3.3 and 3.4

1968-69

- Pastoral Zone - BAE (1972b, pp.viii and 71), and tables 3.3 and 3.4;
- Wheat-Sheep Zone - BAE (1972b, pp.viii and 164), and tables 3.3 and 3.4;
- High Rainfall Zone - BAE (1972b, pp.ix and 256), and tables 3.3 and 3.4;
- Northern Beef - BAE (1974b, pp.4 and 51; 1974c, pp.4 and 24), and tables 3.3 and 3.4;
- Milk Cattle and Pigs - BAE (1975b, pp.8 and 31), and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1971, pp.4 and 70; 1972a, pp.10 and 39) Commonwealth Bureau of Census and Statistics, (1971, p.139), and tables 3.3 and 3.4;
- Other Farming (Import Competing) - tables 3.3 and 3.4;
- Poultry - BAE (1974a, p.45), ABS (1971, p.139) and tables 3.3 and 3.4.

1969-70

- Pastoral Zone - BAE (1972b, pp.viii and 72), and tables 3.3 and 3.4;
- Wheat-Sheep Zone - BAE (1972b, pp.viii and 165), and tables 3.3 and 3.4;
- High Rainfall Zone - BAE (1972b, pp.ix and 257), and tables 3.3 and 3.4;
- Northern Beef - BAE (1974b, pp.4 and 51; 1974c, pp.4 and 24), and tables 3.3 and 3.4;
- Milk Cattle and Pigs - BAE (1975b, pp.8 and 31), and tables 3.3 and 3.4;
- Other Farming (Export) and Other Farming (Import competing) - tables 3.3 and 3.4
- Poultry - BAE (1974a, p.45), Commonwealth Bureau of Census and Statistics (1972, p.9), and tables 3.3 and 3.4.

1970-71

- Pastoral Zone - BAE (1976a, pp.10 and 131), and tables 3.3 and 3.4;
- Wheat-Sheep Zone - BAE (1976a, pp.10 and 186), and tables 3.3 and 3.4;
- High Rainfall Zone - BAE (1976a, pp.10 and 237), and tables 3.3 and 3.4;
- Northern Beef - BAE (1974b, pp.4 and 51; 1974c, pp.4 and 24), and tables 3.3 and 3.4;
- Milk Cattle and Pigs,  
Other Farming (Export) and  
Other Farming (Import Competing) - tables 3.3 and 3.4;
- Poultry - BAE (1974a, pp.4 and 75), Bureau of  
Census and Statistics (1972, p.9), and  
tables 3.3 and 3.4.

1971-72

- Pastoral Zone - BAE (1976a, pp.10 and 131), and tables 3.3 and 3.4;
- Wheat-Sheep Zone - BAE (1976a, pp.10 and 186), and tables 3.3 and 3.4;
- High Rainfall Zone - BAE (1976a, pp.10 and 237), and tables 3.3 and 3.4;
- Northern Beef - tables 3.3 and 3.4;
- Milk Cattle and Pigs - BAE (1975b, pp.8 and 31), and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1975a, p.138), ABS (1976a, p.6),  
and tables 3.3 and 3.4;
- Other Farming (Import Competing)  
and Poultry - tables 3.3 and 3.4.

1972-73

- Pastoral Zone - BAE (1976a, pp.10 and 131), and tables 3.3 and 3.4;
- Wheat-Sheep Zone - BAE (1976a, pp.10 and 186), and tables 3.3 and 3.4;
- High Rainfall Zone - BAE (1976a, pp.10 and 237), and tables 3.3 and 3.4;
- Northern Beef - tables 3.3 and 3.4;
- Milk Cattle and Pigs - BAE (1975b, pp.8 and 31), and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1975a, p.138), ABS (1976a, p.61)  
and tables 3.3 and 3.4;
- Other Farming (Import Competing)  
and Northern Beef - tables 3.3 and 3.4.

1973-74

- Pastoral Zone, Wheat-Sheep Zone and High Rainfall Zone - BAE (1976b, p.37), and tables 3.3 and 3.4;
- Northern Beef - unpublished BAE microfiche containing results of the 1973-74 Australian Grazing Industry Survey and tables 3.3 and 3.4;
- Milk Cattle and Pigs - BAE (1975b, pp.8 and 31), and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1977a, pp.53 and 79; 1977b, pp.124, 149 150 and 151), ABS (1976a, p.6), and tables 3.3 and 3.4;
- Other Farming (Import Competing) and Poultry - tables 3.3 and 3.4.

1974-75

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results of the 1974-75 Australian Grazing Industry Survey, and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1978, pp.31, 32, 33 and 77; 1980b, pp.23 and 40; 1980c, pp.48, 78, 79 and 80; 1980d, pp.48, 86 and 87), ABS (1977a, p.10), and tables 3.3 and 3.4;
- Other Farming (Import Competing) and Poultry - tables 3.3 and 3.4.

1975-76

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results of the 1975-76 Australian Grazing Industry Survey, and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1980a, pp.46, 80 and 81; 1980b, pp.23 and 40; 1980c, pp.48, 78, 79 and 80; 1980d, pp.48, 86 and 87), ABS (1977a, p.10), and tables 3.3 and 3.4;
- Other Farming (Import Competing) and Poultry - tables 3.3 and 3.4.

1976-77

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results of the 1976-77 Australian Grazing Industry Survey, and tables 3.3 and 3.4;
- Milk Cattle and Pigs - BAE (1981b, pp.1 and 23), and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1979, pp.28 and 54; 1980a, pp.46, 80 and 81; 1980b, pp.23 and 40; 1980c, pp.48, 78, 79 and 80; 1980d, pp.48, 86 and 87), ABS (1978b, p.9), and tables 3.3 and 3.4;
- Other Farming (Import Competing) and Poultry - tables 3.3 and 3.4.

1977-78

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results of the 1977-78 Australian Agricultural Grazing Industries Survey, and tables 3.3 and 3.4;
- Milk Cattle and Pigs - BAE (1981b, pp.1 and 59), and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1981a, pp.16, 27, 37, 46 and 57; 1979a, p.28; 1980a, pp.80 and 81; 1980b, p.40; 1980c, pp.78, 79 and 80; 1980d, pp.86 and 87), ABS (1979a, p.9), and tables 3.3 and 3.4;
- Other Farming (Import Competing) and Poultry - tables 3.3 and 3.4.

1978-79

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results of the 1978-79 Australian Agricultural and Grazing Industries Survey, and tables 3.3 and 3.4;
- Milk Cattle and Pigs - BAE (1983a, pp.1), unpublished BAE microfiche containing results of the 1978-79 Dairy Industry Survey, and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1983b, pp.9, 12, 21, 24, 31, 34, 41, 44, 51, 54; 1979, p.28; 1980a, pp.80 and 81; 1980b, p.40; 1980c, pp.78, 79 and 80; 1980d, pp.86 and 87), ABS (1980, p.9), and tables 3.3 and 3.4;
- Other Farming (Import Competing) and Poultry - tables 3.3 and 3.4.

1979-80

- Pastoral Zone, Wheat-Sheep Zone, High Rainfall Zone and Northern Beef - unpublished BAE microfiche containing results of the 1979-80 Australian Agricultural and Grazing Industries Survey, and tables 3.3 and 3.4;
- Milk Cattle and Pigs - unpublished BAE microfiche containing results of the 1979-80 Australian Dairy Industry Survey, and tables 3.3 and 3.4;
- Other Farming (Export) - BAE (1983c, pp.2, 13, 17, 29, 33, 44, 48, 58, 62, 71 and 75), ABS (1981, p.7), and tables 3.3 and 3.4;
- Other Farming (Import Competing) and Poultry - tables 3.3 and 3.4.

TABLE 3.6 : THE SHARES OF FIXED AND VARIABLE FACTORS IN THE TOTAL RETURN TO PRIMARY FACTOR INPUTS AND THE SHARE OF RETURNS TO PRIMARY FACTORS IN TOTAL INPUTS TO CURRENT PRODUCTION OF EACH AGRICULTURAL INDUSTRY IN ORANI 78, 1967-68 TO 1979-80\*

1967-68 (\$m. (1967-68 Prices))

j ORANI 78 Industry

Return to Primary Factor:

	Land	Fixed Capital	Owner Labour	Other Labour <sup>+</sup>	Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
1 Pastoral Zone	32.02 (0.4615)	29.96	14.88	57.45	134.31 (0.7554)	177.80
2 Wheat-Sheep Zone	156.09 (0.4970)	82.13	103.10	137.96	479.28 (0.6641)	721.73
3 High Rainfall Zone	107.22 (0.4794)	40.66	70.94	89.62	308.44 (0.6552)	470.75
4 Northern Beef	19.46 (0.6060)	11.16	5.49	14.42 <sup>(a)</sup>	50.53 (0.6567)	76.95 <sup>(a)</sup>
5 Milk Cattle and Pigs	102.55 (0.5166)	43.68	68.75	68.09	283.07 (0.6548)	432.30
6 Other Farming (Export) <sup>(b)</sup>	105.96 (0.4185)	42.92	57.11	149.72	355.71 (0.6700)	530.89
7 Other Farming (Import Competing)	62.99 (0.3099)	25.51	31.92	165.17 <sup>(c)</sup>	285.59 (0.5965)	478.84 <sup>(c)</sup>
8 Poultry	0.0000 (0.3650)	11.09	7.34	11.96 <sup>(d)</sup>	30.39 (0.2578)	117.89 <sup>(d)</sup>

TABLE 3.6 (continued)

j ORANI 78 Industry		1968-69 (\$m. (1968-69 Prices))					Total Return to Primary Factor Inputs	Total Inputs to Current Production
		Land	Fixed Capital	Owner Labour	Other Labour <sup>+</sup>	Total Return to Primary Factor Inputs		
1	Pastoral Zone	61.46 (0.6036)	57.06	15.22	62.63	196.37 (0.7977)	246.17	
2	Wheat-Sheep Zone	327.43 (0.6573)	173.78	105.50	155.76	762.47 (0.7320)	1041.65	
3	High Rainfall Zone	130.08 (0.5129)	49.85	72.59	98.29	350.81 (0.7054)	497.33	
4	Northern Beef (e)	26.70 (0.6621)	15.39	5.79	15.69	63.57 (0.7506)	84.69	
5	Milk Cattle and Pigs	99.24 (0.5032)	42.28	69.33	70.39	281.24 (0.6460)	435.36	
6	Other Farming (Export) <sup>(b)</sup>	105.96 (0.4185)	42.92	57.11	149.72	355.71 (0.6700)	530.89	
7	Other Farming (Import Competing)	87.77 (0.3281)	35.55	35.14	217.45 (c)	375.91 (0.5963)	630.34 (c)	
8	Poultry (f)	0.00 (0.3058)	8.07	8.08	10.24	26.39 (0.2409)	109.57	

TABLE 3.6 (continued)

j	ORANI 78 Industry	1969-70 (\$m. (1969-70 Prices))						Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
		Return to Primary Factor:							
		Land	Fixed Capital	Owner Labour	Other Labour <sup>+</sup>				
1	Pastoral Zone	27.14 (0.4013)	25.15	15.63	62.39		130.31 (0.7386)	176.43	
2	Wheat-Sheep Zone	185.17 (0.5182)	99.50	108.35	156.31		549.33 (0.6938)	791.80	
3	High Rainfall Zone	137.70 (0.5247)	53.97	74.55	99.05		365.27 (0.7232)	505.09	
4	Northern Beef (e)	26.70 (0.6621)	15.39	5.79	15.69		63.57 (0.7506)	84.69	
5	Milk Cattle and Pigs	138.38 (0.5733)	58.93	72.09	74.79		344.19 (0.6878)	500.40	
6	Other Farming (Export)	108.33 (0.4061)	56.95	59.08	182.60 <sup>(g)</sup>		406.96 (0.6431)	632.80 <sup>(g)</sup>	
7	Other Farming (Import Competing)	46.68 (0.2672)	26.11	28.66	170.90 <sup>(c)</sup>		272.35 (0.5627)	483.98 <sup>(c)</sup>	
8	Poultry (f)	0.00 (0.4315)	12.41	7.27	9.08		28.76 (0.2800)	102.69	

TABLE 3.6 (continued)

		1970-71 (\$m. (1970-71 Prices))						Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
J ORANI 78 Industry		Return to Primary Factor:							
		Land	Fixed Capital	Owner Labour	Other Labour <sup>+</sup>				
1	Pastoral Zone	13.15 (0.2770)	12.13	15.89 (0.7230)	50.08		91.25 (0.7331)	124.47	
2	Wheat-Sheep Zone	183.85 (0.5217)	93.94	108.72 (0.4783)	145.95		532.46 (0.6972)	763.67	
3	High Rainfall Zone	61.32 (0.3314)	23.86	72.73 (0.6686)	99.14		257.05 (0.6818)	377.02	
4	Northern Beef (e)	26.70 (0.6621)	15.39	5.79 (0.3379)	15.69		63.57 (0.7506)	84.69	
5	Milk Cattle and Pigs	146.60 (0.5627)	50.14	73.78 (0.4373)	79.14		349.66 (0.6967)	501.85 <sup>(h)</sup>	
6	Other Farming (Export)	103.90 (0.3919)	54.62	57.08 (0.6081)	188.90		404.50 (0.6470)	631.01 <sup>(g)</sup>	
7	Other Farming (Import Competing)	48.74 (0.2543)	25.62	26.39 (0.7456)	191.60		292.35 (0.5599)	522.09 <sup>(c)</sup>	
8	Poultry (f)	0.00 (0.2609)	6.56	7.60 (0.7391)	10.98		25.14 (0.2643)	95.17	

TABLE 3.6 (continued)

		1971-72 (\$m. (1971-72 Prices))						
j	ORANI 78 Industry	Return to Primary Factor:				Other + Labour	Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
		Land	Fixed Capital	Owner Labour				
1	Pastoral Zone	41.42 (0.5282)	34.90	16.53 (0.4718)	51.63	144.48 (0.7931)	182.16	
2	Wheat-Sheep Zone	189.17 (0.4956)	96.23	114.66 (0.5044)	175.82	575.88 (0.6939)	829.87	
3	High Rainfall Zone	122.71 (0.4939)	42.02	75.22 (0.5061)	93.59	333.54 (0.7247)	460.22	
4	Northern Beef	25.50 (0.6250)	11.61	6.03 (0.3750)	16.24 (a)	59.38 (0.7182)	82.68 (a)	
5	Milk Cattle and Pigs	148.58 (0.5514)	44.66	73.69 (0.4485)	83.49	350.42 (0.6962)	503.31	
6	Other Farming (Export) (i)	58.22 (0.3017)	36.23	66.21 (0.6983)	152.41	313.07 (0.5896)	530.95	
7	Other Farming (Import Competing)	29.25 (0.2068)	18.20	33.13 (0.7932)	148.83 (c)	229.41 (0.5101)	449.75 (c)	
8	Poultry	0.0000 (0.3754)	11.36	7.02 (0.6246)	11.88 (d)	30.26 (0.2581)	117.22 (d)	

TABLE 3.6 (continued)

		1972-73 (\$m. (1972-73 Prices ))							
j ORANI 78 Industry		Return to Primary Factor:						Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
		Land	Fixed Capital	Owner Labour	Other Labour				
1	Pastoral Zone	94.68 (0.7133)	78.78	17.16	52.54 (0.2867)		243.16 (0.8231)	295.43	
2	Wheat-Sheep Zone	313.06 (0.6351)	167.02	112.82	162.95		755.85 (0.7206)	1048.87	
3	High Rainfall Zone	283.12 (0.6772)	94.45	70.93	109.04		557.54 (0.7559)	737.57	
4	Northern Beef	41.54 (0.7421)	22.61	5.87	16.42 (a)		86.44 (0.7393)	116.92(a)	
5	Milk Cattle and Pigs	148.40 (0.5280)	44.60	84.59	87.95		365.54 (0.6799)	537.67	
6	Other Farming (Export) (i)	122.36 (0.4263)	70.50	72.74	186.81		452.41 (0.6086)	743.34	
7	Other Farming (Import Competing)	44.42 (0.2794)	25.59	36.05	144.52 (c)		250.58 (0.5268)	475.66 (d)	
8	Poultry	0.0000 (0.4178)	17.63	7.63	16.93 (d)		42.19 (0.2540)	166.06 (d)	

TABLE 3.6 (continued)

		1973-74 (\$m. 1973-74 Prices)					Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
j ORANI 78 Industry		Return to Primary Factor:						
		Land	Fixed Capital	Owner Labour	Other Labour			
1	Pastoral Zone	107.63 (0.6689)	89.18	21.23 (0.3311)	76.18	294.22 (0.8057)	365.18	
2	Wheat-Sheep Zone	533.71 (0.7134)	280.34	133.51 (0.2866)	193.48	1141.04 (0.7577)	1506.02	
3	High Rainfall Zone (j)	330.35 (0.6713)	104.25	83.07 (0.3287)	129.74	647.41 (0.8426)	768.38	
4	Northern Beef	36.79 (0.5508)	23.69	13.49 (0.4492)	35.83	109.80 (0.7733)	141.98	
5	Milk Cattle and Pigs	128.93 (0.4453)	37.00	98.37 (0.5547)	108.31	372.61 (0.6699)	556.21	
6	Other Farming (Export)(k)	134.72 (0.3610)	71.51	88.15 (0.6389)	276.88	571.26 (0.6172)	925.55	
7	Other Farming (Import Competing)	53.21 (0.2305)	28.24	50.54 (0.7695)	221.34(c)	353.32 (0.5551)	636.54(c)	
8	Poultry	0.0000 (0.4392)	22.40	7.92 (0.5608)	20.66(d)	51.00 (0.2521)	202.31(d)	

TABLE 3.6 (continued)

1974-75 (\$m. (1974-75 Prices))

j	ORANI 78 Industry	Return to Primary Factor:					Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
		Land	Fixed Capital	Owner Labour	Other Labour <sup>+</sup>			
1	Pastoral Zone	47.10 (0.4152)	38.56	28.28	92.35	206.29 (0.7716)	267.	
2	Wheat-Sheep Zone	403.72 (0.6138)	199.91	180.84	199.02	983.49 (0.7250)	1356.46	
3	High Rainfall Zone	59.76 (0.2423)	16.94	112.10	127.74	316.54 (0.6895)	459.11	
4	Northern Beef (j)	11.21 (0.2781)	5.72	11.89	32.05	60.87 (0.6753)	90.14	
5	Milk Cattle and Pigs (e)	57.28 (0.2645)	29.18	117.02	123.35	326.83 (0.6455)	506.32	
6	Other Farming (Export)(m)	99.16 (0.3225)	48.47	80.34	229.78	457.75 (0.6724)	680.73	
7	Other Farming (Import Competing)	58.79 (0.2006)	28.74	48.69	300.01 <sup>(c)</sup>	436.23 (0.5997)	727.37 <sup>(c)</sup>	
8	Poultry	0.0000 (0.4413)	24.53	8.46	22.59 <sup>(d)</sup>	55.58 (0.2516)	220.87 <sup>(d)</sup>	

TABLE 3.6 (continued)

1975-76 (\$m. 1975-76 Prices))

j	ORANI 78 Industry	Return to Primary Factor:					Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
		Land	Fixed Capital	Owner Labour	Other Labour <sup>+</sup>			
1	Pastoral Zone	49.72 (0.4317)	44.34	29.65	94.15	217.86 (0.7866)	276.96	
2	Wheat-Sheep Zone	384.56 (0.5708)	215.09	199.81	251.14	1050.60 (0.7157)	1467.87	
3	High Rainfall Zone	68.41 (0.2672)	24.83	108.63	147.05	348.92 (0.6819)	511.69	
4	Northern Beef (j)	4.12 (0.0943)	2.72	19.10	46.58	72.52 (0.6674)	108.66	
5	Milk Cattle and Pigs (e)	57.28 (0.2645)	29.18	117.02	123.35	326.83 (0.6455)	506.32	
6	Other Farming (Export) <sup>(m)</sup>	40.65 (0.1546)	27.26	121.24	250.22	439.37 (0.6532)	672.67	
7	Other Farming (Import Competing)	33.35 (0.1352)	22.36	62.36	293.81 <sup>(c)</sup>	411.88 (0.6006)	685.82 <sup>(c)</sup>	
8	Poultry	0.0000 (0.4251)	25.45	10.35	24.07 <sup>(d)</sup>	59.87 (0.2537)	235.99 <sup>(d)</sup>	

TABLE 3.6 (continued)

		1976-77 (\$m. 1976-77 Prices)					Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
j	ORANI 78 Industry	Land	Fixed Capital	Owner Labour	Other Labour+			
1	Pastoral Zone	51.26 (0.4907)	48.62	33.86	69.79 (0.5093)	203.53 (0.7464)	272.70	
2	Wheat-Sheep Zone	437.15 (0.5646)	253.45	219.84	312.82 (0.4354)	1223.26 (0.7100)	1722.70	
3	High Rainfall Zone	118.37 (0.4865)	41.78	132.85	36.18 (0.5135)	329.18 (0.6179)	532.78	
4	Northern Beef (j)	47.04 (0.5062)	28.83	26.63	47.37 (0.4938)	149.87 (0.6863)	218.36	
5	Milk Cattle and Pigs	4.92 (0.0244)	1.95	135.68	138.39 (0.9756)	280.94 (0.6155)	456.44	
6	Other Farming (Export) <sup>(n)</sup>	99.49 (0.2465)	39.48	126.15	298.74 (0.7535)	563.86 (0.7453)	756.54	
7	Other Farming (Import Competing)	52.65 (0.1655)	35.16	59.63	383.17 (0.8345)	530.61 (0.6822)	777.74 (c)	
8	Poultry	0.0000 (0.4302)	28.2	10.89	26.48 (0.5698)	65.58 (0.2530)	252.28 (d)	

TABLE 3.6 (continued)

1977-78(\$m. (1977-78 Prices))

j ORANI 78 Industry

Return to Primary Factor:

	Land	Fixed Capital	Owner Labour	Other Labour	Total Return to Primary Factor Inputs	Total Inputs to Current Production
1 Pastoral Zone	15.35 (0.1471)	13.84	36.45 (0.8529)	132.85	198.49 (0.7321)	271.11
2 Wheat-Sheep Zone	200.48 (0.3360)	112.16	245.77 (0.6640)	372.17	930.58 (0.6366)	1461.73
3 High Rainfall Zone	119.70 (0.3204)	41.92	152.44 (0.6796)	190.41	504.47 (0.6870)	734.28
4 Northern Beef (o)	10.65 (0.1470)	5.72	38.02 (0.8530)	56.96	111.35 (0.6634)	167.85
5 Milk Cattle and Pigs	33.19 (0.1257)	11.66	147.54 (0.8743)	164.35	356.74 (0.6271)	568.84
6 Other Farming (Export) (p)	82.32 (0.1959)	58.97	140.66 (0.8041)	439.41	721.36 (0.7668)	940.74
7 Other Farming (Import Competing)	67.36 (0.1482)	48.25	65.54 (0.8518)	599.19(c)	780.34 (0.7229)	1079.50(c)
8 Poultry	0.0000 (0.4344)	33.20	12.39 (0.5656)	30.82(d)	76.41 (0.2531)	301.93(d)

TABLE 3.6 (continued)

		1978-79(\$m. (1978-79 Prices))					Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
j ORANI 78 Industry		Return to Primary Factor:						
		Land	Fixed Capital	Owner Labour	Other <sup>+</sup> Labour			
1	Pastoral Zone	39.84 (0.4163)	36.62	22.19 (0.5837)	85.01	183.66 (0.7717)	237.99	
2	Wheat-Sheep Zone	627.21 (0.5425)	201.09	284.83 (0.4575)	413.83	1526.96 (0.6429)	2298.63	
3	High Rainfall Zone	185.07 (0.4405)	68.25	139.91 (0.5595)	181.89	575.12 (0.6761)	850.62	
4	Northern Beef (o)	82.56 (0.5036)	44.54	39.92 (0.4964)	85.36	252.38 (0.7329)	344.36	
5	Milk Cattle and Pigs	102.54 (0.3498)	60.65	140.92 (0.6502)	162.42	466.53 (0.6584)	708.53	
6	Other Farming (Export) (p)	82.93 (0.2118)	60.25	157.81 (0.7882)	375.00	675.99 (0.6621)	1020.95	
7	Other Farming (Import Competing)	55.01 (0.1532)	39.97	81.55 (0.8469)	443.57	620.10 (0.6031)	1028.13 <sup>(c)</sup>	
8	Poultry	0.0000 (0.4402)	34.17	12.00 (0.5598)	31.46 <sup>(d)</sup>	77.63 (0.2522)	307.82 <sup>(d)</sup>	

TABLE 3.6 (continued)

		1979-80 (\$m. (1979-80 Prices))						Total Return to Primary Factor Inputs	Total Inputs to Current Production <sup>o</sup>
j ORANI 78 Industry		Return to Primary Factor:				Other Labour <sup>+</sup>			
		Land	Fixed Capital	Owner Labour					
1	Pastoral Zone	50.82 (0.4606)	44.55	23.72 (0.5394)	87.95	207.04 (0.7298)	283.68		
2	Wheat-Sheep Zone	710.53 (0.5864)	388.11	296.52 (0.4136)	478.33	1873.49 (0.6671)	2808.62		
3	High Rainfall Zone	261.56 (0.4681)	93.28	157.42 (0.5319)	245.72	757.98 (0.6593)	1149.69		
4	Northern Beef (o)	98.99	53.04	42.34	75.44	269.81 (0.6949)	388.29		
5	Milk Cattle and Pigs	263.93 (0.5480)	92.05	141.02 (0.4520)	152.62	649.62 (0.6823)	952.08		
6	Other Farming (Export) (p)	158.55 (0.3303)	115.06	180.09 (0.6697)	374.55	828.25 (0.7038)	1176.83		
7	Other Farming (Import Competing)	108.80 (0.2644)	78.96	99.66 (0.7356)	422.84	710.20 (0.6434)	1103.72 (c)		
8	Poultry	0.0000 (0.4528)	43.16	13.25 (0.5472)	38.90 (d)	95.31 (0.2509)	379.89 (d)		

- \* The numbers in parenthesis (reading across the table) respectively refer: to the share of returns to fixed primary factors (land and fixed capital) in the total return to primary factors; to the share of returns to variable primary factors (labour) in the total return to primary factors; and to the share of returns to primary factors in the total inputs to current production.

Numbers in italics involve extrapolation and/or other subjective inferences not present in the remaining estimates (which are based firmly in BAE data).

- + The return to 'other labour' is equal to the sum of wages salaries and supplements paid to hired labour, the imputed cost of the labour of family helpers and unpaid workers, contract (labour intensive) costs, shearing and crutching costs, and the value of stores and rations paid to hired labour.
- o Total inputs to current production was calculated as the sum of domestic and imported commodity flows (excluding livestock purchases) to current production (at purchases values), and returns to all primary factors (including working capital).
- (a) Information on returns to 'other labour' and total inputs to current production were unavailable. Therefore approximations were used, based on relationships, for the average of the three years 1968-69 to 1970-71, respectively between the returns to other labour and total inputs to current production of the Northern Beef industry and the corresponding values for the composite Pastoral, Wheat-Sheep and High Rainfall Zone industry. In summary, for each financial year (t):

$$(\text{total inputs (Northern Beef)})_t = 0.05616 \times (\text{total inputs (Zone)})_t;$$

and

$$(\text{'other labour' (Northern Beef)})_t = 0.0506 \times (\text{'other labour' (Zone)})_t;$$

where 'total inputs' and 'other labour' respectively refer to total inputs to current production and the return to 'other labour'; and (Northern Beef) and (Zone) respectively refer to the Northern Beef industry and an industry consisting of all establishments in the Pastoral, Wheat-Sheep and High Rainfall Zones.

- (b) The estimates were based on data for average establishments in the Deciduous Canning Fruit and Apple and Pear sub-industries.
- (c) The approximate estimates of total inputs to current production and the return to 'other labour' were derived using the same procedure outlined in footnote (d) for the poultry industry, except that the base data are current year estimates for the Other Farming (Export) industry rather than average (1968-69 to 1970-71) estimates for the Poultry industry.

- (d) The estimates of total inputs to current production and the return to 'other labour' are approximations. The return to 'other labour' was derived as the product of the value of operating costs and the average (1968-69 to 1970-71) ratio of the return to 'other labour' to the value of operating costs. The total inputs to current production was calculated using a formulae based on the average (1968-69 to 1970-71) share of the residual total inputs to current production (denoted TI) less the total return to primary factor inputs (denoted PI), in the value of operating costs (denoted OC). In summary, for each financial year (t):

$$TI_t = PI_t + 0.687 (OC)_t .$$

- (e) The estimates were based on data for average establishments in the Kimberley region of W.A., the Northern Territory, and the Peninsular and Gulf, and Coastal Central regions of Queensland.
- (f) These estimates were based on data pertaining to the average poultry for eggs establishment.
- (g) Information on returns to 'other labour' and total inputs to current production was unavailable. Therefore approximations were used, based on a procedure similar to that outlined in footnote (d) for the Poultry industry. However, whereas in that case average (1968-69 to 1970-71) estimates for the Poultry industry were used as base data, here average (1968-69 and 1971-72) data pertaining to the Other Farming (Export) industry were employed.
- (h) The values of total inputs to current production and the return to 'other labour' were derived as simple averages of the value of each item in 1969-70 and 1971-72.
- (i) The estimates are based on data for the average Apple and Pear establishment.
- (j) Each estimate is based on data for the average establishment in the Peninsular and Gulf and Coastal Central regions of Queensland, the Kimberley region, and the Northern Territory.
- (k) Each estimate is based on data for average establishments in the Apple and Pear and Deciduous Canning Fruit sub-industry.
- (l) The value of each item is a simple average of that item's value in 1973-74 and 1976-77.
- (m) The estimates are based on data for average establishments in the Apple and Pear, Citrus, Deciduous Canning Fruit and Multipurpose Grape sub-industries.
- (n) Each estimate is based on data for average establishments in the Apple and Pear, Citrus, Deciduous Canning Fruit, Multipurpose Grape and Wine Grape sub-industries.

- (o) Each estimate is based on data for average establishments in the Peninsular and Gulf region of Queensland, regions 314, 322 and 331 (BAE nomenclature) of Queensland, Kimberley region and the Northern Territory.
- (p) See footnote (n). The estimate of the return to 'other labour' was derived, in part, by using an imputed value for the return to family workers and unpaid helpers which was based on the time spent working on farm by this category of labour.

## SOURCES

1967-68

- Pastoral Zone  
Wheat-Sheep Zone
- High Rainfall Zone  
Northern Beef  
Milk Cattle and Pigs
- Other Farming (Export)
- Other Farming (Import Competing)  
and Poultry
- BAE (1972b, pp.viii and 59) and table 3.5;
  - BAE (1972b, pp.viii and 152) and table 3.5;
  - BAE (1972b, pp.ix and 244) and table 3.5;
  - table 3.5;
  - BAE (1975b, pp.8, 31, 32 and 34) and table 3.5;
  - BAE (1971, pp.4 and 70; 1972a, pp.10 and 39), Bureau of Census and Statistics (1971, p.39) and table 3.5;
  - tables 3.3 and 3.5.

1968-69

- Pastoral Zone  
Wheat-Sheep Zone
- High Rainfall Zone  
Northern Beef
- Milk Cattle and Pigs
- Other Farming (Export)
- Other Farming (Import Competing)  
Poultry
- BAE (1972b, pp.viii and 60) and table 3.5;
  - BAE (1972b, pp.viii and 153) and table 3.5;
  - BAE (1972b, pp.ix and 245) and table 3.5;
  - BAE (1974b, pp.4 and 49; 1974c, pp.4 and 21) and table 3.5;
  - BAE (1975b, pp.8, 31, 32 and 34) and table 3.5;
  - BAE (1971, pp.4 and 70; 1972a, pp.10 and 39), Commonwealth Bureau of Census and Statistics (1971, p.39) and table 3.5;
  - tables 3.3 and 3.5;
  - BAE (1974a, p.64), Commonwealth Bureau of Census and Statistics (1971, p.139) and table 3.5.

1969-70

- Pastoral Zone  
Wheat-Sheep Zone
- High Rainfall Zone  
Northern Beef
- Milk Cattle and Pigs
- Other Farming (Export) and  
Other Farming (Import Competing)  
Poultry
- BAE (1972b, pp.viii and 61) and table 3.5;
  - BAE (1972b, pp.viii and 154) and table 3.5;
  - BAE (1972b, pp.ix and 246) and table 3.5;
  - BAE (1974b, pp.4 and 49; 1974c, pp.4 and 21) and table 3.5;
  - BAE (1975b, pp.8, 31, 32 and 34) and table 3.5;
  - tables 3.3 and 3.5;
  - BAE (1974a, p.64), Bureau of Census and Statistics (1972, p.9) and table 3.5.

1970-71

- Pastoral Zone - BAE (1976a, pp.10 and 125) and table 3.5;  
 Wheat-Sheep Zone - BAE (1976a, pp.10 and 181) and table 3.5;  
 High Rainfall Zone - BAE (1976a, pp.10 and 233) and table 3.5;  
 Northern Beef - BAE (1974b, pp.4 and 49; 1974c, pp.4 and 21) and table 3.5;
- Milk Cattle and Pigs, Other Farming (Export) and Other Farming (Import Competing) - tables 3.3 and 3.5;  
 Poultry - BAE (1974a, pp.4 and 74), Commonwealth Bureau of Census and Statistics (1972, p.9) and table 3.5.

1971-72

- Pastoral Zone - BAE (1976a, pp.10 and 126) and table 3.5;  
 Wheat-Sheep Zone - BAE (1976a, pp.10 and 182) and table 3.5;  
 High Rainfall Zone - BAE (1976a, pp.10 and 234) and table 3.5;  
 Northern Beef - table 3.5;  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 31, 32 and 34) and table 3.5;  
 Other Farming (Export) - BAE (1975a, pp.76 and 79), ABS (1976a, p.6) and table 3.5;  
 Other Farming (Import Competing) and Poultry - tables 3.3 and 3.5.

1972-73

- Pastoral Zone - BAE (1976a, pp.10 and 127) and table 3.5;  
 Wheat-Sheep Zone - BAE (1976a, pp.10 and 183) and table 3.5;  
 High Rainfall Zone - BAE (1976a, pp.10 and 235) and table 3.5;  
 Northern Beef - table 3.5;  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 31, 32 and 34) and table 3.5;  
 Other Farming (Export) - BAE (1975a, pp.76 and 79), ABS (1976a, p.6) and table 3.5;  
 Other Farming (Import Competing) and Poultry - tables 3.3 and 3.5.

1973-74

- Pastoral Zone - BAE (1976b, pp.37 and 43) and table 3.5;  
 Wheat-Sheep Zone - BAE (1976b, pp.37 and 53) and table 3.5;  
 High Rainfall Zone - BAE (1976b, pp.37 and 63) and table 3.5;  
 Northern Beef - unpublished BAE microfiche containing results of the 1973-74 Australian Grazing Industry Survey and table 3.5;  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 31, 32 and 34) and table 3.5;  
 Other Farming (Export) - BAE (1977a, pp.51, 53 and 79; 1977b, pp.118, 124, 149, 150 and 151), ABS (1976a, p.6) and table 3.5;  
 Other Farming (Import Competing) and Poultry - tables 3.3 and 3.5.

1974-75

Pastoral Zone, Wheat-Sheep Zone,  
High Rainfall Zone and  
Northern Beef

- unpublished BAE microfiche containing results of the 1974-75 Australian Grazing Industry Survey, and table 3.5;

Other Farming (Export)

- BAE (1978, pp.31, 32, 33, 75 and 77; 1980b, pp.21, 23 and 40; 1980c, pp.42, 48, 78, 79 and 80; 1980d, pp.46, 48, 86 and 87), ABS (1977a, p.10) and table 3.5;

Other Farming (Import Competing)  
and Poultry

- tables 3.3 and 3.5.

1975-76

Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef

- unpublished BAE microfiche containing results of the 1975-76 Australian Grazing Industry Survey, and table 3.5;

Other Farming (Export)

- BAE (1980a, pp.41, 46, 80 and 81; 1980b, pp.21, 23 and 40; 1980c, pp.42, 48, 78, 79 and 80; 1980d, pp.46, 48, 86 and 87), ABS (1977a, p.10) and table 3.5;

Other Farming (Import Competing)  
and Poultry

- tables 3.3 and 3.5.

1976-77

Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef

- unpublished BAE microfiche containing results of the 1976-77 Australian Grazing Industry Survey, and table 3.5;

Milk Cattle and Pigs  
Other Farming (Export)

- BAE (1981b, pp.1 and 22) and table 3.5;  
- BAE (1979, pp.28 and 33, 1980a, pp.41, 46, 80 and 81; 1980b, pp.21, 23 and 40; 1980c, pp.42, 48, 78, 79 and 80; 1980d, pp.46, 48, 86 and 87), ABS (1978b, p.9) and table 3.5;

Other Farming (Import Competing)  
and Poultry

- tables 3.3 and 3.5.

1977-78

Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef

- unpublished BAE microfiche containing results of the 1976-77 Australian Grazing Industry Survey, and table 3.5;

Milk Cattle and Pigs  
Other Farming (Export)

- BAE (1981b, pp.1 and 58) and table 3.5;  
- BAE (1981a, pp.15, 26, 36, 46 and 56; 1979, p.28; 1980a, pp.8 and 81; 1980b, p.40; 1980c, pp.78, 79 and 80; 1980d, pp.86 and 87), ABS (1979a, p.9) and table 3.5;

Other Farming (Import Competing)  
and Poultry

- tables 3.3 and 3.5.

1978-79

Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef

- unpublished BAE microfiche containing results of the Australian Agricultural and Grazing Industries Survey, and table 3.5;

Milk Cattle and Pigs

- BAE (1983a, p.1), unpublished BAE microfiche containing results of the 1978-79 Dairy Industry Survey, and table 3.5;

Other Farming (Export)

- BAE (1983b, pp.12, 23, 34, 44 and 54; 1979a, p.28 1980a, pp.80 and 81; 1980b, p.40; 1980c, pp.78, 79 and 80; 1980d, pp.86 and 87), ABS (1980, p.9) and table 3.5;

Other Farming (Import Competing)  
and Poultry

- tables 3.3 and 3.5.

1979-80

Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef

- unpublished BAE microfiche containing results of the 1979-80 Australian Agricultural and Grazing Industries Survey, and table 3.5;

Milk Cattle and Pigs

- unpublished BAE microfiche containing results of the 1979-80 Australian Dairy Industry Survey, and table 3.3;

Other Farming (Export)

- BAE (1983c, pp.2, 15, 31, 46, 60 and 73), ABS (1981, p.7) and table 3.5;

Other Farming (Import Competing)  
and Poultry

- tables 3.3 and 3.5.

TABLE 3.7 : THE COMMODITY COMPOSITION OF THE OUTPUT OF EACH, AGRICULTURAL INDUSTRY IN ORANI 78, 1967-68 TO 1979-80\*

1967-68 (\$m. (1967-68 Prices))

ORANI 78 Commodity:

J	ORANI 78 Industry	Wool <sup>+</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other Grains <sup>x</sup>	Meat <sup>**</sup> Cattle	Milk Cattle and Pigs <sup>++</sup>	Other Farming (Export) <sup>oo</sup>	Other Farming (Import Competing) <sup>xx</sup>	Poultry <sup>***</sup>
1	Pastoral Zone	163.50 (0.6980)	35.77 (0.1527)	6.81 (0.0291)	0.09(a) (0.0004)	0.32(a) (0.0014)	22.05 (0.0941)	0.23(b) (0.0009)	0.20(c) (0.0009)	5.26(d) (0.0225)	
2	Wheat-Sheep Zone	293.41 (0.3503)	124.85 (0.1490)	243.96 (0.2912)	7.64(a) (0.0091)	64.51(a) (0.0770)	68.60 (0.0819)	20.96(b) (0.0250)	1.04(c) (0.0012)	12.69(d) (0.0151)	
3	High Rainfall Zone	253.90 (0.5138)	72.28 (0.1463)	6.64 (0.0134)	6.31(a) (0.0128)	38.45(a) (0.0778)	82.29 (0.1665)	9.61(h) (0.0194)	2.67(c) (0.0054)	21.98(d) (0.0444)	
4	Northern Beef (e)						50.62 (1.0000)				
5	Milk Cattle and Pigs						18.79 (0.0444)	403.95 (0.9556)			
6	Other Farming (Export) (f)							520.65 (1.0000)			
7	Other Farming (Import Competing)								343.59 (1.0000)		
8	Poultry										151.70 (1.0000)

TABLE 3.7 (continued)

1968-69 (\$m. (1968-69 Prices))

j ORANI 78 Industry		ORANI 78 Commodity:									
		Wool +	Sheep 0	Wheat	Barley	Other Grains x	Meat Cattle **	Milk Cattle and Pigs ++	Other Farming (Export) oo	Other Farming (Import) xx	Poultry ***
1	Pastoral Zone	188.00 (0.6183)	55.11 (0.1813)	23.72 (0.0780)	0.54 (a) (0.0018)	0.42 (a) (0.0014)	28.88 (0.0949)	0.297 (b) (0.0010)	0.2670 (c) (0.0009)	6.82 (d) (0.0224)	
2	Wheat-Sheep Zone	335.76 (0.2829)	135.71 (0.1144)	508.02 (0.4281)	28.13 (a) (0.0237)	46.53 (a) (0.0392)	83.35 (0.0702)	29.69 (b) (0.0250)	1.48 (c) (0.0012)	17.97 (d) (0.0151)	
3	High Rainfall Zone	291.47 (0.4820)	92.03 (0.1522)	16.89 (0.0279)	11.36 (a) (0.0188)	36.67 (a) (0.0606)	114.36 (0.1891)	11.76 (b) (0.0194)	3.26 (c) (0.0054)	26.90 (d) (0.0445)	
4	Northern Beef						81.24 (1.0000)				
5	Milk Cattle and Pigs						28.56 (0.0659)	404.61 (0.9341)			
6	Other Farming (Export) (f)								520.65 (1.0000)		
7	Other Farming (Import) Competing									399.29 (1.0000)	
8	Poultry (g)										132.39 (1.0000)

TABLE 3.7 (continued)

1969-70 (\$m.( 1969-70 Prices))

ORANI 78 Industry		ORANI 78 Commodity:									
		Wool <sup>+</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other Grains <sup>x</sup>	Meat Cattle <sup>**</sup>	Milk Cattle and Pigs <sup>oo</sup>	Other Farming ++ (Export)	Other Farming (Import Competing) <sup>xx</sup>	Poultry
1	Pastoral Zone	144.38 (0.6187)	32.48 (0.1392)	14.32 (0.0614)	0.22(a) (0.0009)	0.64(a) (0.0027)	35.66 (0.1528)	0.23(b) (0.0010)	0.20 (0.0009)	5.24(d) (0.0224)	
2	Wheat-Sheep Zone	314.91 (0.3358)	139.31 (0.1486)	256.86 (0.2739)	38.88(a) (0.0415)	39.22(a) (0.0418)	110.10 (0.1174)	23.21(b) (0.0247)	1.16 (0.0012)	14.05(d) (0.0150)	
3	High Rainfall Zone	273.27 (0.4440)	117.63 (0.1911)	8.98 (0.0146)	14.02(a) (0.0228)	35.79(a) (0.0582)	123.10 (0.2000)	11.97(b) (0.0194)	3.32 (0.0054)	27.38(d) (0.0445)	
4	Northern Beef						81.24 (1.0000)				
5	Milk Cattle and Pigs						32.56 (0.0659)	461.29 (0.9341)			
6	Other Farming (Export)							349.95 (1.0000)			
7	Other Farming (Import Competing)								318.71 (1.0000)		
8	Poultry (g)										125.61 (1.0000)

TABLE 3.7 (continued)

1970-71 (\$m. (1970-71 Prices))

ORANI 78 Commodity:

j	ORANI 78 Industry	Wool <sup>+</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other Grains x	Meat Cattle **	Milk Cattle and Pigs++	Other Farming (Export)oo	Other Farming (Import Competing)xx	Poultry
1	Pastoral Zone	94.90 (0.5797)	13.54 (0.0828)	8.38 (0.0512)	0.26 (0.0016)	0.80 (0.0049)	41.84 (0.2556)	0.16 (0.0010)	0.14 (0.0009)	3.67 (0.0224)	
2	Wheat-Sheep Zone	234.64 (0.2752)	92.16 (0.1081)	228.94 (0.2685)	53.26 (0.0625)	63.57 (0.0745)	144.84 (0.1699)	21.33 (0.0250)	1.06 (0.0012)	12.92 (0.0152)	
3	High Rainfall Zone	200.95 (0.4057)	71.63 (0.1446)	5.85 (0.0118)	6.41 (0.0129)	25.66 (0.0518)	150.50 (0.3038)	9.63 (0.0194)	2.67 (0.0054)	22.04 (0.0445)	
4	Northern Beef						81.24 (1.0000)				
5	Milk Cattle and Pigs (h)						35.67 (0.0707)	468.86 (0.9293)			
6	Other Farming (Export)								355.45 (1.0000)		
7	Other Farming (Import Competing)									351.36 (1.0000)	
8	Poultry (g)										125.75 (1.0000)

TABLE 3.7 (continued)

1971-72 (\$m.(1971-72 Prices))

ORANI 78 Commodity:

J	ORANI 78 Industry	Wool <sup>+</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other Grains x	Meat Cattle **	Milk Cattle and Pigs ++ (Export) oo	Other Farming (Import Competing) xx	Poultry <sup>***</sup>
1	Pastoral Zone	129.80 (0.5631)	14.51 (0.0629)	15.10 (0.0655)	0.70(a) (0.0030)	2.51(a) (0.0110)	62.30 (0.2703)	0.23 (0.0010)	0.202(c) (0.0009)	5.17 (d) (0.0224)
2	Wheat-Sheep Zone	270.22 (0.2881)	69.23 (0.0738)	267.20 (0.2849)	70.36(a) (0.0750)	72.07(a) (0.0768)	150.08 (0.1599)	23.47(b) (0.0250)	1.17(c) (0.0012)	14.21 (d) (0.0151)
3	High Rainfall Zone	215.83 (0.3901)	77.14 (0.1394)	6.07 (0.0110)	5.70(a) (0.0103)	28.50(a) (0.0515)	181.63 (0.3283)	10.76(b) (0.0194)	2.99(c) (0.0054)	24.61 (d) (0.0445)
4	Northern Beef (C)						115.33 (1.0000)			
5	Milk Cattle and Pigs						38.78 (0.0753)	476.42 (0.9247)		
6	Other Farming (Export)(i)								616.72 (1.0000)	
7	Other Farming (Import Competing)								380.83 (1.0000)	
8	Poultry									174.38 (1.0000)

TABLE 3.7 (continued)

		1972-73 (\$m. (1972-73 Prices))									
		ORANI 78 Commodity:									
		***									
J	ORANI 78 Industry	Wool <sup>†</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other Grains x	Meat Cattle **	Milk Cattle and Pigs <sup>††</sup>	Other Farming (Export) <sup>oo</sup>	Other Farming (Import) xx	Poultry
1	Pastoral Zone	254.08 (0.7169)	19.17 (0.0541)	6.53 (0.0184)	0.36 (0.0010)	4.70 (0.0133)	60.98 (0.1721)	0.35 (0.0010)	0.31 (0.0009)	7.95 (0.0224)	
2	Wheat-Sheep Zone	528.18 (0.4349)	150.69 (0.1241)	219.96 (0.1811)	59.18 (0.0487)	52.00 (0.0428)	154.20 (0.1270)	30.39 (0.0250)	1.51 (0.0012)	18.36 (0.0151)	
3	High Rainfall Zone	478.97 (0.5441)	130.78 (0.1486)	5.70 (0.0065)	7.72 (0.0088)	25.75 (0.0293)	170.33 (0.1935)	17.12 (0.0194)	4.75 (0.0054)	39.16 (0.0445)	
4	Northern Beef (e)						112.84 (1.0000)				
5	Milk Cattle and Pigs						47.99 (0.0851)	515.99 (0.9149)			
6	Other Farming (Export) <sup>(i)</sup>							868.42 (1.0000)			
7	Other Farming (Import) Competing								433.72 (1.0000)		
8	Poultry										185.25 (1.0000)

TABLE 3.7 (continued)

1973-74 (\$m. (1973-74 Prices))

ORANI 78 Industry		ORANI 78 Commodity:									
		Wool <sup>+</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other <sup>x</sup> Grains	Meat Cattle <sup>**</sup>	Milk Cattle and Pigs <sup>++</sup>	Other Farming (Export) <sup>oo</sup>	Other Farming (Import) Competing <sup>xx</sup>	Poultry
1	Pastoral Zone	216.62 (0.5349)	75.15 (0.1856)	32.34 (0.0799)	2.84 (0.0070)	2.84 (j)	68.21 (0.1684)	0.40 (0.0010)	0.36 (c) (0.0009)	9.09 (d) (0.0224)	
2	Wheat-Sheep Zone	516.38 (0.3158)	284.71 (0.1741)	381.98 (0.2336)	170.82 (0.1045)	170.82 (j)	213.62 (0.1306)	40.91 (0.0250)	2.04 (c) (0.0013)	24.77 (d) (0.0151)	
3	High Rainfall Zone	421.08 (0.4374)	210.49 (0.2186)	5.81 (0.0060)	38.93 (0.0404)	38.93 (j)	219.67 (0.2282)	18.73 (0.0195)	5.20 (c) (0.0054)	42.83 (d) (0.0445)	
4	Northern Beef (k)						135.97 (1.0000)				
5	Milk Cattle and Pigs						49.77 (0.0851)	534.98 (0.9149)	1071.73 (1.0000)		
6	Other Farming (Export) <sup>(L)</sup>									560.27 (1.0000)	
7	Other Farming (Import Competing)										262.21 (1.0000)
8	Poultry										

TABLE 3.7 (continued)

1974-75 (\$m. (1974-75 Prices))

j ORANI 78 Industry		ORANI 78 Commodity:										Poultry ***
		Wool <sup>+</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other Grains x	Meat Cattle **	Milk Cattle and Pigst <sup>+</sup>	Other Farming (Export) <sup>oo</sup>	Other Farming (Import)	Competing xx	
1	Pastoral Zone	161.69 (0.5523)	39.53 (0.1350)	56.07 (0.1915)	2.35(a) (0.0080)	6.25(a) (0.0214)	18.80 (0.0642)	1.24 (0.0042)	0.26 (0.0009)	(c)	6.58(d) (0.0225)	89
2	Wheat-Sheep Zone	325.56 (0.2206)	126.25 (0.0856)	690.31 (0.4678)	94.63(a) (0.0641)	94.38(a) (0.0640)	80.99 (0.0549)	38.64 (0.0262)	1.89 (0.0013)	(c)	22.92(d) (0.0155)	
3	High Rainfall Zone	242.10 (0.4895)	102.26 (0.2068)	5.38 (0.0109)	7.15(a) (0.0145)	16.57(a) (0.0335)	88.03 (0.1780)	7.90 (0.0160)	2.72 (0.0055)	(c)	22.44(d) (0.0453)	
4	Northern Beef (k)						75.87 (1.0000)					
5	Milk Cattle and Pigs (m)						32.16 (0.0580)	522.22 (0.9420)				
6	Other Farming (Export)(n)								815.84 (1.0000)			
7	Other Farming (Import Competing)										549.27 (1.0000)	
8	Poultry											286.41 (1.0000)

TABLE 3.7 (continued)

		1975-76 (\$m. (1975-76 Prices))									
j ORANI 78 Industry		ORANI 78 Commodity:									
		Wool <sup>+</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other Grains <sup>x</sup>	Meat Cattle <sup>**</sup>	Milk Cattle and Pigs <sup>††</sup>	Other Farming (Export) <sup>oo</sup>	Other Farming (Import Competing) <sup>xx</sup>	Poultry
											***
1	Pastoral Zone	175.35 (0.5265)	19.30 (0.0579)	78.91 (0.2369)	3.27 <sup>(a)</sup> (0.0098)	7.05 (a) (0.0212)	41.01 (0.1231)	0.37 (0.0011)	0.29 (0.0009)	7.48 (d) (0.0225)	
2	Wheat-Sheep Zone	58.85 (0.0428)	148.35 (0.1080)	791.80 (0.5762)	143.27 <sup>(a)</sup> (0.1043)	94.90 (a) (0.0691)	77.15 (0.0561)	36.75 (0.0267)	1.76 (0.0013)	21.35 (d) (0.0155)	
3	High Rainfall Zone	290.13 (0.5370)	85.43 (0.1581)	12.17 (0.0225)	11.48 <sup>(a)</sup> (0.0212)	11.29 (a) (0.0209)	87.24 (0.1615)	15.07 (0.0280)	2.97 (0.0055)	24.51 (d) (0.0454)	
4	Northern Beef (k)						80.99 (1.0000)				
5	Milk Cattle and Pigs (m)						32.16 (0.0580)	522.22 (0.9420)			
6	Other Farming (Export) (n)								800.90 (1.0000)		
7	Other Farming (Import Competing)									567.27 (1.0000)	
8	Poultry										305.35 (1.0000)

TABLE 3.7 (continued)

1976-77 (\$m. (1976-77 Prices))

ORANI 78 Commodity:

J	ORANI 78 Industry	***									
		Wool <sup>+</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other Grains x	Meat Cattle <sup>**</sup>	Milk Cattle and Pigs <sup>++</sup>	Other Farming (Export) <sup>oo</sup>	Other Farming (Import) xx	Poultry
1	Pastoral Zone	198.37 (0.4467)	35.79 (0.0806)	68.90 (0.1551)	63.68 <sup>(a)</sup> (0.1434)	6.31 <sup>(a)</sup> (0.0142)	91.02 (0.0698)	0.11 (0.0002)	0.00 (0.0000)	39.94 (0.0899)	
2	Wheat-Sheep Zone	411.49 (0.2142)	112.84 (0.0587)	1036.78 (0.5397)	170.55 <sup>(a)</sup> (0.0888)	42.89 <sup>(a)</sup> (0.0223)	51.04 (0.0266)	57.67 (0.0300)	2.68 (0.0014)	35.09 (0.0183)	
3	High Rainfall Zone	346.79 (0.4884)	145.82 (0.2054)	47.37 (0.0667)	21.64 <sup>(a)</sup> (0.0305)	17.86 <sup>(a)</sup> (0.0252)	78.19 (0.1101)	14.97 (0.0211)	0.74 (0.0010)	36.63 (0.0516)	
4	Northern Beef <sup>(k)</sup>						72.27 (1.0000)				
5	Milk Cattle and Pigs							509.45 (0.9723)			
6	Other Farming (Export) (o)								922.89 (1.0000)		
7	Other Farming (Import Competing)									621.93 (1.0000)	
8	Poultry										335.77 (1.0000)

TABLE 3.7 (continued)

1977-78 (\$m. (1977-78 Prices))

j ORANI 78 Industry		ORANI 78 Commodity:									
		Wool <sup>+</sup>	Sheep <sup>0</sup>	Wheat	Barley	Other x Grains	Meat** Cattle	Milk Cattle and Pigs	Other Farming (Export) <sup>oo</sup>	Other Farming (Import) <sup>xx</sup> Competing	Poultry <sup>***</sup>
1	Pastoral Zone	319.85 (0.8003)	32.83 (0.0821)	2.98 (0.0075)	0.42 (0.0011)	0.00 (0.0000)	42.99 (0.1077)	0.00 (0.0000)	0.00 (0.0000)	0.59 (0.0015)	
2	Wheat-Sheep Zone	601.25 (0.3488)	251.40 (0.1458)	488.88 (0.2836)	142.27 (0.0825)	61.22 (0.0355)	101.60 (0.0589)	43.72 (0.0254)	1.71 (0.0010)	31.64 (0.0184)	
3	High Rainfall Zone	412.68 (0.4805)	214.50 (0.2497)	6.82 (0.0079)	12.14 (0.0141)	9.17 (0.0107)	131.27 (0.1528)	18.12 (0.0211)	5.57 (0.0065)	48.60 (0.0566)	
4	Northern Beef <sup>(p)</sup>						120.95 (1.0000)				
5	Milk Cattle and Pigs						20.11 (0.0317)	614.95 (0.9683)			
6	Other Farming (Export) <sup>(o)</sup>								936.10 (1.0000)		
7	Other Farming (Import Competing)									678.44 (1.0000)	
8	Poultry										391.01 (1.0000)

TABLE 3.7 (continued)

1978-79 (\$m. (1978.79 Prices))

ORANI 78 Commodity:

j	ORANI 78 Industry	Wool <sup>+</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other Grains <sup>x</sup>	Meat Cattle <sup>**</sup>	Milk Cattle and Pigs <sup>++</sup>	Other Farming <sup>oo</sup> (Export)	Other Farming (Import)	Poultry <sup>***</sup>
1	Pastoral Zone	192.51 (0.6287)	45.12 (0.1474)	6.52 (0.0213)	0.85 <sup>(a)</sup> (0.0028)	0.06 <sup>(a)</sup> (0.0002)	59.98 (0.1959)	0.03 (0.0001)	1.04 (0.0034)	0.08 (0.0003)	
2	Wheat-Sheep Zone	662.69 (0.2534)	425.00 (0.1625)	953.92 (0.3648)	181.15 <sup>(a)</sup> (0.0693)	53.74 <sup>(a)</sup> (0.0205)	243.61 (0.0931)	68.80 (0.0263)	1.12 (0.0004)	25.10 (0.0096)	
3	High Rainfall Zone	381.94 (0.3856)	275.06 (0.2777)	14.17 (0.0143)	13.34 <sup>(a)</sup> (0.0135)	11.81 <sup>(a)</sup> (0.0119)	217.15 (0.2192)	26.87 (0.0271)	12.38 (0.0125)	37.88 (0.0382)	
4	Northern Beef(p)						267.87 (1.0000)				
5	Milk Cattle and Pigs						26.19 (0.0341)	741.47 (0.9659)			
6	Other Farming (Export)(o)								1267.39 (1.0000)		
7	Other Farming (Import Competing)									830.47 (1.0000)	
8	Poultry										398.89 (1.0000)

TABLE 3.7 (continued)

1979-80 (\$m. (1979-80 Prices))

ORANI 78 Commodity:

J	ORANI 78 Industry	Wool <sup>+</sup>	Sheep <sup>o</sup>	Wheat	Barley	Other Grains <sup>x</sup>	Meat Cattle <sup>**</sup>	Milk Cattle and Pigs <sup>++</sup>	Other Farming (Export) <sup>oo</sup>	Other Farming (Import Competing) <sup>xx</sup>	Poultry <sup>***</sup>
1	Pastoral Zone	199.16 (0.7281)	14.52 (0.0531)	7.00 (0.0256)	4.33 (0.0158)	0.80 (0.0029)	47.72 (0.1745)	0.00 (0.0000)	0.00 (0.0000)	0.00 (0.0000)	
2	Wheat-Sheep Zone	752.89 (0.2300)	521.55 (0.1593)	1281.83 (0.3915)	261.23 (0.0798)	72.45 (0.0221)	254.65 (0.0778)	68.01 (0.0208)	7.22 (0.0022)	54.22 (0.0166)	
3	High Rainfall Zone	514.41 (0.3962)	349.52 (0.2692)	43.27 (0.0333)	22.13 (0.0170)	9.78 (0.0075)	284.95 (0.2195)	12.33 (0.0095)	4.14 (0.0032)	57.78 (0.0445)	
4	Northern Beef (p)						640.12 (1.0000)				
5	Milk Cattle and Pigs						60.22 (0.0680)	824.81 (0.9320)			
6	Other Farming (Export) (o)								1257.66 (1.0000)		
7	Other Farming (Import Competing)									899.60 (1.0000)	
8	Poultry										493.27 (1.0000)

- \* Numbers in italics involve extrapolation and/or subjective inferences not present in the remaining estimates (which ~~are~~ based firmly in BAE data).
  - + Includes shorn wool, skins, and dead and fellmongered wool.
  - o Includes the sheep trading gain (equal to gross receipts from sheep sales less the cost of sheep purchased plus the value of sheep transferred to properties of common ownership) and the sheep operating gain (equal to closing sheep numbers less opening sheep numbers multiplied by the closing unit values).
  - x Includes maize, millet, oats, panicum, rice, rye, setaria and sorghum.
  - \*\* Includes the meat cattle trading gain (equal to gross receipts from meat cattle sales less the cost of meat cattle purchased plus the value of meat cattle transferred to properties of common ownership) and the meat cattle operating gain (equal to closing meat cattle numbers less opening meat cattle numbers multiplied by the closing unit values).
  - ++ Includes: the milk cattle trading gain and operating gain (both defined as above for the commodities Sheep and Meat Cattle) where milk cattle are cattle kept or intended mainly for the production of manufacturing or market milk; milk for manufacturing or market; and the pigs trading gain and operating gain.
  - oo Includes grapes, plantation fruit, orchard and other fruit, sugar cane and 50 per cent of the value of production of commodities n.e.c.
  - xx Includes vegetables, peanuts, tobacco, cotton, hay and silage, bees wax, nursery produce, oilseeds and 50 per cent of the value of production of commodities n.e.c.
  - \*\*\* Includes chickens, ducks, geese and turkeys sold for meat production, and eggs.
- (a) The value of the output of the commodity was derived from information on the value of output of 'other crops and hay' (BAE nomenclature), and the volumes of production of each commodity included in this BAE defined composite commodity.
  - (b) Derived from the average share during the period 1974-75 to 1979-80, of the Milk Cattle and Pigs commodity in the total production of the industry.
  - (c) Derived from the average share, during the period 1975-76 to 1979-80, of the Other Farming (Export) commodity in the total production of the industry.
  - (d) Derived from the average share, during the period 1975-76 to 1979-80, of the Other Farming (Import Competing) commodity in the total production of the industry.

- (e) Information relating to the production of Meat Cattle by the Northern Beef industry was unavailable. Therefore approximations were used, based on the relationship, for the three years 1968-69 to 1970-71, between the production of the Northern Beef industry and the combined production of Meat Cattle by the Pastoral, Wheat-Sheep and High Rainfall Zones. In summary, for each financial year (t):

$$\text{(Production of Meat Cattle = (0.2927 x (Production of Meat Cattle (Zone)))}_t$$

where (Northern Beef) refers to the Northern Beef industry and (Zone) refers to an industry consisting of all establishments operating in the Pastoral, Wheat-Sheep and High Rainfall Zones.

- (f) The estimate was derived from data for the population of the industry, and the returns of the average establishment in the Deciduous Canning Fruit and Apple and Pear sub-industries weighted according to the respective sub-industry population.
- (g) The estimate was derived from information pertaining to the average poultry for eggs establishment and the population of the industry.
- (h) The value of production of each item is a simple average of the value of production of that item in 1969-70 and 1971-72.
- (i) The estimate was based on data for the average Apple and Pear establishment and the average (1970-71 and 1973-74) population of the industry.
- (j) The estimate of 'other crops' could not be split into its two parts (Barley and Other Grains) using the information supplied by the BAE.
- (k) The estimate was derived from information pertaining to the average establishment in the Peninsular and Gulf and Coastal Central Regions of Queensland, the Kimberley region and the Northern Territory.
- (l) The estimate was derived from information pertaining to average establishments in the Deciduous Canning Fruit and Apple and Pear sub-industries, and the 1973-74 population of the industry.
- (m) The value of each item is a simple average of that item's value in 1973-74 and 1976-77.
- (n) The estimate was based on data for the average establishment in the Apple and Pear, Deciduous Canning Fruit, Citrus and Multipurpose Grape sub-industries and the 1974-75 population of the industry.
- (o) The estimate was based on data for average establishments in the Apple and Pear, Deciduous Canning Fruit, Citrus, Multipurpose Grape and Wine Grape sub-industries, and the 1976-77 population of the industry.
- (p) The estimate was derived from data pertaining to the average establishment in the Peninsular and Gulf regions of Queensland, regions 314, 322 and 331 of Queensland (BAE nomenclature), the Kimberley region and the Northern Territory.

## SOURCES

1967-68

- Pastoral Zone - BAE (1972b, pp.viii, 36 and 50);  
 Wheat-Sheep Zone - BAE (1972b, pp.viii, 127 and 143);  
 High Rainfall Zone - BAE (1972b, pp.ix, 219 and 235);  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 28 and 29);  
 Other Farming (Export) - BAE (1971, pp.4 and 62; 1972a, pp.10 and 34) and Commonwealth Bureau of Census and Statistics (1971, p.139);
- Other Farming (Import Competing) and Poultry - Commonwealth Bureau of Census and Statistics (1970, p.8).

1968-69

- Pastoral Zone - BAE (1972b, pp.viii, 36 and 50);  
 Wheat-Sheep Zone - BAE (1972b, pp.viii, 127 and 143);  
 High Rainfall Zone - BAE (1972b, pp.ix, 219 and 235);  
 Northern Beef - BAE (1974b, pp.4 and 48; 1974c, pp.4 and 19);  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 28 and 29);  
 Other Farming (Export) - BAE (1971, pp.4 and 62; 1972a, pp.10 and 34) and Commonwealth Bureau of Census and Statistics (1971, p.139);
- Other Farming (Import Competing) - Commonwealth Bureau of Census and Statistics (1971, p.139);
- Poultry - BAE (1974a, p.34) and Commonwealth Bureau of Census and Statistics (1971, p.139).

1969-70

- Pastoral Zone - BAE (1972b, pp.viii, 36 and 51);  
 Wheat-Sheep Zone - BAE (1972b, pp.viii, 127 and 144);  
 High Rainfall Zone - BAE (1972b, pp.ix, 219 and 236);  
 Northern Beef - BAE (1974b, pp.4 and 48; 1974c, pp.4 and 19);  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 28 and 29);  
 Other Farming (Export) and Other Farming (Import Competing) - Commonwealth Bureau of Census and Statistics (1972, p.9);
- Poultry - BAE (1974a, p.34) and Commonwealth Bureau of Census and Statistics (1972, p.9).

1970-71

- Pastoral Zone - BAE (1976a, pp.10, 92 and 121);  
 Wheat-Sheep Zone - BAE (1976a, pp.10, 151 and 177);  
 High Rainfall Zone - BAE (1976a, pp.10, 205 and 229);  
 Northern Beef - BAE (1974b, pp.4 and 48; 1974c, pp.4 and 19);
- Other Farming (Export) and  
 Other Farming (Import Competing) - Commonwealth Bureau of Census and  
 Statistics (1972, p.9);
- Poultry - BAE (1974a, pp.4 and 62) and Common-  
 wealth Bureau of Census and Statistics  
 (1972, p.9).

1971-72

- Pastoral Zone - BAE (1976a, pp.10, 92 and 121);  
 Wheat-Sheep Zone - BAE (1976a, pp.10, 151 and 177);  
 High Rainfall Zone - BAE (1976a, pp.10, 205 and 229);  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 28 and 29);  
 Other Farming (Export) - BAE (1975a, p.114) and ABS (1976 a ,  
 p.6);
- Other Farming (Import Competing)  
 and Poultry - ABS (1975, pp.12 and 22).

1972-73

- Pastoral Zone - BAE (1976a, pp.10, 92 and 121);  
 Wheat-Sheep Zone - BAE (1976a, pp.10, 151 and 177);  
 High Rainfall Zone - BAE (1976a, pp.10, 205 and 229);  
 Milk Cattle and Pigs - BAE (1975b, pp.8, 28 and 29);  
 Other Farming (Export) - BAE (1975a, p.114) and ABS (1976 a ,  
 p.6);
- Other Farming (Import Competing)  
 and Poultry - ABS (1975, p.19 and 22).

1973-74

- Pastoral Zone - BAE (1976b, pp.37 and 39);  
 Wheat-Sheep Zone - BAE (1976b, pp.37 and 49);  
 High Rainfall Zone - BAE (1976b, pp.37 and 59);  
 Northern Beef - unpublished BAE microfiche containing  
 results of the 1973-74 Australian  
 Grazing Industry Survey;
- Milk Cattle and Pigs - BAE (1975b, pp.8, 28 and 29);  
 Other Farming (Export) - BAE (1977a, pp.46 and 79; 1977b,  
 pp.130, 149, 150 and 151) and ABS  
 (1976a, p.6);
- Other Farming (Import Competing)  
 and Poultry - ABS (1976b, 20 and 24).

1974-75

- Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef - unpublished BAE microfiche containing  
results of the 1974-75 Australian  
Grazing Industry Survey;
- Other Farming (Export) - BAE (1978 , pp.31, 32, 33 and 65;  
1980b, pp.25 and 40; 1980c, pp.56, 78,  
79 and 80; 1980d, pp.52, 86 and 87) and  
ABS (1977a, p.10);
- Other Farming (Import Competing) - ABS (1978c, p.11);
- Poultry - ABS (1978c, pp.20 and 24).

1975-76

- Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef - unpublished BAE microfiche containing  
results of the 1975-76 Australian  
Grazing Industry Survey;
- Other Farming (Export) - BAE (1980a, pp.50, 80 and 81; 1980b,  
pp.25 and 40; 1980c, pp.56, 78, 79 and  
80; 1980d, pp.52, 86 and 87) and ABS  
(1977a, p.10);
- Other Farming (Import Competing) - ~~ABS~~ (1979b, p.11);
- Poultry - ~~ABS~~ (1979b, pp.20 and 24).

1976-77

- Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef - unpublished BAE microfiche containing  
results of the 1976-77 Australian  
Grazing Industry Survey;
- Milk Cattle and Pigs - BAE (1981b, pp.1 and 21);
- Other Farming (Export) - BAE (1979 , pp.28 and 52; 1980a, pp.50,  
80 and 81; 1980b, pp.25 and 40; 1980c,  
pp.56, 78, 79 and 80; 1980d, pp.52, 86  
and 87) and ABS (1977a, p.10);
- Other Farming (Import Competing) - ~~ABS~~ (1979b, p.11);
- Poultry - ~~ABS~~ (1979b, pp.20 and 24).

1977-78

- Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef - unpublished BAE microfiche containing  
results of the 1977-78 Australian  
Agricultural Grazing Industries Survey;
- Milk Cattle and Pigs - BAE (1981b, pp.1 and 57);
- Other Farming (Export) - BAE (1979 , p.28; 1980a, pp.80 and 81;  
1980b, p.40; 1980c, pp.78, 79 and 80;  
1980d, pp.86 and 87; 1981a, pp.15, 26,  
36, 45 and 56) and ABS (1979a, p.9).
- Other Farming (Import Competing) - ABS (1981 , p.8);
- Poultry - ABS (1981 , pp.17 and 21).

1978-79

Pastoral Zone, Wheat-Sheep  
Zone, High Rainfall Zone  
and Northern Beef

- unpublished BAE microfiche containing results of the 1978-79 Australian Agricultural and Grazing Industries Survey;

Milk Cattle and Pigs

- BAE (1983a, pp.1) and unpublished BAE microfiche containing results of the 1978-79 Dairy Industry Survey.

Other Farming (Export)

- BAE (1979, p.28; 1980a, pp.80 and 81; 1980b, p.40; 1980c, pp.78, 79 and 80; 1980d, pp.86 and 87; 1983c, pp.11, 23, 33, 43 and 53);

Other Farming (Import Competing)  
and Poultry

- ABS (1982, pp.15 and 18).

1979-80

Pastoral Zone, Wheat-Sheep  
Zone and High Rainfall Zone

- unpublished BAE microfiche containing results of the 1979-80 Australian Agricultural and Grazing Industries Survey;

Milk Cattle and Pigs

- unpublished BAE microfiche containing results of the 1979-80 Australian Dairy Industry Survey;

Other Farming (Export)

- BAE (1983c, pp.2, 14, 30, 45, 59 and 72) and ABS (1981, p.7);

Other Farming (Import Competing)  
and Poultry

- ABS (1983b, pp.16 and 12).

TABLE 4.1: COMPENDIUM OF ESTIMATES FOR EACH AGRICULTURAL INDUSTRY IN ORANI 78\*

Year	The Share of Fixed Factors in Total Primary Factor Inputs <sup>+</sup>	The Share of Variable Factors in Total Primary Factor Inputs <sup>o</sup>	The Share of Returns to Primary Factors in Total Inputs to Current Production <sup>x</sup>	The Share in Total Pastoral Zone Production, of Commodity:									
				Wool	Sheep	Wheat	Barley	Other Grains	Meat Cattle	Milk Cattle and Pigs	Other Farming (Export)	Other Farming (Import Competing)	
1967-68	0.4615	0.5386	0.7554	0.6980	0.1627	0.0291	0.0004	0.0014	0.0941	0.0009	0.0009	0.0225	
1968-69	0.6036	0.3964	0.7977	0.6183	0.1813	0.0780	0.0018	0.0014	0.0949	0.0010	0.0009	0.0224	
1969-70	0.4013	0.5987	0.7386	0.6187	0.1392	0.0614	0.0009	0.0027	0.1528	0.0010	0.0009	0.0224	
1970-71	0.2770	0.7230	0.7331	0.5797	0.0828	0.0512	0.0016	0.0049	0.2556	0.0010	0.0009	0.0224	
1971-72	0.5282	0.4718	0.7931	0.5631	0.0629	0.0655	0.0030	0.0110	0.2703	0.0010	0.0009	0.0224	
1972-73	0.7133	0.2867	0.8231	0.7169	0.0541	0.0184	0.0010	0.0133	0.1721	0.0010	0.0009	0.0224	
1973-74	0.6689	0.3311	0.8057	0.5349	0.1856	0.0799	0.0035(a)	0.0035(a)	0.1684	0.0010	0.0009	0.0224	
1974-75	0.4152	0.5848	0.7716	0.5523	0.1350	0.1915	0.0080	0.0214	0.0642	0.0042	0.0009	0.0224	
1975-76	0.4317	0.5683	0.7866	0.5265	0.0579	0.2369	0.0098	0.0212	0.1231	0.0011	0.0009	0.0225	
1976-77	0.4907	0.5093	0.7464	0.4467	0.0806	0.1551	0.1434	0.0142	0.0698	0.0002	0.0000	0.0899	
1977-78	0.1471	0.8529	0.7321	0.8003	0.0821	0.0075	0.0011	0.0000	0.1077	0.0000	0.0000	0.0015	
1978-79	0.4163	0.5837	0.7717	0.6287	0.1474	0.0213	0.0028	0.0002	0.1959	0.0001	0.0034	0.0003	
1979-80	0.4606	0.5394	0.7298	0.7281	0.0531	0.0256	0.0158	0.0029	0.1745	0.0000	0.0000	0.0000	
Average	0.4628	0.5373	0.7681	0.6163	0.1088	0.0786	0.0149	0.0075	0.1495	0.0010	0.0009	0.0226	

\* Numbers in italics involve extrapolation and / or subjective inferences not present in the remaining estimates (which are based firmly in BAE data).

+ The composition of the fixed factors is assumed to be Land and Fixed Capital. Note that this is an assumption consistent with experiments using the ORANI model in short-run mode.

o The only variable factor in short-run ORANI experiments is Labour (Owner - Operator plus 'other').

x Total inputs to current production is the sum of the values (at purchasers prices) of flows of domestically produced commodities, imported commodities, margins, primary inputs and 'other costs' to the current production of each industry.

(a) Equal to 50 percent of the value of the composite item 'other crops'.

TABLE 4.1: (continued)

Year	The Share of Fixed Factors in Total Primary Factor Inputs	The Share of Variable Factors in Total Primary Factor Inputs <sup>o</sup>	The Share of Returns to Primary Factors in Total Inputs to Current Production <sup>x</sup>	The Share in Total Wheat-Sheep Zone Production, of Commodity:									
				Wool	Sheep	Wheat	Barley	Other Grains	Meat Cattle	Milk Cattle and Pigs	Other Farming (Export)	Other Farming (Import Competing)	
1967-68	0.4970	0.5030	0.6641	0.3503	0.1481	0.2913	0.0091	0.0770	0.0819	0.0250	0.0012	0.0151	
1968-69	0.6573	0.3426	0.7320	0.2830	0.1144	0.4261	0.0237	0.0392	0.0702	0.0250	0.0012	0.0151	
1969-70	0.5182	0.4818	0.6938	0.3358	0.1486	0.2739	0.0415	0.0418	0.1174	0.0247	0.0012	0.0150	
1970-71	0.5217	0.4783	0.6972	0.2751	0.1081	0.2685	0.0625	0.0745	0.1699	0.0250	0.0012	0.0152	
1971-72	0.4956	0.5044	0.6939	0.2882	0.0739	0.2849	0.0750	0.0768	0.1599	0.0250	0.0012	0.0151	
1972-73	0.6351	0.3648	0.7206	0.4349	0.1242	0.1811	0.0467	0.0428	0.1270	0.0250	0.0012	0.0151	
1973-74	0.7134	0.2866	0.7577	0.3158	0.1741	0.2336	0.0523 <sup>(a)</sup>	0.0522 <sup>(a)</sup>	0.1306	0.0250	0.0013	0.0151	
1974-75	0.6138	0.3862	0.7250	0.2206	0.0886	0.4678	0.0641	0.0640	0.0649	0.0263	0.0013	0.0155	
1975-76	0.5708	0.4292	0.7157	0.0429	0.1080	0.5702	0.1043	0.0691	0.0561	0.0267	0.0013	0.0155	
1976-77	0.5646	0.4354	0.7100	0.2142	0.0587	0.5397	0.0888	0.0223	0.0266	0.0300	0.0014	0.0183	
1977-78	0.3360	0.6640	0.6366	0.3488	0.1458	0.2836	0.0825	0.0355	0.0589	0.0254	0.0010	0.0184	
1978-79	0.5425	0.4575	0.6429	0.2534	0.1625	0.3648	0.0693	0.0205	0.0931	0.0263	0.0004	0.0096	
1979-80	0.5864	0.4136	0.6671	0.2300	0.1593	0.3915	0.0798	0.0221	0.0778	0.0208	0.0022	0.0166	
Average	0.5579	0.4421	0.6967	0.2764	0.1240	0.3527	0.0617	0.0489	0.0942	0.0254	0.0012	0.0154	

TABLE 4.1: (continued)

Year	The Share in Total High Rainfall Zone Production, of Commodity:											
	The Share of Fixed Factors in Total Primary+ Factor Inputs	The Share of Variable Factors in Total Primary Factor Inputs <sup>o</sup>	The Share of Returns to Primary Factors in Total Inputs to Current Production <sup>a</sup>	Moo <sup>l</sup>	Sheep	Wheat	Barley	Other Grains	Meat Cattle	Milk Cattle and Pigs	Other Farming (Export)	Other Farming (Import Competing)
1967-68	0.4794	0.5206	0.6552	0.5139	0.1464	0.0134	0.0128	0.0778	0.1665	0.0194	0.0054	0.0444
1968-69	0.5129	0.4871	0.7054	0.4820	0.1522	0.0279	0.0188	0.0608	0.1891	0.0194	0.0054	0.0445
1969-70	0.5247	0.4753	0.7232	0.4440	0.1911	0.0146	0.0228	0.0582	0.2000	0.0194	0.0054	0.0445
1970-71	0.3314	0.6686	0.6818	0.4058	0.1446	0.0118	0.0129	0.0518	0.3038	0.0194	0.0054	0.0445
1971-72	0.4939	0.5061	0.7247	0.3902	0.1394	0.0110	0.0103	0.0515	0.3283	0.0194	0.0054	0.0445
1972-73	0.6772	0.3228	0.7559	0.5440	0.1486	0.0065	0.0088	0.0293	0.1935	0.0194	0.0054	0.0445
1973-74	0.6713	0.3287	0.8426	0.4374	0.2188	0.0060	0.0202(a)	0.0282(a)	0.3282	0.0195	0.0054	0.0445
1974-75	0.2423	0.7577	0.6895	0.4895	0.2068	0.0109	0.0145	0.0335	0.1780	0.0190	0.0055	0.0453
1975-76	0.2672	0.7328	0.6819	0.5370	0.1580	0.0225	0.0312	0.0209	0.1615	0.0280	0.0055	0.0454
1976-77	0.4865	0.5135	0.6179	0.4884	0.2054	0.0667	0.0305	0.0252	0.1101	0.0211	0.0010	0.0516
1977-78	0.3204	0.6796	0.6870	0.4805	0.2497	0.0079	0.0141	0.0107	0.1528	0.0211	0.0065	0.0566
1978-79	0.4405	0.5595	0.6761	0.3856	0.2777	0.0143	0.0135	0.0119	0.2192	0.0271	0.0125	0.0382
1979-80	0.4681	0.5319	0.6593	0.3962	0.2692	0.0333	0.0170	0.0075	0.2195	0.0095	0.0032	0.0445
Average	0.4551	0.5450	0.7001	0.4611	0.1929	0.0190	0.0167	0.0353	0.2039	0.0199	0.0056	0.0456

TABLE 4.1: (continued)

Year	The Share in Total Northern Beef Production, of Commodity:											
	The Share of Fixed Factors in Total Primary + Factor Inputs	The Share of Variable Factors in Total Primary Factor Inputs <sup>o</sup>	The Share of Returns to Primary Factors in Total Inputs to Current Production <sup>x</sup>	Wool	Sheep	Wheat	Barley	Other Grains	Meat Cattle	Milk Cattle and Pigs	Other Farming (Export)	Other Farming (Import Competing)
1967-68	0.6060	0.3940	0.6567						1.0000			
1968-69	0.6621	0.3379	0.7506						1.0000			
1969-70	0.6621	0.3379	0.7505						1.0000			
1970-71	0.6621	0.3379	0.7506						1.0000			
1971-72	0.6250	0.3750	0.7182						1.0000			
1972-73	0.7421	0.2579	0.7393						1.0000			
1973-74	0.5508	0.4492	0.7733						1.0000			
1974-75	0.2781	0.7219	0.6753						1.0000			
1975-76	0.0943	0.9057	0.6674						1.0000			
1976-77	0.5062	0.4938	0.6863						1.0000			
1977-78	0.1470	0.8530	0.6634						1.0000			
1978-79	0.5036	0.4964	0.7329						1.0000			
1979-80	0.5635	0.4365	0.6949						1.0000			
Average	0.5079	0.4921	0.7123						1.0000			

TABLE 4.1: (continued)

Year	The Share in Total Milk Cattle and Pigs Industry Production, of Commodity:											
	The Share of Fixed Factors in Total Primary Factor Inputs <sup>+</sup>	The Share of Variable Factors in Total Primary Factor Inputs <sup>o</sup>	The Share of Returns to Primary Factors in Total Inputs to Current Production <sup>x</sup>	Wool	Sheep	Wheat	Barley	Other Grains	Meat Cattle	Milk Cattle and Pigs	Other Farming (Export)	Other Farming (Import Competing)
1967-68	0.5166	0.4834	0.6548						0.0444	0.9556		
1968-69	0.5032	0.4968	0.6460						0.0659	0.9341		
1969-70	0.5733	0.4267	0.6878						0.0659	0.9341		
1970-71	0.5627	0.4373	0.6967						0.0707	0.9293		
1971-72	0.5514	0.4485	0.6962						0.0753	0.9247		
1972-73	0.5280	0.4720	0.6799						0.0851	0.9149		
1973-74	0.4453	0.5547	0.6699						0.0851	0.9149		
1974-75	0.2645	0.7355	0.6455						0.0580	0.9420		
1975-76	0.2645	0.7355	0.6455						0.0580	0.9420		
1976-77	0.0244	0.9756	0.6155						0.0277	0.9723		
1977-78	0.1257	0.8743	0.6271						0.0317	0.9683		
1978-79	0.3498	0.6502	0.6584						0.0341	0.9659		
1979-80	0.5480	0.4520	0.6823						0.0680	0.9320		
Average	0.4044	0.5956	0.6620						0.0593	0.9408		

TABLE 4.1: (continued)

Year	The Share of Fixed Factors in Total Primary Factor Inputs <sup>+</sup>	The Share of Variable Factors in Total Primary Factor Inputs <sup>o</sup>	The Share of Returns to Primary Factors in Total Inputs to Current Production <sup>x</sup>	The Share in Total Other Farming (Export) Industry Production, of Commodity:									
				Wool	Sheep	Wheat	Barley	Other Grains	Meat Cattle	Milk Cattle and Pigs	Other Farming (Export)	Other Farming (Import Competing)	
1967-68	0.4185	0.5814	0.6700									1.0000	
1968-69	0.4185	0.5814	0.6700									1.0000	
1969-70	0.4061	0.5939	0.6431									1.0000	
1970-71	0.3919	0.6081	0.6410									1.0000	
1971-72	0.3017	0.6983	0.5896									1.0000	
1972-73	0.4263	0.5737	0.6086									1.0000	
1973-74	0.3610	0.6389	0.6172									1.0000	
1974-75	0.3225	0.6775	0.6724									1.0000	
1975-76	0.1546	0.8454	0.6532									1.0000	
1976-77	0.2465	0.7535	0.7453									1.0000	
1977-78	0.1959	0.8041	0.7668									1.0000	
1978-79	0.2118	0.7882	0.6621									1.0000	
1979-80	0.3303	0.6697	0.7038									1.0000	
Average	0.3220	0.6780	0.6649									1.0000	





TABLE 4.2: THE TYPICAL YEAR DATA BASE

J	ORANI 78 Industry	The Share of Fixed Factors in Total Primary Factor * Inputs	The Share of Variable Factors in Total Primary Factor + Inputs	The Share of Returns to Primary Factors in Total Inputs to Current Production	The Share in Total Industry Production, of Commodity:									
					Wool	Sheep	Wheat	Barley	Other Grains	Meat Cattle	Milk Cattle and Pigs	Other Farming (Export)	Other Farming (Import Competing)	Poultry
1	Pastoral Zone	0.4628	0.5373	0.7681	0.6163	0.1088	0.0786	0.0149	0.0075	0.1495	0.0010	0.0009	0.0226	0.0000
2	Wheat-Sheep Zone	0.5579	0.4421	0.6967	0.2764	0.1240	0.3527	0.0617	0.0489	0.0942	0.0254	0.0012	0.0154	0.0000
3	High Rainfall Zone	0.4551	0.5450	0.7001	0.4611	0.1929	0.0190	0.0167	0.0353	0.2039	0.0199	0.0056	0.0456	0.0000
4	Northern Beef	0.5079	0.4921	0.7123						1.0000				
5	Milk Cattle and Pigs	0.4044	0.5956	0.6620						0.0593	0.9408			
6	Other Farming (Export)	0.3220	0.6780	0.6649								1.0000		
7	Other Farming (Import Competing)	0.2264	0.7736	0.5909									1.0000	
8	Poultry	0.4015	0.5985	0.2555										1.0000

\* The composition of the fixed factors is assumed to be Land and Fixed Capital. Note that this is an assumption consistent with experiments using the ORANI model in short-run mode.

+ The only variable in short-run ORANI experiments is Labour (Owner-Operator plus 'other').

o Total inputs to current production is the sum of the values (at purchasers prices) of flows of domestically produced commodities, imported commodities, margins, primary inputs and 'other costs' to the current production of each industry.

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