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severe drought across most of Australia in calendar 2002 and the first half of 2003 has had a significant effect on the agricultural sector and elements of the food supply and consumption chain. Although seasonal conditions in most of the main grain-producing regions (located primarily in the southern half of the country) have improved substantially following good rains in July and August, the effects of drought will linger for some time.

Partly because of the drought and the resulting effects on supplies of agricultural commodities, retail prices for some foods in Australia have risen significantly. In looking to the future, the export-oriented nature of much of Australia's agricultural sector means global economic developments, and their effect on demand for food and agricultural commodities, will be important to the outlook for food in Australia.

Macroeconomic Situation and Outlook

Because the United States is an important destination for exports from many Pacific Basin countries (including Australia), its economic performance, especially growth in import demand, is likely to have a significant effect on the regional economy. Improving prospects for increased economic growth in the United States in 2004 are a positive indicator for Pacific Basin economic activity in the short term.

Developments in Japan and China, the two largest Asian-based economies of the region, will be of major importance to the outlook for agriculture and food. The above three countries, as well as Hong Kong China, Chinese Taipei, and parts of Southeast Asia have important trading ties with the Australian food sector. Apart from Japan, where economic activity remains subdued, there appear to be good prospects for higher economic growth in these countries over the next year.

Economic growth in Australia is assumed to average around 3.1 0 per cent in 2003, before increasing to 3.4 per cent in 2004. The drought is estimated to have reduced the rate of economic growth in Australia in 2002-03 (July-June) by around 1 percentage point, or A\$7 billion (US\$4.1 billion), from what would otherwise have been achieved. This quite substantial effect on the national economy is despite the fact that agriculture accounts for only about 3 per cent of gross domestic product in Australia and reflects the existence of considerable direct and indirect linkages between agriculture and other industries.

Australia's general inflation rate is assumed to be 3 per cent in 2003 and 2.6 per cent in 2004. Australia's consumer price index rose by 1.3 per cent in the March quarter 2003 but remained unchanged in the June quarter. Australia's prime lending rate of interest is assumed to average around 8.4 per cent in 2003 and 8.5 per cent in 2004.

The exchange rate is one of the key domestic macroeconomic variables for Australia's primary industries. Since the beginning of 2003, the Australian dollar has appreciated markedly against the U.S. dollar and the Japanese yen. In early SeptemberOctober, it was tradingaveraged around US64 US69 cents and a trade-weighted index (TWI) of 5857, compared with US59¢ and TWI 53 in January. The Australian dollar is assumed to average around US63¢ and TWI 56 in 2003, and US65US68¢ and TWI 59 in 2004.

Although the Australian dollar is assumed to average higher both against the U.S. dollar and on a trade-weighted basis in 2003 and 2004, it can be expected to fluctuate significantly. Since the floating of the Australian dollar in December 1983, for example, the Australian currency has fluctuated by an average of around US10¢ a year.

A higher Australian dollar will reduce returns from agricultural commodity and food exports, although the price of traded inputs to primary industries will also decline. Taking these factors into account, and using ABARE's farm income data for 2002-03 (July-June) as a base, it is estimated that a 1 per cent increase in the average value of the Australian dollar would result in a decline in average farm cash incomes of Australian broadacre (grains, beef, and sheep) farms of around A\$1,230 (US\$713).

Food Prices and Consumption

Developments in the domestic Australian food market are important for the rest of the economy since they have a significant effect on overall inflation. Australian retail food prices averaged 3.6 per cent higher in 2002. Major price increases were recorded for beef and veal (up 8 per cent), lamb and mutton (up 15 per cent) and pork (up 8 per cent). Poultry and seafood prices averaged a little over 1 per cent higher.

Food prices are forecast to rise 3.5 per cent in 2003 and almost 3 per cent in 2004. Continued severe drought conditions in many areas in the first half of 2003 contributed to higher food prices. During this period, the CPI for food rose by 1.9 per cent, compared with the total CPI movement of 1.3 per cent. Vegetables (up 5 percent), bread (up 4 per cent), eggs (up 17 per cent), and lamb (up 10 per cent) were major contributors to the increase in food prices. Final food price outcomes for 2003 will be dependent on weather conditions (especially for fruits and vegetables) and global markets (especially for livestock and crop products).

With world grain prices having declined substantially since their peak in October 2002, and a stronger Australian dollar likely to erode earnings further, Australian wheat growers are expected to receive lower prices for their 2003 planted crop. The net pool return from Australian Premium White wheat (10 per cent protein) is forecast to be around A\$207 220 (US\$132150) a tonne in 2003-04, compared with an estimated return of \$253 251 (US\$147146) a tonne for the 2002-03 harvest.

Prices of the other major cereals—barley and grain sorghum—are also expected to be well down from their 2002 highs. In contrast, continued strong world demand for oilseeds and lower Southeast Asian palm oil production mean prices of the principal oilseed in Australia, canola, are forecast to stay relatively high, averaging around A\$410 (US\$262279) a tonne in 2003-04. Returns from sugar cane are fore-

cast to be down in 2003-04 (July-June) because of lower world prices and a stronger Australian dollar.

A high turnoff of stock for slaughter because of lack of feed (and, in some cases, lack of drinking water) contributed to a 16 per cent fall in the average Australian saleyard price of beef cattle in fiscal 2002-03 (July-June). Assuming that drought conditions ease in the main producing regions, and that the turnoff of cattle for slaughter falls as producers retain stock for herd rebuilding, saleyard prices are forecast to average around 10 per cent higher in 2003-04. Saleyard prices of lambs are forecast to rise by a little over 1 per cent in 20022003-03 04 as reduced lambings in the wake of the drought and favourable returns from wool encourage producers to retain additional stock for breeding rather than slaughter. The farm-gate price of milk is forecast to average 1.4 per cent lower at A\$0.29.129.1 cents (US\$0.18.619.8 cents) per litre in fiscal 2003-04 as the revenue effects of small rises in international prices for butter, milk powders, and cheese are more than offset by an assumed appreciation of the Australian dollar.

Food Processing and Marketing

The Australian market for food has been growing relatively strongly. The latest full year data reveal that the total value of food sales in 2001-02 (July–June) was around \$A75 (US\$39) billion, an increase of 7 per cent over the previous year.

Supermarkets accounted for 65 per cent of all food sales and increased their total value of sales by around 8 per cent in 2001-02. Sales through the café and restaurant sector remained unchanged from the previous year, maintaining their share at around 11 per cent of total food expenditure. Other outlets (mainly delicatessens, butcher shops, and greengrocers) showed strong growth in 2001-02 with a 14 per cent increase in sales to recover much of the market share lost in 2000-01. Sales by takeaway food outlets grew by 5 per cent, accounting for 9 per cent of total food sales, and reversing a previously declining sales trend evident since 1996-97.

In the 10 years preceding 2001-02, Australian exports of food grew at a trend rate of 6 per cent a year in constant dollar terms, slightly higher than the growth of 5.1 per cent a year in food imports over the same period. The value of Australian food exports rose by 9 per cent to A\$26.6 (US\$13.8) billion in 2001-02. The severe drought that began to affect rural Australia toward the middle of 2002 had little impact on Australia's food exports in 2001-02 but has caused a major downturn in 2002-03—particularly for grains. In value terms, export growth in 2001-02 was strongest with live animals (up 24 per cent compared with 2000-01), wine (up 20 per cent), beer and malt (up 19 per cent) and fruit and nuts (up 18 per cent). The value of processed seafood exports fell by nearly 10 per cent and cereal food exports by 26 percent.

Most of Australia's export trade in food continues to be focused on the Asian market with nearly half of Australian exports of processed food and beverages sold on Asian markets. Sales to Asia were valued at A\$12.4 (US\$6.4) billion in fiscal 2001-02 (July-June). Increased wine, horticulture, and meat exports resulted in an increase of 20 per cent in the value of exports to A\$4.3 (US\$2.2) billion to North American markets. Processed food exports to the European Union in 2001-02 fell by nearly 3 per cent to A\$1.9 (US\$1.0) billion.

The value of Australia's food imports in 2001-02 was A\$5.3 (US\$2.8) billion, an increase of 10 per cent on the previous year. Beverages and horticulture (mainly processed) products, both at around A\$954 (US\$496) million, and seafood at A\$902 (US\$469) million were the largest imports. Strong growth in meat imports, up nearly 80 per cent to A\$242 (US\$126) million was largely for processing.

Agricultural Production and Trade

The drought has had a substantial adverse effect on the farm economy in Australia, resulting in large falls in farm production, exports, and incomes. Although a substantial recovery from drought in 2003 can be expected to result in a "bounce back" in crop production, the recovery in cattle and sheep production will be much slower. After falling by around 23 per cent in 2002-03, the volume of agricultural output is forecast to rise 19 per cent in 2003-04. However, with water levels in the main irrigation storage dams extremely low, production of rice is forecast to be little different from last year's drought-reduced crop of close to 400 000 tonnes and well short of the 5-year average crop of around 1.3 million tonnes.

The drought is expected to result in a sharp reduction in farm incomes. Using information from ABARE surveys of farmers, it is estimated that average farm cash incomes for broadacre (grains, beef, and sheep) farmers were down by around 62 per cent, to A\$40 000 (US\$23,200), in 2002-03. Average dairy industry farm cash incomes are estimated to have fallen from A\$105 700 (US\$55,000) in 2001-02 to A\$17 000 (US\$10,000) in 2002-03. Farm incomes are expected to recover substantially in 2003-04 as production in the broadacre nonirrigated cropping sector rises.

The gross value of Australian farm production (food and fiber) is forecast to recover by 13 per cent in 2003-04 (July–June) to around A\$35.4 billion (US\$22.724.1 billion). The higher earnings are expected to result largely from much larger winter grains crops as farmers have planted increased areas in a bid to recover as quickly as possible from the drought. The effect on incomes of higher production is likely to be partially offset by reduced prices for farm products such as grains and wool—affected in part by the assumed stronger Australian dollar. The net value of farm production (the residual between gross value and costs) is forecast to be A\$5.4 billion (US\$3.5 3.7 billion) in 2003-04—about double the drought-affected 2002-03 figure. Total value of farm exports from Australia is forecast to be down 3 per cent to A\$26.2 billion (US\$16.817.8 billion) in 2003-04 as the higher dollar erodes returns.

Good rains across much of Australia's grain-producing regions in late July and August substantially improved the outlook for wintergrown crops. With farmers attempting to improve cash flows as quickly as possible, plantings of the main winter grains—wheat, barley,

canola, and lupins—are estimated to total around 17.5 million hectares (43 million acres) in 2003-04, up from 16 million hectares (39.5 million acres) last season. The larger area planted, coupled with slightly greater than longer term average yields in most areas, is forecast to result in total production of wheat, barley, canola, and lupins rising by 140 per cent in 2003-04, to around 34 million tonnes.

Drought-affected lambing rates and high slaughterings in the past year are estimated to have resulted in a 7.5 per cent fall in sheep flock numbers to 98 million in the year to June 2003. A better season and prospects of continued good returns from sheep meats and wool are forecast to result in flock numbers stabilizing over the coming year. The national cattle herd (beef and dairy) is estimated to have fallen 5.7 per cent to 26.5 million in the 12 months to June 2003, and is expected to stay around that figure in 2004. Milk production is forecast to rise less 1 per cent to 10.4 billion litres in 2003-04 as milk yields and cow numbers rise slightly with a better season.

Food and Agricultural Policy

With 60-70 per cent of Australian farm output (by value) exported, a key policy objective for the government is the pursuit of international trade reform through a range of multilateral and bilateral actions. The economic benefits of global reductions in agricultural protection to most developing and developed countries (including Australia) are likely to be significant.

A successful outcome from the Doha Development Round of WTO negotiations on agriculture will require both developed and developing countries to pursue less protective policies rather than attempting to use the negotiations to cement greater protection (Roberts, Jotzo, and Perry 2002) If developing countries are to agree to open their markets and reduce agricultural supports, the major developed countries will need to show strong commitment to trade liberalization and reduce their support to agriculture, rather than just changing the forms of that support (Roberts, Buetre, and Perry 2002).

The Australian government has also commenced negotiations with the United States on a bilateral Free Trade Agreement. Although these negotiations have a way to go, the participants are understood to be hoping for a substantive resolution by the end of 2003. In the case of agriculture, areas of particular interest (and potential negotiating difficulty) are likely to include sugar, dairy, and quarantine.

The Australian grains industry and policymakers continue to grapple with the possible introduction and commercial release of genetically modified (GM) crop varieties. A major challenge for the industry will be in dealing with the related issues of identity preservation and product integrity.

It is likely to be costly to establish testing procedures to determine the presence (or absence) of genetically modified varieties (identity preservation) and then to maintain a segregation system through the marketing chain (product integrity) to guarantee supply against buyer requirements. So far, the premiums needed to justify the large-scale adoption of such testing procedures do not appear to have been established in the Australian marketplace (Connell, Barrett, and Andrews, 2002).

Another challenge in introducing GM crop varieties will be to establish how the reputed gains from sowing genetically modified crops—largely in the form of reduced costs of production—measure up against any market premiums or discounts that may apply to such crops. In the case of canola, it would appear that the extent of non-GM canola premiums and the access difficulties faced by GM canola in some world markets are not sufficient to offset the agronomic benefits offered by GM canola (Foster 2003).

A final Risk Assessment and Risk Management Plan for the commercial release of genetically modified (GM) canola in Australia was released in July 2003 (Office of the Gene Technology Regulator 2003b). The Australian Gene Technology Regulator found this genetically modified canola to be "as safe to humans and the environment as conventional non-genetically modified canola" (Office of the Gene Technology Regulator 2003a). Despite the regulator finding in favour of the commercial release of GM canola, regulatory impediments to commercial release remain in the form of temporary moratoria on the growing of GM crops currently imposed by a number of Australian state governments.

Demographics and the Australian Food System

Changes in population age structure, ethnic composition, household incomes, and health consciousness are all having an effect on the type and quantities of foods that Australians consume. Population distribution by age group is well documented, and projected changes in these are discussed below in some detail. Household data linking features of the Australian population with food consumption and expenditures and preferences are also presented.

CHANGING STRUCTURE OF AUSTRALIA'S POPULATION

The population projections presented here are drawn from work published by Australia's principal statistical collection and reporting agency, the Australian Bureau of Statistics (ABS). The projections represent an assessment of what would happen to Australia's population if the principal components of population change—birth, deaths and migration—were to hold at particular assumed levels.

The projected growth in population reflects the interaction of the components of growth—natural increase (the excess of births over deaths) and net overseas migration. Throughout the 1990s, Australia's annual population growth consistently exceeded 1 per cent a year. It was assumed that growth would remain similar for much of the current decade, but then decline in the years beyond (ABS 2000b). The total fertility rate was assumed to slow to around an average of 1.6 babies per woman beyond 2008-09, and net overseas migration to average 90 000 annually. A base population estimate of 19 million people in June 1999 was used. Life expectancy at birth was assumed to continue rising—to 83.3 years for males and 86.6 for females by 2051 (ABS 2000b).

Age distribution

The ABS projections (Table 1) confirm that the aging of Australia's population will continue. This is a result of fertility remaining low over a long period in association with increasing life expectancy. As population growth slows, the median age, which was 35 years in 1999, is projected to increase to 41 years in 2021.

By 2021, the population aged 65 years and over is projected to have increased from 12 per cent of the total population in 1999, to 18 per cent of the total. The 85-years-and-over age group, which numbered 241 000 (1.3 per cent of total population) in 1999, is projected to reach nearly 480 000 in 2021 (2.1 per cent of the total projected population). The population aged 15–64 years, which encompasses most people of working age, made up 67 per cent of Australia's popu-

	1998-99	2000-01	2001-02	2002-03 ^p	2003-04 ^p	2005-06 ^p	2020-21
Males							
0-4	653.2	647.6	643.4	639.5	637.0	627.7	621.7
5-9	683.5	684.4	682.9	681.4	676.8	661.2	631.9
10-14	674.4	681.1	686.4	691.8	697.2	699.9	646.
15-19	684.2	689.8	694.0	694.1	693.6	707.3	686.
20-24	694.5	696.4	700.8	705.3	711.8	724.6	739.
25-29	743.2	747.3	737.7	727.9	721.4	719.4	773.
30-34	704.5	713.9	733.9	752.6	764.3	758.6	774.
35-39	752.2	749.7	740.5	731.4	725.3	752.1	778.
40-44	708.7	723.3	738.0	749.3	758.2	750.5	767.
45-49	665.2	672.1	681.6	694.2	703.7	741.8	792.
50-54	612.4	632.9	652.5	647.8	653.3	679.4	766.
55-59	466.6	488.3	509.4	549.2	582.6	643.2	747.
60-64	378.5	392.7	406.2	418.9	432.2	494.8	717.
65-69	331.8	330.7	330.6	337.6	346.7	383.6	630.
70-74	289.7	294.3	297.8	297.9	297.1	297.3	554
75-79	213.2	218.7	224.3	229.2	234.4	247.4	377.
80-84	110.5	117.4	126.5	135.1	143.7	162.2	231.
85 & over	74.2	77.7	80.9	84.1	86.8	102.0	177
Females							
0-4	619.3	614.2	609.9	606.3	603.9	595.1	589.
5-9	649.0	649.4	647.6	645.9	641.6	626.5	698
10-14	642.7	647.9	653.2	657.9	662.4	663.5	612.
15-19	650.0	657.7	661.7	662.5	662.6	674.0	651
20-24	666.4	667.7	672.6	675.9	682.2	698.1	709.
25-29	736.3	737.8	725.0	712.9	704.9	701.2	753
30-34	707.9	716.6	736.7	755.3	766.0	751.8	762
35-39	754.9	752.1	744.1	735.7	729.7	756.4	767.
40-44	711.6	726.3	741.8	753.9	762.6	756.5	757.
45-49	663.4	674.1	684.4	698.1	709.0	747.7	789.
50-54	592.6	615.4	638.9	639.4	649.2	684.3	776.
55-59	450.9	473.1	493.9	532.4	566.3	634.4	759.
60-64	378.9	389.7	401.5	413.5	425.4	487.5	735.
65-69	346.2	345.7	344.6	351.1	359.0	390.3	567.
70-74	329.2	331.0	332.3	330.1	328.3	326.6	585.
75-79	282.3	286.8	290.6	292.3	294.6	299.2	418
80-84	178.1	185.7	196.1	206.8	217.4	236.9	287.
85 & over	166.8	173.2	179.4	184.5	188.9	211.4	300.
Total (million:	s) 19.0	19.2	19.4	19.6	19.8	20.4	22.

lation in 1999. In 2021, this group is projected to represent around 65 per cent of the total projected population.

The above demographic trends, particularly the steady aging of the population and the related demand for easy-to-prepare foods for working couples and packaging in single portions for older single person households, can be expected to increasingly affect the types and presentation of foods in retail outlets.

Family composition

At the same time as the population has been aging, family composition has undergone marked change. Data about family composition, drawn from ABS (2001), are presented in Table 2.

In 1981, nearly 57 per cent of families were made up of couples

2: Australian family composition ^a								
	1981	1991	2001	2011 ^p	2021 ^p			
	%	%	%	%	%			
Couple only	28.7	31.4	36.5	39.9	42.1			
Couple family with children	56.6	53.9	45.8	41.9	40.1			
One parent family with children	8.6	8.8	10.7	11.1	10.9			
Other families	6.0	5.9	7.0	7.1	6.9			
Total	100.0	100.0	100.0	100.0	100.0			
a Census years. p Projection	/: (D. P.	1201	0.30.001 6					

with children, but by 2001, this had fallen to 46 per cent. Part of this change can be attributed to the increase in one-parent families with children, but most of the change is due to the increase in the proportion of couple-only families. Generally speaking, women are working for more years, having children later in life and living longer. They are also spending more time living in couple-only families, both before they have children and after their children have left home.

Couple families with children are projected to fall to around 40 per cent of families by 2021. This trend is related to both the rapid increase in couple families only (projected to increase to 42 per cent of families in 2021) and a projected increase in one-parent families (to around 11 per cent of families). These trends are being driven by aging, the decline in fertility, and by increasing marital breakup.

Rural versus urban

The proportion of the Australian population living in rural areas has been declining for a long time. In the 1947 census, the first after World War II, 31 per cent of Australians lived in rural areas (Table 3). By 1996, the latest year for which data are currently available, only 14 per cent of

3: Australian urban-rural distribution of population at selected census dates							
	Rural (Millions)	Urban (Millions)	Total (Millions)				
1911	1.931	2.559	4.49				
1921	2.040	3.415	5.455				
1947	2.413	5.346	7.759				
1954	1.887	7.100	8.987				
1961	1.909	8.639	10.548				
1966	1.960	9.639	11.599				
1971	1.869	11.198	13.067				
1976	1.951	12.082	14.033				
1981	2.119	12.804	14.923				
1986	2.323	13.695	16.018				
1991	2.523	14.761	17.284				
1996	2.618	15.693	18.311				

Source: ABS 2001, 2001 Year Book Australia on CD-Rom, cat. no. 1301.0.30.001, Canberra and other issues.

the population lived in non-urban areas. Principal reasons for the decline are likely to include a substantial decline in numbers of farm businesses (and farm families) associated with the growing mechanisation of farming and with the better employment opportunities in urban areas.

It is notable that the previous steady depopulation of rural areas ceased by about 1971. The proportion of the total population living in non-urban situations has remained relatively stable at around 14 per cent since then. Some of this relative stability may reflect the decisions of some to live on urban fringes, for reasons to do with lifestyle and perhaps lower housing costs, whilst taking advantage of improved transport and communications infrastructure to work at higher paying jobs located in urban areas.

Ethnic composition

A major feature of Australian population growth has been the major substantial contribution of immigration throughout recorded history, and especially since World War II. Mainly as a result of the post World War II tide of immigration, almost a quarter of Australia's population today are foreign born (Table 4). The proportion of Australia's population born overseas increased steadily from 10 per cent in 1947 to 20 per cent in 1971; remained relatively stable during the 1970s and 1980s; but then rose to around 23 per cent in the 1990s.

Until the 1970s, 80-90 per cent of the foreign-born population were of European descent, with the majority of these from the United

4: Estimated resident / at selected census date	Australia es	n populati	on by cou	ntry of bi	rth	
	1947	1961	1971	1981	1991	2000 ^e
Total population (millions) Where born:	7.579	10.548	13.067	14.923	17.284	19.157
Australia (%)	90.2	83.1	79.8	79.1	77.1	76.4
Outside Australia (%)	9.8	16.9	20.2	20.9	22.9	23.6
Total (%)	100	100	100	100	100	100
Born outside Australia:						
Africa (%)	1.0	1.6	2.4	3.0	2.7	3.3
Americas (%)	1.6	1.1	2.2	3.2	3.9	3.9
Asia (%)	3.2	4.4	6.5	10.4	18.3	23.9
Europe (%)	87.6	89.7	85.2	75.4	61.6	53.2
UK & Ireland (%)	72.7	42.5	42.2	37.8	31.4	25.7
New Zealand (%)	5.9	2.6	3.1	5.6	7.2	8.3
Other (%)	3.3	3.3	5.2	8.6	12.9	14.6
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0

e Estimate na Not available. Sources: ABS 2001, 2001 Year Book Australia on CD-Rom, cat. no. 1301.0.30.001, Canberra and previous issues. ABS 1993, Estimated Resident Population by Country of Birth, Age and Sex, Australia, cat. no. 3221.0, Canberra

Kingdom and Ireland. However, since that time, there has been a big increase in the proportion of the foreign-born population originating from Asia. About 6.5 per cent of the foreign-born population in 1971 came from Asia, but by 2000, this had risen to nearly a quarter. At the same time, the proportion of the foreign-born population originating from Europe fell from 85 per cent to 53 per cent. The proportion of the European-born population coming from the United Kingdom and Ireland fell from 42 per cent in 1971 to around 26 per cent in 2000.

HOUSEHOLD EXPENDITURE ON FOOD

Data from the Australian Bureau of Statistic's periodic Household Expenditure Surveys (ABS 2000a) provide an indication of how Australian households' food expenditure habits have changed over time. Results from surveys for 1975-76 (July-June), 1998-99, and 1998-99 are contained in Table 5.

	1975-76	Share	1988-89	Share	1998-99	Share
Item	\$A	%	\$A	%	\$A	%
Bread, cakes & cereals	3.83	11.4	10.88	11.4	15.14	11.9
Meat	7.49	22.3	16.58	17.3	15.78	12.4
Seafood	0.57	1.7	2.10	2.2	2.95	2.3
Dairy products	3.69	11.0	7.69	8.0	10.5	8.3
Fruit and nuts	1.91	5.7	5.93	6.2	7.82	6.2
Vegetables	2.54	7.6	7.24	7.6	8.72	6.9
Other food	7.51	22.3	21.93	22.9	32.53	25.0
Meals out & takeaway	6.10	18.1	23.48	24.5	33.55	26.4
Total expenditure						
Food	33.64	19.5 b	95.83	19.1 ^b	126.99	18.2
Goods and services	172.35	15.2 c	502.71	14.2 c	698.97	13.7
Household	221.05		673.52		926.35	

Source: ABS 2000a, Household Expenditure Survey, cat. No. 6530.0, Canberra and previous issues

The proportion of household expenditure on goods and services going to food fell from 19.5 per cent in 1975-76 to 18.2 per cent in 1998-99. Within that total, the composition of expenditure on some food groups changed significantly. The proportion of expenditure on meat fell from 22 per cent to 12 per cent, and on dairy products from 11 per cent to 8 per cent. At the same time, seafood, bakery products, and fruit and nuts accounted for a slightly greater share of household spending.

By far the biggest change in household expenditure habits was the rise in expenditure on eating meals away from home and on takeaway foods. This category rose from 18 per cent of total household expenditure on goods and services in 1975-76 to 26 per cent in 1998-99 (Table 5). Increasing numbers of women with families in the workforce and hence less time to prepare meals, together with higher household disposable incomes, no doubt contributed to the trend toward more meals being eaten in restaurants or taken away for con-

	1975-76 \$/week	Share ^b %	1988-89 \$/week	Share ^b %	1998-99 \$/week	Share ^b %
Food & non-alcoho	olic beverages					
Capital city	35.16	19.1	100.67	18.6	134.58	18.0
Other urban	31.03	19.9	85.73	19.6	110.9	18.1
Rural	30.31	22.3	92.08	21.3	121.07	19.6
All households	33.64	19.5	95.83	19.1	126.99	18.2
Total goods & ser	vices expendit	ure				
Capital city	184.14		540.21		747.18	
Other urban	155.7		437.04		613.97	
Rural	135.9		432.57		616.2	
All households	172.35		502.71		698.97	

Source: ABS 2000a, Household Expenditure Survey, cat. No. 6530.0, Canberra and previous issues

sumption at home.

There are also significant differences in food consumption habits between households located in city, other urban, or rural areas. In general, a greater proportion of rural household expenditure on goods and services is spent on food (Table 6). This is likely to reflect, to a significant degree, lower average household incomes in rural areas. The proportion of expenditure on food has, nevertheless, fallen across all households regardless of location.

References

- ABS (Australian Bureau of Statistics) 1993, Estimated Resident Population by Country of Birth, Age and Sex, Australia, cat. no. 3221.0, Canberra.
- ABS 2000a, *Household Expenditure Survey*, cat. no. 6530.0, Canberra and previous issues.
- ABS 2000b, Population Projections: Australia 1999 to 2101, cat. no. 3222.0, Canberra.
- ABS 2001, 2001 Year Book Australia on CD-Rom, cat. no. 1301.0.30.001, Canberra and other issues.
- Connell, P., Barrett, D., and Andrews, N. 2002, 'Grains: Outlook to 2006-07', Australian Commodities, vol. 9, no.1, pp. 29-40.
- Foster, M. 2003, GM canola: What are its economics under Australian conditions? ABARE report for the Grains Research and Development Corporation, Canberra, April.

- Office of the Gene Technology Regulator 2003a, Rigorous assessment confirms GM Invigor Canola safe as non-GM canola, Media Release GTR02/03, (http://www.ogtr.gov.au/rtf/media/canola2.rtf), Canberra, 25 July
- Office of the Gene Technology Regulator 2003b, Risk Assessment and Risk Management Plan: Commercial release of genetically modified (InVigor hybrid) canola, Canberra, 25 July
- Roberts, I., Jotzo, F., and Perry, R. 2002, 'Domestic support of agriculture: Is WTO "special treatment" for developing countries helping or hindering change?' ABARE Current Issues, no. 02.5.
- Roberts, I., Buetre, B., and Jotzo, F. 2002, Agricultural trade reform in the WTO: Special treatment for developing countries, ABARE Report, Canberra, September.

	Units	1999	2000	2001	2002	2003	2004
FOOD CONSUMPTION PATTERNS a							
Per capita calorie intake	Cal/day	3056	3053	3050	3047	3044	3041
Animal products	Cal/day	1023	1018	1013	1008	1003	998
Vegetable products	Cal/day	2033	2035	2037	2039	2041	2043
% Protein	per cent	13.6	13.6	13.6	13.7	13.7	13.8
% Fat	per cent	32.3	32.1	32.0	31.8	31.7	31.5
% Carbohydrates <i>bc</i>	per cent	50.1	50.2	50.3	50.4	50.5	50.6
FOOD PRICES							
Disposable personal income defg	US\$/capita	15856	14331	13233	13715	15803	16685
% of disposable income for total food dh	per cent	14.4	14.2	14.1	14.0	14.0	14.0
% disposable income food away from home dh	per cent	1.9	2.0	2.0	2.0	2.1	2.1
Food price index <i>i</i>	1989-90=100	127.1	131.3	139.9	144.9	150.0	154.2
General price index (CPI) t	1989-90=100		128.4	134.0	138.1	142.2	145.9
POPULATION DEMOGRAPHICS e							
Total population	million	19.0	19.2	19.4	19.7	19.8	20.1
Urban j	million	15.5	15.7	15.8	16.0	16.2	16.4
Non-urban	million	3.5	3.5	3.6	3.6	3.7	3.7
Share of population in following age groups: k		(7		15	()	()	()
0-4 years	per cent	6./	6.6	6.5	6.3	6.4	6.4
J-14 years	per cent	7.0	13.9	13.7	15.0	15.5	15.5
20-44 years	per cent	37.0	7.0	7.0 37.4	37.2	37.0	36.7
45-64 years	per cent	22.2	22.6	23.0	23.4	23.8	24.1
65-79 years	per cent	9.5	9.4	9.4	9.4	9.4	9.4
80-over	per cent	2.8	2.9	3.0	3.1	3.2	3.3
Median age of population	years	34.9	35.2	35.4	35.9	na	na
Female labour force participation <i>l</i>	per cent	53.6	55.0	55.1	55.3	na	n
			••••••	••••••			
Males	vears	75.9	76.2	77.0	77.2	77.2	77.4
Females	vears	81.6	81.8	82.4	82.5	82.5	82.6
		•••••	•••••		••••••		
Todo capacity							
Grain exports n	1000 Tops	21805	170501	22086	12629	14732	21494
Grain imports hn	1000 Tons	45	44	43	41	450	40
Total food and ag trade ρ	million US\$	14336	13413	12997	14213	17661	19868
Total food and ag exports op	million US\$	11786	11038	10795	11722	14565	16385
Perishable products op	million US\$	3553	3838	3520	3535	3550	3562
Fishery exports p	million US\$	789	894	893	897	989	1008
Total food and ag imports p	million US\$	2550	2376	2202	2492	3096	3483
Perishable products <i>p</i>	million US\$	600	620	624	628	630	630
Fishery imports q	million US\$	481	455	452	473	559	628
Port capacity rs	1000 TEUs	2563	2785	2845	3328	na	na
Road access t	1000 kms	804	806	808	810	na	na
Rail access t Telecommunications	million LIS¢	59.9	59.8	59.8	59.8	na	na
Power generation by	GW/h	207374	211183	218037	223152	228189	233770
Percentage of population w/refrigerators	Der cent	100	100	100	100	100	100
Post harvest losses	Per terre	na	na	na	na	na	na
FOREICN INVESTMENT IN THE FOOD SECTOR			•••••				
Inward EDL in food sector total	v million US¢	20	50	50	20	20	50
From other PECC economies	million US¢	lia	na	na	na	na	na
Outward FDI in food sector, total	million US\$	na	na	na	na	na	na
To other PECC economies	million US\$	na	na	na	na	na	na
		•••••	•••••		••••••		
Autoritation and the state of CDP /		2.0	2.0	2.0	2.0	2.0	2.0
Solf sufficiency in grain au	per cent	2.8	2.8	2.8	2.8	2.8	2.8
Self-sufficiency in horticultural products ba	per cent	161	196	195	219	2/1	291
cen sumerency in norrecurcular products pq	Per cent	101	170		217	11a	11d
				_			
Consumer subsidy equivalents	per cent	-2	-3	-2	-2	na	na
Iotal transfers (subsidy/tax)	Million US\$	-123	-93	-109	-115	na	na
mansiers per capita	US@/capita	-0.)	-4.9	-2.0	-).9	па	па
MACROECONOMIC DATA							
GDP growth	per cent	4.5	2.8	2.7	3.6	3.0	3.4
Exchange rate	US\$/A\$	0.65	0.58	0.52	0.54	0.63	0.68
Interest rate y	per cent	7.6	9.3	8.5	8.4	8.4	8.5

Estimates are in bold face na = not available

- a. Source: FAO database.
- b. Data on a financial year (July-June) basis (2000=2000-01).
 c. Source: ABS, Apparent Consumption of Foodstuffs and Nutrients Australia, cat. no. 4306. Data beyond 1992 have been extrapolated
- from bistorical trend. d. Source: ABS, National Income, Expenditure and Product, cat. no. 5206.
- e. Source: ABS, Australian Demographic Statistics, cat. no. 3101. f. In real terms.
- g. Series has changed from that reported in previous years, for example now includes investment income form retirement funds. b. Source: ABS, Retail Trade, cat. no. 8501.

- i. Source: ABS, Consumer Price Index, cat. no. 6401. j. Defined as sum of persons in population centres greater than 30 000 residents.
- k. Source: ABS, Estimated Resident Population of Australia, cat. no. 3201.
- l. Source: ABS, Labour Force, cat. no. 6203.
- m. Source: United Nations, World Population Prospects 2000 revision. n. Source: ABS, Foreign Trade: Magnetic Tape Service, cat. no. 5464. o. Data expressed in chain volume measures. Reference year is 2000-01.
- Balance of payments basis. p. Source ABS, International Merchandise Trade Australia, cat. no.
- 9. Source: ABS, International Merchandise Imports Australia, cat. no. 5439.
- r. Total of major Australian ports of Brisbane, Sydney, Melbourne, Adelaide, and Freemantle.
- s. Source: Bureau of Transport and Communication Economics, Waterline.
- t. Source: ABS, Yearbook of Australia, cat. no. 1301. u. Source: ABARE database.
- v. Source: ABS, Detailed Country by Industry, Foreign Investment in Australia and Australian Investment Abroad - Total Direct Investment w. Source: ABARE, Australian Commodity Statistics, 2001; ABARE,
- Australian Commodities, March 2003.
- x. Source: OECD, Agricultural Policies in OECD Countries. y. Prime lending rate to large businesses.