1999

NINETEEN NINETY NINE

AUSTRALIAN COMMODITY STATISTICS

ABARE

Innovation in Economic Research

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Foreword

ABARE's *Australian Commodity Statistics* provides important statistics on Australia's agricultural and resources industries. Since the first issue in 1986, *Australian Commodity Statistics* has become an invaluable reference book for anyone associated with these industries. It is a comprehensive publication, containing overview and macroeconomic information as well as key statistics on the supply of and demand for each commodity covered. Current data are presented alongside historical data, with some historical series extending for over forty years.

In *Australian Commodity Statistics*, ABARE aims for continuity from year to year. This makes it possible for users to monitor industry developments over time. To ensure that the most relevant package of statistics is provided, the tables are scrutinised each year with some changes made and new tables added.

Australian Commodity Statistics can be used in conjunction with ABARE's *Australian Commodities*, in which the most important statistics, including forecasts, are updated throughout the year. Both of these publications provide background material for ABARE's national OUTLOOK conference which will be held in Canberra in February–March 2000 and at which ABARE's medium term outlook assessment will be presented for each of the major commodity based industries. The conference, for the first time next year, will cover the manufacturing and services sector.

Other ABARE publications that contain mainly statistical information on commodities and as such complement the data presented in *Australian Commodity Statistics*, are *Australian Mineral Statistics* (quarterly), *Australian Forest Products Statistics* (quarterly) and *Australian Fisheries Statistics* (annual).

BRIAN S. FISHER
Executive Director

December 1999

Definitions and explanations

Abbreviations and symbols

lb	pound	454 grams
kg	kilogram	2.20462 pounds
t	tonne	1000 kilograms
kt	kilotonne	1000 tonnes
Mt	megatonne	1 000 000 tonnes
L	litre	1.761 pints
kL	kilolitre	1000 litres
ML	megalitre	1 000 000 litres
GL	gigalitre	1 000 000 000 litres
ha	hectare	2.471 acres
m^3	cubic metre	1.307 cubic yards
c	cent (Australian)	
A$	dollar (Australian)	
$m	million dollars (Australian)	
DM	deutschmark	
ECU	European currency unit	
£	pound sterling	
USc	cent (United States)	
US$	dollar (United States)	
¥	yen	
ct	carat	
bbl	barrel	
mbd	million barrels a day	
cif	cost, insurance and freight	
fas	free alongside ship	
fob	free on board	
fot	free on truck	
nec	not elsewhere classified	
ABARE	Australian Bureau of Agricultural and Resource Economics	
ABS	Australian Bureau of Statistics	
AWB	Australian Wheat Board	
BAE	Bureau of Agricultural Economics (now ABARE)	
BMR	Bureau of Mineral Resources, Geology and Geophysics (now AGSO – Australian Geological Survey Organisation)	
FAO	Food and Agriculture Organisation of the United Nations	

Small **discrepancies** in totals are generally caused by rounding.

0 is used to denote nil or a negligible amount.

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AUSTRALIAN COMMODITY STATISTICS

AUSTRALIAN ECONOMY

- OVERVIEW
- MACROECONOMIC INDICATORS
- FARM SECTOR
- RESOURCES SECTOR

1 Australian gross product, by sector

	Chain volume measures a						Current prices
	Rural		Mining				
	Farm	Total b	Mining (excl. services to mining)	Services to mining	Total	Gross domestic product	Gross domestic product
	$m	$m	$m	$m	$m	$m	$m
1974-75	na	na	na	na	na	na	67 104
1975-76	na	na	na	na	na	na	79 267
1976-77	na	na	na	na	na	na	91 225
1977-78	na	na	na	na	na	na	99 337
1978-79	na	na	na	na	na	na	112 758
1979-80	na	na	na	na	na	na	128 205
1980-81	na	na	na	na	na	na	145 557
1981-82	na	na	na	na	na	na	166 349
1982-83	na	na	na	na	na	na	179 501
1983-84	na	na	na	na	na	na	202 605
1984-85	na	na	na	na	na	na	224 875
1985-86	na	na	na	na	na	na	248 494
1986-87	na	na	na	na	na	na	272 530
1987-88	na	na	na	na	na	na	310 796
1988-89	na	na	na	na	na	na	351 706
1989-90	13 784	14 185	17 581	705	17 498	441 134	384 478
1990-91	14 407	14 874	18 826	603	18 610	439 953	397 210
1991-92	13 783	14 358	19 810	554	19 521	441 112	406 890
1992-93	15 099	15 586	19 845	636	19 638	457 465	427 772
1993-94	15 731	16 130	20 200	640	19 984	476 363	450 051
1994-95	12 050	12 893	21 531	774	21 361	498 030	474 646
1995-96	15 268	16 338	23 162	850	23 981	520 579	508 245
1996-97	16 431	17 590	23 876	896	24 768	540 261	533 710
1997-98	16 278	17 507	25 093	975	26 067	565 961	565 963
1998-99	17 608	18 817	24 427	818	25 245	591 258	593 346

a Reference year is 1997-98. Original series, based on ANZSIC codes. For more information on chain volume measures, see the ABS information paper *Australian National Accounts, Introduction of chain volume and price indexes,* cat. no. 5248.0, released 19 march 1998. **b** Includes farm, forestry, fishing and hunting. **na** Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product,* cat. nos 5204.0 and 5206.0, Canberra.

2 Australian employment, by sector [a]

	Rural					
	Farm	Total [b]	Mining	Manufacturing	Other	Total employment
	'000	'000	'000	'000	'000	'000
1960-61	448	na	na	na	na	na
1961-62	453	na	na	na	na	na
1962-63	443	496	52	na	na	4 320
1963-64	420	486	52	na	na	4 435
1964-65	414	475	53	na	na	4 555
1965-66	409	470	55	na	na	4 705
1966-67	402	461	57	na	na	4 871
1967-68	401	458	60	na	na	4 989
1968-69	396	448	63	na	na	5 112
1969-70	392	452	69	na	na	5 285
1970-71	401	450	76	na	na	5 466
1971-72	393	447	77	na	na	5 540
1972-73	388	434	77	na	na	5 680
1973-74	377	427	78	na	na	5 863
1974-75	368	414	82	na	na	5 856
1975-76	365	401	81	na	na	5 929
1976-77	360	393	81	na	na	5 966
1977-78	351	390	80	na	na	6 018
1978-79	348	388	81	1 205	4 367	6 041
1979-80	364	404	81	1 242	4 460	6 187
1980-81	367	414	88	1 246	4 600	6 348
1981-82	363	409	99	1 249	4 668	6 425
1982-83	374	417	96	1 163	4 645	6 321
1983-84	367	407	98	1 139	4 724	6 368
1984-85	361	403	94	1 150	4 927	6 574
1985-86	386	428	106	1 129	5 187	6 850
1986-87	377	422	101	1 125	5 372	7 020
1987-88	375	418	98	1 159	5 544	7 219
1988-89	384	435	98	1 201	5 803	7 537
1989-90	381	428	104	1 201	6 089	7 822
1990-91	387	435	95	1 143	6 088	7 762
1991-92	367	408	90	1 086	6 040	7 623
1992-93	360	404	87	1 087	6 024	7 601
1993-94	363	409	89	1 092	6 165	7 755
1994-95	357	403	86	1 115	6 452	8 057
1995-96	370	418	85	1 112	6 674	8 289
1996-97	375	422	86	1 129	6 717	8 355
1997-98	378	431	83	1 121	6 827	8 461
1998-99	366	422	80	1 082	7 054	8 638

a Average employment over four quarters, based on ANZSIC and equivalent ASIC codes. **b** Includes farm, forestry, fishing and hunting. **na** Not available.
Sources: ABS, *The Labour Force, Australia,* cat. no. 6203.0, Canberra; ABS, *The Labour Force, Australia, 1979 to 1990,* cat. no. 6204.0, Canberra.

3 Contribution to Australian employment, by sector

	Rural				
	Farm	Total a	Mining	Manufacturing	Other
	%	%	%	%	%
1963-64	9.5	11.0	1.2	na	na
1964-65	9.1	10.4	1.2	na	na
1965-66	8.7	10.0	1.2	na	na
1966-67	8.3	9.5	1.2	na	na
1967-68	8.0	9.2	1.2	na	na
1968-69	7.7	8.8	1.2	na	na
1969-70	7.4	8.6	1.3	na	na
1970-71	7.3	8.2	1.4	na	na
1971-72	7.1	8.1	1.4	na	na
1972-73	6.8	7.6	1.4	na	na
1973-74	6.4	7.3	1.3	na	na
1974-75	6.3	7.1	1.4	na	na
1975-76	6.2	6.8	1.4	na	na
1976-77	6.0	6.6	1.4	na	na
1977-78	5.8	6.5	1.3	na	na
1978-79	5.8	6.4	1.3	19.9	72.3
1979-80	5.9	6.5	1.3	20.1	72.1
1980-81	5.8	6.5	1.4	19.6	72.5
1981-82	5.6	6.4	1.5	19.4	72.7
1982-83	5.9	6.6	1.5	18.4	73.5
1983-84	5.8	6.4	1.5	17.9	74.2
1984-85	5.5	6.1	1.4	17.5	74.9
1985-86	5.6	6.2	1.5	16.5	75.7
1986-87	5.4	6.0	1.4	16.0	76.5
1987-88	5.2	5.8	1.4	16.1	76.8
1988-89	5.1	5.8	1.3	15.9	77.0
1989-90	4.9	5.5	1.3	15.4	77.8
1990-91	5.0	5.6	1.2	14.7	78.4
1991-92	4.8	5.4	1.2	14.2	79.2
1992-93	4.7	5.3	1.1	14.3	79.2
1993-94	4.7	5.3	1.2	14.1	79.5
1994-95	4.4	5.0	1.1	13.8	80.1
1995-96	4.5	5.0	1.0	13.4	80.5
1996-97	4.5	5.0	1.0	13.5	80.4
1997-98	4.5	5.1	1.0	13.3	80.7
1998-99	4.2	4.9	0.9	12.5	81.7

a Includes farm, forestry, fishing and hunting. **na** Not available.

Sources: ABS, *The Labour Force, Australia,* cat. no. 6203.0, Canberra; ABS, *The Labour Force, Australia, 1979 to 1990,* cat. no. 6204.0, Canberra.

4 Value of Australian exports, by sector

Balance of payments basis, chain volume measures

	Farm a	Forest b	Fisheries c	Resource sector d	Total commodities	Total merchandise	Total goods and services
	$m	$m	$m	$m	$m	$m	$m
1960-61	na	12	9	na	na	1 884	2 165
1961-62	na	12	13	na	na	2 165	2 462
1962-63	na	13	13	na	na	2 158	2 483
1963-64	na	16	14	na	na	2 764	3 149
1964-65	na	16	18	na	na	2 605	3 041
1965-66	na	15	24	na	na	2 655	3 125
1966-67	na	23	25	na	na	2 954	3 472
1967-68	na	18	34	na	na	2 968	3 559
1968-69	na	18	39	na	na	3 242	3 887
1969-70	2 089	20	39	1 268	3 416	3 998	4 754
1970-71	2 083	25	56	1 430	3 594	4 244	5 076
1971-72	2 375	28	73	1 545	4 021	4 746	5 683
1972-73	3 272	55	72	1 809	5 208	6 086	7 016
1973-74	3 463	74	66	2 246	5 849	6 833	7 896
1974-75	3 784	87	69	3 420	7 360	8 620	10 114
1975-76	4 273	84	80	3 869	8 306	9 589	11 225
1976-77	5 090	116	135	4 813	10 154	11 572	13 425
1977-78	5 093	123	143	5 211	10 570	12 158	14 245
1978-79	6 023	142	192	5 928	12 285	14 234	16 910
1979-80	8 420	207	235	7 400	16 262	18 869	22 017
1980-81	8 229	238	230	7 480	16 177	19 018	22 604
1981-82	7 851	239	307	8 289	16 686	19 662	23 696
1982-83	7 289	261	354	10 058	17 962	21 226	25 632
1983-84	8 319	266	393	11 524	20 502	23 968	28 892
1984-85	10 484	311	399	14 952	26 146	30 102	35 739
1985-86	11 368	348	482	16 285	28 483	32 492	38 948
1986-87	12 172	429	593	17 399	30 593	36 487	44 306
1987-88	14 130	481	730	19 980	35 321	41 903	51 742
1988-89	14 790	607	674	20 940	37 009	44 187	55 354
1989-90	14 176	607	784	24 762	40 327	48 927	60 899
1990-91	12 816	696	831	27 880	42 221	52 568	66 259
1991-92	14 302	737	980	28 135	44 154	55 427	70 080
1992-93	15 688	815	1 090	29 635	47 228	60 634	76 899
1993-94	16 880	897	1 243	29 754	48 773	64 419	83 015
1994-95	17 231	1 052	1 367	30 182	49 832	67 101	87 654
1995-96	19 627	1 067	1 328	34 271	56 293	76 146	99 095
1996-97	21 207	1 179	1 305	35 894	59 584	80 934	105 160
1997-98	22 444	1 324	1 489	40 679	65 937	88 538	113 829
1998-99	21 884	1 298	1 508	38 789	63 480	85 655	111 603

a Includes exports of wine. **b** Includes paper and paperboard. **c** Tuna captured under joint venture agreements or transhipped at sea are not included. **d** Minerals and energy resources. Before 1990-91 includes ABARE estimates for items such as bauxite, manganese and diamonds which were excluded from ABS estimates for confidentiality reasons. From July 1990 ABS estimates contain details for such items. **na** Not available.

Sources: ABS, *Balance of Payments, Australia,* cat. nos 5302.0 and 5303.0, Canberra; ABARE.

5 Contribution to Australian merchandise exports, by sector

Balance of payments basis

	Farm a	Forest b	Fisheries c	Resource sector d	Total commodities
	%	%	%	%	%
1960-61	na	0.6	0.5	na	na
1961-62	na	0.6	0.6	na	na
1962-63	na	0.6	0.6	na	na
1963-64	na	0.6	0.5	na	na
1964-65	na	0.6	0.7	na	na
1965-66	na	0.5	0.9	na	na
1966-67	na	0.8	0.8	na	na
1967-68	na	0.6	1.1	na	na
1968-69	na	0.5	1.2	na	na
1969-70	52.2	0.5	1.0	31.7	85.4
1970-71	49.1	0.6	1.3	33.7	84.7
1971-72	50.0	0.6	1.5	32.6	84.7
1972-73	53.8	0.9	1.2	29.7	85.6
1973-74	50.7	1.1	1.0	32.9	85.6
1974-75	43.9	1.0	0.8	39.7	85.4
1975-76	44.6	0.9	0.8	40.3	86.6
1976-77	44.0	1.0	1.2	41.6	87.7
1977-78	41.9	1.0	1.2	42.9	86.9
1978-79	42.3	1.0	1.3	41.6	86.3
1979-80	44.6	1.1	1.2	39.2	86.2
1980-81	43.3	1.3	1.2	39.3	85.1
1981-82	39.9	1.2	1.6	42.2	84.9
1982-83	34.3	1.2	1.7	47.4	84.6
1983-84	34.7	1.1	1.6	48.1	85.5
1984-85	34.8	1.0	1.3	49.7	86.9
1985-86	35.0	1.1	1.5	50.1	87.7
1986-87	33.4	1.2	1.6	47.7	83.8
1987-88	33.7	1.1	1.7	47.7	84.3
1988-89	33.5	1.4	1.5	47.4	83.8
1989-90	29.0	1.2	1.6	50.6	82.4
1990-91	24.4	1.3	1.6	53.0	80.3
1991-92	25.8	1.3	1.8	50.8	79.7
1992-93	25.9	1.3	1.8	48.9	77.9
1993-94	26.2	1.4	1.9	46.2	75.7
1994-95	25.7	1.6	2.0	45.0	74.3
1995-96	25.8	1.4	1.7	45.0	73.9
1996-97	26.2	1.5	1.6	44.3	73.6
1997-98	25.3	1.5	1.7	45.9	74.5
1998-99	25.5	1.5	1.8	45.3	74.1

a Includes exports of wine. **b** Includes paper and paperboard. **c** Tuna captured under joint venture agreements or transhipped at sea are not included. **d** Minerals and energy resources. Before 1990-91 includes ABARE estimates for items such as bauxite, manganese and diamonds which were excluded from ABS estimates for confidentiality reasons. From July 1990 ABS estimates contain details for such items. **na** Not available.

Sources: ABS, *Balance of Payments, Australia,* cat. nos 5302.0 and 5303.0, Canberra; ABARE.

6 Contribution to Australian total exports, by sector

Balance of payments basis

	Farm a	Forest b	Fisheries c	Resource sector d	Total commodities	Total merchandise	Services
	%	%	%	%	%	%	%
1960-61	na	0.6	0.4	na	na	87.0	13.0
1961-62	na	0.5	0.5	na	na	87.9	12.1
1962-63	na	0.5	0.5	na	na	86.9	13.1
1963-64	na	0.5	0.4	na	na	87.8	12.2
1964-65	na	0.5	0.6	na	na	85.7	14.3
1965-66	na	0.5	0.8	na	na	85.0	15.1
1966-67	na	0.7	0.7	na	na	85.1	15.3
1967-68	na	0.5	1.0	na	na	83.4	17.0
1968-69	na	0.5	1.0	na	na	83.4	16.9
1969-70	43.9	0.4	0.8	26.7	71.9	84.1	16.1
1970-71	41.0	0.5	1.1	28.2	70.8	83.6	16.6
1971-72	41.8	0.5	1.3	27.2	70.8	83.5	16.5
1972-73	46.6	0.8	1.0	25.8	74.2	86.7	13.3
1973-74	43.9	0.9	0.8	28.4	74.1	86.5	13.5
1974-75	37.4	0.9	0.7	33.8	72.8	85.2	14.8
1975-76	38.1	0.7	0.7	34.5	74.0	85.4	14.6
1976-77	37.9	0.9	1.0	35.9	75.6	86.2	13.8
1977-78	35.8	0.9	1.0	36.6	74.2	85.3	14.7
1978-79	35.6	0.8	1.1	35.1	72.6	84.2	15.8
1979-80	38.2	0.9	1.1	33.6	73.9	85.7	14.3
1980-81	36.4	1.1	1.0	33.1	71.6	84.1	15.9
1981-82	33.1	1.0	1.3	35.0	70.4	83.0	17.0
1982-83	28.4	1.0	1.4	39.2	70.1	82.8	17.2
1983-84	28.8	0.9	1.4	39.9	71.0	83.0	17.0
1984-85	29.3	0.9	1.1	41.8	73.2	84.2	15.8
1985-86	29.2	0.9	1.2	41.8	73.1	83.4	16.6
1986-87	27.5	1.0	1.3	39.3	69.0	82.4	17.6
1987-88	27.3	0.9	1.4	38.6	68.3	81.0	19.0
1988-89	26.7	1.1	1.2	37.8	66.9	79.8	20.2
1989-90	23.3	1.0	1.3	40.7	66.2	80.3	19.7
1990-91	19.3	1.1	1.3	42.1	63.7	79.3	20.7
1991-92	20.4	1.1	1.4	40.1	63.0	79.1	20.9
1992-93	20.4	1.1	1.4	38.5	61.4	78.8	21.2
1993-94	20.3	1.1	1.5	35.8	58.8	77.6	22.4
1994-95	19.7	1.2	1.6	34.4	56.9	76.6	23.4
1995-96	19.8	1.1	1.3	34.6	56.8	76.8	23.2
1996-97	20.2	1.1	1.2	34.1	56.7	77.0	23.0
1997-98	19.7	1.2	1.3	35.7	57.9	77.8	22.2
1998-99	19.6	1.2	1.4	34.8	56.9	76.7	23.3

a Includes exports of wine. **b** Includes paper and paperboard. **c** Tuna captured under joint venture agreements or transhipped at sea are not included. **d** Minerals and energy resources. Before 1990-91 includes ABARE estimates for items such as bauxite, manganese and diamonds which were excluded from ABS estimates for confidentiality reasons. From July 1990 ABS estimates contain details for such items. **na** Not available.

Sources: ABS, *Balance of Payments, Australia,* cat. nos 5302.0 and 5303.0, Canberra; ABARE.

7 Value of Australian exports, by sector [a]

Chain volume measures

	Rural products [b]	Resource sector products [c]	Other merchandise	Total merchandise [d]	Services [d]	Total goods and services [d]
	$m	$m	$m	$m	$m	$m
1974-75	10 038	10 932	2 651	23 621	5 249	28 859
1975-76	12 251	10 923	1 794	24 968	5 053	30 066
1976-77	13 679	11 746	1 592	27 017	5 059	32 170
1977-78	13 317	12 137	2 051	27 505	5 342	32 921
1978-79	13 463	12 897	2 666	29 026	6 195	35 235
1979-80	15 081	13 045	3 048	31 174	6 540	37 739
1980-81	13 531	12 508	3 177	29 216	6 680	35 873
1981-82	13 750	12 766	3 395	29 911	6 851	36 739
1982-83	12 735	13 868	3 484	30 087	6 830	36 895
1983-84	12 613	15 299	3 910	31 822	7 604	39 417
1984-85	14 434	17 929	3 997	36 360	8 691	45 157
1985-86	15 285	18 289	4 081	37 655	9 119	46 872
1986-87	16 001	19 567	6 034	41 602	10 149	51 850
1987-88	15 560	21 670	7 191	44 421	12 134	56 532
1988-89	14 760	21 931	7 665	44 356	13 220	57 428
1989-90	14 660	23 935	8 321	46 916	13 436	60 261
1990-91	15 915	27 641	9 133	52 689	14 661	67 299
1991-92	17 385	30 068	10 524	57 976	15 404	73 363
1992-93	18 593	30 580	12 135	61 308	16 981	78 265
1993-94	20 698	30 715	15 288	66 701	19 202	85 858
1994-95	19 471	31 330	17 662	68 462	21 618	90 039
1995-96	21 398	35 051	19 267	75 717	23 639	99 317
1996-97	24 880	38 369	21 819	85 069	24 621	109 700
1997-98	25 259	40 678	22 602	88 539	25 291	113 829
1998-99	26 092	40 950	22 959	90 001	25 766	115 766

a Reference year 1997-98. **b** Before 1989-90, wine and paper and paperboard are excluded. **c** Minerals and energy resources. Before 1990-91, bauxite, diamonds and manganese are excluded. **d** Balance of payments basis.

Sources: ABS, *Balance of Payments, Australia – Historical Series on Microfiche,* cat. no. 5337.0, Canberra; ABS, *Balance of Payments, Australia,* cat. nos 5302.0 and 5303.0, Canberra; ABARE.

8 Australian unit export returns

	Rural			Minerals			
	Farm	Forest and fisheries products	Total	Energy minerals	Metals and other minerals	Total	Total commodities
Annual indexes **a**							
1990-91	85.8	108.6	87.7	111.5	96.6	102.0	96.9
1991-92	87.4	112.6	89.5	103.6	88.1	93.7	92.1
1992-93	89.9	118.0	92.2	109.7	92.1	98.5	96.2
1993-94	90.1	140.2	94.1	100.2	88.7	92.8	93.2
1994-95	99.9	165.6	105.1	94.3	92.2	92.9	97.0
1995-96	104.8	161.8	109.5	101.5	95.4	97.6	101.6
1996-97	95.5	159.8	100.5	103.2	86.8	92.8	95.4
1997-98	102.5	160.9	107.2	106.0	94.7	98.8	101.6
1998-99	93.5	158.4	98.6	96.8	92.3	93.9	95.5
Quarterly indexes **b**							
1997-98							
September	99.9	97.7	99.6	109.3	100.1	103.5	102.1
December	103.5	99.0	102.9	115.7	102.2	107.3	105.6
March	104.4	96.5	103.5	113.7	102.5	106.7	105.5
June	102.6	95.5	101.8	111.0	106.0	108.0	105.8
1998-99							
September	99.4	100.4	99.4	109.6	106.6	107.8	104.7
December	93.7	95.1	93.8	104.9	102.2	103.3	99.8
March	92.1	93.0	92.1	100.5	98.6	99.3	96.7
June	89.4	94.1	89.9	95.6	92.8	93.9	92.5

a In Australian dollars. Base: 1989-90 = 100. **b** In Australian dollars. Base 1994-95 = 100.
Source: ABARE.

9 Australian main macroeconomic indicators

	Growth of real gross domestic product %	Growth of industrial production %	Interest rates: Short term a %	Interest rates: Long term b %	Inflation c %	Consumer price index d
1960-61	4.1	na	na	na	4.3	14.0
1961-62	1.6	na	na	na	0.4	14.1
1962-63	6.8	na	na	na	0.0	14.1
1963-64	6.9	na	na	na	1.2	14.3
1964-65	6.8	na	na	na	3.5	14.8
1965-66	1.9	na	na	na	3.7	15.3
1966-67	6.6	na	na	na	2.6	15.7
1967-68	4.1	na	na	na	3.5	16.3
1968-69	8.9	na	na	na	2.6	16.7
1969-70	5.4	na	6.7	6.1	3.1	17.2
1970-71	4.8	na	7.1	6.8	4.5	18.0
1971-72	4.1	na	6.0	6.2	6.9	19.3
1972-73	3.5	na	5.1	5.9	6.1	20.4
1973-74	5.1	na	11.3	8.2	12.9	23.0
1974-75	2.0	na	10.5	9.5	16.8	26.9
1975-76	3.0	na	8.6	10.0	12.9	30.4
1976-77	3.2	na	9.8	10.2	13.9	34.6
1977-78	0.9	0.4	10.4	9.6	9.5	37.9
1978-79	5.6	4.1	9.6	9.2	8.2	41.0
1979-80	2.3	3.7	11.2	10.7	10.2	45.2
1980-81	3.2	2.3	13.4	12.6	9.3	49.4
1981-82	3.1	2.4	17.0	15.1	10.5	54.6
1982-83	– 2.4	– 5.3	14.0	14.6	11.5	60.9
1983-84	5.5	2.9	11.9	13.8	6.7	65.0
1984-85	4.6	6.5	13.4	13.4	4.3	67.8
1985-86	4.4	2.8	16.8	13.7	8.4	73.5
1986-87	2.7	1.3	15.7	13.5	9.4	80.4
1987-88	5.4	7.5	11.8	12.5	7.3	86.3
1988-89	4.1	5.2	15.7	12.8	7.3	92.6
1989-90	3.7	1.8	16.9	13.3	8.0	100.0
1990-91	– 0.3	5.7	12.2	12.2	5.3	105.3
1991-92	0.3	– 0.8	8.1	10.0	1.9	107.3
1992-93	3.7	1.7	5.6	8.3	1.0	108.4
1993-94	4.1	3.8	4.9	7.4	1.8	110.4
1994-95	4.5	3.1	7.2	9.9	3.2	113.9
1995-96	4.5	2.6	7.5	8.7	4.2	118.7
1996-97	3.8	2.2	6.3	7.6	1.3	120.3
1997-98	4.8	1.7	5.0	6.0	0.0	120.3
1998-99	4.5	1.1	4.9	5.4	1.3	121.8

a 90 day bank bills, average of end-of-month data. **b** 10 year Treasury bonds, average of end-of-month data. **c** Percentage change in the consumer price index. **d** 1989-90 = 100. **na** Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure,and Product,* cat. no. 5206.0, Canberra; ABS, *Consumer Price Index,* cat. no. 6401.0, Canberra; ABS, *Balance of Payments, Australia,* cat. no. 5302.0, Canberra; ABS, *Quarterly Index of Industrial Production, Australia,* cat. no. 8125.0, Canberra; Reserve Bank of Australia, *Bulletin,* Sydney.

10 Australian trade balance and foreign debt

	Balance on goods and services		Current account balance a			Net foreign debt c	
	Imports $m	Exports $m	Level $m	Share of GDP %	Terms of trade b	Level $m	Share of GDP %
1960-61	2 590	2 165	– 748	–4.9	104.2	na	na
1961-62	2 188	2 462	– 8	–0.1	106.0	na	na
1962-63	2 596	2 483	– 468	–2.8	107.7	na	na
1963-64	2 846	3 149	– 70	–0.4	119.3	na	na
1964-65	3 447	3 041	– 780	–3.8	113.0	na	na
1965-66	3 588	3 128	– 889	–4.1	113.5	na	na
1966-67	3 770	3 484	– 659	–2.8	112.8	na	na
1967-68	4 224	3 574	–1 131	–4.4	108.0	na	na
1968-69	4 360	3 897	– 980	–3.4	111.4	na	na
1969-70	4 871	4 765	– 688	–2.2	112.7	na	na
1970-71	5 214	5 086	– 749	–2.1	101.5	na	na
1971-72	5 351	5 685	– 293	–0.8	99.5	na	na
1972-73	5 512	7 016	754	1.7	117.9	na	na
1973-74	7 996	7 896	– 921	–1.7	127.1	na	na
1974-75	10 510	10 114	–1 195	–1.8	115.5	na	na
1975-76	11 163	11 225	–1 423	–1.8	110.4	3 133	4.0
1976-77	14 106	13 425	–2 435	–2.7	106.9	5 160	5.7
1977-78	15 342	14 245	–2 970	–3.0	96.9	7 434	7.5
1978-79	18 260	16 910	–3 604	–3.2	97.8	9 553	8.5
1979-80	21 444	22 017	–1 974	–1.5	101.4	7 923	6.2
1980-81	25 530	22 604	–5 435	–3.7	100.5	9 361	6.4
1981-82	29 660	23 696	–9 159	–5.5	98.5	18 378	11.0
1982-83	29 667	25 632	–6 854	–3.8	97.8	25 169	14.0
1983-84	32 162	28 892	–7 832	–3.9	100.0	31 850	15.7
1984-85	40 790	35 739	–11 283	–5.0	97.5	53 055	23.6
1985-86	47 199	38 948	–15 488	–6.2	88.4	78 396	31.5
1986-87	49 032	44 306	–12 597	–4.6	81.8	87 971	32.3
1987-88	54 080	51 742	–11 744	–3.8	88.3	98 767	31.8
1988-89	62 296	55 354	–19 200	–5.5	100.3	117 240	33.3
1989-90	68 771	60 899	–22 953	–6.0	107.6	130 620	34.0
1990-91	66 948	66 259	–17 689	–4.5	101.6	142 065	35.8
1991-92	69 269	70 080	–13 377	–3.3	98.6	159 651	39.2
1992-93	79 077	76 899	–15 210	–3.6	94.4	176 048	41.2
1993-94	85 396	83 015	–16 254	–3.6	91.8	167 919	37.3
1994-95	97 654	87 654	–28 646	–6.0	94.3	186 313	39.3
1995-96	101 078	99 095	–21 645	–4.3	97.0	193 170	38.0
1996-97	103 590	105 160	–17 818	–3.3	100.0	212 820	39.9
1997-98	118 575	113 829	–22 776	–4.0	100.0	227 033	40.1
1998-99	126 536	111 603	–32 417	–5.5	94.9	228 071	38.4

a Negative sign indicates current account deficit. **b** Ratio of implicit price deflator for exports of goods and services to implicit price deflator for imports of goods and services. Base: 1997-98 = 100. **c** As at 30 June. **na** Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product,* cat. no. 5206.0, Canberra; ABS, *Balance of Payments, Australia,* cat. no. 5302.0, Canberra; ABS, *International Investment Position, Australia,* cat. no. 5306.0, Canberra; Reserve Bank of Australia, *Bulletin,* Sydney.

11 Average Australian exchange rates with selected countries [a]

	Japan ¥/A$	United States US$/A$	New Zealand NZ$/A$	South Korea [b] won/A$	United Kingdom £/A$	Trade weighted index [c]
1960-61	402.22	1.1193	0.805	na	0.399	na
1961-62	405.56	1.1213	0.805	na	0.399	na
1962-63	402.46	1.1185	0.805	na	0.399	na
1963-64	404.76	1.1168	0.805	na	0.399	na
1964-65	102.18	1.1137	0.805	287.6	0.399	na
1965-66	404.03	1.1163	0.805	303.4	0.399	na
1966-67	403.88	1.1144	0.805	301.6	0.399	na
1967-68	403.87	1.1155	0.912	304.4	0.466	na
1968-69	398.92	1.1124	1.000	312.5	0.466	na
1969-70	399.88	1.1160	1.000	335.1	0.466	na
1970-71	400.22	1.1185	1.000	357.6	0.466	99.6
1971-72	371.74	1.1710	1.000	443.9	0.462	98.8
1972-73	367.32	1.2835	1.032	513.9	0.524	104.4
1973-74	408.19	1.4743	1.034	587.0	0.617	115.5
1974-75	404.94	1.3700	1.016	611.2	0.584	107.7
1975-76	379.39	1.2613	1.193	610.3	0.633	105.3
1976-77	330.52	1.1531	1.193	557.4	0.674	96.3
1977-78	273.88	1.1276	1.127	545.9	0.618	89.3
1978-79	227.36	1.1365	1.079	550.0	0.568	83.2
1979-80	259.57	1.1143	1.132	594.3	0.499	83.8
1980-81	248.28	1.1612	1.233	759.7	0.508	87.6
1981-82	257.36	1.1048	1.374	776.6	0.601	91.0
1982-83	232.66	0.9383	1.333	705.5	0.581	81.8
1983-84	211.95	0.9057	1.382	718.7	0.623	81.5
1984-85	192.55	0.7741	1.611	643.2	0.634	75.5
1985-86	140.21	0.6979	1.291	625.7	0.485	62.3
1986-87	100.84	0.6609	1.231	567.4	0.433	53.8
1987-88	97.11	0.7262	1.122	565.9	0.415	54.8
1988-89	106.55	0.8139	1.302	560.8	0.474	61.6
1989-90	112.49	0.7667	1.302	529.4	0.470	60.0
1990-91	107.01	0.7824	1.304	564.4	0.422	58.9
1991-92	100.45	0.7664	1.380	584.6	0.436	58.2
1992-93	83.73	0.7000	1.313	552.9	0.434	52.3
1993-94	72.95	0.6884	1.220	556.8	0.459	51.5
1994-95	69.93	0.7392	1.168	582.8	0.468	52.8
1995-96	77.14	0.7555	1.130	589.8	0.488	54.8
1996-97	89.98	0.7800	1.120	664.2	0.482	58.7
1997-98	85.62	0.6792	1.142	858.4	0.418	58.3
1998-99	77.11	0.6257	1.181	773.4	0.381	56.0

a Period average. As at 1 October 1999, the five most important currencies and their weights in the trade weighted index for the Australian dollar were the Japanese yen (18.13 per cent), US dollar (17.35 per cent), European Euro (13.53 per cent), South Korean won (6.14per cent) and Chinese renminbi (6.04 per cent). **b** Average of end-of-month data. **c** Base: May 1970 = 100. Period average. **na** Not available.

Sources: ABS, *Average Monthly Exchange Rates,* cat. no. 5654.0, Canberra; Reserve Bank of Australia, *Bulletin,* Sydney.

12 Exchange rates of selected countries [a]

	Australia A$/US$	Japan ¥/US$	Germany Dm/US$	United Kingdom £/US$	Real effective exchange rates [b] United States	Japan	Germany
1960	0.8929	360.00	4.200	0.3571	na	na	na
1961	0.8929	360.00	4.033	0.3571	na	na	na
1962	0.8929	360.00	4.000	0.3571	na	na	na
1963	0.8929	360.00	4.000	0.3571	na	na	na
1964	0.8929	360.00	4.000	0.3571	na	na	na
1965	0.8929	360.00	4.000	0.3571	na	na	na
1966	0.8929	360.00	4.000	0.3571	na	na	na
1967	0.8929	360.00	4.000	0.3614	na	na	na
1968	0.8929	360.00	4.000	0.4167	na	na	na
1969	0.8929	360.00	3.943	0.4167	na	na	na
1970	0.8929	360.00	3.660	0.4167	116.8	92.8	93.4
1971	0.8817	350.68	3.507	0.4108	115.1	88.4	96.1
1972	0.8387	303.17	3.189	0.3997	108.2	95.1	96.1
1973	0.7041	271.70	2.673	0.4078	99.3	105.9	101.0
1974	0.6967	292.08	2.588	0.4275	96.1	104.7	99.5
1975	0.7639	296.79	2.460	0.4501	100.5	91.9	96.7
1976	0.8183	296.55	2.518	0.5536	103.2	92.7	97.7
1977	0.9018	268.51	2.322	0.5729	102.8	96.9	99.7
1978	0.8737	210.44	2.009	0.5210	97.6	110.0	101.0
1979	0.8946	219.14	1.833	0.4713	94.6	98.7	100.9
1980	0.8776	226.74	1.818	0.4299	93.0	95.0	96.7
1981	0.8700	220.54	2.260	0.4931	102.7	98.4	88.9
1982	0.9831	249.08	2.427	0.5713	115.0	88.5	91.6
1983	1.1083	237.51	2.553	0.6592	121.5	93.3	92.7
1984	1.1384	237.53	2.846	0.7483	127.2	95.2	89.3
1985	1.4305	238.54	2.944	0.7714	131.8	94.7	88.1
1986	1.4960	168.52	2.171	0.6817	116.5	111.2	96.6
1987	1.4323	144.64	1.797	0.6102	105.7	114.4	101.1
1988	1.2792	128.15	1.756	0.5614	97.9	120.3	99.8
1989	1.2663	137.96	1.880	0.6099	101.8	112.2	96.8
1990	1.2842	144.79	1.616	0.5603	100.0	100.0	100.0
1991	1.2884	134.71	1.660	0.5652	101.2	104.8	97.9
1992	1.3658	126.65	1.562	0.5664	101.1	106.7	100.7
1993	1.4788	111.20	1.653	0.6658	103.3	121.7	101.0
1994	1.3735	102.21	1.623	0.6529	100.6	126.5	99.8
1995	1.3554	94.06	1.433	0.6335	95.7	127.5	104.9
1996	1.2830	108.57	1.503	0.6386	100.2	108.8	100.5
1997	1.3479	120.61	1.729	0.6196	106.4	103.4	95.0
1998	1.5936	130.47	1.760	0.6191	113.8	100.3	96.3

a Period average. **b** The nominal exchange rate, trade weighted against 44 world currencies, adjusted for relative wholesale prices. Base: 1990 = 100.
na Not available.
Sources: ABS, *Average Monthly Exchange Rates,* cat. no. 5654.0, Canberra; International Monetary Fund, *International Financial Statistics Yearbook,* Washington DC; Morgan Guaranty Trust Company, *World Financial Markets,* New York.

13 Growth of real gross domestic product in selected countries

	Australia	United States	OECD Europe a	Japan	OECD	China b	South Korea
	%	%	%	%	%	%	%
1960	na	2.5	na	13.1	na	– 1.5	1.2
1961	0.7	2.3	5.2	11.7	4.4	– 29.7	5.9
1962	6.2	6.0	4.9	8.7	5.1	– 6.5	2.1
1963	6.2	4.3	4.7	8.7	4.8	10.7	9.1
1964	6.8	5.8	5.7	11.3	6.1	16.5	9.7
1965	5.2	6.4	4.2	5.6	5.3	16.9	5.7
1966	2.8	6.6	4.1	10.5	5.5	17.0	12.2
1967	6.8	2.5	3.4	11.1	3.7	– 7.2	5.9
1968	5.8	4.8	5.2	11.8	5.4	– 6.5	11.3
1969	6.0	3.1	6.0	12.0	5.1	19.3	13.8
1970	6.5	0.2	5.1	10.3	3.5	23.3	8.8
1971	4.7	3.1	3.3	4.5	3.3	7.0	9.2
1972	2.5	5.3	4.5	8.3	5.2	2.9	5.9
1973	5.5	5.7	5.8	8.1	5.8	8.3	14.4
1974	2.6	– 0.3	2.1	– 1.2	0.8	1.1	7.9
1975	2.7	– 0.3	– 0.5	3.2	– 0.1	8.3	7.1
1976	3.9	5.2	4.5	3.9	4.7	– 2.7	12.8
1977	1.3	4.5	2.7	4.5	3.8	7.8	10.1
1978	3.0	5.7	3.0	5.2	3.9	12.3	9.7
1979	5.2	3.4	3.4	5.5	3.7	7.0	7.6
1980	1.9	0.0	1.3	2.8	1.2	7.8	– 2.2
1981	3.9	2.5	0.3	3.2	2.0	4.5	6.7
1982	– 0.1	– 1.9	0.9	3.1	– 0.1	8.3	7.3
1983	0.1	4.2	1.8	2.3	2.6	10.5	11.8
1984	6.7	7.3	2.5	3.9	4.6	14.6	10.1
1985	5.3	3.7	2.7	4.3	3.4	12.9	6.2
1986	1.8	3.0	3.0	2.9	2.8	8.5	11.6
1987	4.3	2.9	3.1	4.1	3.2	11.1	11.5
1988	4.4	3.8	4.0	6.3	4.2	11.2	11.3
1989	4.2	3.4	3.4	4.8	3.6	4.3	6.4
1990	1.5	1.7	3.2	5.2	2.7	9.0	9.5
1991	– 1.0	– 0.2	2.9	3.8	0.8	9.2	9.1
1992	2.6	3.3	1.1	1.0	1.8	14.2	5.1
1993	3.8	2.4	– 5.6	0.3	1.0	13.5	5.8
1994	5.0	4.0	2.5	0.6	3.1	12.6	8.6
1995	4.4	2.7	2.7	1.5	2.1	10.5	8.9
1996	4.0	3.7	2.0	5.1	3.1	9.7	7.1
1997	3.9	4.5	2.8	1.4	3.3	8.8	5.5
1998	5.1	4.3	2.7	– 2.8	2.3	7.8	– 5.8

a Regarded as nineteen countries for all years. **b** Gross national product. Excludes Hong Kong.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product,* cat. no. 5206.0, Canberra; OECD, *Main Economic Indicators,* Paris; International Monetary Fund, *International Financial Statistics Yearbook,* Washington DC; Asian Development Bank, *Key Indicators of Developing Asian and Pacific Countries,* Manila.

14 Growth of industrial production in selected countries

	Australia	United States	Japan	Germany a	United Kingdom	OECD	China	South Korea
	%	%	%	%	%	%	%	%
1961	na	0.7	19.6	6.9	0.4	na	– 41.6	8.3
1962	na	8.4	7.9	4.1	1.0	6.5	– 15.4	15.4
1963	na	6.1	11.5	3.4	3.9	6.2	12.6	13.3
1964	na	6.8	15.9	8.3	7.1	7.7	24.6	5.9
1965	na	9.9	3.7	5.4	3.1	6.6	27.8	10.0
1966	na	8.8	13.1	1.2	1.2	7.1	24.9	22.7
1967	na	2.1	19.4	– 2.9	– 0.7	3.7	– 15.7	25.9
1968	na	5.6	15.5	9.4	4.7	6.8	– 9.0	32.4
1969	na	4.6	16.0	13.0	3.4	8.1	35.9	17.8
1970	na	– 3.3	13.8	6.3	0.5	3.1	38.5	13.2
1971	na	1.4	2.6	1.0	– 0.5	2.0	13.4	15.0
1972	na	9.7	7.3	3.4	1.7	7.1	6.5	14.5
1973	na	8.1	14.9	6.2	9.0	9.2	8.7	32.9
1974	na	– 1.4	– 3.8	– 1.8	– 2.0	– 0.3	– 0.4	27.6
1975	na	– 8.9	– 11.1	– 6.2	– 5.4	– 8.1	15.0	19.4
1976	na	9.2	11.0	7.5	3.3	8.3	– 3.8	29.4
1977	na	7.9	4.2	2.3	5.2	4.7	14.8	20.3
1978	1.6	5.7	6.3	1.5	2.8	4.1	17.1	22.9
1979	5.4	3.7	7.3	5.0	3.9	4.8	8.1	11.8
1980	1.5	– 1.9	4.8	0.2	– 6.5	0.2	10.9	– 2.0
1981	3.0	1.9	1.0	– 1.9	– 3.2	0.5	1.7	12.8
1982	– 0.6	– 4.4	0.3	– 3.2	1.9	– 2.5	6.0	5.0
1983	– 4.0	3.6	3.2	0.5	3.6	1.8	9.9	15.6
1984	6.7	9.4	9.3	2.9	0.0	6.5	14.9	15.0
1985	5.7	1.7	3.7	4.9	5.5	3.0	19.6	4.5
1986	– 0.4	1.0	– 0.2	2.0	2.5	0.9	9.6	20.5
1987	5.9	5.0	3.4	0.4	3.9	3.7	13.0	18.2
1988	6.5	4.5	10.1	3.5	4.8	5.4	17.4	13.2
1989	2.9	1.5	5.8	4.8	2.1	3.3	6.0	3.3
1990	1.9	– 0.2	4.2	5.2	– 0.3	1.6	5.5	8.8
1991	– 1.6	– 2.0	1.9	3.6	– 3.3	– 0.4	12.8	9.6
1992	0.4	3.1	– 5.7	– 2.6	– 0.3	– 0.3	21.2	5.8
1993	2.7	3.5	– 4.3	– 7.5	2.2	– 0.5	21.9	4.4
1994	5.3	5.4	1.3	3.5	5.4	4.6	21.6	11.1
1995	0.5	4.9	3.3	1.0	1.7	3.4	16.1	12.0
1996	4.0	4.1	2.3	0.4	1.2	2.5	15.0	7.1
1997	1.6	6.0	3.6	3.7	0.9	4.8	13.1	6.7
1998	1.1	3.7	– 6.6	4.2	0.6	1.6	10.9	– 7.1

a West Germany until 1990; unified Germany from 1991. **na** Not available.

Sources: ABS, *Quarterly Index of Industrial Production,* cat. no. 8125.0, Canberra; International Monetary Fund, *International Financial Statistics Yearbook,* Washington DC; OECD, *Main Economic Indicators,* Paris.

15 Inflation and interest rates in selected countries

	Inflation rates a			Interest rates b			
				United States		Japan	
	United States %	Japan %	Total OECD %	Short term %	Long term %	Short term %	Long term %
1960	1.6	3.4	1.9	2.9	3.8	na	na
1961	1.1	5.2	1.9	2.4	4.1	na	na
1962	1.1	6.8	3.2	2.8	3.9	na	na
1963	1.4	8.5	3.1	3.2	4.2	na	na
1964	1.1	3.9	2.6	3.6	4.2	na	na
1965	1.7	6.4	3.3	4.0	4.4	na	na
1966	3.1	5.3	3.2	4.9	4.5	na	6.9
1967	2.6	3.7	3.1	4.3	5.4	na	6.9
1968	4.2	5.5	4.2	5.4	5.8	na	7.0
1969	5.6	5.2	4.7	6.7	7.0	na	7.1
1970	5.9	7.6	5.6	6.4	6.2	na	7.2
1971	4.2	6.5	5.3	4.3	5.6	na	7.3
1972	3.5	4.8	5.0	4.1	5.7	na	6.7
1973	6.2	11.7	7.8	7.0	6.5	na	7.3
1974	10.9	23.0	13.9	7.9	6.8	na	9.3
1975	9.2	11.8	11.4	5.8	7.1	na	9.2
1976	5.8	9.5	9.0	5.0	6.4	na	8.7
1977	6.4	8.1	10.1	5.3	7.3	na	7.3
1978	7.6	4.1	8.7	7.2	8.4	na	6.1
1979	11.4	3.8	11.1	10.0	9.6	8.1	7.7
1980	13.5	7.8	14.5	11.6	11.9	9.9	9.2
1981	10.3	4.9	11.4	14.1	12.9	6.8	8.7
1982	6.2	2.7	9.6	10.7	10.3	7.0	8.1
1983	3.2	1.9	8.8	8.6	11.4	6.5	7.4
1984	4.3	2.2	7.8	9.6	11.2	6.3	6.8
1985	3.6	2.1	6.8	7.5	9.0	7.4	6.3
1986	1.9	0.6	5.9	6.0	7.7	4.4	4.9
1987	3.7	0.1	8.1	5.8	8.6	3.9	4.2
1988	4.1	0.7	8.4	6.7	9.0	4.0	4.3
1989	4.8	2.3	6.3	8.1	8.6	4.7	5.1
1990	5.4	3.1	7.0	7.5	8.7	6.9	7.4
1991	4.2	3.3	6.3	5.4	8.2	7.4	6.5
1992	3.0	1.7	5.0	3.7	7.5	4.5	4.9
1993	3.0	1.3	4.3	3.2	6.5	3.0	3.7
1994	2.6	0.7	5.0	4.6	7.4	2.2	3.7
1995	2.8	– 0.1	5.6	5.9	6.9	1.2	2.5
1996	2.9	0.1	5.2	5.4	6.8	0.6	2.2
1997	2.4	1.7	4.5	5.6	6.7	0.6	1.7
1998	1.6	0.6	3.8	5.5	5.7	0.7	1.1

a Percentage change in consumer price indexes. **b** Period average: United States – 3 month Treasury bill rate and 10 year government bond yield; Japan – 3 month certificate of deposit rate and 7 year government bond yield. **na** Not available.

Sources: International Monetary Fund, *International Financial Statistics,* Washington DC; International Monetary Fund, *International Financial Statistics Yearbook,* Washington DC; OECD, *Main Economic Indicators,* Paris.

16 Population in selected countries and regions [a]

	Australia million	United States million	European Union [b] million	Japan million	China [c] million	Other East Asia [d] million	World [e] million
1955	9.2	165.9	268.3	89.8	617.2	167.9	2 754.2
1956	9.4	168.9	270.3	90.8	630.9	172.3	2 807.7
1957	9.6	172.0	272.5	91.6	649.2	176.8	2 861.1
1958	9.8	174.9	274.7	92.4	662.7	181.6	2 914.6
1959	10.1	177.8	277.0	93.3	675.1	186.6	2 968.0
1960	10.3	180.7	279.1	94.1	665.2	191.7	3 021.5
1961	10.6	183.7	281.6	95.0	661.8	197.1	3 084.8
1962	10.7	186.5	284.6	95.8	676.3	202.5	3 148.0
1963	11.0	189.2	287.9	96.8	695.1	207.8	3 211.3
1964	11.2	191.9	290.5	97.8	708.6	214.2	3 274.6
1965	11.4	194.3	293.1	98.9	729.1	220.0	3 337.8
1966	11.6	196.6	295.2	99.8	749.1	225.9	3 409.7
1967	11.8	198.7	297.3	100.8	767.5	232.4	3 481.5
1968	12.0	200.7	299.1	102.0	789.1	238.7	3 553.4
1969	12.3	202.7	301.3	103.2	810.6	245.4	3 625.3
1970	12.5	205.1	303.1	104.3	833.8	252.1	3 697.1
1971	12.9	207.7	305.3	105.7	856.3	258.6	3 773.1
1972	13.2	209.9	307.3	107.2	875.9	265.2	3 849.1
1973	13.4	211.9	309.2	108.7	896.3	271.8	3 925.0
1974	13.7	213.9	310.6	110.2	912.9	278.5	4 001.0
1975	13.9	216.0	312.0	111.6	928.6	285.2	4 077.0
1976	14.0	218.0	313.1	112.8	941.7	286.8	4 150.5
1977	14.2	220.2	314.1	113.9	954.4	293.4	4 223.9
1978	14.4	222.6	315.0	114.9	967.4	300.1	4 297.4
1979	14.5	225.1	316.0	115.9	980.3	307.1	4 370.9
1980	14.7	227.8	318.0	116.8	1 001.2	314.6	4 444.4
1981	14.9	229.9	319.1	117.7	1 013.5	322.0	4 524.7
1982	15.2	232.2	319.8	118.5	1 025.8	328.9	4 605.1
1983	15.4	234.3	320.4	119.3	1 044.9	335.8	4 685.5
1984	15.6	236.4	321.0	120.1	1 060.3	342.7	4 765.8
1985	15.8	238.5	321.6	120.8	1 075.7	349.1	4 846.3
1986	16.0	240.7	322.3	121.5	1 092.2	356.2	4 934.0
1987	16.3	242.8	323.2	122.1	1 109.8	363.2	5 021.7
1988	16.5	245.1	324.2	122.6	1 127.5	370.1	5 109.4
1989	16.8	247.3	325.6	123.1	1 144.9	377.0	5 197.1
1990	17.1	249.9	327.9	123.5	1 161.0	380.5	5 284.8
1991	17.3	252.6	344.7	123.9	1 175.9	386.8	5 371.2
1992	17.5	255.4	346.3	124.3	1 189.4	393.4	5 457.5
1993	17.7	258.1	347.9	124.7	1 202.3	400.0	5 543.8
1994	17.8	260.7	349.0	125.0	1 214.9	406.6	5 630.1
1995	18.1	263.2	350.1	125.2	1 227.7	413.3	5 716.4
1996	18.3	266.6	351.1	125.8	1 243.3	419.9	5 804.8
1997	18.5	269.1	351.2	126.2	1 258.3	436.0	5 891.8
1998	18.8	274.0	na	126.3	1 255.7	439.4	5 901.1

a Midyear. **b** Regarded as twelve countries for all years. **c** Includes Hong Kong. **d** Chinese Taipei, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Thailand. **e** United Nations estimates. **na** Not available.

Sources: ABS, *Estimated Resident Population by Sex and Age: States and Territories of Australia,* cat. no. 3201.0, Canberra; Asian Development Bank, *Key Indicators of Developing Asian and Pacific Countries,* Manila; International Monetary Fund, *International Financial Statistics Yearbook,* Washington DC; OECD, *Main Economic Indicators,* Paris; United Nations, *World Population Prospects,* New York.

17 Australian farm returns, costs and prices

	Gross value of farm production $m	Farm costs $m	Net value of farm production $m	Index of real net value of farm production ab	Index of prices received b	Index of prices paid b	Farmers' terms of trade bc	Consumer price index b
1960-61	2 600	1 717	883	184	26.0	11.7	222.9	11.7
1961-62	2 578	1 781	797	166	24.7	11.7	211.2	11.7
1962-63	2 841	1 865	976	203	25.4	11.7	217.1	11.7
1963-64	3 230	1 953	1 277	262	27.4	11.7	234.5	11.9
1964-65	3 240	2 093	1 147	227	26.7	12.1	220.0	12.3
1965-66	3 106	2 250	856	163	27.4	12.6	217.3	12.8
1966-67	3 609	2 415	1 194	222	27.4	13.1	209.6	13.1
1967-68	3 134	2 472	662	119	26.7	13.5	198.5	13.6
1968-69	3 734	2 673	1 061	186	26.0	13.5	193.4	13.9
1969-70	3 474	2 668	806	137	25.4	13.5	188.4	14.3
1970-71	3 316	2 713	603	98	23.9	13.9	171.6	15.0
1971-72	3 707	2 793	914	139	26.0	14.9	175.3	16.0
1972-73	4 662	3 103	1 559	223	35.6	16.2	219.9	17.0
1973-74	6 107	3 594	2 513	319	43.1	18.4	234.3	19.2
1974-75	5 506	4 196	1 310	142	36.9	23.4	158.0	22.4
1975-76	5 799	4 832	967	93	39.0	27.0	144.3	25.3
1976-77	6 330	5 278	1 052	89	42.5	30.1	141.1	28.8
1977-78	6 504	5 742	762	59	44.5	33.3	133.8	31.6
1978-79	9 799	6 629	3 170	226	54.0	35.5	152.1	34.2
1979-80	11 206	7 761	3 445	223	64.3	39.5	162.7	37.7
1980-81	11 056	8 739	2 317	137	68.4	44.9	152.2	41.2
1981-82	12 649	10 205	2 444	131	67.7	49.9	135.7	45.5
1982-83	11 636	11 403	233	11	71.1	55.3	128.6	50.7
1983-84	15 422	12 255	3 167	143	74.6	59.8	124.8	54.1
1984-85	15 473	12 896	2 577	111	76.6	63.4	121.0	56.4
1985-86	15 466	14 051	1 415	56	76.6	68.3	112.2	61.2
1986-87	17 095	15 386	1 709	62	82.8	74.2	111.6	66.9
1987-88	20 039	16 726	3 313	113	99.5	77.4	128.6	71.8
1988-89	23 026	18 395	4 631	147	112.4	84.3	133.2	77.0
1989-90	23 848	20 008	3 840	113	109.3	90.1	121.4	83.2
1990-91	21 185	20 167	1 018	28	93.6	90.8	103.0	87.6
1991-92	20 966	19 392	1 574	43	94.5	90.7	104.2	89.3
1992-93	22 109	19 340	2 769	75	93.7	89.5	104.8	90.2
1993-94	23 585	20 187	3 398	89	97.4	91.1	106.9	91.8
1994-95	23 726	21 591	2 135	57	112.0	94.9	118.1	94.7
1995-96	27 542	22 879	4 663	115	111.2	99.4	111.9	98.7
1996-97	28 040	23 808	4 232	105	101.6	99.3	102.3	100.0
1997-98	28 021	23 930	4 091	100	100.0	100.0	100.0	100.0
1998-99 p	28 253	24 397	3 856	92	97.1	100.0	97.1	101.3

a Obtained by deflating the net value of farm production by the consumer price index. **b** ABARE revised the method for calculating farm, price and production indexes in October 1999. The indexes for the different groups of farm commodities are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100. **c** Ratio of index of prices received by farmers to index of prices paid by farmers. **p** Preliminary.

Sources: ABS, *Value of Agricultural Commodities Produced, Australia,* cat. no. 7503.0, Canberra; ABS, *Australian National Accounts, National Income and Expenditure,* cat. no. 5206.0, Canberra; ABS, *Consumer Price Index,* cat. no. 6401.0, Canberra; ABARE.

18 Volume of Australian farm production

	Crops			Livestock			
	Grains and oilseeds Index	Other crops Index	Total crops Index	Livestock slaughterings Index	Livestock products Index	Total livestock Index	Total farm Index
1960-61	28.9	25.0	25.7	32.6	79.2	53.6	37.0
1961-62	24.7	23.2	24.0	39.3	83.1	58.3	38.5
1962-63	29.7	27.0	27.8	43.3	82.3	59.4	41.5
1963-64	31.2	28.7	28.7	45.6	86.4	62.9	43.3
1964-65	34.6	30.4	31.4	47.0	87.2	64.1	45.3
1965-66	25.8	29.7	27.1	45.1	84.2	61.0	41.9
1966-67	44.9	35.0	38.2	43.7	88.5	62.8	49.3
1967-68	26.2	31.6	28.4	45.8	88.1	64.2	43.6
1968-69	50.4	40.7	42.2	48.0	93.1	69.1	52.5
1969-70	38.8	36.7	36.4	51.9	98.0	74.0	51.2
1970-71	35.9	37.1	35.2	55.0	95.7	75.1	50.8
1971-72	39.7	39.8	38.4	60.1	94.8	78.0	53.9
1972-73	28.9	39.1	33.1	66.8	83.8	76.9	50.6
1973-74	46.0	34.8	39.5	65.5	80.4	74.5	53.2
1974-75	44.3	35.8	39.1	61.4	86.0	75.3	53.3
1975-76	48.4	34.9	40.6	74.0	82.6	79.4	55.8
1976-77	46.6	37.4	41.1	79.2	76.3	78.4	56.0
1977-78	39.2	40.8	39.4	86.8	74.5	81.0	55.8
1978-79	71.2	41.1	54.9	82.9	76.5	79.9	64.8
1979-80	63.6	41.9	51.6	72.5	76.8	73.9	60.1
1980-81	46.7	44.0	44.4	70.3	73.7	71.3	55.2
1981-82	66.2	48.6	56.1	73.6	75.0	73.7	62.9
1982-83	37.2	48.8	41.6	74.3	75.4	74.2	54.8
1983-84	88.6	53.7	69.6	69.0	79.5	73.4	70.3
1984-85	80.5	55.7	66.6	68.9	85.5	76.1	69.8
1985-86	71.7	59.4	64.0	72.4	87.0	78.6	69.5
1986-87	70.3	58.8	63.0	77.1	92.3	83.5	71.3
1987-88	60.5	63.8	61.2	79.7	94.0	85.6	71.4
1988-89	65.0	62.1	62.4	76.2	97.4	85.9	72.3
1989-90	65.3	65.1	64.2	82.5	108.1	94.3	77.2
1990-91	67.9	73.4	70.0	84.7	106.5	94.7	80.3
1991-92	61.7	78.1	69.9	87.7	95.5	91.2	78.6
1992-93	77.1	78.9	77.3	89.4	98.6	93.6	83.7
1993-94	85.4	80.4	81.7	91.3	99.9	95.2	87.0
1994-95	51.1	73.6	62.8	92.1	94.2	93.1	75.7
1995-96	89.7	82.0	85.2	91.4	94.5	92.9	88.6
1996-97	115.0	88.4	100.1	94.9	98.3	96.5	98.7
1997-98	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1998-99 **p**	114.6	101.2	106.9	101.9	103.3	102.5	104.8

p Preliminary.

Note: ABARE revised the method for calculating farm production indexes in October 1999. The indexes for the different groups of farm commodities are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100.

Sources: ABS, *Australian National Accounts, National Income and Expenditure,* cat. no. 5206.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia,* cat. no. 7503.0, Canberra; ABARE.

19 Gross value of Australian farm production

	Crops			Livestock			
	Grains and oilseeds	Other crops	Total crops	Livestock slaughterings	Livestock products	Total livestock	Total farm
	$m	$m	$m	$m	$m	$m	$m
1960-61	536	391	927	533	1 140	1 674	2 600
1961-62	489	363	853	517	1 209	1 726	2 578
1962-63	577	410	987	574	1 279	1 854	2 841
1963-64	601	459	1 060	634	1 536	2 170	3 230
1964-65	661	476	1 137	733	1 369	2 102	3 240
1965-66	522	478	1 000	785	1 321	2 106	3 106
1966-67	894	547	1 442	796	1 371	2 167	3 609
1967-68	555	525	1 079	818	1 237	2 054	3 134
1968-69	904	618	1 523	892	1 319	2 211	3 734
1969-70	695	526	1 221	1 008	1 245	2 253	3 474
1970-71	674	579	1 253	1 011	1 052	2 063	3 316
1971-72	740	625	1 366	1 135	1 207	2 342	3 707
1972-73	610	707	1 317	1 542	1 803	3 345	4 662
1973-74	1 761	823	2 584	1 697	1 826	3 523	6 107
1974-75	1 767	1 102	2 869	1 020	1 617	2 637	5 506
1975-76	1 839	1 071	2 910	1 247	1 643	2 889	5 799
1976-77	1 638	1 166	2 804	1 686	1 841	3 527	6 330
1977-78	1 441	1 170	2 611	1 970	1 924	3 894	6 504
1978-79	3 080	1 425	4 505	3 138	2 157	5 294	9 799
1979-80	3 376	1 677	5 053	3 616	2 537	6 153	11 206
1980-81	2 673	2 153	4 827	3 485	2 744	6 229	11 056
1981-82	3 661	2 651	6 313	3 295	3 041	6 336	12 649
1982-83	2 331	2 672	5 003	3 454	3 179	6 633	11 636
1983-84	5 184	3 227	8 411	3 526	3 485	7 011	15 422
1984-85	4 807	3 073	7 880	3 808	3 785	7 593	15 473
1985-86	4 061	3 372	7 433	3 904	4 129	8 033	15 466
1986-87	3 751	3 827	7 578	4 585	4 931	9 516	17 095
1987-88	3 531	4 252	7 783	4 994	7 262	12 256	20 039
1988-89	4 698	5 146	9 844	5 288	7 894	13 182	23 026
1989-90	4 499	5 663	10 162	5 880	7 806	13 686	23 848
1990-91	3 468	5 650	9 118	5 712	6 354	12 067	21 185
1991-92	3 963	6 051	10 014	5 699	5 253	10 952	20 966
1992-93	4 898	6 000	10 897	6 003	5 208	11 211	22 109
1993-94	5 176	6 421	11 597	6 820	5 167	11 988	23 585
1994-95	4 169	6 926	11 095	6 635	5 995	12 630	23 726
1995-96	7 636	7 820	15 456	6 385	5 701	12 086	27 542
1996-97	8 151	7 851	16 001	6 285	5 753	12 038	28 040
1997-98	6 746	8 770	15 516	6 557	5 948	12 505	28 021
1998-99 **p**	7 038	8 809	15 847	7 016	5 391	12 406	28 253

p Preliminary.

Sources: ABS, *Australian National Accounts, National Income and Expenditure,* cat. no. 5206.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia,* cat. no. 7503.0, Canberra; ABARE.

20 Value of Australian agricultural exports (fob)

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	$m	$m	$m	$m	$m	$m	$m	$m
Grains and oilseeds								
Wheat (including flour)	1 528	2 004	2 304	1 632	3 389	4 346	3 687	3 467
Barley (including malt)	421	522	365	403	867	989	717	868
Oats	21	40	33	18	50	26	30	38
Sorghum	29	34	32	19	97	70	50	47
Rice	245	229	322	290	333	318	402	417
Lupins	102	148	199	89	85	195	193	171
Peas **a**	50	96	91	41	62	97	67	63
Chickpeas	28	73	87	24	51	120	118	50
Canola	3	19	48	38	138	124	256	558
Cottonseed	30	35	35	34	42	45	68	91
Other oilseeds **b**	23	17	18	23	15	21	20	24
Total	2 479	3 216	3 535	2 610	5 128	6 352	5 609	5 793
Industrial crops								
Raw cotton **c**	945	755	732	678	762	1 077	1 386	1 559
Sugar	681	987	1 232	1 629	1 552	1 546	1 706	1 259
Wine	234	289	359	382	474	599	813	991
Total	1 861	2 031	2 323	2 689	2 788	3 222	3 904	3 809
Other crops	1 279	1 436	1 671	1 783	2 048	2 160	2 298	2 453
Total crops	5 618	6 684	7 529	7 082	9 964	11 734	11 811	12 055
Meat and live animals for slaughter								
Beef and veal **d**	2 750	2 907	3 133	2 846	2 384	2 071	2 610	2 863
Live cattle **d**	86	80	128	212	357	427	324	254
Mutton **d**	280	269	309	323	299	288	369	309
Lamb **d**	104	152	188	169	192	243	276	321
Live sheep **d**	80	109	139	197	214	193	190	175
Pig meat	23	34	25	23	30	33	52	71
Poultry meat	4	9	12	13	13	14	18	23
Canned meat **d**	34	32	54	59	39	34	47	53
Total	3 363	3 592	3 988	3 844	3 527	3 304	3 885	4 068
Wool								
Greasy **e**	2 655	2 176	2 176	2 685	2 137	2 188	2 336	1 463
Semiprocessed	1 056	1 073	1 067	1 314	1 276	1 292	1 378	993
Skins	118	118	125	217	251	264	307	132
Total **e**	3 829	3 367	3 369	4 216	3 664	3 744	4 020	2 588
Dairy products								
Butter	112	156	183	159	181	220	238	294
Cheese	230	318	370	401	463	476	607	695
Casein	15	27	35	35	30	33	43	67
Skim milk powder	205	303	367	399	479	473	444	496
Wholemilk powder	108	147	149	183	255	268	275	364
Other dairy products	154	175	211	262	284	309	329	341
Total	825	1 126	1 315	1 440	1 692	1 779	1 937	2 257
Other livestock exports	955	1 128	1 198	1 296	1 319	1 302	1 417	1 444
Total livestock exports	8 972	9 214	9 870	10 796	10 203	10 129	11 258	10 356
Total farm exports	14 590	15 898	17 398	17 879	20 167	21 863	23 069	22 411

a Field peas and cowpeas. **b** Includes soybeans, linseed, sunflowerseed, safflowerseed and peanuts. Excludes meals and oils. **c** Excludes cotton waste and linters. **d** Based on quantity data from Agriculture, Fisheries and Forestry–Australia and export price data from the ABS. **e** On a balance of payments basis. ABS recorded trade data adjusted for changes in stock levels held overseas by Wool International. **p** Preliminary.
Sources: Australian Bureau of Statistics, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

21 Value of Australian agricultural exports (fob), by destination

	1991-92 $m	1992-93 $m	1993-94 $m	1994-95 $m	1995-96 $m	1996-97 $m	1997-98 $m	1998-99 $m
Africa								
Egypt	378	273	258	83	293	532	314	581
South Africa	68	101	76	191	243	240	200	172
Total	527	466	427	357	692	932	918	1 173
Americas								
United States	1 569	1 407	1 514	1 176	973	1 109	1 494	1 696
Canada	380	461	462	406	407	438	468	467
Total	2 093	2 050	2 241	1 795	1 592	1 880	2 262	2 505
North Asia								
China	628	998	1 168	1 494	1 801	1 552	1 535	1 225
Chinese Taipei	611	613	574	666	700	732	714	762
Japan	3 399	3 534	3 931	4 110	4 021	3 605	4 012	4 007
South Korea	978	953	1 015	1 128	993	975	983	1 132
Total	5 928	6 492	7 069	7 809	8 012	7 345	7 745	7 555
South East Asia								
Indonesia	481	528	531	705	1 160	1 429	1 204	1 071
Malaysia	510	650	675	795	936	912	927	797
Phillipines	167	251	318	386	457	490	495	599
Singapore	296	322	350	389	383	401	398	434
Thailand	156	174	246	306	368	401	452	516
Total	1 622	1 946	2 146	2 622	3 357	3 678	3 633	3 614
South Asia	263	516	346	348	557	1 160	1 485	1 187
Middle East	698	916	1 169	782	1 522	2 143	1 576	1 832
Europe								
Russian Federation	0	117	248	48	55	56	141	31
EU 15	2 176	1 989	1 854	2 105	2 008	2 224	2 762	2 425
Total	2 255	2 182	2 188	2 243	2 194	2 404	3 107	2 629
Oceania	527	624	1 044	796	816	841	904	923
New Zealand	297	366	438	503	533	538	590	624
Other a	679	705	768	1 127	1 424	1 482	1 439	994
Total	14 590	15 898	17 398	17 879	20 167	21 863	23 069	22 411

a Includes commodities such as rice for which export data are not available by destination.

Note: For some agricultural commodities, namely wheat, sugar and barley, data are only available by volume to specific export destinations. The country export values for these commodities are calculated using an average export unit return to all destinations.

Sources: Australian Bureau of Statistics, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

22 Indexes of prices received by farmers in Australia

	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90
Crops sector									
Grains and oilseeds									
Wheat	83.0	92.2	85.6	89.7	86.6	78.9	85.2	110.6	102.0
Barley	85.1	94.2	95.1	86.7	76.5	77.8	85.6	109.2	111.2
Sorghum	62.9	76.5	77.1	85.1	75.5	67.0	73.5	89.3	85.6
Oats	70.6	100.1	65.0	69.6	75.9	74.8	81.0	92.8	79.4
Lupins	77.8	79.7	89.4	67.3	82.7	88.9	93.4	105.4	118.9
Canola	52.2	59.0	54.8	51.4	41.9	52.7	58.8	76.8	66.5
Total	82.1	93.1	86.9	88.6	84.4	79.4	87.9	107.7	102.1
Cotton	61.3	79.1	91.0	60.8	55.6	76.6	71.0	79.3	98.9
Sugar	81.9	68.7	77.8	68.8	69.7	82.9	84.5	96.5	109.8
Hay	40.9	67.3	52.2	48.9	60.7	59.7	64.4	74.1	80.3
Fruit	45.4	49.0	53.9	60.1	62.4	69.0	72.6	88.2	85.5
Wine grapes	27.2	29.0	31.4	34.6	31.7	35.9	54.2	54.0	51.7
Vegetables	68.7	63.9	76.2	60.6	69.4	84.4	79.6	112.4	122.5
Total crops sectors	73.2	78.4	78.7	77.1	75.9	78.5	83.4	102.1	103.2
Livestock sector									
Livestock for slaughter									
Cattle	68.2	76.5	89.5	97.8	97.2	105.6	109.1	119.9	129.2
Lambs	64.2	53.5	54.1	54.4	47.7	66.9	67.1	70.1	64.2
Sheep	68.3	40.0	53.5	48.1	35.1	45.3	55.8	69.3	29.4
Live sheep for export	71.6	64.7	77.7	76.0	68.6	79.2	86.8	79.2	78.0
Pigs	89.3	89.4	76.3	86.7	83.3	85.3	93.0	105.2	106.5
Poultry	56.1	61.0	61.3	69.3	74.4	77.9	85.6	98.6	100.4
Total	68.3	71.0	78.1	84.5	82.8	91.4	96.2	105.9	108.7
Livestock products									
Wool	63.4	63.8	70.3	76.0	82.5	95.2	153.2	156.5	131.9
Milk – market	51.4	56.0	60.1	62.7	61.6	65.5	66.7	73.8	76.9
Milk – manufacturing	62.2	69.3	62.3	47.3	54.1	62.7	74.4	87.8	95.7
Milk – total	58.4	64.4	62.4	55.0	58.4	65.0	72.1	82.9	88.8
Eggs	96.3	100.7	100.7	100.7	98.9	94.6	98.1	107.5	99.0
Honey	39.7	41.8	44.8	44.8	53.3	63.2	62.7	58.8	60.0
Total	66.3	69.1	72.2	72.9	78.0	87.9	127.0	133.3	118.7
Store and breeding stock	57.7	57.1	64.2	67.7	64.2	73.0	83.0	92.3	88.6
Total livestock sector	67.1	69.5	74.9	78.4	79.6	89.0	110.6	118.7	112.4
Total prices received	67.7	71.1	74.6	76.6	76.6	82.8	99.5	112.4	109.3

Continued

22 Indexes of prices received by farmers in Australia *(continued)*

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Crops sector									
Grains and oilseeds									
Wheat	69.0	103.8	93.4	88.3	124.9	136.3	107.5	100.0	95.1
Barley	75.3	86.2	92.8	79.0	135.1	143.7	116.6	100.0	88.9
Sorghum	80.3	83.7	94.1	85.9	112.3	119.0	106.7	100.0	80.8
Oats	72.1	78.8	78.9	65.6	131.3	112.9	100.3	100.0	74.2
Lupins	115.0	88.8	106.1	96.2	95.3	106.7	111.8	100.0	86.8
Canola	62.3	61.8	69.7	77.3	80.0	81.4	75.6	100.0	87.1
Total	75.7	95.3	94.2	89.9	120.9	126.1	105.1	100.0	91.0
Cotton	104.6	88.3	91.8	98.6	123.5	121.3	103.1	100.0	95.3
Sugar	102.6	90.4	89.6	102.8	112.7	110.2	100.0	100.0	98.6
Hay	95.1	95.6	77.3	78.3	108.8	102.3	93.6	100.0	98.6
Fruit	90.6	95.1	85.4	87.0	101.1	103.0	109.6	100.0	105.3
Wine grapes	51.0	58.6	57.3	63.2	79.4	89.9	95.2	100.0	96.4
Vegetables	86.5	89.8	94.3	100.6	115.1	115.2	100.9	100.0	109.9
Total crops sectors	84.9	93.4	91.9	92.5	115.2	118.2	104.1	100.0	96.6
Livestock sector									
Livestock for slaughter									
Cattle	123.2	117.9	117.0	134.1	126.1	104.9	93.0	100.0	111.2
Lambs	52.8	58.4	85.2	97.6	89.9	116.9	121.4	100.0	107.1
Sheep	8.8	21.4	39.0	48.4	58.3	85.9	85.0	100.0	87.9
Live sheep for export	34.7	47.8	55.7	66.8	82.8	98.5	92.7	100.0	92.4
Pigs	114.0	101.0	98.4	95.3	96.4	122.4	123.2	100.0	95.1
Poultry	100.7	93.6	97.7	101.7	98.2	99.6	107.2	100.0	99.2
Total	102.9	99.1	102.4	113.9	109.9	106.5	101.0	100.0	105.0
Livestock products									
Wool	99.7	86.7	75.1	75.2	115.4	93.3	91.9	100.0	79.8
Milk – market	79.4	81.5	84.7	87.0	93.8	98.6	100.6	100.0	97.6
Milk – manufacturing	97.1	99.8	113.0	106.5	97.8	113.6	105.0	100.0	96.3
Milk – total	90.7	93.2	102.3	99.2	96.5	108.2	103.4	100.0	96.7
Eggs	96.4	92.0	95.3	91.4	88.6	101.7	105.2	100.0	85.3
Honey	71.1	80.8	82.3	76.8	81.7	90.2	101.6	100.0	102.1
Total	98.1	90.6	87.4	86.1	105.8	100.8	98.1	100.0	88.3
Store and breeding stock	82.0	79.7	78.8	95.0	96.7	96.1	89.4	100.0	100.9
Total livestock sector	99.1	93.7	93.6	99.9	107.0	103.2	98.8	100.0	97.4
Total prices received	93.6	94.5	93.7	97.4	112.0	111.2	101.6	100.0	97.1

p Preliminary. **na** Not available.

Note: ABARE revised the method for calculating these indexes in October 1999. The indexes for commodity groups are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100. Indexes for most individual commodities are based on annual gross unit value of production.

Source: ABARE.

23 Farm land use and livestock numbers in Australia

	Area used for ab				Livestock numbers cd		
	Wheat million ha	Other crops million ha	Sown pastures and grasses million ha	Total area of farms million ha	Beef cattle million	Dairy cattle million	Sheep million
1960-61	5.4	5.6	14.4	468.1	12.43	4.90	152.68
1961-62	6.0	5.3	15.8	474.5	12.99	5.05	157.71
1962-63	6.7	5.5	16.6	476.6	13.47	5.08	158.63
1963-64	6.7	5.4	17.9	479.4	14.12	4.93	164.98
1964-65	7.3	5.8	19.1	481.9	13.97	4.84	170.62
1965-66	7.1	6.2	19.6	486.2	13.25	4.69	157.56
1966-67	8.4	6.6	20.8	487.0	13.65	4.62	164.24
1967-68	9.1	5.4	23.1	489.5	14.73	4.49	166.91
1968-69	10.8	5.8	24.2	490.6	16.28	4.34	174.60
1969-70	9.5	6.1	26.2	494.7	17.93	4.23	174.26
1970-71	6.5	6.9	28.0	497.2	20.26	4.11	171.74
1971-72	7.1	7.1	27.7	499.5	23.36	4.01	155.39
1972-73	7.6	6.7	26.1	499.8	25.12	3.98	134.10
1973-74	8.9	6.2	27.2	500.5	27.08	3.76	139.45
1974-75	8.3	5.5	28.6	499.6	29.07	3.73	145.83
1975-76	8.6	5.9	27.7	500.7	29.83	3.60	144.11
1976-77	9.0	6.0	26.2	491.5	28.27	3.27	131.32
1977-78	10.0	6.8	25.9	489.4	26.27	3.06	127.46
1978-79	10.2	7.2	26.7	493.2	24.25	2.87	130.50
1979-80	11.2	6.9	26.2	495.6	23.37	2.83	132.71
1980-81	11.3	7.0	24.9	495.4	22.37	2.80	131.44
1981-82	11.9	7.7	26.9	490.8	21.77	2.78	135.02
1982-83	11.5	7.9	25.6	483.8	19.72	2.76	130.51
1983-84	12.9	9.1	26.1	488.6	19.36	2.81	135.14
1984-85	12.1	9.1	27.1	489.2	19.98	2.81	145.67
1985-86	11.7	9.2	27.5	468.3	20.68	2.76	150.40
1986-87	11.3	8.6	27.3	471.0	20.96	2.71	153.18
1987-88	9.1	9.4	28.6	472.0	20.88	2.64	156.54
1988-89	8.9	8.7	30.2	466.9	21.42	2.62	164.91
1989-90	9.0	7.9	30.9	464.3	22.28	2.59	173.38
1990-91	9.2	8.2	28.3	462.8	22.88	2.50	166.57
1991-92	7.2	9.2	30.8	466.0	22.83	2.50	151.00
1992-93	9.1	9.0	29.0	460.1	22.65	2.53	140.54
1993-94	8.4	9.8	29.4	469.0	23.08	2.68	132.57
1994-95	8.0	8.9	na	463.3	22.99	2.74	120.86
1995-96	9.2	10.3	na	465.2	23.57	2.81	121.12
1996-97	11.3	10.5	na	466.1	23.74	2.96	120.23
1997-98	10.4	10.1	na	466.4	23.75	3.08	117.49
1998-99 p	11.6	10.3	na	na	22.67	3.16	115.79

a Years ended 31 March. **b** Details for establishments with estimated value of agricultural operations (EVAO) of $2500 or more until 1985-86; EVAO of $5000 or more from 1986-87 to 1988-89; EVAO of $20 000 or more from 1989-90 to 1990-91; EVAO of $22 500 or more from 1991-92 to 1992-93; and EVAO of $5000 or more from 1993-94. **c** At 31 March. **d** Before 1987, includes livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of $2500 or more. From 1987, the EVAO has been raised to $5000. **p** Preliminary. **na** Not available.
Sources: ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *Agricultural Land Use and Selected Inputs, Australia,* cat. no. 7411.0, Canberra; ABS, *Selected Agricultural Commodities, Australia (Preliminary),* cat. no. 7112.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Livestock and Livestock Products, Australia,* cat. no. 7221.0, Canberra; ABARE.

24 Number of agricultural establishments and rural employment in Australia

	Agricultural establishments a	Rural employment bc			
		Employers and self-employed	Wage and salary earners	Unpaid family helpers	Total
	no.	'000	'000	'000	'000
1960-61	202 800	na	na	na	448.1
1961-62	202 200	na	na	na	453.0
1962-63	201 600	na	na	na	443.2
1963-64	201 000	na	na	na	435.1
1964-65	200 350	na	na	na	429.2
1965-66	199 750	na	na	na	423.0
1966-67	198 400	251.9	139.4	25.7	416.9
1967-68	197 050	250.0	143.0	23.2	416.1
1968-69	195 700	242.4	142.2	25.4	409.9
1969-70	192 550	237.7	146.9	21.8	406.4
1970-71	189 400	243.0	148.9	22.8	414.6
1971-72	187 650	239.6	144.8	22.8	407.1
1972-73	185 900	236.0	143.3	22.1	401.4
1973-74	184 150	238.3	136.9	16.0	391.2
1974-75	182 250	238.7	127.0	16.1	381.9
1975-76	180 400	243.4	118.5	16.7	378.6
1976-77	173 650	248.3	107.1	17.6	373.0
1977-78	176 150	237.0	107.1	19.8	363.9
1978-79	177 220	233.1	113.9	14.1	361.1
1979-80	179 080	239.5	124.4	14.7	378.6
1980-81	175 760	243.9	124.9	13.6	382.4
1981-82	174 469	236.0	132.1	11.9	379.9
1982-83	175 729	253.4	120.6	16.8	390.8
1983-84	174 025	249.0	121.5	12.2	382.6
1984-85	171 441	248.1	116.8	11.2	376.0
1985-86	169 716	261.3	124.9	18.4	404.6
1986-87	128 707	250.1	118.6	25.4	394.1
1987-88	126 543	242.0	122.3	26.8	391.1
1988-89	125 708	245.9	133.1	25.5	404.5
1989-90	127 778	236.2	149.4	16.9	402.5
1990-91	124 975	238.3	143.4	26.8	408.6
1991-92	120 558	230.4	128.8	23.8	383.0
1992-93	120 655	227.7	122.4	27.2	377.3
1993-94	117 189	227.5	128.7	26.8	383.0
1994-95	116 193	228.2	148.3	26.8	403.4
1995-96	115 430	228.2	163.7	26.6	418.5
1996-97	114 187	225.6	171.0	25.3	421.9
1997-98	115 285	236.0	174.5	20.3	430.8
1998-99 p	na	214.1	188.8	18.9	421.8

a As at 31 March. Before 1986-87 includes agricultural establishments with an estimated value of agricultural operations (EVAO) of $2500 or more. From 1986-87 the EVAO threshold was raised to $20 000, and from 1991-92 the EVAO threshold was raised to $22 500. **b** Average over four quarters. **c** Between 1955-56 and 1993-94 the data refers to agriculture and services to agriculture. From 1994-95 data refers to agriculture, forestry, fishing and hunting, and services to these industries. **p** Preliminary. **na** Not available.

Sources: ABS, *Characteristics of Australian Farms,* cat. no. 7102.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Labour Statistics, Australia,* cat. no. 6101.0, Canberra; ABS, *The Labour Force, Australia,* cat. no. 6203.0, Canberra; ABS, *NIF–10S Model Data,* cat. no. 1313.0, Canberra; Powell, R.A., Technological change in Australian agriculture: 1920-21 to 1969-70, PhD thesis, University of New England, Armidale; ABARE.

25 Summary of farm sector and other rural exports [a]

	Cereal grains and products $m	Sugar products and honey $m	Meat and meat preparations $m	Wool and sheepskins $m	Other rural [b] $m	Total $m
At current prices						
1970-71	596	160	428	594	386	2 164
1971-72	623	223	558	631	441	2 476
1972-73	421	259	857	1 270	592	3 399
1973-74	748	230	795	1 242	588	3 603
1974-75	1 460	661	444	770	605	3 940
1975-76	1 397	599	668	1 043	730	4 437
1976-77	1 317	645	886	1 558	935	5 341
1977-78	1 330	544	1 118	1 292	1 075	5 359
1978-79	1 182	466	1 711	1 608	1 390	6 357
1979-80	2 957	719	1 729	1 790	1 667	8 862
1980-81	2 339	1 198	1 592	1 920	1 648	8 697
1981-82	2 494	794	1 417	1 893	1 799	8 397
1982-83	1 837	596	1 632	1 819	2 020	7 904
1983-84	2 861	665	1 357	1 960	2 135	8 978
1984-85	4 000	625	1 409	2 651	2 509	11 194
1985-86	3 848	652	1 698	3 028	2 972	12 198
1986-87	2 759	698	2 247	3 920	3 570	13 194
1987-88	2 298	701	2 557	5 806	3 979	15 341
1988-89	2 828	934	2 270	5 984	4 053	16 069
1989-90	3 288	1 104	2 936	3 753	4 484	15 565
1990-91	2 436	948	3 173	2 887	4 897	14 341
1991-92	2 352	747	3 434	3 829	5 657	16 019
1992-93	2 954	1 072	3 750	3 367	6 450	17 593
1993-94	3 205	1 315	4 043	3 369	7 087	19 019
1994-95	2 523	1 730	3 654	4 216	7 529	19 652
1995-96	4 926	1 712	3 292	3 664	8 428	22 022
1996-97	5 954	1 694	2 957	3 744	9 341	23 690
1997-98	5 094	1 939	3 731	4 020	10 474	25 258
1998-99 [p]	5 041	1 478	4 007	2 588	11 578	24 692

a On a balance of payments basis. **b** Includes other farm, forest and fisheries products. Also includes wine, paper and paperboard, and tuna transhipped at sea or captured under joint venture agreements, which are not included in rural exports by the ABS. **p** Preliminary.
Sources: ABS, *Balance of Payments, Australia,* cat. no. 5302.0, Canberra; ABARE.

26 Summary of operations of mineral resource establishments a

	Number of establishments at 30 June	Employment at 30 June b	Wages and salaries c	Turnover	Stocks		Purchases, transfers in and selected expenses	Value added
					Opening	Closing		
	no.	no.	$m	$m	$m	$m	$m	$m
Mining d								
1978-79	1 368	66 563	1 096	6 561	643	654	2 166	4 407
1979-80	1 448	73 805	1 286	8 042	651	795	2 702	5 484
1980-81	1 514	80 033	1 594	9 329	806	1 064	3 364	6 224
1981-82	1 490	79 745	1 882	10 199	1 075	1 350	3 776	6 698
1982-83	1 542	77 755	2 063	11 901	1 333	1 710	4 169	8 109
1983-84	1 630	77 926	2 129	13 524	1 699	1 700	4 700	8 825
1984-85	1 649	78 063	2 307	16 291	1 786	1 716	5 611	10 610
1985-86	1 528	78 945	2 573	19 618	1 656	1 818	6 824	12 956
1986-87	1 451	78 233	2 772	19 257	1 829	2 285	6 798	12 914
1987-88	1 475	76 753	2 883	20 912	2 246	2 166	7 226	13 606
1988-89	375	64 746	2 690	20 830	2 052	2 017	6 640	14 155
1989-90	1 313	78 373	3 504	26 573	2 205	2 581	8 789	18 160
1990-91	527	65 776	3 550	28 899	2 435	2 606	8 907	20 164
1991-92	499	61 348	3 567	28 371	2 496	2 580	9 313	19 143
1992-93	1 095	66 462	3 820	31 507	2 903	2 870	10 381	21 093
1993-94	516	56 465	3 627	29 018	2 614	2 517	9 989	18 933
1994-95	499	55 014	3 594	28 882	2 508	2 517	10 219	18 654
1995-96	511	56 529	3 882	31 014	2 761	2 501	11 392	19 882
1996-97	503	56 168	4 077	34 234	2 786	3 354	12 380	22 422
1997-98	526	50 875	4 134	37 344	3 353	3 318	13 540	23 770
Basic metal products e								
1976-77	550	93 160	993	5 621	1 112	1 293	3 820	1 981
1977-78	508	88 828	1 050	5 518	1 240	1 366	3 736	1 908
1978-79	507	91 736	1 159	6 873	1 336	1 377	4 559	2 355
1979-80	524	95 707	1 357	8 920	1 381	1 662	6 235	2 966
1980-81	530	97 055	1 559	9 750	1 638	1 978	6 893	3 198
1981-82	547	93 895	1 783	10 156	2 039	2 100	7 153	3 064
1982-83	548	76 769	1 683	9 436	2 068	1 940	6 806	2 502
1983-84	533	78 200	1 646	10 855	1 951	2 019	7 563	3 356
1984-85	529	76 200	1 782	12 439	2 018	2 236	8 701	4 023
1985-86	na	na	na	na	na	na	na	na
1986-87	567	73 500	2 019	14 053	2 149	2 246	9 883	4 380
1987-88	582	74 700	2 150	16 376	na	na	na	na
1988-89	595	70 700	2 221	19 408	na	na	na	na
1989-90	820	67 100	2 326	20 578	na	na	na	na
1990-91	827	68 100	2 491	21 903	na	na	na	na
1991-92	914	62 800	2 450	21 103	na	na	na	na

a From 1992-93 the classification of census units is based on the 1993 edition of the Australian and New Zealand Standard Industrial Classification (ANZSIC). Before 1992-93, classification of census units was based on the Australian Standard Industrial Classification (ASIC); ANZSIC has replaced the following editions of ASIC: the 1983 edition (used since the 1982-83 census), the 1978 edition (used since the 1977-78 census), and the 1969 edition (used since the 1968-69 census). **b** Includes working proprietors. **c** Excludes amounts drawn by working proprietors. **d** Data for years 1977-78 to 1987-88 and 1989-90 cover ASIC subdivisions 11–15; data for 1988-89, 1990-91 and 1991-92 cover ASIC subdivisions 11–14; data for 1992-93 cover ANZSIC subdivisions 11–14 (equivalent to ASIC subdivisions 11–15); and data for 1993-94 and 1994-95 cover ANZSIC subdivisions 11–13 (equivalent to ASIC subdivisions 11–14). Data from 1996-97 based on ABS Mining collection, equivalent to ANZSIC subdivisions 11–13. **e** ASIC subdivision 29. Prior to 1989-90 excludes details for single establishment manufacturing units employing fewer than four persons at 30 June. From 1989-90 excludes details for single establishment manufacturing units not employing staff at 30 June. Data not available after 1991-92 following the introduction of ANZSIC. **na** Not available.

Sources: ABS, *The Australian Mining Industry,* cat. no. 8414.0,Canberra; ABS, *Manufacturing Establishments, Summary of Operations, Australia,* cat. no. 8202.0, Canberra; ABS, *Manufacturing Industry, Details of Operations, Australia,* cat. no. 8203.0, Canberra; ABS, *Manufacturing Industry, Australia,* cat. no. 8201.0, Canberra; ABS, *Mining Operations, Australia,* cat. nos. 8402.0 and 8415.0, Canberra; ABS, *Mining Industry, Australia,* cat. no. 8401.0, Canberra.

27 Value of Australian mineral production, exploration expenditure and royalties paid

	Gross value of minerals produced ab						
	Metallics	Coal and petroleum	Construction materials c	Non-metallics	Total	Exploration expenditure de	Mineral royalties paid to governments be
	$m	$m	$m	$m	$m	$m	$m
1964	244	148	73	28	493	na	7
1965	264	170	78	30	542	na	23
1966	328	181	83	32	624	na	28
1967	371	202	92	32	697	na	24
1968	468	250	97	37	852	na	22
1969	689	285	120	48	1 142	na	28
1970	815	439	137	59	1 450	na	43
1971	883	553	146	66	1 648	na	61
1972	931	689	162	85	1 867	na	67
1973	1 134	822	173	113	2 242	na	73
1974	1 429	959	207	115	2 710	na	99
1975	1 643	1 583	248	127	3 601	169	155
1976	1 858	2 223	276	179	4 536	149	177
1977	2 162	2 647	269	187	5 265	219	209
1978	2 088	3 001	313	216	5 618	261	223
1979	2 968	4 793	365	237	8 363	345	263
1980	3 540	6 226	448	273	10 487	581	371
1981	3 238	8 022	532	279	12 071	838	402
1982	3 820	8 635	605	288	13 348	1 380	433
1983	3 748	9 819	590	325 h	14 482	1 365	554
1984	4 389 f	11 717	706 g	327 h	17 457 i	1 253	586
1985	5 479 j	15 193	826 g	361 k	22 108 i	1 230	735
1986	5 963 j	11 961	894 g	596 l	19 720 i	1 208	942
1987	7 146 f	12 147 m	856 g	637 n	21 207 i	862	800
1988	8 310	10 221	973 g	777	20 281	1 298	821
1988-89	8 760 o	10 440 o	1 018 g	845 q	21 063 q	1 336	2 113
1989-90	11 110	12 700	1 399 g	924	26 133	1 190	2 156
1990-91	10 910 o	15 361 o	na	na	26 293	1 184	2 413
1991-92	10 957 o	15 010 o	na	na	25 985	1 078	2 167
1992-93	10 920 o	15 801 o	1 405 g	1 065	26 721	1 244	2 327
1993-94	10 861 o	14 841 o	na	na	25 702	1 299	2 033
1994-95	11 715 o	15 023 o	na	na	26 723	1 576	1 745
1995-96	12 793	15 986	na	na	28 779	1 685	1 867
1996-97	13 617	17 912	na	na	31 529	2 001	2 142
1997-98 p	14 895	19 220	na	na	34 116	2 048	2 294

a Before 1988-89 data compiled by the former Bureau of Mineral Resources on a calendar year basis; for 1988-89 and 1989-90 data compiled by ABARE on a fiscal year basis; and from 1990-91 data compiled by ABS from annual Mining Census data. **b** From 1957 to 1989-90 data cover ASIC subdivisions 11–15; data for 1990-91 and 1991-92 cover ASIC subdivisions 11–14; data for 1992-93 cover ANZSIC subdivisions 11–14 (equivalent to ASIC subdivisions 11–15); and data for 1993-94 and 1994-95 cover ANZSIC subdivisions 11–13 (equivalent to ASIC subdivisions 11–14). Data from 1996-97 based on ABS Mining collection, equivalent to ANZSIC subdivisions 11–13. **c** Coverage is inconsistent between years. **d** Year ended 30 June. **e** Private expenditure; includes energy exploration. **f** Excludes bauxite for Western Australia. **g** Excludes Australian Capital Territory. **h** Excludes talc and limestone for Western Australia. **i** Includes confidential items not separately included in the listed categories. **j** Excludes bauxite for Western Australia and iron oxide, molybdenum and tin–copper concentrate for Tasmania. **k** Excludes limestone and salt for Queensland. **l** Excludes salt for Victoria and limestone and talc for Western Australia. **m** Excludes coal for Western Australia. **n** Excludes salt for Victoria and limestone, silica and talc for Western Australia. **o** Tasmanian coal production included in metallics. **q** Excludes salt and silica for Victoria and clay, dolomite, limestone, peat and silica for Tasmania. **p** Preliminary. **na** Not available.

Sources: ABS, *Australian Mining Industry,* cat. no. 8414.0,Canberra; ABS, *Mineral Exploration, Australia,* cat. no. 8407.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABS, *Mining Operations, Australia,* cat. nos. 8402.0 and 8415.0, Canberra; ABS, *Actual and Expected Private Mineral Exploration, Australia,* cat. no. 8412.0, Canberra; ABS; state mines departments and their equivalents; ABARE.

28 Australian private mineral exploration expenditure, by type of mineral sought

	Energy minerals			Metallic minerals					
	Petroleum	Other a	Total	Gold	Base metals b	Other metallics	Total	Other	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
1973-74	90	na	na	na	na	na	na	na	na
1974-75	60	15	73	na	na	na	90	6	169
1975-76	56	15	64	na	na	na	78	7	149
1976-77	68	30	115	na	na	na	95	9	219
1977-78	103	47	150	na	na	na	101	10	261
1978-79	163	56	219	na	na	na	105	21	345
1979-80	295	85	380	30	92	41	163	38	581
1980-81	368	123	491	69	153	69	291	56	838
1981-82	804	165	969	95	167	79	341	70	1 380
1982-83	927	98	1 025	96	130	55	281	59	1 365
1983-84	824	64	888	152	138	40	330	35	1 253
1984-85	793	48	841	177	135	40	352	37	1 230
1985-86	766	82	848	215	79	32	326	34	1 208
1986-87	305	59	364	357	77	22	456	42	862
1987-88	495	51	546	581	84	40	705	47	1 298
1988-89	639	57	696	449	100	36	584	56	1 336
1989-90	583	52	635	341	118	39	498	57	1 190
1990-91	583	36	618	301	172	45	518	48	1 184
1991-92	474	40	514	305	145	66	515	48	1 078
1992-93	612	33	645	320	183	45	548	50	1 244
1993-94	507	35	542	454	192	43	688	69	1 299
1994-95	682	46	728	555	201	37	792	55	1 576
1995-96	725	60	785	547	252	40	839	61	1 685
1996-97	853	84	936	728	207	59	994	71	2 001
1997-98	981	87	1 068	648	227	55	930	50	2 048
1998-99 p	868	55	923	486	177	70	733	49	1 706

a Coal and uranium. **b** Includes copper, lead, zinc, silver, nickel and cobalt. **p** Preliminary. **na** Not available.

Sources: ABS, *Mineral Exploration, Australia,* cat. no. 8407.0, Canberra; ABS, *Actual and Expected Private Mineral Exploration, Australia,* cat. no. 8412.0, Canberra.

29 Private new capital expenditure

	Mining a	Manufacturing	Other selected industries	All industries
	$m	$m	$m	$m
1963-64	68	na	na	1 113
1964-65	107	na	na	1 404
1965-66	217	na	na	1 713
1966-67	243	na	na	1 661
1967-68	325	na	na	1 813
1968-69	435	na	na	2 027
1969-70	533	na	na	2 360
1970-71	781	na	na	2 940
1971-72	874	na	na	3 120
1972-73	455	na	na	2 660
1973-74 b	541	na	na	3 776
1974-75	707	na	na	4 565
1975-76	654	na	na	5 316
1976-77	490	na	na	5 952
1977-78	804	na	na	7 091
1978-79	1 034	na	na	8 699
1979-80 c	1 117	na	na	8 298
1980-81	1 910	na	na	10 962
1981-82	2 868	na	na	13 999
1982-83	3 488	na	na	14 185
1983-84	2 386	na	na	13 021
1984-85	2 100	na	na	14 525
1985-86	2 799	na	na	18 070
1986-87	3 639	na	na	21 327
1987-88	3 986	7 088	15 493	26 567
1988-89	3 976	7 524	18 788	30 288
1989-90	4 055	8 439	18 756	31 250
1990-91	4 567	7 663	17 358	29 588
1991-92	4 217	7 325	13 592	25 134
1992-93	5 482	7 537	14 218	27 237
1993-94	5 586	8 350	16 053	29 989
1994-95	6 351	10 351	18 859	35 561
1995-96	7 525	10 457	22 489	40 471
1996-97	8 781	10 198	24 858	43 837
1997-98	11 029	10 996	24 185	46 210
1998-99	8 717	9 406	26 424	44 547

a Includes expenditure on petroleum and gas. **b** Break in continuity as a result of change in scope and the introduction of the integrated capital expenditure survey. **c** Break in continuity as a result of the changed definition in accounting for finance leases. **na** Not available.
Sources: ABS, *Private New Capital Expenditure, Australia, Actual and Expected Expenditure, Preliminary,* cat. no. 5625.0, Canberra; ABS, *Private New Capital Expenditure, Australia,* cat. no. 5626.0, Canberra; ABARE.

30 Australian production of mineral commodities

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Bauxite	Mt	41	41	42	43	43	45	46
Coal								
Black								
Salable	Mt	178	178	192	195	207	222	225
Raw	Mt	223	221	237	243	261	279	286
Brown	Mt	48	49	51	54	58	66	66
Copper in mine products s	kt	427	430	376	483	560	580	645
Diamonds	'000 ct	42 199	39 909	43 591	42 565	37 120	43 046	35 948
Gold in mine products s	t	245	256	249	273	299	316	302
Iron ore and concentrate	Mt	116	124	137	148	153 s	161 s	153
Lead in mine products s	kt	554	540	463	516	516	571	662
Manganese ore and concentrate	kt	1 416	2 045	2 048 s	2 168 s	2 297 s	1 647 s	1 630 s
Nickel in mine products	kt	59	66	98 s	105 s	115 s	134 s	130 s
Petroleum								
Crude oil and condensate	ML	30 703	28 945	31 190	30 251	31 049	33 961	27 898
LPG (naturally occurring)	ML	3 778	3 701	3 609	3 649	3 789	4 437	3 904
Natural gas and ethane	GL	25	26	29	30	30	31	32
Salt	kt	7 574	7 188	8 210 s	8 255 s	8 315 s	9 035 s	9 100 s
Silver in mine products	t	1 086	1 120	941 s	1 024 s	1 009 s	1 332 s	1 594 s
Tin in mine products	t	7 048	7 972 s	7 999 s	9 172 s	9 284 s	10 100 s	9 852 s
Titanium minerals								
Ilmenite	kt	1 870	1 764	1 808	2 071	2 100	2 391	2 272
Rutile	kt	185	208	237	199	197	247	250
Synthetic rutile s	kt	399	365	489	517	544	688	635
Titanium dioxide pigment s	kt	139	155	165	185	159	162	164
Uranium	t	2 704	2 751	2 631	5 105	5 996	5 797	6 386
Zinc in mine products s	kt	1 053	1 025	915	1 039	1 060	1 038	1 142
Zircon concentrate	kt	398	454	527	496	411	409	402

p Preliminary. **s** ABARE estimate.
Sources: ABS; state mines departments and their equivalents; ABARE.

31 Gross value of Australian mineral production, by commodity [a]

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
	$m	$m	$m	$m	$m	$m
Coal						
Black	7 205 [b]	7 017 [b]	6 925 [b]	7 444 [b]	8 647	9 532
Brown	379	401	415	465	442	386
Construction materials	1 405	na	na	na	na	na
Copper ore and concentrate	893 [c]	841	984 [d]	1 182 [d]	1 331	1 384
Diamonds	520	na	480	na	na	na
Gemstones						
Opals	85	na	111	na	na	na
Sapphires	14	na	14	na	na	na
Gold bullion	3 962	4 080 [b]	4 246 [b]	4 462 [b]	na	na
Gold ore and concentrate	13	na	na [c]	na [c]	na [c]	na
Iron ore and concentrate	3 026 [b]	3 018 [b]	2 952	2 999	3 570	3 994
Lead ore and concentrate	na [c]	261 [c]	na [c]	374	347	425
Manganese ore and concentrate	na [c]	na [c]	na [c]	na [c]	na [c]	na
Nickel ore and concentrate	na [c]	na [c]	na [c]	na [c]	na [c]	na
Petroleum						
Crude oil and condensate / LPG (naturally occurring) / Natural gas and ethane	8 216	7 423	7 683	8 077	8 823	9 303
Salt	175	na	175	na	na	na
Tin ore and concentrate	na [c]	na [c]	na [c]	na [c]	na [c]	na
Titanium minerals						
Ilmenite	na [c]	na [c]	na [c]	na [c]	171 [e]	189 [e]
Rutile	na [c]	na [c]	na [c]	na [c]	144	186
Uranium	114	156	97 [f]	202	na	na
Zinc ore and concentrate	516	429	482	461	779	970
Zircon concentrate	na [c]	na [c]	na [c]	na [c]	256	218
Other	2 843	na	na	na	na	na
Total [g]	26 721	25 702	26 723	28 779	31 529	34 116

a Gross value is ex mine. For 1989-90 data compiled by ABARE on a fiscal year basis; and from 1990-91 data compiled by ABS from annual Mining Census data. Data in this table are not on the same basis as data shown in the previous table. **b** Excludes Tasmania. **c** ABS confidentiality provisions apply, data not available for publication. **d** Excludes South Australia. **e** Excludes value of ilmenite use for beneficiated ilmenite. **f** Excludes Northern Territory. **g** Includes components shown as not available. The total for 1989-90 covers ASIC subdivisions 11–15; totals for 1990-91 and 1991-92 cover ASIC subdivisions 11–14; the total for 1992-93 covers ANZSIC subdivisions 11–14 (equivalent to ASIC subdivisions 11–15); and totals for 1993-94 and 1994-95 cover ANZSIC subdivisons 11–13 (equivalent to ASIC subdivisions 11–14). Data from 1996-97 based on ABS Mining collection, (equivalent to ANZSIC subdivisions 11–13). **p** Preliminary. **na** Not available.

Sources: ABS, *Australian Mining Industry,* cat. no. 8414.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; state mines departments and their equivalents; ABS, *Mining Operations Australia,* cat. no. 8415.0, Canberra; ABARE.

32 Gross value of Australian mineral production, by state [a]

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Northern Territory	Australia
	$m	$m	$m	$m	$m	$m	$m	$m
1960	159	33	75	44	28	16	7	363
1961	156	43	64	45	32	16	7	363
1962	160	40	74	46	31	18	5	375
1963	185	41	84	45	34	20	6	416
1964	233	45	97	45	39	25	7	493
1965	267	50	98	48	39	29	11	542
1966	262	53	138	80	42	35	13	624
1967	274	57	135	134	40	35	19	697
1968	298	59	186	195	42	45	25	852
1969	351	64	258	290	80	67	31	1 142
1970	382	176	288	401	91	80	32	1 450
1971	382	282	301	476	88	80	38	1 648
1972	445	310	357	514	104	88	48	1 867
1973	475	413	470	602	122	85	72	2 242
1974	600	434	600	740	109	120	105	2 710
1975	839	618	832	976	116	113	103	3 601
1976	1 033	888	1 102	1 064	144	151	151	4 536
1977	1 193	1 055	1 226	1 309	147	178	152	5 265
1978	1 267	1 398	1 176	1 256	166	211	141	5 618
1979	1 578	2 888	1 646	1 593	209	249	196	8 363
1980	1 625	4 046	1 937	2 042	225	282	326	10 487
1981	2 237	4 903	1 894	2 119	254	284	378	12 071
1982	2 381	5 036	2 228	2 614	305	277	506	13 348
1983	2 375	5 792	2 368	2 575	542	277	551	14 482 b
1984	2 707	6 652	2 892	3 170 c	782	237	697	17 457 b
1985	2 959	8 514	4 020 d	4 310 c	1 165	269 e	620	22 108 b
1986	3 151	5 131	4 185	5 096 c	1 016	336	805	19 720 b
1987	3 249	5 471	4 277	5 834	991	300	1 085	21 207 b
1988	3 392	3 979	4 164	6 296	1 049	356	1 047	20 281
1988-89	3 705	3 715	4 689	6 259	1 131	382 f	1 182	21 063 g
1989-90	4 524	4 019 h	5 381	8 819	1 231	496	1 663	26 133 h
1990-91	3 751	na i	4 961	9 761	na i	355	1 866	26 293
1991-92	3 721	na i	4 981	9 994	na i	361	1 493	25 985
1992-93	3 817	na i	5 519	10 286	na i	310	1 350	26 721
1993-94	3 863	na i	5 134	10 231	na i	327	1 028	25 702
1994-95	3 867	na i	5 283	11 835	na i	327	1 074	26 723
1995-96	4 027	na i	5 922	12 847	1 117	na	na	28 779
1996-97	4 742	3 265	6 375	14 395	1 059	387	1 306	31 529
1997-98	4 942	3 408	7 393	15 548	1 124	356	1 345	34 116

a Gross value is ex mine. Before 1988-89 data compiled by the former Bureau of Mineral Resources on a calendar year basis; for 1988-89 and 1989-90 data compiled by ABARE on a fiscal year basis; and from 1990-91 data compiled by ABS from annual Mining Census data. Data for 1954 to 1989-90 cover ASIC subdivisions 11–15; data for 1990-91 and 1991-92 cover ASIC subdivisions 11–14; data for 1992-93 cover ANZSIC subdivisions 11–14 (equivalent to ASIC subdivisions 11–15); and data for 1993-94 and 1994-95 cover ANZSIC subdivisons 11–13 (equivalent to ASIC subdivisions 11–14). Data from 1996-97 based on ABS Mining collection, (equivalent to ANZSIC subdivisions 11–13). **b** Includes items excluded from state totals for confidentiality reasons. **c** Excludes bauxite, limestone and talc. **d** Excludes limestone and salt. **e** Excludes iron oxide, molybdenum, and tin–copper concentrate. **f** Excludes clay, dolomite, limestone, peat and silica. **g** Excludes salt and silica for Victoria and clay, dolomite, limestone, peat and silica for Tasmania. **h** Excludes salt and silica for Victoria. **i** ABS confidentiality provisions apply; data not available for publication. **na** Not available.

Sources: ABS, *Australian Mining Industry,* cat. no. 8414.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABS, *Mining Operations Australia,* cat. no. 8415.0, Canberra; ABARE.

33 Australian smelter and refinery production of mineral commodities

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Alumina	kt	11 824	12 221	12 761	12 940	13 326	13 252	13 581	14 207
Aluminium	kt	1 234	1 306	1 384	1 285	1 331	1 395	1 589	1 686
Blister copper **a**	kt	284	342	365	244	260	243	230	246
Copper	kt	276	312	351	281	291	305	284	310
Gold									
Australian origin	t	229	229	248	244	274	290	276	287
Overseas origin	t	47	52	50	43	36	35	18	20
Lead bullion **a**	kt	202	234	208	177	181	191	171	157
Lead **b**	kt	216	220	217	205	224	202	185	196
Nickel matte	kt	50	53	49	73	77	73	103	79
Nickel **c**	kt	55	59	64	71	73	73	79	79
Petroleum									
Automotive diesel oil	ML	10 279	10 603	11 063	11 365	12 202	12 968	13 183	12 968
Automotive gasoline	ML	17 193	17 728	17 724	17 911	18 358	18 084	18 588	18 705
Aviation turbine fuel	ML	3 839	4 178	4 319	4 410	4 882	5 284	5 423	5 218
Fuel oil	ML	2 571	2 498	2 263	2 431	1 998	1 795	1 662	1 634
Raw steel **d**	kt	6 943	7 310	8 208	8 428	8 471	8 427	9 093	8 489
Silver	t	382	355	379	349	350	339	227	410
Tin	t	245	260	190	455	550	570	650	595
Zinc	kt	325	332	316	312	330	319	304	323

a Metallic content. **b** Includes lead content of lead alloys from primary sources. **c** Includes nickel contained in metal and nickel oxide. **d** Includes recovery from scrap.

Sources: Department of Industry, Science and Resources; ABARE.

34 Prices of mineral commodities

	Alumina av. export unit value A$/t	**Aluminium** (high grade) LME cash US$/t	**Gold** LME cash US$/oz	**Iron ore** a av. export unit value A$/t	**Steaming coal** av. export unit value A$/t	**Coking coal** av. export unit value A$/t	**Crude oil** world trade weighted average US$/bbl	**Uranium** Nuexco exch. value b US$/lb
1980-81	155	1 501	566.45	15.08	32.74	44.28	36.42	26.85
1981-82	177	1 087	384.32	16.91	43.31	51.32	33.94	22.50
1982-83	186	1 142	424.45	22.28	46.20	60.28	31.86	20.46
1983-84	180	1 482	391.75	19.44	42.33	55.88	28.65	20.67
1984-85	197	1 095	324.93	20.80	43.82	61.20	28.22	15.71
1985-86	186	1 074	333.37	23.46	47.58	65.04	22.27	16.71
1986-87	189	1 250	410.27	23.98	45.82	63.31	15.07	16.90
1987-88	239	2 242	455.37	20.04	39.11	52.45	16.26	16.22
1988-89	267	2 346	402.80	18.68	41.68	52.54	14.47	11.94
1989-90	329	1 638	382.79	22.19	48.93	60.69	16.56	9.39
1990-91	308	1 581	373.70	24.63	49.18	61.82	21.95	9.70
1991-92	242	1 232	351.93	26.74	48.48	61.55	17.76	8.02
1992-93	242	1 199	343.69	26.91	50.00	65.38	17.74	9.59
1993-94	224	1 205	378.93	24.28	47.84	61.97	14.45	9.68
1994-95	216	1 762	384.37	21.53	44.12	55.88	16.83	10.17
1995-96	247	1 663	389.89	22.70	49.29	61.30	17.44	13.69
1996-97	236	1 513	363.82	22.94	46.49	61.18	20.30	14.24
1997-98	274	1 510	306.07	26.66	48.25	68.30	15.03	11.18
1998-99	263	1 276	285.90	28.44	44.76	64.13	12.31	10.11

	Copper (high grade) LME cash US$/t	**Lead** LME cash US$/t	**Zinc** (high grade) LME cash US$/t	**Silver** c Handy & Harman USc/troy oz	**Nickel** LME cash US$/t	**Ilmenite** d av. export unit value A$/t	**Rutile** e av. export unit value A$/t	**Zircon** f av. export unit value A$/t
1980-81	866	363	853	1 498	6 462	26	305	77
1981-82	846	311	746	808	5 542	28	275	91
1982-83	1 049	280	767	1 048	4 422	28	255	117
1983-84	1 031	332	891	982	4 762	33	266	118
1984-85	1 379	337	864	674	5 040	31	353	123
1985-86	1 411	270	679	581	4 269	41	452	145
1986-87	1 393	322	810	604	3 844	53	554	195
1987-88	2 259	655	940	697	10 209	64	578	310
1988-89	2 845	642	1 582	610	14 731	70	617	536
1989-90	2 639	776	1 578	519	9 600	76	703	657
1990-91	2 641	682	1 308	428	9 081	82	776	516
1991-92	2 253	527	1 164	407	7 578	83	629	318
1992-93	2 194	487	1 114	387	6 252	80	545	193
1993-94	1 893	439	937	498	5 263	83	536	206
1994-95	2 766	613	1 045	516	7 447	86	569	295
1995-96	2 740	721	1 022	536	8 212	93	673	496
1996-97	2 265	707	1 124	492	7 224	99	734	602
1997-98	1 903	568	1 227	544	5 814	107	773	583
1998-99	1 515	513	998	516	4 507	117	789	514

a Lump and fines. **b** Nuexco exchange value to 1997-98; Ux Consulting Industry spot price from 1998-99. **c** Commercial bar minimum 99.9 per cent. **d** All grades, bulk and bagged, before January 1992; bulk only thereafter. **e** All grades, bulk and bagged. **f** All grades, bulk and bagged, to 31 December 1991; standard grade only from 1 January 1992 to 30 June 1993; all grades from 1 July 1993.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

35 Exports and imports of Australian mineral resources a

	Coal, coke and briquettes	Other mineral fuels	Metalliferous ores and other minerals b	Gold	Other metals	Total	Imports c
	$m	$m	$m	$m	$m	$m	$m
1970-71	206	41	789	20	374	1 430	208
1971-72	240	60	810	20	415	1 545	187
1972-73	294	46	931	25	513	1 809	223
1973-74	352	105	1 116	35	638	2 246	590
1974-75	733	162	1 595	46	884	3 420	661
1975-76	1 066	161	1 831	50	761	3 869	723
1976-77	1 292	206	2 243	34	1 038	4 813	922
1977-78	1 489	234	2 400	48	1 040	5 211	1 021
1978-79	1 531	316	2 616	80	1 385	5 928	1 305
1979-80	1 686	427	3 306	113	1 868	7 400	2 157
1980-81	1 981	517	3 409	56	1 517	7 480	2 372
1981-82	2 367	903	3 456	94	1 469	8 289	3 144
1982-83	3 049	1 099	3 852	290	1 768	10 058	2 121
1983-84	3 477	1 502	4 229	400	1 916	11 524	2 066
1984-85	4 591	2 294	4 974	601	2 492	14 952	2 029
1985-86	5 204	2 214	5 309	1 137	2 421	16 285	1 537
1986-87	5 361	1 564	5 494	2 047	2 933	17 399	1 910
1987-88	4 866	1 786	6 358	3 107	3 863	19 980	2 772
1988-89	4 805	1 258	7 187	3 021	4 669	20 940	3 665
1989-90	5 932	2 068	8 348	3 764	4 650	24 762	4 322
1990-91	6 480	3 595	8 932	4 136	4 737	27 880	4 968
1991-92	6 949	3 402	8 477	4 605	4 702	28 135	4 910
1992-93	7 620	3 913	8 312	4 580	5 210	29 635	6 237
1993-94	7 253	3 351	8 233	5 521	5 396	29 754	5 791
1994-95	6 936	3 794	8 448	4 907	6 097	30 182	6 140
1995-96	7 843	4 165	9 614	5 850	6 799	34 271	6 701
1996-97	8 005	5 154	9 803	6 878	6 054	35 894	7 359
1997-98	9 586	5 309	11 373	7 226	7 185	40 679	8 564
1998-99 p	9 313	4 456	11 670	6 411	6 939	38 789	8 987

a Balance of payments basis. **b** Includes ABARE estimates for bauxite, manganese and other ABS confidential minerals from 1984-85 until 1989-90. From 1990-91, ABS data include actual details for these items. ABARE estimates for items not classified as mineral resources by ABS are included for all years since 1984-85. **c** Years ended 31 December to 1987-88 (that is, 1987-88 = 1988), then fiscal years. **p** Preliminary.

Sources: ABS, *Balance of Payments, Australia,* cat. nos 5302.0 and 5303.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABARE.

36 Australian exports of mineral commodities

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Alumina	kt	9 453	9 665	10 221	10 315	10 984	11 011	10 536	11 059
Aluminium (ingot metal)	kt	931	979	1 056	920	1 042	1 060	1 233	1 368
Coal, black									
Coking	kt	65	70	70	73	77	79	84	85
Steaming	kt	58	60	59	63	61	67	79	84
Copper s	kt	245	271	301	245	282	389	441	529
Diamonds s	000 ct	47 594	24 853	28 864	23 931	33 627	52 521	42 483	51 244
Gold, refined	t	279	276	299	284	334	312	428	421
Iron and steel									
Iron ore and pellets	kt	107	108	114	129	126	138	142	135
Iron and steel	kt	2 345	2 363	2 914	2 861	3 130	3 212	3 347	3 333
Ferroalloys	kt	110	122	164	148	156	161	145	153
Lead	kt	504	537	483 s	467 s	477 s	483 s	559 s	620 s
Magnesia	t	17 101	78 431	85 025	67 603	84 836	75 426	124 361	122 777
Manganese ore and concentrate s	kt	926	1 351	1 604	1 577	1 683	1 797	1 147	1 125
Petroleum									
Crude oil and other refinery feedstock	ML	8 967	10 098	9 538	11 445	10 899	12 401	14 785	14 291
LNG s	Mt	5	5	6	7	7	7	8	8
LPG	ML	1 568	1 483	1 290	1 189	1 469	2 421	2 824	2 486
Refinery products	ML	3 819	3 711	3 507	3 289	4 101	5 041	4 941	4 236
Salt	kt	7 277	6 939	6 683	7 545	7 996	7 605	8 444	8 710
Silver, refined bullion	t	198	222	220	186	236	306	257	390
Tin	t	6 653	7 408 s	7 531 s	7 902 s	9 008 s	9 395 s	10 550 s	10 002 s
Titanium minerals									
Ilmenite concentrate a	kt	948	881	1 054	1 014	1 192	1 147	1 304	1 216
Leucoxene	kt	10	10	18	17	17	36	24	18
Rutile concentrate	kt	178	181	208	212	203	186	207	188
Synthetic rutile s	kt	274	239	187	300	304	361	496	471
Titanium dioxide pigment	kt	84	112	114	122	127	130	136	133
Uranium oxide (U_3O_8)	t	4 729	2 289	3 992	4 069	5 286	5 701	6 415	5 989
Zinc	kt	1 003	951 s	1 042 s	889 s	965 s	1 011 s	926 s	1 125 s
Zircon concentrate b	kt	292	316	454	524	450	382	396	364

a Bulk ilmenite from 1 January 1992. **b** All grades, bulk and bagged, to 31 December 1991; standard grade only from 1 January 1992 to 30 June 1993; all grades from 1 July 1993. **p** Preliminary. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

37 Value of Australian exports of mineral commodities

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	$m	$m	$m	$m	$m	$m	$m	$m
Bauxite s	118	87	97	125	116	104	141	152
Alumina a	2 285	2 340	2 293	2 231	2 717	2 604	2 887	2 910
Aluminium (ingot metal)	1 572	1 725	1 823	2 173	2 379	2 088	2 828	2 847
Coal, black								
Coking	4 005	4 546	4 331	4 098	4 745	4 814	5 742	5 468
Steaming	2 823	2 983	2 831	2 775	3 014	3 118	3 790	3 766
Copper b	708	793	739	797	928	1 007	1 194	1 385
Diamonds cs	570	520	492	480	526	396	538	589
Gems, other than diamonds	114	109	135	137	136	115	93	79
Gold, refined	4 003	4 302	5 260	4 690	5 531	4 706	6 242	6 317
Iron and steel								
Iron ore and pellets	2 850	2 895	2 777	2 774	2 865	3 155	3 791	3 845
Iron and steel	1 030	1 085	1 307	1 379	1 510	1 385	1 608	1 316
Ferroalloys	57	65	91	84	104	81	76	92
Lead b	362	406	340	409	456	459	493	533
Magnesia	11	44	47	38	48	37	57	46
Manganese ore and concentrate s	191	241	233	202	212	231	157	164
Nickel s	735	700	624	978	1 157	1 072	1 103	843
Petroleum								
Crude oil and other refinery feedstock	1 621	1 850	1 424	1 726	1 675	2 119	2 251	1 881
LNG	843	1 051	1 047	1 201	1 372	1 537	1 599	1 425
LPG	172	185	138	154	189	356	367	297
Refinery products	769	830	747	719	933	1 147	1 097	866
Salt	175	179	174	175	179	168	211	222
Silver d	43	54	59	47	62	69	94	112
Tin b	39	53	47	50	61	57	75	73
Titanium minerals								
Ilmenite concentrate e	79	70	88	87	110	114	139	142
Leucoxene concentrate	6	4	8	7	11	19	15	9
Rutile concentrate	112	98	111	121	137	136	160	148
Synthetic rutile s	125	110	85	142	149	190	286	274
Titanium doxide pigment	178	252	255	293	324	256	346	387
Uranium oxide (U_3O_8)	245	123	193	188	242	245	288	288
Zinc b	1 029	1 020	810	776	816	844	988	1 134
Zircon concentrate f	93	61	94	155	223	230	231	187
Other mineral resources	1 172	854	1 056	971	1 341	3 035	1 794	992
Total mineral resources g	28 135	29 635	29 754	30 182	34 271	35 894	40 679	38 789

a Includes aluminium hydroxide. **b** Value of all ores, concentrates, intermediate products (where applicable) and refined metal. **c** Unsorted and sorted. **d** Includes refined bullion, powder, unwrought silver and semimanufactured forms. **e** Bulk ilmenite from 1 January 1992. **f** All grades, bulk and bagged, to 31 December 1991; standard grade only from 1 January 1992 to 30 June 1993; all grades from 1 July 1993. **g** Total mineral resources exports on an ABARE balance of payments basis. **p** Preliminary. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

38 Australian exports of minerals, by destination ab

	1984	1985	1986	1987	1988	1988-89	1989-90	1990-91
	$m	$m	$m	$m	$m	$m	$m	$m
Africa	19	27	32	33	47	90	57	96
Americas								
United States	1 315	1 746	1 453	1 672	873	977	993	1 016
Other	91	130	139	172	226	182	229	213
Asia								
Chinese Taipei	330	482	561	623	700	889	1 091	1 175
Hong Kong	456	393	262	755	1 425	1 240	679	758
Japan	4 376	6 263	6 086	6 046	6 148	6 801	7 884	9 171
Singapore	na	na	na	na	644	828	1 274	1 908
South Korea	546	741	854	926	1 111	1 238	1 519	1 897
Other	802	1 748	1 429	1 548	1 103	1 390	1 462	1 849
Europe								
United Kingdom	537	592	683	977	720	815	838	825
Other EU	1 363	1 332	1 947	1 777	1 238	1 379	1 612	1 799
Other Europe	189	268	238	231	276	383	723	904
Oceania								
New Zealand	81	73	44	142	228	319	276	274
Other	11	15	10	9	54	268	293	350
Other	1 109	1 447	1 073	1 361	2 995	3 442	4 626	4 700
Total	11 224	15 255	14 811	16 308	17 788	20 241	23 554	26 935

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	$m	$m	$m	$m	$m	$m	$m	$m
Africa	112	117	113	113	119	164	231	179
Americas								
United States	647	661	568	641	484	742	1 931	1 225
Other	299	407	408	364	388	335	414	485
Asia								
Chinese Taipei	1 466	1 538	1 493	1 617	1 897	1 953	2 477	2 459
Hong Kong	1 037	1 191	1 200	800	843	1 017	1 648	1 070
Japan	9 202	9 439	9 306	9 354	9 176	9 077	10 547	10 028
Singapore	2 208	2 549	1 874	2 161	1 814	1 595	1 918	1 693
South Korea	2 063	2 545	2 952	3 306	4 708	5 225	4 515	4 399
Other	2 517	3 185	3 272	3 842	4 436	4 607	4 522	4 642
Europe								
France	381	294	263	262	260	265	293	379
Germany	384	328	335	370	398	406	478	418
Netherlands	442	441	354	368	178	156	279	348
United Kingdom	714	783	1 243	498	791	581	1 097	2 457
Other EU	665	685	631	667	699	688	961	1 093
Other Europe	423	389	334	345	673	463	1 212	541
Oceania								
New Zealand	349	443	489	517	696	817	738	721
Other	384	405	382	398	494	548	510	406
Other	3 875	3 529	3 677	3 761	5 127	4 930	5 620	5 639
Total	27 169	28 929	28 897	29 385	33 180	33 571	39 391	38 183

a Not on a balance of payments basis; totals differ from earlier tables. **b** Prior to 1988-89 data compiled by the former Bureau of Mineral Resources on a calendar year basis; from 1988-89 data compiled by ABARE on a fiscal year basis. **p** Preliminary. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABARE.

39 Australian imports of mineral commodities

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Clays	kt	38	34	73	62	49	54	38
Diamonds a	'000 ct	2 363	2 510	2 754	2 749	3 322	2 777	2 827
Iron and steel								
Iron ore and pellets b	kt	3 307	3 737	4 107	3 926	4 782	5 351	4 429
Iron and steel	kt	628	751	1 286	731	841	1 134	1 127
Ferroalloys	kt	50	60	61	57	80	79	57
Limestone	kt	819	1 011	1 038	991	1 027	1 576	1 066
Magnesium	kt	6	6	6	8	5	6	6
Petroleum								
Crude oil and other refinery feedstock	ML	19 421	20 296	20 639	23 703	24 768	25 017	29 729
LPG	ML	115	164	266	415	588	511	496
Automotive gasoline	ML	387	405	604	421	1 074	483	890
Diesel fuel c	ML	739	744	957	997	846	918	1 561
Other refinery products s	ML	1 818	1 633	1 838	1 535	1 677	1 128	581
Phosphate rock	kt	849	776	1 067	911	906	1 060	884
Platinum and platinum group metals	kg	3 555	3 443	3 817	3 422	3 471	6 704	8 329
Potassium fertiliser	kt	258	301	368	366	329	435	357
Sulphur	kt	100	71	144	145	146	131	325

a Includes sorted and unsorted, gem and industrial diamonds, and diamond dust and powder. **b** Includes limonite ore used for the production of refined nickel products. **c** Includes automotive diesel oil and industrial marine diesel fuel. **p** Preliminary. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

40 Value of Australian imports of mineral commodities

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	$m	$m	$m	$m	$m	$m	$m
Clays	12	10	17	15	14	18	17
Diamonds a	125	106	113	123	148	170	162
Gold b	1 019	979	708	703	589	1 991	2 351
Iron and steel							
Iron ore and pellets c	67	68	80	79	91	127	85
Iron and steel	661	697	879	860	807	1 061	940
Ferroalloys	48	60	63	72	69	74	69
Limestone	12	17	15	15	13	15	16
Magnesium	17	20	22	32	21	27	25
Petroleum							
Crude oil and other refinery feedstock	3 243	2 839	3 002	3 562	4 233	3 707	3 794
LPG	16	19	36	55	87	68	64
Automotive gasoline	90	75	112	85	225	93	134
Diesel fuel d	163	153	141	219	208	149	225
Other refinery products s	346	351	381	401	434	393	312
Phosphate rock	57	47	56	52	50	68	64
Platinum and platinum group metals	64	58	52	25	30	112	148
Potassium fertiliser	50	55	68	66	58	89	86
Silver	20	27	36	15	7	36	46
Sulphur	7	4	11	12	8	9	18

a Includes sorted and unsorted, gem and industrial diamonds, and diamond dust and powder. **b** Refined and unrefined bullion. **c** Includes value of limonite ore used for the production of refined nickel products. **d** Includes automotive diesel oil and industrial and marine diesel fuel. **p** Preliminary. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

1999

NINETEEN NINETY NINE

AUSTRALIAN COMMODITY STATISTICS

RURAL COMMODITIES

41 Summary of Australian statistics for coarse grains [a]

	Area	Yield	Production		Exports [b]		Domestic use [c]
			Volume	Value	Volume	Value	
	'000 ha	t/ha	kt	$m	kt	$m	kt
1960-61	2 795	1.16	3 244	130	1 114	42	2 131
1961-62	2 450	0.97	2 382	105	1 092	46	1 290
1962-63	2 396	1.09	2 615	114	599	26	2 017
1963-64	2 423	1.08	2 608	117	706	31	1 901
1964-65	2 476	1.11	2 760	125	735	34	2 025
1965-66	2 710	0.87	2 371	120	478	24	1 893
1966-67	3 019	1.28	3 850	180	872	41	2 977
1967-68	2 693	0.75	2 023	98	330	16	1 693
1968-69	3 185	1.19	3 799	152	853	34	3 083
1969-70	3 334	1.10	3 684	134	904	33	2 585
1970-71	4 191	1.31	5 474	233	2 196	98	3 277
1971-72	4 492	1.29	5 782	223	3 138	135	2 644
1972-73	3 891	0.93	3 620	190	1 654	79	1 966
1973-74	3 664	1.27	4 671	347	1 739	136	2 932
1974-75	3 285	1.35	4 424	404	2 883	280	1 538
1975-76	3 868	1.44	5 575	500	3 137	306	2 438
1976-77	3 901	1.29	5 019	464	3 294	332	1 725
1977-78	4 318	0.98	4 218	347	1 928	177	2 290
1978-79	4 663	1.51	7 063	555	2 833	245	4 229
1979-80	4 199	1.48	6 215	669	4 459	511	1 751
1980-81	4 284	1.22	5 209	702	2 735	427	2 477
1981-82	4 847	1.38	6 687	799	3 445	517	3 242
1982-83	4 527	0.88	3 966	562	1 790	292	2 176
1983-84	5 794	1.64	9 497	1 240	4 529	735	4 968
1984-85	5 523	1.59	8 769	1 156	6 326	956	2 445
1985-86	5 306	1.53	8 113	974	5 757	813	2 188
1986-87	4 436	1.58	6 989	814	3 646	469	3 298
1987-88	4 576	1.57	7 162	911	2 488	371	4 639
1988-89	4 292	1.57	6 734	1 041	2 438	434	4 283
1989-90	3 919	1.79	7 005	1 087	3 289	650	3 695
1990-91	4 127	1.64	6 766	797	3 275	557	3 587
1991-92	4 624	1.75	8 109	1 076	2 698	471	4 876
1992-93	4 690	1.78	8 361	1 165	3 291	596	4 331
1993-94	5 092	1.99	10 153	1 274	2 285	430	5 575
1994-95	4 257	1.30	5 534	1 123	2 622	439	4 734
1995-96	5 296	1.90	10 083	2 093	4 084	1 014	5 382
1996-97	5 376	2.02	10 846	1 901	4 783	1 086	5 800
1997-98	5 387	1.88	10 101	1 583	3 379	797	5 117
1998-99 p	5 029	1.99	10 023	1 335	5 228	953	5 724

a Barley, oats, sorghum and maize. Includes triticale from 1979-80. **b** Exports are on a July–June basis, including grains and the grain equivalent of malt exported. **c** Includes barley used to produce export malt, calculated as production less exports. **p** Preliminary.

Source: ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; *ABS, Agricultural Commodities, Australia,* cat no. 7121.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

42 Australian coarse grains area, yield and production, by state [a]

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia [b]
Barley								
Area								
1992-93	'000 ha	560	551	189	611	1 023	12	2 947
1993-94	'000 ha	623	639	232	799	1 115	15	3 423
1994-95	'000 ha	410	492	93	579	882	14	2 470
1995-96	'000 ha	593	628	168	745	964	14	3 112
1996-97	'000 ha	668	585	180	909	1 009	15	3 367
1997-98	'000 ha	701	618	135	1 017	1 036	13	3 520
1998-99 p	'000 ha	560	550	120	825	1 020	12	3 087
Yield								
1992-93	t/ha	1.86	2.02	1.51	1.74	1.81	2.87	1.83
1993-94	t/ha	2.10	2.71	1.13	1.73	2.00	2.73	2.03
1994-95	t/ha	0.71	0.91	0.78	1.58	1.31	1.94	1.18
1995-96	t/ha	1.81	2.14	1.16	1.78	1.92	2.74	1.87
1996-97	t/ha	2.22	2.03	2.38	1.80	1.91	2.33	1.99
1997-98	t/ha	1.95	1.50	1.52	1.99	1.86	2.38	1.84
1998-99 p	t/ha	2.05	1.45	1.67	1.76	2.01	2.50	1.84
Production								
1992-93	kt	1 044	1 116	285	1 061	1 855	35	5 397
1993-94	kt	1 310	1 733	262	1 381	2 229	41	6 956
1994-95	kt	291	448	73	915	1 159	27	2 913
1995-96	kt	1 074	1 342	195	1 323	1 851	38	5 823
1996-97	kt	1 483	1 189	429	1 635	1 923	35	6 696
1997-98	kt	1 365	928	205	2 027	1 926	31	6 482
1998-99 p	kt	1 150	800	200	1 450	2 050	30	5 680
Oats								
Area								
1992-93	'000 ha	448	223	15	332	123	9	1 150
1993-94	'000 ha	415	186	17	269	102	7	996
1994-95	'000 ha	375	148	14	256	95	8	897
1995-96	'000 ha	505	187	14	300	120	10	1 136
1996-97	'000 ha	393	175	39	316	121	8	1 052
1997-98	'000 ha	325	172	16	305	111	8	937
1998-99 p	'000 ha	384	199	15	228	113	8	947
Yield								
1992-93	t/ha	1.70	1.81	0.70	1.74	1.34	2.11	1.68
1993-94	t/ha	1.48	1.96	0.53	1.92	1.33	1.86	1.66
1994-95	t/ha	0.53	1.36	0.23	1.66	0.92	1.36	1.03
1995-96	t/ha	1.41	2.09	0.49	1.95	1.35	1.83	1.65
1996-97	t/ha	1.54	1.74	0.67	1.73	1.29	1.75	1.57
1997-98	t/ha	1.50	2.15	0.81	1.95	1.38	1.88	1.74
1998-99 p	t/ha	1.86	2.39	1.07	2.09	1.57	1.75	1.98
Production								
1992-93	kt	761	404	10	578	165	19	1 937
1993-94	kt	613	364	9	516	136	13	1 651
1994-95	kt	197	201	3	425	87	11	924
1995-96	kt	711	392	7	585	162	18	1 875
1996-97	kt	607	304	26	546	156	14	1 653
1997-98	kt	488	369	13	596	153	15	1 634
1998-99 p	kt	716	475	16	476	177	14	1 874

Continued

42 Australian coarse grains area, yield and production, by state [a] *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia [b]
Sorghum								
Area								
1992-93	'000 ha	118	0	308	0	0	0	426
1993-94	'000 ha	99	0	399	0	0	0	498
1994-95	'000 ha	161	6	519	0	0	0	686
1995-96	'000 ha	171	2	597	0	0	0	769
1996-97	'000 ha	117	1	424	1	0	0	544
1997-98	'000 ha	123	3	379	1	0	0	507
1998-99 p	'000 ha	228	1	445	1	0	0	675
Yield								
1992-93	t/ha	1.95	0	1.02	3.57	na	na	1.28
1993-94	t/ha	2.30	na	2.14	na	na	na	2.17
1994-95	t/ha	2.16	1.32	1.77	3.29	na	na	1.85
1995-96	t/ha	2.76	2.64	1.87	0.00	na	na	2.07
1996-97	t/ha	3.56	3.00	2.36	2.00	na	na	2.62
1997-98	t/ha	3.10	1.88	1.82	2.00	na	na	2.13
1998-99 p	t/ha	3.44	1.80	1.97	2.70	na	na	2.47
Production								
1992-93	kt	229	0	315	2	0	0	546
1993-94	kt	228	0	852	2	0	0	1 082
1994-95	kt	347	8	916	2	0	0	1 272
1995-96	kt	472	4	1 116	0	0	0	1 591
1996-97	kt	417	3	1 003	2	0	0	1 425
1997-98	kt	382	6	691	2	0	0	1 081
1998-99 p	kt	784	1	877	3	0	0	1 664
Maize								
Area								
1992-93	'000 ha	16	0	27	2	0	0	45
1993-94	'000 ha	14	0	28	2	0	0	44
1994-95	'000 ha	21	1	27	2	0	0	50
1995-96	'000 ha	24	1	31	1	0	0	58
1996-97	'000 ha	31	1	34	1	0	0	67
1997-98	'000 ha	22	1	34	0	0	0	57
1998-99 p	'000 ha	26	1	31	2	0	0	60
Yield								
1992-93	t/ha	6.94	7.78	2.75	7.69	na	na	4.43
1993-94	t/ha	7.14	na	3.11	7.50	na	na	4.59
1994-95	t/ha	7.08	7.39	2.94	6.98	na	na	4.83
1995-96	t/ha	8.06	5.96	3.67	0.96	na	na	5.64
1996-97	t/ha	8.26	7.00	3.82	5.00	na	na	5.94
1997-98	t/ha	7.32	10.00	2.85	na	na	na	4.75
1998-99 p	t/ha	7.80	5.85	3.40	6.00	na	na	5.41
Production								
1992-93	kt	108	3	75	13	0	0	198
1993-94	kt	100	0	87	15	0	0	202
1994-95	kt	145	5	80	11	0	0	242
1995-96	kt	190	7	114	1	0	0	325
1996-97	kt	256	7	130	5	0	0	398
1997-98	kt	161	10	97	3	0	0	271
1998-99 p	kt	199	6	105	12	0	0	322

Continued

42 Australian coarse grains area, yield and production, by state a *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia b
Triticale								
Area								
1992-93	'000 ha	49	23	5	16	28	1	122
1993-94	'000 ha	43	32	4	20	30	2	131
1994-95	'000 ha	49	47	1	14	41	1	153
1995-96	'000 ha	75	55	6	17	66	2	221
1996-97	'000 ha	118	93	2	26	105	2	346
1997-98	'000 ha	132	108	1	27	97	2	366
1998-99 p	'000 ha	95	57	9	18	80	2	261
Yield								
1992-93	t/ha	3.00	2.25	1.72	1.13	1.94	2.58	2.32
1993-94	t/ha	2.56	2.19	1.25	1.10	1.63	3.00	2.00
1994-95	t/ha	1.11	1.41	1.24	0.88	1.06	3.32	1.19
1995-96	t/ha	2.77	2.20	1.45	1.20	1.56	3.53	2.12
1996-97	t/ha	2.69	1.80	3.00	1.35	1.34	3.50	1.95
1997-98	t/ha	2.02	1.69	1.00	1.30	1.44	3.50	1.73
1998-99 p	t/ha	2.20	1.78	1.89	1.43	1.55	3.10	1.85
Production								
1992-93	kt	147	52	9	18	54	3	282
1993-94	kt	110	70	5	22	49	6	262
1994-95	kt	54	66	1	12	44	5	182
1995-96	kt	209	120	8	20	104	7	469
1996-97	kt	317	167	6	35	141	7	674
1997-98	kt	267	183	1	35	140	7	633
1998-99 p	kt	209	101	17	25	124	6	483
Total coarse grains								
Area								
1992-93	'000 ha	1 190	798	545	961	1 174	22	4 690
1993-94	'000 ha	1 194	857	680	1 090	1 247	24	5 092
1994-95	'000 ha	1 015	693	655	851	1 018	24	4 257
1995-96	'000 ha	1 368	872	816	1 063	1 150	26	5 296
1996-97	'000 ha	1 327	855	679	1 253	1 235	25	5 376
1997-98	'000 ha	1 303	902	565	1 350	1 244	23	5 387
1998-99 p	'000 ha	1 293	808	620	1 074	1 213	22	5 029
Yield								
1992-93	t/ha	1.92	1.97	1.27	1.74	1.77	2.55	1.78
1993-94	t/ha	1.98	2.53	1.79	1.78	1.94	2.50	1.99
1994-95	t/ha	1.02	1.05	1.64	1.60	1.27	1.82	1.30
1995-96	t/ha	1.94	2.14	1.77	1.81	1.84	2.45	1.90
1996-97	t/ha	2.32	1.95	2.35	1.77	1.80	2.24	2.02
1997-98	t/ha	2.04	1.66	1.78	1.97	1.78	2.30	1.88
1998-99 p	t/ha	2.37	1.71	1.96	1.83	1.94	2.28	1.99
Production								
1992-93	kt	2 289	1 575	694	1 671	2 075	57	8 361
1993-94	kt	2 361	2 167	1 215	1 936	2 414	60	10 153
1994-95	kt	1 035	728	1 074	1 365	1 290	43	5 534
1995-96	kt	2 655	1 865	1 440	1 929	2 117	64	10 083
1996-97	kt	3 080	1 670	1 594	2 223	2 220	56	10 846
1997-98	kt	2 663	1 496	1 007	2 663	2 219	53	10 101
1998-99 p	kt	3 058	1 383	1 215	1 966	2 351	50	10 023

a Crops sown for grain. Crop years are: barley, oats and triticale, November–October; sorghum and maize, April–March. **b** State and Australian totals may not be equal as a result of rounding and the inclusion of data for the Australian Capital Territory. **p** Preliminary. **na** Not available.
Sources: ABARE, *Australian Crop Report,* Canberra; ABS, *Selected Agricultural Commodities, Preliminary,* cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; *ABS, Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; ABS, *Summary of Crops,* cat. no. 7330.0, Canberra.

43 Australian exports of sorghum and oats, by destination

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Sorghum								
Asia								
Chinese Taipei	6	6	8	7	67	14	10	11
Japan	124	155	162	96	314	239	203	221
Other	52	50	2	8	29	46	37	34
Total	183	211	173	111	411	299	251	266
(value, $m)	29	34	32	19	97	70	50	47
Oats								
Asia								
Japan	68	53	7	7	7	8	9	11
South Korea	0	0	0	0	0	0	1	2
Philippines	4	1	1	1	1	4	5	5
Europe								
Germany **a**	18	21	0	0	0	0	0	0
Netherlands	0	45	0	0	0	0	0	0
Middle East								
Morocco	0	1	0	0	2	0	0	0
United Arab Emirates	3	2	2	0	2	1	1	1
Other	47	144	213	88	220	110	138	237
Total	141	266	223	96	233	124	155	257
(value, $m)	21	40	33	18	50	26	30	38

a Unified Germany. **p** Preliminary. **na** Not available.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

44 Australian coarse grains supply and disposal, by grain a

	Area	Production	Exports b		Estimated domestic disposals: Feed and food	Estimated domestic disposals: Seed c	Seed stocks d
	'000 ha	kt	kt		kt	kt	kt
Barley e							
1993-94	3 423	6 956	4 095	(392)	2 466	111	111
1994-95	2 470	2 913	1 498	(411)	2 040	140	140
1995-96	3 112	5 823	4 042	(467)	1 818	152	152
1996-97	3 367	6 696	4 331	(447)	2 044	158	147
1997-98	3 520	6 482	3 463	(457)	1 948	135	126
1998-99 fp	3 087	5 680	4 654	(498)	1 901	102	106
Oats							
1993-94	996	1 651	198		1 410	43	43
1994-95	897	924	68		802	55	55
1995-96	1 136	1 875	255		1 569	52	52
1996-97	1 052	1 653	150		1 458	45	45
1997-98	937	1 634	153		1 437	44	40
1998-99 fp	947	1 874	229		1 272	42	38
Sorghum							
1993-94	498	1 082	51		1 026	3	3
1994-95	686	1 272	18		1 251	4	4
1995-96	769	1 591	599		990	3	3
1996-97	544	1 425	231		1 192	3	3
1997-98	507	1 081	184		894	3	3
1998-99 fp	675	1 664	320		1 341	3	3
Maize							
1993-94	44	202	– 17		220	1	1
1994-95	50	242	– 55		296	1	1
1995-96	58	325	16		308	1	1
1996-97	67	398	8		389	1	1
1997-98	57	271	19		251	1	1
1998-99 fp	60	322	23		296	1	1
Triticale							
1993-94	131	262	0		254	8	8
1994-95	153	182	0		171	11	11
1995-96	221	469	0		450	18	18
1996-97	346	674	1		656	18	12
1997-98	366	633	2		620	13	13
1998-99 fp	261	483	0		469	14	13
Total							
1993-94	5 092	10 153	4 326		5 023	166	166
1994-95	4 257	5 534	1 528		4 225	210	210
1995-96	5 296	10 083	4 912		4 825	226	226
1996-97	5 376	10 846	4 721		5 390	225	208
1997-98	5 387	10 101	3 822		4 793	196	184
1998-99 fp	5 029	10 023	5 225		5 202	162	161

a Crop years are as follows: barley, oats and triticale, November–October; sorghum and maize, April–March. **b** Figures in parentheses are exports of malt in barley equivalents. Exports may include carryover from earlier harvests. **c** Estimated using the following seeding rates for grain crops: sorghum 5 kg/ha; barley 45 kg/ha; maize 15 kg/ha; oats 48 kg/ha; triticale 50 kg/ha. **d** Seed carryover for the following year's crop. **e** Malt use is expressed as barley equivalent = malt x 1.2. Approximately 1000 tonnes of pearled cooking barley is also included annually. **f** Does not include imports. **p** Preliminary.

Sources: ABARE, *Australian Crop Report,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; ABS, Agricultural Commodities, Australia, cat. no. 7121.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABARE.

45 Australian feedgrains prices

	Barley a $/t	Oats b $/t	Sorghum c $/t	Maize c $/t	Feed wheat c $/t	Triticale c $/t
1973-74	58.46	61.78	63.72	86.87	71.00	na
1974-75	66.14	60.82	70.62	87.46	83.40	na
1975-76	76.02	66.47	78.54	98.50	99.32	na
1976-77	81.82	75.62	83.62	95.58	105.40	na
1977-78	75.10	67.93	84.80	87.77	111.60	na
1978-79	76.66	64.73	85.86	102.60	116.61	na
1979-80	97.06	78.48	103.28	na	140.50	na
1980-81	139.41	141.44	135.33	na	151.37	na
1981-82	111.19	105.60	112.95	129.90	149.78	na
1982-83	158.14	na	na	na	184.11	na
1983-84	122.86	96.07	127.82	160.63	175.24	na
1984-85	110.20	104.99	131.69	147.48	204.36	123.32
1985-86	109.47	100.68	126.71	143.76	193.82	121.17
1986-87	106.38	100.83	111.42	135.60	170.12	111.23
1987-88	117.93	109.09	129.02	154.84	189.54	132.25
1988-89	142.35	124.35	152.19	175.95	221.84	147.43
1989-90	151.67	116.15	152.77	176.25	171.00	155.60
1990-91	123.58	107.79	136.79	167.53	135.83	125.17
1991-92	147.28	141.02	172.75	189.15	159.67	150.56
1992-93	130.65	105.43	148.91	181.98	143.50	132.82
1993-94	127.30	105.27	168.60	229.58	137.58	135.59
1994-95	227.00	237.96	215.74	276.08	232.75	229.58
1995-96	226.80	171.69	223.69	244.02	234.72	220.22
1996-97	180.73	143.10	174.79	207.61	188.38	178.47
1997-98	179.48	171.49	182.37	215.50	185.93	184.23
1998-99	133.48	110.44	141.63	173.38	155.38	130.84
1998						
January	180.00	171.00	183.00	228.00	185.25	184.00
February	176.00	170.50	173.50	220.00	181.50	183.75
March	166.75	168.67	177.00	218.75	176.25	182.50
April	171.00	168.20	174.40	196.00	181.20	182.60
May	168.50	166.25	162.50	187.75	174.50	173.75
June	157.00	158.00	155.00	193.00	161.67	159.00
July	137.75	149.00	151.50	183.00	159.25	142.00
August	130.00	121.00	140.30	164.70	149.00	130.30
September	123.50	117.00	139.75	168.00	145.50	123.00
October	123.20	104.40	144.60	170.60	153.00	122.00
November	127.75	106.00	156.75	175.00	161.33	123.25
December	137.00	106.00	158.00	176.25	156.25	139.50
1999						
January	139.50	114.00	142.67	179.76	156.67	143.00
February	136.75	107.50	136.00	182.25	150.00	135.00
March	133.25	101.90	129.50	176.00	157.00	127.00
April	139.00	101.50	133.75	170.00	159.00	128.00
May	137.00	100.00	133.75	170.00	159.50	128.00
June	137.00	97.00	133.00	165.00	158.00	129.00
July	137.00	98.00	129.00	161.00	158.50	129.00
August	132.60	93.40	128.20	151.00	156.00	123.00

a Average quote for bulk feed barley, delivered Sydney region. **b** Average quote for bulk feed oats, delivered Sydney region. **c** Average bulk quote, delivered Sydney region. **na** Not available.

Sources: Based on data supplied by New South Wales Department of Agriculture and various grains traders.

46 Payments to growers from Australian barley marketing boards, by state

	Two-row				Six-row
	No. 1 grade	No. 2 grade	No. 3 grade	No. 4 grade	feed
	$/t	$/t	$/t	$/t	$/t
Queensland a					
1991-92	195.00	185.00	165.00	na	na
1992-93	174.09	142.23	137.23	na	na
1993-94	121.00	b	105.00	na	na
1994-95	231.90	b	219.40	na	na
1995-96	230.00	195.00	b	na	na
1996-97	199.00	137.00	137.37	na	na
1997-98	na	158.33	na	na	na
1998-99	na	126.60	na	na	na
New South Wales c					
1991-92	135.00	70.00	na	na	na
1992-93	174.48	133.00	na	na	na
1993-94	134.00	105.00	na	na	na
1994-95	242.00	227.00	na	na	na
1995-96	249.00	229.00	na	na	na
1996-97	215.00	167.56	na	na	na
1997-98	211.00	152.00	na	na	na
1998-99	180.00	141.00	na	na	na
Victoria de					
1991-92	158.30	na	133.30	na	na
1992-93	162.70	na	118.70	na	118.70
1993-94	120.00	na	105.00	105.00	100.00
1994-95	240.67	na	233.00	233.00	207.50
1995-96	252.05	207.05	200.00	195.00	195.00
1996-97	206.07	164.95	173.00	na	159.65
1997-98	190.00	140.00	na	na	128.45
1998-99	157.00	119.00	na	na	109.00
Western Australia d					
1991-92	168.58	156.60	na	156.58	143.58
1992-93	176.75	162.50	na	na	131.75
1993-94	143.89	128.89	133.89	123.89	118.89
1994-95	222.50	206.50	na	174.00	169.00
1995-96	248.35	200.35	na	193.61	195.35
1996-97	220.14	167.64	163.00	na	162.64
1997-98	175.00	145.00	na	na	140.00
1998-99	160.00	135.00	na	na	130.00
South Australia de					
1991-92	161.10	na	146.10	131.10	118.10
1992-93	160.70	na	138.70	118.70	113.70
1993-94	121.00	na	105.00	93.00	88.00
1994-95	231.90	na	219.40	178.90	169.80
1995-96	252.05	222.05	207.05	202.05	195.00
1996-97	206.07	179.65	159.65	154.65	161.50
1997-98	193.45	168.45	140.45	135.45	na
1998-99	155.00	129.00	119.00	114.00	na

a Payments net of pool freight and handling charge. Additional freight charge is applicable if grower is outside free freight zone. **b** No pools were declared as a result of drought. **c** Payments to growers are subject to Grain Corp Ltd storage and handling charges, the Commonwealth government research levy and growers' individual freight. **d** Payments to growers are subject to the deduction of individual freight charges, bulk handling charges and the barley research levy. **e** Pool payments. Discounted cash options have also been offered to growers since 1984-85. **na** Not available.
Sources: ABB Grain Ltd; Grain Corp Ltd; Grain Pool of Western Australia; Grainco Queensland Co-operative Association Ltd.

47 Summary of world statistics for coarse grains

	Area	Production	Use	Closing stocks a World	Closing stocks a United States	Stocks to use ratio	Trade b	Use per person	Price c
	million ha	Mt	Mt	Mt	Mt	%	Mt	kg	US$/t
1960-61	316	439.4	432.4	109.8	79	25	26	143	na
1961-62	316	432.3	438.6	103.6	67	24	34	142	46
1962-63	315	448.6	450.8	101.4	59	22	33	143	51
1963-64	320	455.2	450.5	106.1	64	24	36	140	55
1964-65	315	460.6	468.6	98.1	51	21	38	143	56
1965-66	313	472.5	490.3	80.3	40	16	47	147	55
1966-67	315	508.9	505.9	83.3	36	16	44	148	60
1967-68	319	533.5	522.4	94.4	46	18	44	150	50
1968-69	318	533.9	530.5	97.8	47	18	41	149	49
1969-70	323	558.1	558.1	97.8	46	18	48	154	54
1970-71	323	559.2	573.5	83.5	32	15	54	155	63
1971-72	324	617.4	601.4	99.6	47	17	58	159	52
1972-73	318	594.2	612.6	81.2	32	13	69	159	72
1973-74	335	659.4	660.8	79.8	22	12	82	168	114
1974-75	333	622.7	612.9	89.6	21	15	70	153	132
1975-76	339	641.0	637.3	93.3	24	15	87	156	116
1976-77	342	692.0	671.6	113.8	37	17	88	162	108
1977-78	344	691.1	680.8	124.0	50	18	95	161	95
1978-79	341	744.2	730.9	137.3	58	19	99	170	103
1979-80	341	735.3	732.2	140.4	64	19	107	168	115
1980-81	341	723.3	739.3	125.5	44	17	119	167	142
1981-82	349	758.7	733.9	150.3	78	20	110	163	118
1982-83	338	775.2	743.7	181.8	109	24	96	162	115
1983-84	333	677.7	749.2	110.4	40	15	104	160	146
1984-85	335	806.3	772.6	144.1	58	19	112	162	124
1985-86	340	833.7	768.4	209.4	127	27	95	158	106
1986-87	337	824.5	798.1	235.7	153	30	97	162	77
1987-88	324	787.0	810.5	212.4	134	26	103	161	86
1988-89	324	722.9	788.1	147.2	66	19	112	154	118
1989-90	322	793.7	817.7	123.2	46	15	116	157	111
1990-91	316	828.8	817.2	134.8	48	16	102	154	107
1991-92	322	810.4	809.8	135.4	34	17	107	150	110
1992-93	323	871.5	843.6	163.2	63	19	107	153	98
1993-94	317	798.8	838.5	123.5	27	15	99	150	115
1994-95	322	871.2	857.3	137.4	45	16	104	151	105
1995-96	313	802.9	842.4	97.9	14	12	108	146	160
1996-97	322	908.3	878.0	128.2	27	15	107	150	132
1997-98	310	880.7	873.4	135.5	38	16	100	146	112
1998-99 p	306	886.7	871.4	150.8	49	17	107	144	95

a Stocks data are based on national carryover levels at the end of national crop years. Aggregate stocks data should not therefore be construed as representing stock levels at fixed points in time. **b** October–September basis, and includes intra-EU trade. **c** Export price US no. 2 yellow corn fob Gulf.
na Not available **p** Preliminary.
Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ABARE.

48 World coarse grains production, by region and country

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Africa								
Egypt	5.2	5.3	5.9	6.6	6.3	6.8	6.9	6.7
Nigeria	12.9	12.8	15.1	15.5	18.5	16.9	16.8	17.5
South Africa	3.6	10.7	14.0	5.4	11.0	10.7	8.0	7.5
Americas								
Argentina	14.5	14.1	13.3	13.9	14.1	18.9	24.7	17.7
Brazil	31.4	29.9	33.8	37.8	33.2	36.6	31.3	33.2
Canada	21.8	19.6	24.0	23.4	24.1	28.2	25.1	26.5
Mexico	19.6	22.3	22.7	20.6	23.8	26.5	23.1	24.6
United States	218.6	277.4	186.5	283.5	210.0	265.7	260.4	271.6
Asia								
China	111.6	108.6	117.8	113.7	124.5	141.3	114.7	145.2
India	25.9	36.8	31.0	30.1	29.7	34.3	31.0	31.1
Turkey	9.6	9.4	10.4	8.9	9.4	9.9	10.0	10.6
Thailand	3.8	3.6	3.1	4.0	3.9	4.1	3.9	4.5
Europe								
European Union **a**	100.3	90.5	92.5	86.6	88.5	103.8	109.4	105.0
Denmark	5.6	3.4	3.8	4.0	4.5	4.5	4.6	4.4
France	25.8	27.8	26.0	22.2	22.0	26.0	29.2	27.9
Germany **b**	22.7	19.2	19.8	19.8	22.1	23.2	25.7	24.4
Italy	8.6	9.7	10.2	9.4	10.4	11.5	11.8	10.6
Spain	13.2	9.3	12.0	10.6	8.1	14.4	13.9	16.1
Sweden	3.7	2.4	3.5	3.0	3.2	4.0	4.0	3.4
United Kingdom	8.3	7.9	6.6	6.5	7.5	8.4	8.4	7.2
Former Yugoslavia	12.6	7.2	na	na	na	na	na	na
Hungary	9.7	6.3	5.4	6.2	6.3	7.0	8.0	7.6
Poland	18.5	12.6	15.2	14.1	17.2	16.7	17.2	17.6
Romania	13.8	9.0	10.2	10.8	12.1	11.1	15.0	10.1
Former Soviet Union	80.4	na	na	na	na	na	na	na
Russia	**c**	55.8	51.2	45.1	30.7	31.8	40.9	19.0
Ukraine	**c**	15.6	20.3	18.5	15.6	9.5	15.5	10.5
Oceania								
Australia	8.1	8.4	10.2	5.5	10.1	10.8	10.1	9.4
Other	94.6	97.8	94.8	96.2	101.8	106.2	93.8	100.1
Total **d**	810.4	871.5	798.8	871.2	802.9	908.3	880.7	886.7

a Regarded as fifteen countries. **b** Unified Germany. **c** Included in former Soviet Union total. **d** World totals do not necessarily equal those of other tables as a result of the different sources used. **p** Preliminary. **na** Not applicable.

Sources: ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

49 World coarse grains production, by grain

	Corn	Barley	Sorghum	Oats	Total a
	Mt	Mt	Mt	Mt	Mt
1960-61	199.6	78.9	40.8	55.9	439.4
1961-62	207.8	74.3	38.6	48.9	432.3
1962-63	207.3	87.1	41.8	48.7	448.6
1963-64	217.1	89.2	43.7	45.8	455.2
1964-65	215.4	96.3	41.6	42.6	460.6
1965-66	225.5	92.7	46.4	44.6	472.5
1966-67	250.1	102.5	49.3	46.3	508.9
1967-68	262.2	105.0	53.3	48.1	533.5
1968-69	252.5	115.0	51.5	51.5	533.9
1969-70	270.0	118.0	54.8	51.9	558.1
1970-71	268.1	119.8	55.1	51.6	559.2
1971-72	308.5	131.4	57.7	53.8	617.4
1972-73	301.4	132.5	54.0	47.6	594.2
1973-74	330.5	146.0	65.9	49.7	659.4
1974-75	299.8	149.6	60.3	46.7	622.7
1975-76	339.2	136.0	63.8	44.6	641.0
1976-77	356.1	166.2	62.2	45.8	692.0
1977-78	365.4	157.1	64.4	48.4	691.1
1978-79	392.1	175.6	63.6	48.5	744.2
1979-80	425.3	153.8	61.5	42.5	735.3
1980-81	408.5	157.4	59.3	41.5	723.3
1981-82	441.4	149.5	70.4	40.2	758.7
1982-83	439.8	161.2	65.1	46.2	775.2
1983-84	347.8	158.5	58.5	43.5	677.7
1984-85	458.6	170.5	65.8	45.8	806.3
1985-86	479.1	173.6	70.1	47.0	833.7
1986-87	476.0	178.1	64.3	44.6	824.5
1987-88	451.1	175.3	56.4	40.6	787.0
1988-89	400.9	164.0	54.5	35.4	722.9
1989-90	460.9	166.1	55.3	39.3	793.7
1990-91	482.5	179.1	53.7	39.1	828.8
1991-92	491.5	169.8	53.6	32.8	810.4
1992-93	538.6	166.5	65.4	33.6	871.5
1993-94	475.4	170.2	55.9	35.4	798.8
1994-95	561.6	161.5	58.0	33.1	871.2
1995-96	515.5	142.8	55.3	28.8	802.9
1996-97	591.0	153.8	69.7	30.6	908.3
1997-98	578.8	155.0	62.4	30.9	880.7
1998-99 p	607.5	150.8	61.4	30.0	886.7

a Includes rye, millet and mixed grain. **p** Preliminary.
Source: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

50 World coarse grains trade, by region and country

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Imports								
Africa								
Egypt	1.4	1.8	2.2	2.6	2.2	3.3	3.3	3.9
South Africa	4.3	0.0	0.0	0.6	0.2	0.3	0.2	1.0
Americas								
Brazil	0.7	1.4	1.6	1.5	0.8	0.8	1.8	0.7
Mexico	6.2	4.5	4.9	5.8	8.5	5.4	8.0	8.7
Asia								
China	1.1	0.6	1.3	6.4	3.0	2.1	1.5	2.8
Chinese Taipei	5.6	5.9	5.9	6.6	6.0	6.0	4.8	4.7
Japan	21.8	22.1	21.2	21.2	20.3	20.7	21.0	20.5
South Korea	6.4	6.7	5.8	9.0	10.1	8.7	7.6	8.0
Europe								
Eastern Europe	0.5	3.7	2.0	1.2	1.3	2.5	1.3	1.5
European Union **a**	16.1	13.8	15.0	15.9	19.9	16.9	16.4	17.1
Former Soviet Union	19.8	na	na	na	na	na	na	na
Russia	**b**	16.0	14.5	6.5	12.0	6.9	3.7	0.8
Ukraine	**b**	3.1	2.6	1.2	1.5	1.6	0.2	0.2
Middle East								
Iran	0.9	1.3	0.9	1.4	1.6	2.0	1.6	1.6
Saudi Arabia	7.7	4.8	5.6	3.9	4.3	6.8	4.4	6.1
Exports								
Africa								
South Africa	0.0	1.2	4.5	0.2	2.2	1.3	1.3	0.7
Asia								
China	10.3	13.0	12.0	1.6	0.2	4.0	6.2	3.6
Thailand	0.6	0.2	0.1	0.2	0.1	0.1	0.1	0.1
Americas								
Argentina	7.5	6.0	4.7	6.0	8.3	11.8	13.8	9.0
Canada	4.9	3.6	5.4	4.7	4.2	5.4	3.7	3.0
United States	49.7	51.1	40.3	62.4	63.0	51.6	45.3	55.9
Europe								
Eastern Europe	4.2	1.6	0.4	1.3	2.0	2.4	3.3	3.0
European Union **a**	23.9	22.3	22.2	18.9	19.7	22.8	18.0	24.2
Oceania								
Australia	3.0	3.4	4.3	1.5	4.9	4.7	3.8	4.6
Total **c**	106.5	106.6	98.9	103.7	107.8	107.1	100.3	107.4

a Regarded as fifteen countries. Includes intra-EU trade. **b** Included in former Soviet Union total. **c** Includes some unspecified countries. **p** Preliminary. **na** Not applicable.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Grain: World Markets and Trade,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

51 World corn trade, by region and country [a]

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 [p]
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Imports								
Canada	0.2	1.3	0.6	0.9	0.9	0.9	1.5	0.8
China	0.0	0.0	0.0	4.3	1.5	0.1	0.2	0.8
Chinese Taipei	5.3	5.6	5.3	6.3	5.7	5.7	4.5	4.5
European Union [b]	9.6	7.9	10.7	10.4	10.4	10.2	8.6	8.6
Former Soviet Union	12.5	na	na	na	na	na	na	na
Russia	[c]	13.1	11.6	3.3	8.2	4.2	3.3	0.1
Ukraine	[c]	1.8	1.8	0.4	0.8	1.0	0.1	0.0
Japan	16.5	16.8	16.2	16.5	16.0	16.0	16.4	16.5
Malaysia	1.7	2.0	2.0	2.4	2.4	2.5	2.1	2.1
Mexico	1.1	0.4	1.7	3.2	6.4	3.1	4.4	5.5
South Korea	6.2	6.5	5.7	8.2	9.0	8.3	7.5	7.8
Exports								
Argentina	6.1	4.7	4.2	6.1	7.5	10.8	12.2	8.0
China	10.0	12.6	11.8	1.4	0.2	3.9	6.2	3.5
South Africa	0.0	1.2	4.5	0.1	2.0	1.3	1.3	0.7
Thailand	0.6	0.1	0.1	0.2	0.1	0.1	0.1	0.1
United States	40.2	42.2	33.7	55.3	56.6	45.7	38.2	50.4
Other	12.3	9.0	12.3	9.3	10.7	11.7	13.6	12.8
Total [d]	69.2	70.0	66.6	72.4	77.1	73.4	71.5	75.5

a October–September years. **b** Regarded as fifteen countries. Includes intra-EU trade. **c** Included in former Soviet Union total. **d** Includes some unspecified countries. **p** Preliminary. **na** Not applicable.
Source: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

52 World barley trade, by region and country

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 [p]
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Imports								
China	1.0	0.6	1.3	1.4	1.4	2.0	1.2	2.0
Eastern Europe	0.1	1.5	1.6	0.9	0.6	0.9	0.4	0.4
European Union [a]	5.6	5.0	3.5	4.2	6.8	5.5	5.1	4.8
Former Soviet Union	5.9	na	na	na	na	na	na	na
Russia	[b]	2.3	0.4	0.6	0.6	0.3	0.3	0.3
Ukraine	[b]	0.3	0.0	0.0	0.1	0.0	0.0	0.0
Japan	1.5	1.7	1.7	1.8	1.5	1.6	1.6	1.6
Saudi Arabia	6.8	3.9	4.4	4.3	3.7	5.5	3.2	4.8
Exports								
Australia	2.5	3.1	4.1	1.5	4.0	4.3	3.4	3.0
Canada	3.3	2.5	3.6	2.9	2.6	3.4	2.2	1.0
European Union [a]	14.5	12.1	10.0	9.5	8.7	12.2	7.3	12.6
United States	2.1	1.7	1.4	1.4	1.4	0.7	1.6	0.6
Total [c]	24.4	22.6	21.6	20.4	19.4	22.4	18.2	20.9

a Regarded as fifteen countries. Includes intra-EU trade. **b** Included in former Soviet Union total. **c** Includes some unspecified countries. **p** Preliminary. **na** Not applicable.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

53 World sorghum trade, by country

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Imports								
Chinese Taipei	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1
European Union a	0.5	0.6	0.5	0.7	1.2	0.4	0.5	0.5
Israel	0.1	0.2	0.1	0.2	0.4	0.5	0.1	0.2
Japan	3.2	3.2	2.9	2.4	2.3	2.8	2.8	2.2
Mexico	5.0	4.0	3.1	2.5	1.8	2.1	3.3	3.0
South Korea	0.1	0.1	0.0	0.0	0.2	0.1	0.0	0.0
Exports								
Argentina	1.2	1.0	0.4	0.2	0.8	0.8	1.4	0.9
Australia	0.3	0.1	0.2	0.1	0.6	0.2	0.2	0.3
United States	7.4	7.0	5.1	5.7	5.0	5.2	5.4	4.8
Total b	9.5	9.4	7.2	6.5	6.8	6.6	7.2	6.4

a Regarded as fifteen countries. Includes intra-EU trade. **b** Includes some unspecified countries. **p** Preliminary.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

54 US coarse grains supply and disposal

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Area	million ha	37.4	39.0	33.5	37.4	33.6	38.1	36.9	36.2
Yield	t/ha	5.9	7.1	5.6	7.6	6.2	7.0	7.1	7.5
Production	Mt	218.6	277.4	186.5	283.5	210.0	265.7	260.4	271.6
Opening stocks	Mt	47.8	34.0	63.1	27.4	45.3	14.4	27.0	38.2
Imports	Mt	2.4	1.5	4.0	3.4	2.8	2.9	2.9	3.1
Availability	Mt	268.8	312.9	253.6	315.7	257.6	284.9	290.4	312.8
Domestic use	Mt	185.1	198.7	185.9	207.9	180.1	206.3	207.0	207.8
– feed	Mt	140.7	153.6	139.6	159.2	133.6	157.0	155.0	154.9
– food, seed	Mt	44.4	45.0	46.3	48.7	46.5	49.3	52.0	52.9
Exports	Mt	49.7	51.1	40.3	62.4	63.0	51.6	45.3	55.9
Closing stocks	Mt	34.0	63.1	27.4	45.3	14.4	27.0	38.2	49.1
– FOR a	Mt	0.0	0.4	3.3	2.1	0.0	0.0	0.0	0.0
– CCC b	Mt	3.2	1.6	1.3	1.2	0.9	0.1	0.1	0.3
– free	Mt	30.8	61.1	22.8	42.0	13.5	26.9	38.1	48.8

a Farmer Owned Reserve. **b** Commodity Credit Corporation. **p** Preliminary.
Sources: US Department of Agriculture, *World Agricultural Supply and Demand Estimates,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

55 US corn supply and disposal a

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Base area	million ha	33.5	33.2	33.1	33.0	na	na	na	na
Participation	%	77.0	76.0	81.0	82.0	82.0	98.0	na	na
ARP b	%	7.5	5.0	10.0	0.0	7.5	na	na	na
Area									
– idled c	million ha	6.4	3.0	2.3	2.1	2.5	na	na	na
– planted	million ha	28.3	29.2	29.2	32.1	28.8	32.1	32.2	32.5
– harvested	million ha	27.9	29.2	25.5	29.5	26.3	29.4	29.4	29.4
Yield	t/ha	6.82	8.25	6.32	8.70	7.12	7.98	7.95	8.44
Production	Mt	189.9	240.7	161.0	256.6	187.3	234.5	233.9	247.9
Opening stocks	Mt	38.6	27.9	53.7	21.6	39.6	10.8	22.4	33.2
Imports	Mt	0.5	0.2	0.5	0.2	0.4	0.3	0.2	0.5
Availability	Mt	229.0	268.8	215.2	278.5	227.3	245.7	256.5	281.7
Domestic use	Mt	160.8	172.9	159.8	183.6	159.9	177.6	185.1	188.1
– feed	Mt	122.2	133.7	119.0	140.3	118.9	134.6	139.8	141.6
– food, seed	Mt	38.7	39.2	40.9	43.3	41.0	43.0	45.3	46.5
Exports	Mt	40.2	42.2	33.7	55.3	56.6	45.7	38.2	50.4
Closing stocks	Mt	na	53.7	21.6	39.6	10.8	27.5	33.2	43.2
– FOR d	Mt	na	0.3	3.0	2.0	0.0	0.0	0.0	0.0
– CCC e	Mt	0.6	1.4	1.1	1.1	0.8	5.1	0.0	0.0
– free	Mt	27.3	52.0	17.4	36.5	10.1	22.4	33.2	43.2
Target price	US$/bus	2.75	2.75	2.75	2.75	2.75	na	na	na
Farm price	US$/bus	2.37	2.07	2.50	2.25	3.24	2.71	2.43	1.95
Loan rate	US$/bus	1.89	2.01	1.99	1.99	1.94	na	na	na
Export price f	US$/t	110.4	97.9	114.8	105.3	160.1	132.4	112.4	94.5

a September–August crop years. **b** Area Reduction Program. **c** Set aside and diverted. **d** Farmer Owned Reserve. **e** Commodity Credit Corporation. **f** US no. 2 yellow corn fob Gulf. **p** Preliminary. **na** Not available.

Sources: US Department of Agriculture, *Agricultural Outlook,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *World Agricultural Supply and Demand Estimates,* Washington DC.

56 US sorghum and barley supply and disposal

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Sorghum a									
Area harvested	million ha	4.0	4.9	3.6	3.6	3.4	4.8	3.7	3.1
Yield	t/ha	3.7	4.6	3.8	4.6	3.5	4.2	4.3	4.2
Production	Mt	14.9	22.2	13.6	16.5	11.7	20.2	16.1	13.2
Opening stocks	Mt	3.6	1.4	4.4	1.2	1.8	0.5	1.2	1.2
Availability	Mt	18.5	23.6	18.0	17.7	13.5	20.7	17.3	14.4
Domestic use	Mt	9.7	12.1	11.7	10.2	8.0	14.2	10.7	8.0
Exports	Mt	7.4	7.0	5.1	5.7	5.0	5.2	5.4	4.8
Closing stocks	Mt	1.4	4.4	1.2	1.8	0.5	1.2	1.2	1.6
Target price	US$/bus	2.6	2.6	2.6	2.6	2.6	na	na	na
Farm price	US$/bus	2.3	1.9	2.3	2.1	3.2	2.3	2.2	1.7
Loan rate	US$/bus	1.5	1.6	1.6	1.8	na	na	na	na
Export price b	US$/t	110.3	90.6	107.8	103.7	156.9	124.5	113.3	94.5
Barley c									
Area harvested	million ha	3.4	2.9	2.7	2.7	2.5	2.7	2.5	2.4
Yield	t/ha	3.0	3.4	3.2	3.0	3.1	3.1	3.1	3.2
Production	Mt	10.1	9.9	8.7	8.2	7.8	8.5	7.8	7.7
Opening stocks	Mt	2.9	2.8	3.3	3.0	2.5	2.2	2.4	2.6
Imports	Mt	0.5	0.2	1.6	1.4	0.9	0.8	0.9	0.6
Availability	Mt	13.6	13.0	13.5	12.6	11.2	11.5	11.1	10.9
Domestic use	Mt	8.7	7.9	9.1	8.7	7.6	8.5	6.9	7.2
Exports	Mt	2.1	1.7	1.4	1.4	1.4	0.7	1.6	0.6
Closing stocks	Mt	2.8	3.3	3.0	2.5	2.2	2.4	2.6	3.1
Target price	US$/bus	2.4	2.4	2.4	2.4	2.4	na	na	na
Farm price	US$/bus	2.1	2.0	2.0	2.0	2.9	2.7	2.4	2.0
Loan rate	US$/bus	1.3	1.4	1.4	1.5	1.5	na	na	na
Export price d	US$/t	122.2	115.4	112.0	119.1	166.9	137.8	118.2	95.9

a September–August crop years. **b** US no. 2 sorghum fob Gulf. **c** June–May crop years. **d** No. 2 barley fob Portland (July–June average). **p** Preliminary.
Sources: US Department of Agriculture, *Agricultural Outlook,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *World Agricultural Supply and Demand Estimates,* Washington DC.

57 Feedgrains export price quotations, by category

	US no. 2 hard red winter wheat (Gulf) a	US no. 2 yellow corn (Gulf) a	US no. 2 sorghum (Gulf) a	US no. 2 barley (Portland) b
	US$/t	US$/t	US$/t	US$/t
1975-76	152	116	111	124
1976-77	113	108	98	118
1977-78	116	95	89	104
1978-79	141	103	96	102
1979-80	175	115	116	135
1980-81	183	142	141	149
1981-82	170	118	114	131
1982-83	160	115	114	116
1983-84	154	146	131	138
1984-85	148	124	110	119
1985-86	128	106	94	100
1986-87	111	77	71	94
1987-88	123	86	80	101
1988-89	166	118	104	127
1989-90	161	111	104	123
1990-91	118	107	104	118
1991-92	151	110	110	122
1992-93	141	98	96	115
1993-94	142	115	112	112
1994-95	156	105	104	119
1995-96	215	160	157	167
1996-97	179	132	125	138
1997-98	142	112	113	118
1998-99	119	95	95	96
1998				
January	141	116	117	119
February	141	114	117	113
March	135	112	113	110
April	128	108	111	103
May	131	105	108	105
June	123	104	105	106
July	117	99	93	102
August	111	90	94	95
September	115	85	82	80
October	128	96	96	91
November	128	96	96	91
December	122	94	95	101
1999				
January	127	100	104	100
February	118	95	98	100
March	115	95	97	100
April	113	95	96	98
May	110	95	90	96
June	118	94	93	97
July	121	84	80	99
August	122	89	83	103

a Export price, fob Gulf ports. **b** Export price, fob Portland.

Sources: International Grains Council, *Market Report,* London; US Department of Agriculture, Economic Research Service, *Wheat Situation and Outlook Report,* Washington DC.

58 Coarse grains supply and disposal in major exporting countries

	Area harvested million ha	Yield t/ha	Production Mt	Domestic use Mt	Exports Mt	Closing stocks Mt
United States (September–August)						
1992-93	39.0	7.12	277.4	198.7	51.1	63.1
1993-94	33.5	5.57	186.5	185.9	40.3	27.4
1994-95	37.4	7.57	283.5	207.9	62.4	45.3
1995-96	33.6	6.25	210.0	180.1	63.0	14.4
1996-97	38.1	6.97	265.7	206.3	51.6	27.0
1997-98	36.9	7.06	260.4	207.0	45.3	38.2
1998-99 **p**	36.2	7.51	271.6	207.8	55.9	49.1
Canada (August–July) a						
1992-93	6.2	3.15	19.6	16.8	3.6	5.3
1993-94	6.9	3.49	24.0	19.4	5.4	5.1
1994-95	7.0	3.36	23.4	21.4	4.7	3.3
1995-96	7.0	3.46	24.1	21.2	4.2	2.9
1996-97	8.0	3.52	28.2	21.8	5.4	4.8
1997-98	7.6	3.31	25.1	23.5	3.7	4.3
1998-99 **p**	7.4	3.59	26.5	23.4	3.0	5.1
Argentina (March–February)						
1992-93	3.8	3.67	14.1	7.7	6.0	1.5
1993-94	3.7	3.58	13.3	8.5	4.7	1.5
1994-95	3.6	3.89	13.9	7.7	6.0	1.4
1995-96	4.0	3.57	14.1	6.5	8.3	0.7
1996-97	4.7	4.06	18.9	6.8	11.8	1.1
1997-98	4.7	5.28	24.7	9.6	13.8	2.4
1998-99 **p**	3.9	4.57	17.7	9.6	9.0	1.6
Australia (November–October)						
1992-93	4.7	1.78	8.4	4.3	3.4	0.7
1993-94	5.1	1.99	10.2	5.6	4.3	1.0
1994-95	4.3	1.30	5.5	4.7	1.5	0.3
1995-96	5.3	1.90	10.1	5.4	4.9	0.1
1996-97	5.4	2.02	10.8	5.8	4.7	0.4
1997-98	5.4	1.88	10.1	5.1	3.8	1.6
1998-99 **p**	4.9	1.92	9.4	5.3	4.6	1.1
European Union (July–June) b						
1992-93	20.4	4.43	90.5	82.4	22.3	20.7
1993-94	19.0	4.87	92.5	88.1	22.2	18.0
1994-95	18.8	4.62	86.6	88.6	18.9	12.9
1995-96	18.5	4.79	88.5	91.7	19.7	10.1
1996-97	19.6	5.28	103.8	95.8	22.8	12.2
1997-98	20.5	5.34	109.4	97.8	18.0	22.2
1998-99 **p**	20.0	5.26	105.0	96.7	24.2	23.3
World b						
1992-93	323.4	2.70	871.5	843.6	106.6	163.2
1993-94	316.7	2.52	798.8	838.5	98.9	123.5
1994-95	322.1	2.70	871.2	857.3	103.7	137.4
1995-96	313.2	2.56	802.9	842.4	107.8	97.9
1996-97	322.0	2.82	908.3	878.0	107.1	128.2
1997-98	310.0	2.84	880.7	873.4	100.3	135.5
1998-99 **p**	306.0	2.90	886.7	871.4	107.4	150.8

a Canada also imports about 0.5 million tonnes of grain from the United States each year. **b** Regarded as fifteen countries. Includes intra-EU trade.
p Preliminary. *Note:* The marketing period of each country is shown in parentheses.
Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ABARE.

59 Australian cotton area harvested and lint yield [a]

	Area harvested			Lint yield		
	New South Wales	Queensland	Australia [b]	New South Wales	Queensland	Australia [b]
	'000 ha	'000 ha	'000 ha	t/ha	t/ha	t/ha
1960-61	na	na	15.0	na	na	0.173
1961-62	na	na	11.7	na	na	0.188
1962-63	na	na	15.3	na	na	0.118
1963-64	na	na	15.6	na	na	0.161
1964-65	7.3	7.9	15.3	0.942	0.207	0.652
1965-66	12.5	5.9	22.2	1.247	0.326	0.913
1966-67	12.3	5.5	21.5	0.927	0.541	0.855
1967-68	19.4	5.2	31.1	1.301	0.731	1.057
1968-69	22.3	6.3	32.5	1.158	0.722	1.035
1969-70	23.1	5.9	31.7	0.880	0.735	0.874
1970-71	26.4	5.2	35.1	0.485	0.596	0.565
1971-72	29.3	6.9	40.1	1.133	0.957	1.081
1972-73	31.7	8.0	43.6	0.744	0.600	0.720
1973-74	31.0	7.1	41.7	0.703	0.930	0.731
1974-75	27.5	7.4	38.5	0.982	0.797	0.856
1975-76	23.9	6.0	29.8	0.853	0.750	0.835
1976-77	24.8	8.9	35.3	0.847	0.787	0.794
1977-78	31.6	9.6	41.6	1.104	0.969	1.063
1978-79	36.1	13.4	49.8	1.102	0.993	1.063
1979-80	51.4	20.0	75.0	1.243	0.965	1.109
1980-81	61.6	22.0	83.6	1.252	0.991	1.183
1981-82	74.5	29.0	103.5	1.456	0.900	1.298
1982-83	71.9	24.6	96.5	1.043	1.049	1.045
1983-84	104.5	32.9	137.4	1.027	1.033	1.028
1984-85	131.2	51.9	183.1	1.538	0.904	1.358
1985-86	135.8	41.2	177.0	1.593	1.238	1.510
1986-87	125.0	31.0	156.0	1.451	1.297	1.420
1987-88	163.6	80.9	244.6	1.204	0.890	1.162
1988-89	140.8	53.3	194.1	1.577	1.332	1.474
1989-90	175.0	64.8	239.8	1.346	1.077	1.273
1990-91	202.0	77.0	279.0	1.678	1.403	1.552
1991-92	225.0	87.0	312.0	1.812	1.688	1.609
1992-93	204.0	82.0	286.0	1.478	1.314	1.304
1993-94	210.0	84.0	294.0	1.301	1.123	1.120
1994-95	157.0	89.0	246.0	1.594	1.402	1.362
1995-96	201.0	120.0	321.0	1.458	1.269	1.337
1996-97	277.0	119.1	396.1	1.599	1.403	1.535
1997-98	299.3	138.8	438.2	1.588	1.371	1.519
1998-99 **p**	378.9	173.8	552.7	1.230	1.345	1.266

a August–July crop years. **b** Includes data for Western Australia. **p** Preliminary. **na** Not available.
Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; Department of Primary Industries and Energy, *Cotton Market News,* Canberra; ABARE.

60 Australian cottonseed and lint production a

	Cottonseed production			Lint production		
	New South Wales	Queensland	Australia b	New South Wales	Queensland	Australia b
	kt	kt	kt	kt	kt	kt
1960-61	na	na	4.5	na	na	2.6
1961-62	na	na	3.8	na	na	2.2
1962-63	na	na	3.1	na	na	1.8
1963-64	na	na	4.4	na	na	2.5
1964-65	11.8	2.8	17.4	6.8	1.6	10.0
1965-66	27.0	3.3	35.4	15.5	1.9	20.3
1966-67	20.0	5.2	32.1	11.5	3.0	18.4
1967-68	43.9	6.6	57.3	25.2	3.8	32.9
1968-69	44.9	8.0	58.5	25.8	4.6	33.6
1969-70	35.5	7.7	48.3	20.4	4.4	27.7
1970-71	22.3	5.4	31.9	12.8	3.1	19.8
1971-72	52.8	12.7	69.1	33.2	6.6	43.3
1972-73	36.4	10.7	50.7	23.6	4.8	31.4
1973-74	35.7	10.8	49.8	21.8	6.6	30.5
1974-75	44.1	9.7	53.8	27.0	5.9	33.0
1975-76	33.2	7.4	40.6	20.4	4.5	24.9
1976-77	34.9	11.7	46.6	21.0	7.0	28.0
1977-78	56.9	15.2	72.1	34.9	9.3	44.2
1978-79	56.8	21.7	78.5	39.8	13.3	53.0
1979-80	104.3	31.5	135.8	63.9	19.3	83.2
1980-81	125.8	35.6	161.4	77.1	21.8	98.9
1981-82	176.5	42.6	219.1	108.2	26.1	134.3
1982-83	112.3	42.1	154.4	75.0	25.8	100.8
1983-84	135.0	55.2	190.2	107.3	34.0	141.3
1984-85	308.2	102.2	410.4	201.8	46.9	248.7
1985-86	308.0	74.0	382.0	216.3	51.0	267.3
1986-87	281.6	48.4	330.0	181.4	40.2	221.6
1987-88	333.9	101.1	435.0	197.0	72.0	284.1
1988-89	345.0	74.3	419.3	222.0	71.0	286.2
1989-90	380.0	113.0	493.0	235.6	69.8	305.3
1990-91	526.0	160.0	686.0	330.6	102.4	433.0
1991-92	563.0	186.0	749.0	376.8	124.9	502.0
1992-93	365.1	162.4	527.5	258.2	114.8	373.0
1993-94	334.2	131.3	465.5	236.5	92.7	329.2
1994-95	550.0	246.0	796.0	202.6	132.4	335.0
1995-96	630.0	303.0	933.0	270.4	150.2	429.0
1996-97	627.5	232.6	860.1	433.4	173.9	608.3
1997-98	672.3	269.0	941.3	475.4	190.3	665.6
1998-99 p	659.0	330.6	989.5	466.0	233.8	699.8

a August–July crop year. **b** Includes data for Western Australia. **p** Preliminary. **na** Not available.
Sources: ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; Department of Primary Industries and Energy, *Cotton Market News,* Canberra; ABARE.

61 Australian production, trade and use of raw cotton

	Domestic lint production a	Gross value of production b	Imports		Exports		Use
			Volume	Value	Volume	Value	
	kt	$m	kt	$m	kt	$m	kt
1960-61	2.6	na	na	na	na	na	na
1961-62	2.2	1.3	na	na	na	na	na
1962-63	1.8	1.9	19.3	na	na	na	21.3
1963-64	2.5	2.2	25.7	na	na	na	25.5
1964-65	10.0	7.7	25.2	na	na	na	25.6
1965-66	20.3	14.3	14.6	8.2	na	na	28.3
1966-67	18.4	13.6	9.1	4.7	na	na	28.8
1967-68	32.9	19.7	12.3	6.9	na	na	28.1
1968-69	33.6	20.7	5.7	3.8	3.7	1.9	28.9
1969-70	27.7	18.6	4.7	3.0	11.5	5.1	30.1
1970-71	19.8	14.0	7.0	4.3	7.4	3.4	30.3
1971-72	43.3	29.8	8.9	5.8	2.4	1.6	27.4
1972-73	31.4	32.6	3.8	2.7	22.3	11.3	28.7
1973-74	30.5	32.6	8.4	9.3	3.2	1.8	31.6
1974-75	33.0	26.6	4.0	4.8	7.7	5.4	23.3
1975-76	24.9	29.3	4.1	4.4	16.0	11.5	26.9
1976-77	28.0	37.5	5.0	7.4	5.5	7.1	22.2
1977-78	44.2	8.0	4.0	5.6	9.8	10.9	21.4
1978-79	53.0	76.0	1.7	3.1	23.6	28.5	20.6
1979-80	83.2	135.3	2.0	4.0	48.5	66.9	21.2
1980-81	98.9	147.0	2.2	4.3	59.0	92.0	21.7
1981-82	134.3	182.0	1.0	1.9	79.0	117.0	20.4
1982-83	100.8	168.0	0.7	1.3	129.0	198.0	17.5
1983-84	141.3	269.0	1.1	2.4	82.0	148.0	20.5
1984-85	248.7	330.0	2.7	6.0	140.0	262.0	20.3
1985-86	267.3	295.0	0.5	1.4	241.0	380.0	21.0
1986-87	221.6	372.5	0.3	0.6	251.0	345.0	22.3
1987-88	284.1	449.0	0.3	0.7	176.0	353.0	22.2
1988-89	286.2	504.0	1.1	2.9	287.3	462.8	21.8
1989-90	305.3	658.0	0.1	0.3	306.0	579.8	24.3
1990-91	433.0	981.0	0.7	2.2	339.7	737.7	23.0
1991-92	502.0	972.0	0.7	1.8	458.1	945.0	27.7
1992-93	373.0	770.0	0.3	1.3	396.0	755.5	28.3
1993-94	329.2	739.0	0.3	1.4	360.5	732.0	31.7
1994-95	335.0	910.0	0.2	1.2	296.4	678.0	33.4
1995-96	429.0	1 112.0	0.7	2.0	311.4	762.3	42.0
1996-97	608.3	1 219.0	0.2	0.6	505.0	1 076.9	42.4
1997-98	665.6	1 294.0	0.2	1.0	593.4	1 385.6	40.4
1998-99 p	699.8	1 326.0	0.2	1.0	646.7	1 559.0	37.7

a August–July crop year. **b** Value of production includes cottonseed. **p** Preliminary. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5465.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia,* cat. no. 7503.0, Canberra; Raw Cotton Marketing Advisory Committee, *Annual Report,* Canberra; ABARE.

62 Australian exports of raw cotton, by destination

	1991-92 kt	1992-93 kt	1993-94 kt	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 p kt
Asia	421.7	348.1	341.8	278.4	281.5	450.2	524.9	590.3
China	4.3	0.3	23.2	18.4	18.9	76.4	74.7	18.2
Chinese Taipei	34.4	24.6	15.7	11.7	17.7	24.0	28.1	30.0
Hong Kong	8.3	8.9	14.7	14.7	10.0	13.6	8.8	2.6
Indonesia	101.7	103.7	77.7	69.6	99.1	161.0	161.5	209.3
Japan	161.6	126.4	127.9	95.6	69.2	78.4	101.3	135.4
Malaysia	8.4	8.8	8.0	8.5	6.3	6.8	8.0	8.2
Philippines	8.7	5.8	11.3	15.0	6.2	10.5	8.1	7.2
South Korea	67.9	44.5	33.9	19.8	28.1	28.6	35.7	50.1
Thailand	20.1	15.5	19.2	19.5	20.1	38.7	55.4	79.4
Other	6.3	9.6	10.2	5.8	5.9	12.2	43.4	49.7
Europe	32.9	35.5	16.8	17.3	24.9	30.5	49.2	45.0
Germany **a**	4.4	6.4	1.9	1.8	0.4	0.3	3.2	0.6
Italy	13.4	14.5	6.7	7.2	17.1	19.0	30.4	27.4
Spain	3.3	4.4	3.0	5.1	5.0	5.6	11.5	9.0
Other	10.8	10.0	5.2	3.2	2.3	5.6	4.1	7.9
United States	0.0	0.0	0.0	0.0	2.8	7.2	0.3	0.2
Other countries	3.5	12.5	1.8	0.6	5.0	24.4	19.4	11.5
Total	458.1	396.0	360.5	296.4	311.4	505.0	593.4	646.7

a Unified Germany. **p** Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5465.0, Canberra.

63 Cotton prices and unit values

	Cotlook 'A' index a USc/lb	Australian base price for raw cotton b Ac/kg	Average unit export return for raw cotton Ac/kg	Average gross unit value c Ac/kg
1960-61	na	57	na	0
1961-62	na	59	na	59
1962-63	na	59	na	106
1963-64	na	57	na	88
1964-65	na	57	na	77
1965-66	na	57	na	70
1966-67	28	55	na	74
1967-68	31	58	na	60
1968-69	29	60	51	62
1969-70	28	58	44	67
1970-71	31	65	46	71
1971-72	37	72	67	69
1972-73	40	72	51	104
1973-74	76	120	56	107
1974-75	53	90	70	81
1975-76	62	117	72	118
1976-77	84	166	129	134
1977-78	65	135	111	18
1978-79	76	156	121	143
1979-80	85	179	138	163
1980-81	94	192	156	149
1981-82	74	164	148	136
1982-83	76	199	153	167
1983-84	88	237	180	190
1984-85	71	226	187	133
1985-86	51	174	158	110
1986-87	58	211	137	168
1987-88	74	237	201	158
1988-89	64	187	161	176
1989-90	82	248	189	216
1990-91	84	249	217	227
1991-92	64	198	206	194
1992-93	58	198	191	206
1993-94	69	234	203	225
1994-95	92	285	229	272
1995-96	86	268	245	259
1996-97	78	235	213	200
1997-98	73	252	234	194
1998-99 p	60	228	241	189

a Cotlook 'A' index quotes (cif Northern Europe) for strict middling (SM) 1 1/16" cotton from 1972-73 to July 1981, and for SM 1 3/32" cotton from August 1981. **b** Equivalent to 'in store' prices – that is, Cotlook prices in USc/lb to which freight differentials have been added, then converted to Australian currency, with 'into store' charges added finally. Prices approximate import parity prices. **c** Gross value of production including cottonseed, divided by lint production. **p** Preliminary. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5465.0, Canberra; Department of Primary Industries and Energy, *Cotton Market News,* Canberra; ABARE.

64 Summary of world statistics for raw cotton [a]

	Opening stocks kt	Production kt	Total supply kt	Consumption kt	Imports [b] kt	Price [c] USc/lb
1960-61	na	9 812	na	10 064	3 770	na
1961-62	4 110	9 682	13 792	9 840	3 476	na
1962-63	4 064	10 224	14 288	9 576	3 587	na
1963-64	4 901	11 052	15 953	10 410	3 870	29.2
1964-65	5 552	11 707	17 259	11 157	3 785	29.0
1965-66	6 218	12 386	18 604	11 712	3 726	28.1
1966-67	6 982	11 381	18 363	12 200	3 925	28.4
1967-68	6 113	11 218	17 331	12 241	3 782	31.3
1968-69	5 061	12 383	17 444	12 273	3 682	28.8
1969-70	5 143	11 909	17 052	12 189	3 860	28.0
1970-71	4 888	11 991	16 879	12 428	5 358	31.1
1971-72	4 675	12 871	17 546	12 718	5 369	37.2
1972-73	4 790	13 450	18 240	12 956	5 956	42.0
1973-74	5 229	13 638	18 867	13 130	5 819	76.5
1974-75	5 839	13 860	19 699	12 409	5 186	52.5
1975-76	7 186	11 745	18 931	13 404	5 724	65.3
1976-77	5 576	12 272	17 848	13 102	5 437	81.9
1977-78	4 813	13 905	18 718	13 295	5 898	65.1
1978-79	5 521	12 988	18 509	13 793	5 902	76.1
1979-80	4 726	14 255	18 981	14 367	6 642	85.4
1980-81	4 634	13 823	18 457	14 148	5 934	94.2
1981-82	4 503	14 952	19 455	13 768	5 596	73.8
1982-83	5 601	14 505	20 106	14 579	5 676	76.7
1983-84	5 549	14 314	19 863	14 965	5 891	87.7
1984-85	5 183	19 302	24 485	15 396	6 016	69.2
1985-86	9 076	17 480	26 556	16 399	6 313	49.0
1986-87	10 311	15 367	25 678	17 894	7 206	62.1
1987-88	7 685	17 641	25 326	18 325	6 648	72.3
1988-89	7 000	18 374	25 374	18 554	7 326	66.4
1989-90	6 723	17 362	24 085	18 916	7 123	82.4
1990-91	5 418	18 935	24 353	18 634	6 675	82.9
1991-92	5 886	20 832	26 718	18 733	6 362	63.1
1992-93	8 022	17 961	25 983	18 686	5 884	57.7
1993-94	7 471	16 707	24 178	18 606	6 065	70.7
1994-95	5 716	18 639	24 355	18 644	6 664	91.4
1995-96	6 162	20 244	26 406	18 956	6 019	85.6
1996-97	7 350	19 472	26 822	19 205	6 354	78.6
1997-98	8 062	19 839	27 901	19 177	5 863	72.2
1998-99 **p**	8 881	18 389	27 270	18 480	5 380	58.8

a August–July crop year. **b** Includes trade among the twelve republics of the former Soviet Union and Estonia, Latvia and Lithuania. **c** Cotlook 'A' index quotes (cif Northern Europe) for strict middling (SM) 1 1/16" cotton from 1973-74 to July 1981, and for SM 1 3/32" cotton from August 1981.
p Preliminary. **na** Not available.
Sources: US Department of Agriculture, *Cotton: World Markets and Trade, Foreign Agriculture Service Circular,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ABARE.

65 World area, yield and production of raw cotton [a]

	Area harvested	Lint yield	Production				
			Central Asian Republics	Former Soviet Union [b]	United States	China	World
	'000 ha	kg/ha	kt	kt	kt	kt	kt
1960-61	32 120	305	na	1 481	3 100	1 067	9 812
1961-62	32 413	299	na	1 511	3 110	806	9 682
1962-63	31 780	322	na	1 450	3 228	740	10 224
1963-64	32 882	336	na	1 751	3 330	1 197	11 052
1964-65	33 551	349	na	1 803	3 297	1 655	11 707
1965-66	33 326	372	na	1 918	3 255	2 090	12 386
1966-67	31 210	365	na	2 005	2 080	2 330	11 381
1967-68	30 964	362	na	2 021	1 621	2 351	11 218
1968-69	31 921	388	na	1 953	2 379	2 351	12 383
1969-70	32 487	367	na	1 955	2 175	2 079	11 909
1970-71	31 801	377	na	2 345	2 219	2 286	11 991
1971-72	33 043	390	na	2 347	2 281	2 112	12 871
1972-73	33 538	401	na	2 399	2 984	1 960	13 450
1973-74	32 849	415	na	2 402	2 825	2 547	13 638
1974-75	33 530	413	na	2 661	2 513	2 460	13 860
1975-76	29 889	393	na	2 528	1 808	2 373	11 745
1976-77	30 568	401	na	2 615	2 304	2 068	12 272
1977-78	33 568	414	na	2 715	3 133	2 047	13 905
1978-79	32 901	395	na	2 592	2 364	2 166	12 988
1979-80	32 211	443	na	2 794	3 185	2 199	14 255
1980-81	32 272	428	na	2 700	2 422	2 700	13 823
1981-82	32 972	453	na	2 402	3 407	2 961	14 952
1982-83	31 381	462	na	2 312	2 605	3 592	14 505
1983-84	30 920	463	na	2 172	1 692	4 638	14 314
1984-85	33 723	572	na	2 597	2 827	6 249	19 302
1985-86	31 582	553	na	2 782	2 925	4 137	17 480
1986-87	29 360	523	na	2 660	2 119	3 549	15 367
1987-88	30 878	571	na	2 502	3 214	4 246	17 641
1988-89	33 765	544	na	2 762	3 355	4 159	18 374
1989-90	31 567	550	na	2 657	2 655	3 788	17 362
1990-91	33 170	571	na	2 593	3 376	4 507	18 935
1991-92	34 820	598	na	2 449	3 835	5 683	20 832
1992-93	32 631	550	1 880	na	3 531	4 507	17 961
1993-94	30 706	544	1 947	na	3 513	3 745	16 707
1994-95	31 144	579	1 820	na	4 281	4 333	18 639
1995-96	35 377	563	1 716	na	3 897	4 768	20 244
1996-97	33 805	571	1 332	na	4 124	4 202	19 472
1997-98	33 362	595	1 529	na	4 092	4 594	19 839
1998-99 **p**	32 942	558	1 399	na	3 030	4 507	18 389

a August–July crop year. **b** Includes Tajikstan, Turkmenistan, Uzbekistan, Kyrgyzstan and Kazakhstan. **p** Preliminary. **na** Not applicable.
Sources: US Department of Agriculture, *Cotton: World Markets and Trade,* Foreign Agriculture Service Circular, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

66 World exports of raw cotton, by country a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	688	624	706	793	872	1 000	1 075	1 111
Asia	658	692	367	164	510	365	188	231
China	131	149	163	40	5	2	22	148
Pakistan	448	256	69	32	312	26	76	2
Australia	508	369	366	293	311	505	588	647
Central and South America	319	191	227	392	450	365	275	237
Former Soviet Union	1 905	na	na	na	na	na	na	na
Tajikistan	b	131	136	145	98	87	87	86
Turkmenistan	b	403	370	320	200	114	109	163
Uzbekistan	b	1197	1263	1 090	985	991	958	827
United States	1 447	1 132	1 494	2 047	1 671	1 495	1 633	946
Other	612	831	886	932	948	934	805	705
Total	6 145	5 570	5 821	6 196	5 957	5 799	5 690	5 103

a August–July crop year. Includes small quantities re-exported. **b** Included in former Soviet Union total. **p** Preliminary. **na** Not applicable.
Sources: US Department of Agriculture, *Cotton: World Markets and Trade, Foreign Agriculture Service Circular,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

67 World imports of raw cotton, by destination a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Asia	3 031	2 394	2 649	3 441	3 025	3 044	2 456	2 410
China	355	53	176	884	663	787	392	72
Hong Kong, South Korea and Chinese Taipei	941	823	826	823	830	742	670	753
Japan	589	485	434	381	330	292	283	275
Other Asia	1 146	1 033	1 213	1 353	1 202	1 223	1 111	1 310
Europe	2 575	2 221	2 237	1 978	1 767	1 706	1 747	1 547
Eastern Europe b	1 478	1 131	1 051	914	292	275	276	258
European Union c	993	935	1 064	944	1 034	1 043	1 042	939
Other Western Europe d	104	155	122	120	441	388	429	350
Other	772	1 269	1 259	1 248	1 227	1 604	1 660	1 423
Total	6 378	5 884	6 145	6 667	6 019	6 354	5 863	5 380

a August–July crop year. Does not include cotton in transit. **b** Includes trade among the twelve republics of the former Soviet Union and Estonia, Latvia and Lithuania. **c** Regarded as twelve countries until 1 January 1995, then fifteen countries. **d** Includes the former Yugoslavia. **p** Preliminary.
Sources: US Department of Agriculture, *Cotton: World Markets and Trade, Foreign Agriculture Service Circular,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,*
Washington DC.

68 Summary of Australian statistics for dairy products

	Dairy cow numbers a	Milk yield per cow	Production			Export price c	
			Milk b	Butter	Cheese	Butter	Cheese
	'000	L	ML	kt	kt	$/t	$/t
1960-61	3 162	1 926	6 089	182	48	638	503
1961-62	3 230	2 032	6 563	201	57	598	458
1962-63	3 263	2 045	6 673	204	60	604	462
1963-64	3 296	2 064	6 803	206	59	618	477
1964-65	3 214	2 151	6 914	206	63	688	514
1965-66	3 094	2 236	6 919	209	60	669	534
1966-67	3 061	2 383	7 295	222	70	607	591
1967-68	2 963	2 298	6 808	196	71	584	519
1968-69	2 866	2 430	6 965	198	75	523	545
1969-70	2 829	2 659	7 523	223	76	512	480
1970-71	2 745	2 641	7 249	203	78	516	504
1971-72	2 693	2 629	7 079	196	81	793	673
1972-73	2 647	2 626	6 952	185	93	784	733
1973-74	2 492	2 711	6 756	175	96	695	761
1974-75	2 477	2 623	6 497	161	99	955	1 012
1975-76	2 467	2 533	6 248	148	113	836	1 117
1976-77	2 279	2 533	5 772	118	104	1 124	1 070
1977-78	2 056	2 734	5 621	112	116	1 280	1 259
1978-79	1 921	2 951	5 669	105	142	1 249	1 337
1979-80	1 869	2 906	5 432	84	151	1 595	1 545
1980-81	1 819	2 871	5 223	79	135	1 875	1 926
1981-82	1 810	2 905	5 258	76	153	2 714	2 158
1982-83	1 792	3 078	5 516	88	158	2 412	2 444
1983-84	1 809	3 269	5 913	111	161	1 871	2 611
1984-85	1 809	3 335	6 033	114	160	1 617	2 433
1985-86	1 770	3 411	6 038	105	170	1 592	2 515
1986-87	1 757	3 598	6 173	104	177	1 758	2 645
1987-88	1 714	3 657	6 130	94	176	1 634	2 735
1988-89	1 709	3 781	6 290	96	191	1 970	2 990
1989-90	1 698	3 790	6 263	104	175	2 421	3 461
1990-91	1 682	3 911	6 403	106	179	1 968	3 203
1991-92	1 699	4 074	6 732	108	198	2 177	3 316
1992-93	1 716	4 318	7 327	126	210	2 241	3 693
1993-94	1 786	4 523	8 077	143	234	2 197	3 750
1994-95	1 821	4 506	8 206	131	241	2 076	3 449
1995-96	1 884	4 626	8 716	145	263	2 993	3 881
1996-97	1 977	4 571	9 036	147	285	2 217	3 702
1997-98	2 060	4 582	9 439	154	289	2 513	3 955
1998-99 p	2 121	4 799	10 178	174	314	2 819	3 967

a Cows in milk and dry at 31 March on establishments with an estimated value of agricultural operations (EVAO) of $5000 or more. House cows and heifers are included before 1977-78, but excluded thereafter. Prior to 1986-87, includes livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of $2500 or more. **b** Before 1980-81, milk production included an estimate of on-farm use. **c** Fob. **p** Preliminary.
Sources: ABS, *Principal Agricultural Commodities, Preliminary,* cat. no. 7111.0, Canberra; Australian Dairy Corporation, *Monthly Statistics,* Melbourne; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

69 Value of Australian exports of dairy products, by region

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Cheese								
Japan	$m	132.6	150.7	150.9	198.8	197.2	255.7	276.0
Philippines	$m	11.0	13.3	15.5	18.6	17.7	22.0	21.6
Saudi Arabia	$m	60.2	57.0	61.8	64.3	53.7	74.3	81.6
United Kingdom	$m	7.0	14.3	16.0	20.3	32.2	18.2	29.5
United States	$m	19.3	19.8	14.8	17.0	21.5	26.1	30.2
Other	$m	87.7	114.7	142.2	144.3	153.2	210.2	256.1
Total	$m	317.8	369.7	401.3	463.3	475.6	606.6	695.0
Butter and butterfat a								
Egypt	$m	2.4	23.8	20.5	11.6	20.4	11.8	33.0
Malaysia	$m	12.0	9.9	10.5	13.4	13.0	11.5	11.7
Philippines	$m	10.8	12.6	10.7	16.6	10.7	11.2	11.4
Singapore	$m	24.5	22.4	19.6	23.4	18.3	19.5	20.7
Thailand	$m	20.0	18.7	22.4	37.8	22.4	21.3	22.9
Other	$m	86.4	95.2	75.7	77.7	135.6	163.1	194.6
Total	$m	156.0	182.5	159.3	180.6	220.5	238.3	294.3
Skim milk powder								
Japan	$m	31.2	49.0	45.4	56.3	48.1	50.9	25.6
Malaysia	$m	66.2	46.9	87.1	75.3	76.0	76.8	73.7
Philippines	$m	91.6	82.2	95.1	122.4	113.4	101.6	128.5
Thailand	$m	47.3	43.6	45.2	87.4	61.6	47.2	61.9
Singapore	$m	18.7	22.9	34.7	34.2	38.1	25.3	32.3
Other	$m	48.0	122.7	91.2	103.6	136.0	142.5	174.0
Total	$m	303.1	367.4	398.8	479.3	473.2	444.2	496.0
Casein								
Japan	$m	8.4	2.3	7.2	9.0	6.5	5.3	5.3
United States	$m	13.8	5.6	10.6	9.4	18.7	28.4	47.4
Other	$m	4.9	26.9	17.4	11.8	7.7	9.5	13.8
Total	$m	27.1	34.8	35.2	30.2	32.9	43.2	66.6
Wholemilk powder								
Malaysia	$m	19.9	26.3	30.0	43.8	36.7	32.8	34.7
Singapore	$m	21.1	16.1	10.0	13.0	13.3	9.2	15.2
Taiwan	$m	41.0	32.0	32.3	33.2	29.3	21.9	42.1
Thailand	$m	4.8	6.2	7.2	19.5	20.7	24.9	29.4
Other	$m	60.3	68.7	104.1	145.2	168.1	186.3	243.0
Total	$m	147.2	149.3	183.5	254.7	268.2	275.0	364.4
Other products								
Fresh milk	$m	30.2	39.5	51.8	57.2	68.3	67.4	71.4
Other fresh products	$m	0.0	0.0	0.0	0.1	0.2	0.1	0.2
Condensed milk	$m	6.2	9.6	18.2	28.7	22.5	22.7	36.3
Other powders	$m	85.4	87.3	94.9	81.0	97.1	116.2	117.2

a Includes ghee, dry butterfat, butter concentrate and butter oil, all expressed as butter. **p** Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

70 Australian dairy cow numbers, by state [a]

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia [b]
	'000	'000	'000	'000	'000	'000	'000
1964	743	1 184	730	118	160	140	3 296
1965	719	1 187	689	113	159	143	3 214
1966	675	1 192	627	109	155	148	3 094
1967	668	1 211	599	103	149	149	3 061
1968	645	1 200	556	100	139	152	2 963
1969	604	1 209	497	97	139	153	2 866
1970	568	1 245	460	101	138	155	2 829
1971	527	1 244	441	96	138	153	2 745
1972	491	1 257	420	97	145	155	2 693
1973	465	1 274	390	98	141	155	2 647
1974	418	1 244	341	95	132	140	2 492
1975	387	1 269	329	91	135	144	2 477
1976	384	1 258	330	93	135	143	2 467
1977	373	1 167	312	84	120	128	2 279
1978	341	1 125	287	74	112	118	2 056
1979	320	1 047	265	72	105	110	1 921
1980	308	1 037	247	72	102	103	1 869
1981	289	1 024	236	71	100	99	1 819
1982	283	1 024	235	70	99	100	1 810
1983	293	998	234	69	98	98	1 792
1984	285	1 021	234	69	101	99	1 809
1985	274	1 036	229	69	102	98	1 809
1986	264	1 016	224	68	102	96	1 770
1987	270	997	223	67	102	96	1 757
1988	260	977	218	65	100	94	1 714
1989	258	990	210	64	94	92	1 709
1990	245	995	208	65	90	93	1 698
1991	230	1 000	199	66	89	97	1 682
1992	222	1 026	188	68	90	103	1 699
1993	222	1 033	189	70	93	107	1 716
1994	232	1 085	189	74	94	113	1 786
1995	230	1 113	189	73	97	119	1 821
1996	235	1 161	189	97	71	130	1 884
1997	245	1 229	194	71	101	137	1 977
1998	266	1 268	203	73	107	143	2 060
1999 **p**	284	1 298	210	74	108	148	2 121

a Cows in milk and dry at 31 March on establishments with an estimated value of agricultural operations (EVAO) of $5000 or more. House cows and heifers are included before 1977-78, but excluded thereafter. Prior to 1986-87, includes livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of $2500 or more. **b** Includes data for the Australian Capital Territory and the Northern Territory. **p** Preliminary.
Sources: ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; ABS, *Principal Agricultural Commodities Australia,* cat. no. 7111.0, Canberra.

71 Australian production of wholemilk, by state [a]

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia [b]
	ML	ML	ML	ML	ML	ML	ML
1960-61	1 452	2 713	967	266	396	290	6 089
1961-62	1 567	2 869	1 097	265	434	333	6 563
1962-63	1 473	3 035	1 114	255	434	357	6 673
1963-64	1 466	3 159	1 090	260	443	378	6 803
1964-65	1 327	3 391	1 047	281	465	397	6 914
1965-66	1 367	3 414	1 005	281	447	400	6 919
1966-67	1 468	3 622	1 083	253	449	416	7 295
1967-68	1 410	3 338	987	252	404	413	6 808
1968-69	1 268	3 715	781	265	467	464	6 965
1969-70	1 413	4 028	870	254	483	469	7 523
1970-71	1 237	4 062	770	256	470	450	7 249
1971-72	1 171	3 973	768	255	458	451	7 079
1972-73	1 177	3 945	737	242	424	424	6 952
1973-74	1 069	3 917	665	241	439	422	6 756
1974-75	958	3 745	658	246	426	461	6 497
1975-76	980	3 518	683	233	398	436	6 248
1976-77	943	3 212	624	215	355	423	5 772
1977-78	891	3 263	559	209	339	360	5 621
1978-79	906	3 283	570	213	332	365	5 669
1979-80	907	3 151	508	222	329	315	5 432
1980-81	840	3 065	495	214	319	289	5 223
1981-82	875	3 028	546	209	306	294	5 258
1982-83	905	3 164	564	221	340	322	5 516
1983-84	940	3 400	619	232	382	340	5 913
1984-85	940	3 516	616	243	372	346	6 033
1985-86	904	3 575	600	243	365	351	6 038
1986-87	906	3 692	601	248	374	352	6 173
1987-88	932	3 649	617	249	377	306	6 130
1988-89	923	3 792	626	245	370	334	6 290
1989-90	879	3 787	629	267	356	343	6 263
1990-91	857	3 907	626	283	366	363	6 403
1991-92	894	4 119	635	302	411	372	6 732
1992-93	997	4 456	702	326	434	413	7 327
1993-94	1 098	4 968	764	344	456	447	8 077
1994-95	1 087	5 114	740	343	485	437	8 206
1995-96	1 115	5 482	751	342	512	514	8 716
1996-97	1 192	5 634	797	349	535	529	9 036
1997-98	1 242	5 866	822	387	580	543	9 439
1998-99 **p**	1 285	6 414	827	403	646	603	10 178

a Before 1977-78 milk production includes an estimate of on-farm use. **b** Includes data for the Australian Capital Territory and estimates for the Northern Territory. **p** Preliminary.

Source: Australian Dairy Corporation, *Monthly Statistics,* Melbourne.

72 Australian manufacture of dairy products

	1991-92 kt	1992-93 kt	1993-94 kt	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 p kt
Butter a	108.1	126.5	142.8	131.4	145.0	146.9	153.7	173.6
Cheese	198.0	210.1	233.6	241.3	262.5	285.0	288.5	314.0
Non-cheddar	67.4	73.4	84.1	90.6	92.6	109.0	101.9	124.6
Cheddar	130.6	136.7	149.5	150.7	169.9	176.0	186.6	189.4
Wholemilk powder	67.4	79.5	92.9	104.4	113.0	133.7	125.5	146.4
Skim milk powder b	146.5	166.0	206.5	197.5	218.0	223.3	215.1	233.3
Casein	2.6	5.3	4.6	6.5	5.7	5.4	8.8	8.8
Buttermilk powder	10.9	13.1	14.6	12.9	14.0	14.6	15.0	16.7

a Includes the butter equivalent of butter oil, butter concentrate, ghee and dry butterfat production. **b** Includes mixed skim milk powder and buttermilk powder. **p** Preliminary.
Sources: Australian Dairy Corporation, *Monthly Statistics,* Melbourne; ABARE.

73 Australian consumption of dairy products

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Total consumption								
Butter	kt	45.7	45.6	55.4	55.7	51.9	49.7	54.7
Margarine (table)	kt	113.8	108.4	105.1	95.7	98.7	86.6	82.0
Cheese a	kt	154.5	159.2	170.8	184.3	191.6	197.8	197.2
Australian	kt	129.5	133.8	143.5	156.5	158.4	165.8	166.0
Wholemilk powder	kt	15.0	15.8	14.7	16.4	20.0	24.0	15.5
Skim milk powder b	kt	36.4	34.4	42.8	39.4	40.9	43.2	33.9
Casein	kt	1.3	1.0	1.1	1.3	1.4	1.6	0.3
Market milk	ML	1 763	1 778	1 810	1 849	1 895	1 920	1 921
Consumption per person								
Butter	kg	2.6	2.6	3.1	3.1	2.8	2.8	2.9
Margarine (table)	kg	6.5	6.2	5.9	5.3	5.4	4.7	4.4
Cheese a	kg	8.9	9.1	9.6	10.3	10.5	10.9	10.9
Australian	kg	7.4	7.6	8.0	8.1	8.7	9.0	na
Wholemilk powder	kg	0.9	0.9	0.8	0.9	1.0	1.2	0.8
Skim milk powder b	kg	2.1	2.0	2.4	2.2	2.2	2.3	1.8
Market milk	L	101.3	101.1	101.9	102.9	104.2	104.2	103.7

a In natural equivalent weight. **b** Includes buttermilk powder and mixed skim milk powder.
Sources: ABS, *Apparent Consumption of Selected Foodstuffs, Australia,* cat. no. 4315.0, Canberra; ABS, *Apparent Consumption of Foodstuffs, Australia,* cat. no. 4306.0, Canberra; Australian Dairy Corporation, *Dairy Compendium,* Melbourne; Australian Dairy Corporation, *Monthly Statistics,* Melbourne; Australian Dairy Corporation; ABARE.

74 Australian milk prices and gross value of production

	Producer price a			Gross value of production		
	Manufacturing milk	Market milk	Weighted average	Manufacturing milk	Market milk	Total
	c/L	c/L	c/L	$m	$m	$m
1960-61	na	na	5.3	196	128	325
1961-62	na	na	5.1	205	132	337
1962-63	na	na	5.2	218	132	350
1963-64	na	na	5.4	228	139	367
1964-65	na	na	5.6	239	145	384
1965-66	4.3	9.3	5.5	225	127	352
1966-67	4.4	9.3	5.5	244	138	382
1967-68	4.2	9.4	5.4	208	143	351
1968-69	4.3	9.3	5.5	221	142	364
1969-70	4.3	9.6	5.5	241	149	390
1970-71	4.6	10.0	5.9	245	154	399
1971-72	5.2	10.6	6.5	273	156	429
1972-73	5.3	11.0	6.7	269	165	434
1973-74	5.3	11.8	7.0	260	177	437
1974-75	6.0	14.2	8.0	288	195	483
1975-76	5.5	16.1	8.1	239	214	454
1976-77	5.7	18.7	9.2	232	249	481
1977-78	7.3	17.2	9.9	241	266	507
1978-79	8.5	18.5	11.0	275	293	568
1979-80	9.7	20.0	12.5	287	320	607
1980-81	13.0	23.1	16.0	479	352	830
1981-82	15.4	26.2	18.6	559	419	979
1982-83	16.7	28.7	20.1	663	463	1 126
1983-84	15.7	29.8	19.4	656	497	1 153
1984-85	13.5	31.2	18.2	510	526	1 035
1985-86	14.7	32.8	19.6	580	527	1 107
1986-87	17.5	34.5	22.1	687	570	1 257
1987-88	19.3	36.2	23.9	805	586	1 391
1988-89	22.7	37.9	26.8	981	654	1 635
1989-90	24.4	39.7	28.6	1 059	691	1 749
1990-91 b	18.9	40.9	23.5	1 099	726	1 825
1991-92	19.7	43.2	24.5	1 204	756	1 960
1992-93	24.4	43.5	29.0	1 522	793	2 314
1993-94	23.0	46.2	28.2	1 620	829	2 448
1994-95	22.2	47.8	27.9	1 511	908	2 419
1995-96	26.0	49.9	31.1	1 898	951	2 848
1996-97	24.0	51.0	29.6	1 830	981	2 811
1997-98	23.9	52.0	29.4	1 840	977	2 817
1998-99 p	23.0	51.5	28.8	1 944	968	2 912

a A slight series break occurs in 1977-78 as a result of a change in the method of valuation. **b** From 1990-91 manufacturing milk price is reported net of market support. **p** Preliminary.

Sources: ABS, *Value of Principal Agricultural Commodities Produced,* cat. no. 7501.0, Canberra; ABARE.

75 Average retail prices of selected dairy products

	Milk a		Milk powder b		Cheese c		Butter d	
	Sydney c/L	Melbourne c/L	Sydney c/kg	Melbourne c/kg	Sydney c/kg	Melbourne c/kg	Sydney c/kg	Melbourne c/kg
1991								
March	92	89	639	603	666	628	368	396
June	93	91	639	601	638	622	384	388
September	96	92	613	641	688	640	388	396
December	97	93	613	590	602	634	376	368
1992								
March	98	95	616	603	676	652	368	372
June	99	96	603	606	640	658	320	364
September	99	96	603	565	722	670	324	392
December	99	97	636	603	704	654	324	372
1993								
March	100	98	546	627	698	672	352	388
June	102	101	577	595	716	604	336	356
September	102	102	577	603	720	604	332	348
December	101	102	588	616	746	694	356	352
1994								
March	101	103	576	612	744	704	328	360
June	102	104	589	616	724	698	324	368
September	104	106	588	621	726	694	344	364
December	105	108	569	623	718	674	348	340
1995								
March	107	111	564	619	732	682	312	336
June	108	113	587	619	712	674	312	328
September	110	116	585	609	714	696	320	344
December	111	117	577	603	720	716	340	368
1996								
March	113	120	576	593	688	724	336	364
June	113	121	593	629	732	746	348	388
September	114	125	607	641	754	698	360	404
December	115	126	627	652	742	700	372	406
1997								
March	115	130	623	660	792	718	364	408
June	115	130	621	684	772	714	376	398
September	116	130	623	645	756	720	370	412
December	116	133	625	632	722	710	348	412
1998								
March	116	135	632	647	760	714	366	410
June	116	135	612	657	742	674	374	408
September	116	135	617	659	722	724	374	422
December	116	135	620	645	778	716	362	410
1999								
March	122	139	644	675	786	720	380	412
June	122	140	na	na	762	730	372	418

a 1litre carton, supermarket. **b** Full cream, 1 kilogram can. From the June quarter 1993, based on a 750 gram pack. **c** Based on a processed, sliced, wrapped, 500 gram pack. **d** Based on a 500 gram pack. **na** Not available.
Source: ABS, *Average Retail Prices of Selected Items,* cat. no. 6403.0, Canberra.

76 Australian exports of dairy products, by destination

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Cheese								
Japan	kt	42.6	47.4	50.4	58.3	60.2	70.1	73.6
Philippines	kt	4.1	5.0	6.2	6.4	6.0	6.8	6.6
Saudi Arabia	kt	10.2	9.8	11.3	12.3	10.0	12.3	12.6
United Kingdom	kt	1.3	2.4	3.4	4.0	6.9	3.1	5.7
United States	kt	6.4	6.4	4.9	5.3	6.8	7.3	8.0
Other	kt	21.5	27.6	40.2	33.1	38.6	53.7	68.7
Total	kt	86.0	98.6	116.3	119.4	128.5	153.4	175.2
Butter and butterfat a								
Egypt	kt	1.4	12.7	12.0	4.7	10.6	5.5	12.2
Malaysia	kt	5.0	4.0	4.6	4.3	4.8	3.8	3.7
Philippines	kt	4.6	5.4	5.0	5.6	4.6	4.5	3.9
Singapore	kt	10.6	9.9	9.7	8.0	7.4	7.7	8.3
Thailand	kt	8.4	7.8	10.5	12.6	9.2	8.5	7.6
Other	kt	35.3	39.6	30.6	20.9	58.6	61.6	66.4
Total	kt	69.6	83.1	76.7	60.3	99.5	94.8	104.4
Skim milk powder								
Japan	kt	13.8	23.8	21.3	22.5	20.2	20.9	11.5
Malaysia	kt	25.5	20.0	35.7	24.7	29.2	30.1	32.8
Philippines	kt	34.7	36.0	41.5	41.9	47.5	41.0	57.4
Thailand	kt	18.2	19.0	19.5	29.2	24.2	19.0	27.0
Singapore	kt	7.7	10.7	15.3	12.7	16.4	10.7	15.4
Other	kt	18.6	55.0	40.7	37.5	54.6	56.4	76.0
Total	kt	118.7	164.6	173.9	168.5	192.2	178.0	220.1
Casein								
Japan	kt	1.2	0.5	1.4	1.3	1.0	1.2	1.0
United States	kt	2.0	1.0	2.0	1.3	3.6	5.1	9.1
Other	kt	0.9	0.7	1.6	0.8	1.0	2.6	2.8
Total	kt	4.1	2.1	5.0	3.4	5.7	9.0	12.9
Wholemilk powder								
Malaysia	kt	7.7	10.9	12.9	14.8	13.2	11.4	11.6
Singapore	kt	8.5	6.7	4.5	4.6	5.1	3.4	5.9
Taiwan	kt	12.6	11.0	12.2	9.6	9.6	7.7	14.8
Thailand	kt	1.8	2.8	3.2	6.5	8.2	9.1	10.7
Other	kt	17.4	19.0	32.7	29.2	40.3	46.9	58.3
Total	kt	50.4	57.3	74.2	81.1	96.5	95.4	126.4
Other products								
Fresh milk	ML	39.7	49.7	64.8	69.4	79.8	75.1	76.2
Other fresh products	ML	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Condensed milk	kt	4.7	7.1	13.5	18.6	14.9	16.8	26.3
Other powders	kt	30.4	34.3	38.8	28.1	34.5	36.2	38.1

a Includes ghee, dry butterfat, butter concentrate and butter oil, all expressed as butter. **p** Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

77 Average export unit values of Australian dairy products a

	Butter b $/t	Cheese $/t	Skim milk powder $/t	Wholemilk powder $/t	Casein $/t
1960-61	638	503	na	na	356
1961-62	598	458	na	na	333
1962-63	604	462	na	na	319
1963-64	618	477	na	na	318
1964-65	688	514	na	na	367
1965-66	669	534	na	na	518
1966-67	607	591	281	586	420
1967-68	584	519	241	619	488
1968-69	523	545	153	544	409
1969-70	512	480	157	497	399
1970-71	516	504	185	500	431
1971-72	793	673	332	631	557
1972-73	784	733	390	738	727
1973-74	695	761	417	767	741
1974-75	955	1 012	649	1 007	1 033
1975-76	836	1 117	465	1 042	1 013
1976-77	1 124	1 070	323	867	832
1977-78	1 280	1 259	389	1 038	1 022
1978-79	1 249	1 337	541	1 104	1 366
1979-80	1 595	1 545	577	1 100	1 843
1980-81	1 875	1 926	1 000	1 614	2 476
1981-82	2 714	2 158	897	1 907	2 391
1982-83	2 412	2 444	919	2 057	2 941
1983-84	1 871	2 611	885	2 071	2 500
1984-85	1 617	2 433	849	1 900	2 286
1985-86	1 592	2 515	987	1 938	2 800
1986-87	1 758	2 645	1 127	2 048	3 286
1987-88	1 634	2 735	1 382	2 243	3 875
1988-89	1 970	2 990	2 245	2 650	6 277
1989-90	2 421	3 461	2 341	2 853	5 648
1990-91	1 968	3 203	1 784	2 193	3 890
1991-92	2 177	3 316	1 953	2 432	4 663
1992-93	2 241	3 693	2 554	2 918	6 670
1993-94	2 197	3 750	2 233	2 603	16 323
1994-95	2 076	3 449	2 293	2 471	7 045
1995-96	2 993	3 881	2 845	3 141	8 956
1996-97	2 217	3 702	2 462	2 779	5 801
1997-98	2 513	3 955	2 495	2 882	4 829
1998-99 p	2 819	3 967	2 254	2 883	5 177

a Fob. **b** Commercial butter equivalent. **p** Preliminary. **na** Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

78 Australian imports of cheese, by variety

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	t	t	t	t	t	t	t
Volume							
Processed							
Cheddar	294	109	166	196	23	265	251
Emmenthaler	183	121	78	86	28	49	0
Gruyere	82	48	40	27	31	55	59
Other	3 276	3 985	4 107	3 995	4 336	5 358	8 277
Natural							
Blue vein	690	566	447	409	418	571	462
Camembert	878	631	657	505	539	543	215
Cheddar	8 465	8 832	8 044	13 140	11 338	10 436	10 904
Colby	1 713	1 679	1 038	486	737	230	708
Edam	1 863	1 938	1 762	1 406	1 343	1 013	975
Emmenthaler	96	219	258	253	267	246	167
Fetta	1 051	1 381	1 427	1 424	1 777	1 292	1 223
Gouda	719	660	533	572	1 022	850	743
Kasseri	133	203	223	156	193	186	177
Mozzarella	639	1 152	1 566	1 539	1 292	1 859	1 933
Parmesan	533	521	589	708	714	726	884
Provolone	300	298	321	305	218	263	269
Other	4 604	5 026	6 571	7 961	7 744	7 251	3 510
Total	25 519	27 370	27 825	33 168	32 020	31 193	30 757
Unit value							
Processed							
Cheddar	3.70	4.15	2.74	1.65	4.08	5.30	3.29
Emmenthaler	4.91	5.43	5.42	4.71	5.30	5.55	0.00
Gruyere	7.85	6.87	6.18	6.18	6.28	5.63	6.48
Other	5.03	4.46	4.68	4.72	4.67	4.56	4.25
Natural							
Blue vein	7.46	7.08	6.97	7.06	7.70	9.89	10.69
Camembert	10.58	10.43	10.08	10.35	9.30	9.13	10.59
Cheddar	2.82	2.86	2.87	2.83	2.98	3.07	3.30
Colby	3.09	3.62	3.37	3.40	3.84	3.80	3.84
Edam	3.12	3.31	3.31	3.48	3.85	4.63	4.31
Emmenthaler	5.11	4.31	4.63	4.65	5.16	6.12	5.91
Fetta	4.52	4.89	5.01	4.97	4.30	5.33	6.17
Gouda	3.93	3.92	3.82	4.20	4.43	5.62	6.55
Kasseri	6.44	6.70	6.69	6.84	7.46	8.39	8.89
Mozzarella	2.65	2.64	2.48	2.67	2.77	2.86	3.49
Parmesan	7.28	7.96	10.05	10.74	10.12	10.24	10.63
Provolone	6.93	6.76	7.10	7.09	7.71	7.94	8.62
Other	5.47	5.11	5.00	4.71	4.71	5.15	5.44
Average	4.32	4.17	4.29	4.06	4.21	4.53	4.52

p Preliminary.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

79 Summary of world statistics for dairy products

	Production			Consumption		Exports a	
	Milk	Butter	Cheese	Butter	Cheese	Butter	Cheese
	Mt	kt	kt	kt	kt	kt	kt
1967	na	5 125	na	4 959	na	659	na
1968	336	5 281	5 128	5 007	5 074	730	701
1969	335	5 060	5 291	4 919	5 306	718	689
1970	336	5 047	5 744	5 000	5 751	924	747
1971	338	5 035	6 117	4 959	6 031	814	796
1972	346	5 377	6 553	5 012	6 379	690	805
1973	353	5 548	6 779	5 529	6 719	1 086	907
1974	360	5 214	7 147	5 409	6 941	977	973
1975	361	5 513	7 210	5 457	7 088	886	962
1976	367	5 600	2 298	5 513	7 512	981	1 099
1977	372	5 944	7 822	5 669	7 855	1 003	1 161
1978	377	5 997	8 172	5 627	8 113	1 038	1 271
1979	381	6 011	8 519	5 755	8 363	1 287	1 410
1980	386	6 174	8 193	5 882	7 728	1 328	1 450
1981	386	6 070	8 423	5 806	7 944	1 297	1 534
1982	398	6 361	8 805	5 687	8 425	1 312	1 484
1983	413	6 892	9 012	6 023	8 614	1 197	1 502
1984	413	6 834	9 167	6 157	8 860	1 337	1 701
1985	419	6 817	9 473	6 233	9 092	1 400	1 720
1986	426	7 102	9 764	6 376	9 479	1 310	1 733
1987	426	6 622	10 065	6 717	9 814	1 820	1 774
1988	429	6 567	10 490	6 785	10 149	1 888	1 855
1989	435	6 719	10 748	6 327	10 418	1 427	1 832
1990	442	6 824	10 915	6 262	10 581	1 104	1 997
1991	429	5 667	10 939	5 252	10 617	706	2 039
1992 b	380	5 470	10 931	5 245	10 569	694	2 051
1993	378	5 493	10 895	5 169	10 550	718	864
1994	378	5 221	11 194	5 109	10 897	688	917
1995	381	5 215	11 345	4 954	11 016	675	969
1996	380	5 134	11 702	4 833	11 272	641	941
1997	381	5 112	12 040	4 905	11 845	745	1 010
1998 p	384	5 255	12 187	4 896	11 913	691	969

a Includes intra-European Union trade up to and including 1993. **b** For years up to and including 1991 includes data for 38 selected major countries; from 1992 on includes data for 31 major countries. **p** Preliminary. **na** Not available.
Source: US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC.

80 Milk production in selected regions and countries

	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 p kt
Americas							
North America (incl. Mexico)	86 773	83 437	84 998	85 759	85 333	86 752	87 452
Canada	7 633	7 500	7 750	7 920	7 890	8 100	8 200
United States	68 440	68 303	69 701	70 440	69 857	70 802	70 886
South America	26 323	27 635	28 300	30 745	32 292	33 772	35 364
Asia							
China	5 031	4 990	5 288	5 764	6 296	6 674	7 200
India	29 400	30 600	31 000	32 500	33 500	34 500	35 500
Japan	8 581	8 627	8 388	8 382	8 657	8 642	8 566
Europe	124 992	124 167	124 440	125 676	125 361	124 942	124 276
European Union **a**	112 198	111 264	111 418	121 740	121 505	121 075	120 426
Belgium–Luxembourg	3 775	3 612	3 607	3 645	3 681	3 660	3 460
Denmark	4 605	4 661	4 641	4 673	4 695	4 633	4 668
France	25 315	25 049	25 322	25 413	25 083	24 893	24 793
Germany	28 106	28 080	27 866	28 621	28 776	28 702	28 500
Greece	690	752	750	738	755	750	750
Ireland	5 588	5 529	5 598	5 655	5 677	5 547	5 391
Italy	11 300	10 400	10 365	10 500	10 800	10 818	10 800
Netherlands	10 901	10 953	10 964	11 294	11 013	10 922	11 200
Portugal	1 490	1 453	1 485	1 669	1 731	1 770	1 750
Spain	6 000	6 130	5 900	6 000	5 900	5 700	5 600
United Kingdom	14 428	14 645	14 920	14 700	14 640	14 857	14 637
Other Eastern Europe **b**	17 406	17 235	17 037	17 305	17 178	17 370	17 380
Other Western Europe **c**	12 794	12 903	13 022	3 936	3 856	3 867	3 850
Russia	46 776	46 300	42 800	39 300	35 800	34 100	33 000
Ukraine	19 114	18 377	18 138	17 181	16 000	13 650	13 700
Oceania	15 521	16 265	18 019	18 117	19 362	20 774	21 351
Australia **d**	6 918	7 530	8 300	8 433	8 957	9 274	9 711
New Zealand **e**	8 603	8 735	9 719	9 684	10 405	11 500	11 640
Total	379 917 **f**	377 633 **g**	378 408 **g**	380 729 **g**	379 779 **g**	381 176 **g**	383 789 **g**

a Regarded as twelve countries until 1994. From 1995 includes Austria, Finland and Sweden. **b** Excludes East Germany for all years. From 1992 includes only Poland and Romania. **c** From 1989 to 1991 includes Austria, Finland, Norway, Sweden and Switzerland; from 1992 to 1994 includes Austria, Finland, Sweden and Switzerland; from 1995 includes only Switzerland. **d** Year ended 30 June. **e** Year ended 31 May. **f** Includes 38 major producing countries. **g** Includes 31 major producing countries. **p** Preliminary, except Australia and New Zealand. **na** Not applicable or not available.
Source: US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC.

81 Production of dairy products in selected regions and countries

	1991 kt	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 p kt
Butter								
Australia **abc**	106	108	126	143	131	145	147	154
Europe								
European Union **d**	1 818	1 653	1 649	1 605	1 750	1 752	1 729	1 727
Other Western Europe **e**	231	174	174	169	42	40	39	40
Other Eastern Europe **f**	434	200	194	173	179	173	189	189
Former Soviet Union	1 105	na	na	na	na	na	na	na
Russia	**g**	762	732	488	419	290	280	270
Ukraine	**g**	303	312	254	219	163	109	110
India	1 020	1 060	1 110	1 200	1 300	1 400	1 470	1 600
Japan **h**	76	95	108	80	78	85	87	89
New Zealand **bci**	269	268	276	297	280	309	307	343
South America	108	102	101	103	116	122	121	122
United States	606	619	596	588	573	533	522	491
Total	5 773	5 344	5 378	5 100	5 087	5 012	5 000	5 135
Cheese								
Australia **a**	179	198	210	234	241	263	285	289
Europe								
European Union **d**	4 897	4 975	5 082	5 148	5 596	5 730	5 857	5 808
Other Western Europe	485	418	425	434	131	133	136	140
Other Eastern Europe **f**	431	196	203	220	213	225	253	274
Former Soviet Union	556	na	na	na	na	na	na	na
Russia	**g**	299	313	285	217	173	165	170
Ukraine	**g**	113	102	105	72	60	45	44
Japan **j**	27	30	32	30	31	33	34	35
New Zealand **i**	125	142	145	192	197	230	240	266
South America	664	676	732	789	806	852	890	907
United States	2 747	2 943	2 961	3 054	3 138	3 274	3 324	3 403
Total	10 756	10 931	10 895	11 194	11 345	11 702	12 040	12 187
Skim milk powder								
Australia **a**	147	147	166	207	197	218	223	215
Europe								
European Union **d**	1 509	1 139	1 192	1 116	1 193	1 195	1 146	1 102
Other Western Europe	109	99	99	96	24	24	22	21
Other Eastern Europe **f**	145	139	156	112	128	120	120	118
Former Soviet Union	301	na	na	na	na	na	na	na
Russia	**g**	247	230	210	190	170	170	170
Ukraine	**g**	59	53	40	35	30	26	27
India	65	65	75	95	100	105	110	120
Japan	181	206	222	184	190	200	200	202
New Zealand **i**	172	162	150	168	178	202	211	215
South America	88	87	80	81	106	96	106	107
United States	398	396	433	558	559	482	550	551
Total	3 347	2 860	2 969	2 994	3 049	3 073	3 131	3 089

a Year ended 30 June. **b** Includes butter anhydrous milk fat and ghee. **c** Factory production only. **d** Regarded as twelve countries until 1994. From 1995 includes Austria, Finland and Sweden. **e** In 1991 includes Austria, Finland, Norway, Sweden and Switzerland; from 1992 to 1994 includes Austria, Finland, Sweden and Switzerland; from 1995 includes only Switzerland. **f** Excludes East Germany for all years. **g** Included in former Soviet Union total. **h** Year ended 31 March. **i** Year ended 31 May. **j** Includes imported unprocessed cheese which is blended with domestically produced cheese. **p** Preliminary, except Australia and New Zealand. **na** Not applicable.

Sources: Australian Dairy Corporation, *Monthly Statistics,* Melbourne; Agriculture and Livestock Industries Corporation, *Monthly Statistics,* Tokyo; Ministry of Agriculture and Fisheries, *Situation and Outlook for New Zealand Agriculture,* Wellington; US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC; ABARE.

82 Exports of dairy products, by selected countries

	1991	1992	1993	1994	1995	1996	1997	1998 p
	kt	kt	kt	kt	kt	kt	kt	kt
Butter								
Australia **ab**	50	51	70	83	77	60	99	95
European Union **c**								
Net exports **d**	338	234	179	158	187	176	215	179
Former Soviet Union	24	na	na	na	na	na	na	na
Russia	**e**	0	0	7	5	5	6	6
Ukraine	**e**	na	30	23	69	95	59	58
New Zealand **ab**	176	212	222	256	234	238	315	315
United States	49	139	145	94	64	19	18	8
Cheese								
Australia **a**	65	69	86	99	116	119	128	153
Austria **f**	10	9	12	13	16	25	7	7
European Union **c**								
Net exports **d**	442	430	522	511	549	522	487	425
New Zealand **ab**	100	107	121	138	169	173	236	232
Switzerland	62	67	60	59	64	57	61	63
Skim milk powder								
Australia **a**	115	105	119	165	174	168	192	178
Canada	36	30	17	33	44	33	30	31
European Union **c**								
Net exports **d**	250	385	258	154	387	231	295	233
New Zealand **ag**	171	164	114	151	167	150	215	197
United States	68	118	138	123	164	32	117	104
Casein								
Australia **a**	2	3	4	2	5	3	6	9
European Union **c**								
Net exports **d**	60	76	59	61	na	na	na	na
New Zealand **ah**	73	78	75	78	78	77	75	na
Poland	12	14	11	3	na	na	na	na

a Year ended 30 June. **b** Includes butter, anhydrous milk fat and ghee. **c** Regarded as twelve countries until 1994. From 1995 includes Austria, Finland and Sweden. **d** Excludes intra-EU trade. **e** Included in former Soviet Union total. **f** Included in European Union from 1995. **g** Skim milk and buttermilk powder. **h** Includes casein and caseinates. **p** Preliminary, except Australia and New Zealand. **na** Not applicable or not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Ministry of Agriculture and Fisheries, *Situation and Outlook for New Zealand Agriculture,* Wellington; US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC; ABARE.

83 Imports of dairy products, by selected countries

	1991	1992	1993	1994	1995	1996	1997	1998 p
	kt	kt	kt	kt	kt	kt	kt	kt
Butter								
European Union a	62	55	65	74	78	88	74	78
Japan	21	3	2	1	1	1	1	1
Former Soviet Union	351	na	na	na	na	na	na	na
Russia	b	215	162	151	241	113	250	150
Ukraine	b	7	7	10	5	1	3	3
Poland	40	19	9	3	0	0	5	1
Switzerland	3	5	6	3	3	3	5	4
Cheese								
Canada	21	21	22	21	21	23	23	23
European Union a	102	106	116	112	99	103	120	124
Japan	122	128	136	143	157	164	171	183
United States	135	129	145	151	153	152	141	156
Skim milk powder								
European Union a	9	6	32	50	46	68	84	74
India	0	25	3	1	2	0	0	0
Japan	117	96	73	86	103	75	74	57
Mexico	48	187	200	200	180	127	133	102
Peru	10	8	7	10	6	9	12	11
Casein								
European Union a	56	46	50	67	58	na	na	na
United States	73	78	64	76	65	na	na	na

a Regarded as twelve countries until 1 January 1995, then fifteen countries. Excludes intra-EU trade. **b** Included in former Soviet Union total. **c** Includes curd. **p** Preliminary. **na** Not applicable or not available.
Sources: US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC.

84 Stocks of dairy products in principal producing countries

	1991	1992	1993	1994	1995	1996	1997	1998 p
	kt	kt	kt	kt	kt	kt	kt	kt
Butter								
Australia **a**	17.0	21.0	18.0	17.0	9.0	33.0	24.0	26.0
Canada	15.0	9.0	6.0	8.0	14.0	13.0	14.0	14.0
European Union **b**	321.0	254.0	268.0	192.0	208.0	234.0	210.0	264.0
New Zealand **c**	159.0	173.0	129.0	117.0	109.0	126.0	101.0	86.0
United States	249.0	206.0	111.0	36.0	9.0	6.0	9.0	12.0
Total	761.0	663.0	532.0	370.0	349.0	412.0	358.0	504.0
Cheese								
Australia **a**	73.0	81.0	74.0	80.0	90.0	103.0	93.0	75.0
Canada	48.0	49.0	46.0	46.0	39.0	39.0	45.0	45.0
European Union **b**	1 088.0	1 163.0	1 237.0	1 236.0	1 360.0	1 416.0	1 397.0	1 358.0
New Zealand **c**	12.0	15.0	17.0	43.0	42.0	69.0	41.0	41.0
United States	189.0	213.0	211.0	198.0	187.0	221.0	218.0	235.0
Total	1 410.0	1 521.0	1 585.0	1 603.0	1 718.0	1 848.0	1 933.0	1 896.0
Skim milk powder								
Australia **a**	19.0	18.0	35.0	40.0	20.0	40.0	31.0	31.0
Canada	15.0	6.0	9.0	10.0	12.0	7.0	13.0	12.0
European Union **b**	493.0	214.0	134.0	151.0	93.0	205.0	198.0	226.0
New Zealand **c**	5.0	0.0	26.0	33.0	34.0	75.0	60.0	67.0
United States	97.0	37.0	41.0	59.0	39.0	32.0	57.0	69.0
Total	629.0	275.0	245.0	446.0	359.0	516.0	518.0	530.0

a Year ending 30 June of year shown. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. **c** Year ending 31 May of year shown **p** Preliminary. **na** Not available.

Source: US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC.

85 Major components of Australian farm costs

	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
	$m	$m	$m	$m	$m	$m	$m	$m
Materials and services								
Fuel	822	897	910	935	946	911	1 010	1 123
Fertiliser	659	710	754	803	915	1 016	1 095	941
Chemicals	344	402	474	564	703	809	916	866
Seed and fodder	1 360	1 371	1 431	1 587	1 838	1 981	2 233	2 354
Marketing	1 780	1 692	1 658	1 748	1 746	1 910	2 041	2 093
Repairs and maintenance	954	1 011	1 069	1 140	1 380	1 608	1 742	1 572
Other	1 404	1 543	1 559	1 759	2 112	2 330	2 550	3 142 **a**
Total	7 323	7 626	7 855	8 536	9 640	10 565	11 587	12 091
Other costs								
Wages	1 358	1 412	1 697	1 737	1 996	2 346	2 545	2 352
Interest paid	1 146	1 266	1 636	1 960	1 798	2 118	2 595	2 462
Other overheads	259	331	321	288	299	301	331	315
Total	2 763	3 009	3 654	3 985	4 093	4 765	5 471	5 129
Total cash costs	10 086	10 635	11 509	12 521	13 733	15 330	17 058	17 220
Depreciation	2 169	2 261	2 542	2 865	2 993	3 065	2 950	2 947
Total farm costs	12 255	12 896	14 051	15 386	16 726	18 395	20 008	20 167

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 **s**
	$m	$m	$m	$m	$m	$m	$m	$m
Materials and services								
Fuel	1 060	1 107	1 091	1 120	1 188	1 236	1 253	1 230
Fertiliser	1 024	1 065	1 244	1 378	1 651	1 760	1 828	1 920
Chemicals	924	993	1 059	1 139	1 349	1 480	1 520	1 581
Seed and fodder	2 600	2 396	2 437	3 131	2 928	2 801	2 998	2 938
Marketing	2 059	2 268	2 306	1 955	2 519	2 923	2 712	2 864
Repairs and maintenance	1 522	1 580	1 706	1 768	1 920	2 003	2 022	2 080
Other	2 606	2 591	2 828	3 064	2 937	2 954	2 961	3 020
Total	11 795	12 000	12 671	13 555	14 492	15 157	15 295	15 633
Other costs								
Wages	2 230	2 284	2 445	2 550	2 679	2 919	3 006	3 060
Interest paid	2 220	1 838	1 695	2 069	2 182	2 115	1 962	1 900
Other overheads	276	303	337	344	356	360	360	364
Total	4 726	4 425	4 477	4 963	5 217	5 395	5 329	5 324
Total cash costs	16 521	16 425	17 148	18 518	19 710	20 551	20 624	20 957
Depreciation	2 871	2 915	3 039	3 073	3 169	3 256	3 306	3 440
Total farm costs	19 392	19 340	20 187	21 591	22 879	23 808	23 930	24 397

a The large increase in 1990-91 was caused by the sharp rise in the wool tax. **s** ABARE estimate.

Sources: ABS, *Australian National Accounts, National Income and Expenditure,* cat. no. 5204.0, Canberra; ABS, *Australian National Accounts, National Income and Expenditure, Australia,* cat. no. 5206.0, Canberra; ABARE.

86 Indexes of prices paid by farmers in Australia

	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90
Materials and services									
Seed, fodder and livestock									
Seed, seedlings and plants	53.2	58.7	62.4	61.0	63.3	67.4	72.0	80.6	82.3
Fodder and feedstuffs	56.7	63.9	65.5	62.2	62.2	63.9	68.9	76.6	79.0
Store and breeding stock	57.7	57.1	64.2	67.7	64.2	73.0	83.0	92.3	88.6
Total	55.5	56.6	63.1	62.6	61.5	66.3	73.4	81.6	81.7
Fertiliser	51.3	52.6	56.0	62.2	68.3	67.0	68.3	76.9	82.4
Chemicals and medicines	62.7	66.2	70.3	76.7	84.3	89.4	89.4	91.2	93.2
Fuel and lubricants	63.0	72.7	78.9	84.2	86.9	86.0	88.7	80.4	91.6
Electricity	53.2	67.4	73.1	76.3	78.2	81.5	86.3	90.4	93.4
Maintenance									
Plant and equipment	36.2	40.2	44.1	47.3	52.5	58.7	63.9	67.7	72.9
Structures	47.0	52.4	56.2	59.1	62.5	66.7	69.2	73.8	79.8
Total	39.5	43.9	47.8	50.9	55.6	61.2	65.5	69.6	75.0
Contracts	50.1	57.3	60.9	65.1	67.4	69.1	71.4	76.4	81.0
Other materials and services	47.2	51.9	55.7	57.9	62.5	68.9	74.0	79.4	85.7
Total	51.8	56.2	61.0	63.6	66.6	70.1	74.6	79.5	83.2
Labor	47.7	52.3	55.8	60.0	63.0	65.6	68.5	73.5	78.9
Marketing									
Freight outwards	57.8	64.4	69.4	73.0	78.1	82.2	84.2	87.5	90.9
Selling expenses	51.4	53.8	60.0	62.4	65.7	70.0	74.8	83.0	85.5
Total	52.2	56.5	61.7	64.5	68.4	72.6	76.5	83.8	86.4
Overheads									
Interest paid	69.6	88.2	90.9	98.0	130.1	147.0	133.9	169.6	199.9
Rates and taxes	37.6	42.4	47.2	52.2	57.9	62.6	67.1	73.2	80.4
Insurance	39.1	46.2	48.9	50.6	46.9	51.3	50.6	53.7	62.0
Other overheads	45.1	50.3	53.7	56.0	60.7	66.4	71.2	75.6	80.6
Total	54.9	65.1	69.1	73.9	85.8	94.9	93.7	110.5	126.5
Capital items									
Plant and equipment	41.3	45.8	50.3	54.0	59.9	67.0	73.0	77.0	80.5
Structures	48.0	7.0	57.4	60.4	63.8	68.1	70.7	75.5	81.9
Total	41.8	46.5	50.9	54.5	60.2	67.0	72.7	76.8	80.7
Total prices paid	49.9	55.3	59.8	63.4	68.3	74.2	77.4	84.3	90.1
Excluding capital items	52.5	57.8	62.4	65.6	70.1	74.5	77.9	85.2	91.2
Excluding capital and overheads	51.1	55.4	60.2	63.0	66.1	69.6	73.7	79.0	82.9
Excluding seed, fodder and store and breeding stock	49.6	55.8	60.2	64.2	70.0	75.7	78.3	85.0	92.0

Continued

86 Indexes of prices paid by farmers in Australia *(continued)*

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Materials and services									
Seed, fodder and livestock									
Seed, seedlings and plants	82.5	85.3	87.6	88.9	95.7	101.1	99.2	100.0	100.6
Fodder and feedstuffs	75.5	80.5	78.5	79.9	92.2	101.4	98.9	100.0	91.4
Store and breeding stock	82.0	79.7	78.8	95.0	96.7	96.1	89.4	100.0	100.9
Total	77.6	80.5	79.0	85.0	93.8	100.0	96.4	100.0	94.7
Fertiliser	85.0	90.3	88.7	87.1	89.6	98.2	99.2	100.0	102.7
Chemicals and medicines	96.4	97.5	98.0	97.2	97.9	98.1	99.0	100.0	100.4
Fuel and lubricants	106.0	99.6	104.1	100.5	96.6	100.4	104.9	100.0	95.2
Electricity	96.7	100.4	101.8	100.9	98.3	97.7	99.4	100.0	99.8
Maintenance									
Plant and equipment	79.3	83.6	86.7	89.9	92.5	95.3	97.6	100.0	102.1
Structures	84.9	87.5	89.4	91.0	92.5	94.6	95.4	100.0	102.8
Total	81.0	84.8	87.5	90.2	92.5	95.1	96.9	100.0	102.3
Contracts	86.5	90.0	92.8	95.6	97.3	98.4	99.6	100.0	104.3
Other materials and services	90.2	91.2	92.4	94.1	96.8	100.1	100.0	100.0	102.3
Total	85.3	87.4	87.8	90.2	94.1	98.7	98.6	100.0	98.8
Labor	82.7	86.5	89.7	91.0	92.3	95.1	97.0	100.0	103.7
Marketing									
Freight outwards	95.5	96.9	97.9	98.5	98.5	98.5	98.6	100.0	100.3
Selling expenses	85.7	86.9	86.7	89.3	91.7	95.6	95.5	100.0	102.8
Total	87.4	88.7	88.7	91.0	92.9	96.2	96.1	100.0	102.3
Overheads									
Interest paid	170.3	139.6	107.4	100.2	113.2	127.9	117.0	100.0	90.6
Rates and taxes	87.4	89.3	91.5	92.0	94.2	92.2	95.6	100.0	102.0
Insurance	64.8	64.2	67.0	71.3	74.3	90.8	98.1	100.0	102.4
Other overheads	85.2	92.3	94.1	95.7	96.8	99.2	100.5	100.0	103.1
Total	119.9	109.4	96.7	94.5	101.4	109.2	106.4	100.0	96.5
Capital items									
Plant and equipment	82.3	83.9	87.4	91.7	94.3	97.3	99.0	100.0	103.2
Structures	87.5	89.5	91.7	93.4	94.8	95.8	96.7	100.0	101.7
Total	83.0	84.6	88.0	91.9	94.4	97.1	98.7	100.0	103.0
Total prices paid	90.8	90.7	89.5	91.1	94.9	99.4	99.3	100.0	100.0
Excluding capital items	91.8	91.5	89.7	91.0	95.0	99.8	99.4	100.0	99.5
Excluding capital and overheads	85.1	87.4	88.2	90.4	93.6	97.7	97.9	100.0	100.2
Excluding seed, fodder and store and breeding stock	94.0	93.1	91.9	92.5	95.1	99.3	99.9	100.0	101.0

p Preliminary. **na** Not available.
Note: ABARE revised the method for calculating these indexes in October 1999. The indexes for the different groups of farm cost items are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100.
Source: ABARE.

87 Indicative interest rates for the Australian farm sector

	Australian broadacre farms a	Commonwealth Development Bank bc	Major trading banks: Overdrafts for small businesses bd	Major trading banks: 90 day bank bills b
	%	%	%	%
1971		6.25	na	8.15
1972		6.25	na	5.75
1973		6.25	na	6.40
1974		9.13	na	8.80
1975		10.50	na	8.80
1976		11.75	10.25	10.45
1977		11.75	10.25	11.10
1978		11.75	10.25	10.80
1979	8.88	11.25	9.75	10.35
1980	9.24	11.75	10.25	13.85
1981	10.09	13.50	12.00	16.00
1982	11.48	16.50	14.50	18.75
1983	11.35	15.00	13.60	13.60
1984	12.02	15.25	13.60	12.80
1985	12.48	16.13	15.00	16.50
1986	15.45	17.50	17.40	14.80
1987	15.56	16.75	16.85	13.35
1988	13.86	15.50	15.25	13.15
1989	14.28	19.25	19.75	18.30
1990	16.67	18.50	18.70	15.05
1991	14.12	15.75	14.35	10.45
1992	12.02	12.75	10.90	6.40
1993	9.67	12.25	9.75	5.25
1994	9.29	11.50	9.30	5.45
1995	9.67	13.00	11.10	7.55
1996	10.43	12.13	11.25	7.57
1997	9.30	na	9.50	5.35
1998	8.20	na	8.75	5.32
1999 p	7.90	na	8.40	4.93

a Estimated average rate paid by all broadacre farms on all farm business debt for the year ended 30 June. **b** At 30 June. **c** From November 1973 to June 1976 the Commonwealth Development Bank charged a range of interest rates based on the purpose of the loan. Between 1974 and 1985 the data refer to the midpoint of a range of rates charged. From 1986 the data are the rates for variable interest loans. **d** Refers to the midpoint of a range of rates which apply to the lowest risk borrowers for a range of banks. In practice many borrowers pay an additional risk margin. **p** Preliminary. **na** Not available.

Sources: Reserve Bank of Australia, *Bulletin,* Sydney; Commonwealth Development Bank; Primary Industry Bank of Australia.

88 Farm indebtedness to financial institutions [ab]

	All banks [c]	Other government agencies [d]	Finance companies		Other farm debt [es]	Total farm debt
			Pastoral	Other		
	$m	$m	$m	$m	$m	$m
1988	7 738	1 530	544	651	1 250	11 713
1989	8 802	1 620	714	789	1 350	13 275
1990	10 161	1 690	402	1 121	1 410	14 784
1991	10 662	1 730	487	1 131	1 436	15 446
1992	11 345	1 856	467	912	1 460	16 040
1993	12 250	1 879	346	695	1 580	16 750
1994	12 410	1 909	366	785	1 631	17 101
1995	13 065	1 872	398	970	1 690	17 995
1996	14 753	746	376	1 343	1 792	19 010
1997	15 720	696	486	1 579	1 760	20 241
1998	16 680	603	625	1 354	1 810	21 072

a This table is based largely on data from the Reserve Bank of Australia and contains some modifications to table 87 *Australian Commodity Statistics 1997* because of changes to data collection by the bank. The farm sector is defined as enterprises covered by ANZSIC (1994) agricultural categories 011 to 021. **b** Credit outstanding in June of year indicated. **c** Derived from all banks lending to agriculture, fishing and forestry less the fishing and forestry component, which is estimated to be around 6 per cent of that total in 1997. **d** Includes the government agency business of state banks and advances made under War Service Land Settlement. Prior to 1996 includes loans from the Queensland Industry Development Corporation. From 1996 these loans are included in bank lending. **e** Includes loans from life insurance companies, lease agreements and indebtedness to hire purchase companies, trade creditors, private lenders and small financial institutions. **s** ABARE estimate.
Sources: Reserve Bank of Australia; ABARE.

89 Australian tractor sales, by type

	By power segment a				By wheel drive type			
	Under 30 kW	30–75 kW	75–150 kW	Over 150 kW	2WD b	4UWD c	4EWD d	Total
	no.	no.	no.	no.	no.	no.	no.	no.
1981	1 926	9 993	2 788	761	na	na	na	15 468
1982	1 735	8 021	2 447	614	8 113	3 918	786	12 817
1983	1 750	7 477	2 239	478	6 382	4 514	1 048	11 944
1984	2 368	7 610	2 379	677	6 168	5 638	1 228	13 034
1985	2 168	7 274	2 064	687	5 007	6 004	1 182	12 193
1986	1 779	4 797	924	156	2 953	4 318	385	7 656
1987	1 610	4 469	1 029	168	2 756	4 202	318	7 276
1988	1 971	5 371	1 057	167	2 888	5 327	351	8 566
1989	2 540	6 658	1 363	223	3 006	7 392	386	10 784
1990	2 148	5 513	1 267	328	2 410	6 418	428	9 256
1991	1 470	3 304	659	148	1 407	4 010	164	5 581
1992	1 335	3 328	917	218	1 330	4 211	257	5 798
1993	1 254	3 499	997	347	1 308	4 429	360	6 097
1994	1 128	4 250	1 248	466	1 239	5 430	423	7 092
1995	1 009	4 104	1 399	597	1 034	5 663	412	7 109
1996	1 088	4 304	1 773	1 051	916	6 508	792	8 216
1997	1 137	4 196	1 990	1 451	827	6 908	1 039	8 774
1998	1 119	4 504	1 634	1 214	621	6 548	1 302	8 471
1996 quarter								
March	267	906	408	288	215	1 412	241	1 868
June	254	1 143	608	331	250	1 818	266	2 334
September	255	1 131	400	193	207	1 649	123	1 979
December	315	1 124	357	239	244	1 629	162	2 035
1997 quarter								
March	287	745	380	320	181	1 310	241	1 732
June	274	1 058	678	453	219	1 967	277	2 463
September	266	1 176	430	145	190	1 650	177	2 017
December	310	1 217	502	533	237	1 981	344	2 562
1998 quarter								
March	273	755	567	524	132	1 493	494	2 119
June	208	961	657	412	145	1 905	188	2 238
September	248	1 228	365	230	174	1 758	139	2 071
December	296	1 166	401	236	177	1 469	453	2 099
1999 quarter								
March	290	927	368	385	124	1 476	370	1 970
June	285	1 183	500	363	146	1 845	340	2 331
September	251	1 100	312	203	136	1 486	244	1 866

a Tractor power ratings refer to power takeoff power in kilowatts. **b** Two wheel drive. **c** Four unequal diameter wheel drive. **d** Four equal diameter wheel drive. **na** Not available.

Source: Tractor and Machinery Association of Australia, Melbourne.

90 Australian trade in selected farm machinery

	Imports				Exports			
	Tractors	Tillage machinery	Harvesting/ haymaking machinery	Seeding machinery	Tractors	Tillage machinery	Harvesting/ haymaking machinery	Seeding machinery
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1971-72	22 081	541	1 859	196	513	2 120	4 696	256
1972-73	36 711	466	4 346	289	662	2 550	8 260	1 030
1973-74	41 606	1 008	9 495	572	411	3 016	9 453	1 111
1974-75	84 148	2 787	21 815	674	790	6 975	15 628	2 247
1975-76	116 290	3 215	21 164	665	2 440	5 889	12 080	626
1976-77	149 663	8 275	38 867	1 177	946	3 314	16 954	747
1977-78	110 697	8 338	46 932	1 744	1 165	4 775	8 888	2 293
1978-79	111 518	7 991	37 021	1 759	2 064	2 178	10 431	873
1979-80	169 008	10 472	62 964	2 316	3 742	2 578	12 268	1 481
1980-81	198 398	11 206	83 650	3 847	8 053	3 733	24 308	9 009
1981-82	260 771	14 252	89 061	3 362	6 638	6 224	12 897	4 002
1982-83	149 386	8 558	52 568	2 529	7 852	2 157	11 357	2 036
1983-84	174 936	10 585	109 281	3 516	4 804	1 935	4 764	2 236
1984-85	241 827	16 372	119 629	4 074	2 201	1 215	6 635	2 578
1985-86	198 476	9 822	68 493	3 555	7 352	1 268	13 745	5 945
1986-87	58 178	4 333	22 588	1 969	5 255	767	8 660	1 333
1987-88	124 132	7 528	39 628	4 189	2 892	1 214	18 183	609
1988-89	231 995	13 269	76 583	5 567	1 096	1 614	8 036	406
1989-90	268 895	22 090	96 195	5 913	1 301	1 107	12 059	886
1990-91	101 532	11 881	64 362	4 045	1 711	2 347	6 832	296
1991-92	91 061	8 631	43 394	4 002	890	2 446	11 295	841
1992-93	178 920	13 291	72 578	5 011	1 306	1 946	17 896	1 069
1993-94	245 154	15 220	118 227	6 835	1 112	2 704	31 541	782
1994-95	312 964	17 534	142 110	10 342	1 551	1 664	32 451	1 517
1995-96	366 038	25 448	170 307	14 505	1 524	2 896	43 088	1 504
1996-97	454 201	29 511	253 428	22 501	1 192	2 498	32 400	1 906
1997-98	512 157	30 278	243 655	30 525	995	1 391	33 946	1 269
1998-99 **p**	515 878	30 345	241 217	24 967	1 261	2 439	31 099	1 074

p Preliminary.

Sources: ABS, *International Trade, Australia, Part 1: Exports and Imports,* cat. no. 5409.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

91 Australian fertiliser prices, by type [a]

	Single superphosphate [b] $/t	Diammonium phosphate [b] $/t	Ammonium sulphate [c] $/t	Potassium chloride [c] $/t	Urea [c] $/t	Index of prices paid for fertiliser [d]
1971	16.18	na	40.41	69.10	79.24	11.6
1972	16.87	na	40.09	69.32	80.62	11.6
1973	16.99	na	40.79	68.80	81.44	11.6
1974	19.20	113.00	61.00	83.80	87.20	13.7
1975	54.60	na	103.00	103.40	120.60	30.8
1976	55.60	215.40	105.00	128.60	140.60	27.3
1977	53.16	135.00	91.80	109.45	153.95	28.0
1978	59.04	na	104.32	111.89	175.21	29.4
1979	56.76	247.80	112.06	117.54	185.16	32.1
1980	70.74	296.60	128.71	145.14	245.64	39.0
1981	83.40	337.60	149.14	176.42	274.23	46.5
1982	92.84	337.60	156.53	187.02	269.18	51.3
1983	101.42	334.00	155.64	180.50	261.11	52.6
1984	105.11	322.95	175.92	206.60	286.30	56.0
1985	118.46	342.17	218.19	267.29	321.50	62.2
1986	131.00	378.00	209.00	271.00	280.00	68.3
1987	128.00	339.00	211.00	279.00	276.00	67.0
1988	132.70	379.00	212.20	294.15	303.00	68.3
1989	155.40	396.00	229.40	328.70	339.70	76.9
1990	165.80	364.70	259.50	341.00	324.00	82.4
1991	177.10	389.00	276.00	361.80	390.00	85.0
1992	180.00	385.20	289.60	368.70	380.70	90.3
1993	173.00	368.80	293.10	367.50	389.70	88.7
1994	174.50	343.80	298.40	373.50	382.90	87.1
1995	179.10	417.30	319.20	372.30	455.90	89.6
1996	184.20	449.30	325.90	369.20	479.60	98.2
1997	179.17	460.25	317.88	362.75	434.80	99.2
1998	196.50	497.83	343.00	409.17	380.60	100.0
1999 [p]	197.00	487.83	339.25	437.50	333.80	102.7

a At 30 June. **b** Bulk. **c** Bagged. **d** Base: 1997-98 = 100. **p** Preliminary. **na** Not available.

Sources: Department of Primary Industry, *Chemical Fertilisers in Australia,* AGPS, Canberra; manufacturers' price lists; ABARE.

92 World fertiliser indicator prices

	Phosphate rock a	Sulphur b	Diam-monium phosphate c	Triple super-phosphate c	Ammonia d	Urea d	Potash e
	A$/t	A$/t	A$/t	A$/t	A$/t	A$/t	A$/t
1983-84	35	99	211	145	210	151	86
1984-85	37	173	230	162	267	218	113
1985-86	41	198	243	186	191	126	114
1986-87	42	171	227	180	138	118	99
1987-88	41	132	254	207	128	142	108
1988-89	43	119	239	196	121	155	116
1989-90	50	111	212	163	73	147	127
1990-91	52	115	231	183	162	192	124
1991-92	56	83	211	159	148	190	144
1992-93	61	57	185	172	135	191	161
1993-94	55	47	223	195	219	192	164
1994-95	50	75	270	216	335	259	153
1995-96	50	63	301	229	263	273	149
1996-97	47	42	265	246	278	239	144
1997-98	54	45	302	280	233	190	166
1998-99	75	41	326	296	193	168	180
1994 quarter							
March	52	44	237	204	210	192	160
June	51	60	244	209	313	196	156
September	49	68	239	207	299	188	152
December	49	76	249	207	327	247	152
1995 quarter							
March	49	77	290	220	352	290	151
June	51	81	302	231	363	309	155
September	50	75	276	224	264	248	153
December	50	73	321	226	269	311	151
1996 quarter							
March	51	60	331	232	285	302	150
June	48	45	275	237	233	233	143
September	46	33	264	234	226	243	143
December	46	43	259	244	315	248	142
1997 quarter							
March	47	44	267	251	315	251	145
June	48	46	270	256	256	216	147
September	50	49	281	260	257	183	153
December	53	54	296	276	224	169	163
1998 quarter							
March	55	40	306	284	207	170	169
June	58	36	326	299	243	239	179
September	79	38	352	316	233	218	188
December	75	36	331	301	179	160	181
1999 quarter							
March	74	38	317	294	169	143	178
June	72	52	305	274	191	153	173
September p	72	58	292	261	180	141	173

a US Gulf 68 BPL for the period to June 30 1998. Data after June 1998 refer to Jordan 70-74 BPL. **b** Vancouver spot. **c** Fob US Gulf. **d** Fob Middle East for the period to 30 June 1993 when data from this source became unavailable. Data after 30 June 1993 refer to fob US Gulf. **e** Vancouver standard muriate. **p** Preliminary.

Source: Derived from data in Pike and Fischer, *Green Markets,* Maryland, United States.

93 Australian fertiliser consumption, by element

	Phosphate (P_2O_5) kt	Nitrogen (N) kt	Potash (K_2O) kt
1980-81	823.0	248.0	128.0
1981-82	762.0	250.0	137.0
1982-83	742.0	258.0	127.1
1983-84	764.0	305.0	140.7
1984-85	685.0	344.0	141.2
1985-86	726.3	340.0	130.0
1986-87	871.8	332.5	135.7
1987-88	842.5	363.1	147.4
1988-89	790.5	392.6	160.8
1989-90	578.9	440.3	162.6
1990-91	580.0	439.4	145.4
1991-92	680.2	462.4	142.1
1992-93	801.4	488.0	145.2
1993-94	790.5	548.0	172.6
1994-95	950.0	564.5	201.2
1995-96	977.5	644.3	219.0
1996-97	1 016.0	772.7	196.5
1997-98	1 148.1	839.7	249.0
1998-99 **p**	1 058.7	880.1	223.0

p Preliminary.
Sources: FAO, *World Fertilisers Year Book,* Rome; Incitec Ltd, Queensland; ABARE.

94 Australian imports of fertiliser, by element

	Phosphate (P_2O_5) kt	Nitrogen (N) kt	Potash (K_2O) kt
1980-81	29.0	45.0	125.2
1981-82	36.9	52.0	142.7
1982-83	116.8	81.5	113.9
1983-84	174.0	96.0	140.7
1984-85	194.6	149.7	145.4
1985-86	150.4	121.3	116.7
1986-87	176.5	153.8	136.9
1987-88	146.3	154.2	165.5
1988-89	249.9	204.8	179.9
1989-90	305.0	257.2	173.0
1990-91	306.0	270.1	147.2
1991-92	331.6	257.2	145.4
1992-93	464.1	308.6	153.7
1993-94	447.3	392.2	179.1
1994-95	516.0	406.8	219.6
1995-96	604.1	469.3	218.6
1996-97	644.5	597.7	196.9
1997-98	713.7	654.7	258.9
1998-99 **p**	696.5	695.1	213.0

p Preliminary.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0; FAO, *World Fertilisers Year Book,* Rome; Incitec Ltd, Queensland; ABARE.

95 Australian imports of raw materials for fertiliser production, by source

	Sulphur		Phosphate rock						
	Canada	Other	Christmas Island	Jordan	Morocco	Nauru	United States	Other	Total
	kt	kt	kt	kt	kt	kt	kt	kt	kt
1971-72	212	65	503	0	0	na	0	na	1 654
1972-73	396	10	684	0	0	na	0	na	2 282
1973-74	381	23	955	0	0	na	0	na	3 104
1974-75	502	78	1 002	0	0	na	0	na	2 639
1975-76	180	26	503	0	0	na	0	na	1 461
1976-77	381	26	567	0	0	na	0	na	1 319
1977-78	470	26	487	0	0	na	0	na	1 610
1978-79	337	99	543	0	0	na	39	na	1 756
1979-80	627	60	674	0	0	na	215	na	1 936
1980-81	552	4	624	0	0	na	452	na	2 232
1981-82	459	0	780	5	25	na	216	na	2 360
1982-83	371	21	699	80	0	na	314	na	2 111
1983-84	470	0	456	34	25	na	247	na	1 688
1984-85	420	1	533	22	111	na	214	na	1 762
1985-86	458	0	506	55	103	na	181	na	1 921
1986-87	329	1	370	0	66	na	108	na	1 459
1987-88	462	11	240	26	256	na	103	na	1 808
1988-89	506	13	0	56	310	1 203	369	299	2 237
1989-90	382	13	0	33	236	768	207	187	1 430
1990-91	108	9	0	0	93	224	97	61	476
1991-92	38	6	0	30	0	257	145	42	474
1992-93	79	20	0	160	62	355	188	84	849
1993-94	71	0	13	213	144	203	170	33	776
1994-95	122	22	22	272	182	178	230	182	1 067
1995-96	114	31	47	297	136	191	195	45	911
1996-97	113	32	66	402	104	167	69	97	906
1997-98	126	5	126	393	238	153	0	150	1 060
1998-99 p	231	94	146	266	273	88	0	110	884

na Not available. **p** Preliminary.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Primary Industry, *Chemical Fertilisers in Australia,* AGPS, Canberra.

96 Australian trade in manufactured fertiliser, by type

	Imports						Exports
	Triple superphosphate	Diammonium phosphate	Monammonium phosphate	Other ammonium	Urea	Potassic fertiliser	Nitrogen fertiliser
	kt	kt	kt	kt	kt	kt	kt
1970-71	3.1	0.0	0.0	15.1	na	291.9	0.8
1971-72	2.4	0.0	0.0	27.3	na	286.2	7.8
1972-73	2.0	0.0	0.0	9.3	1.3	165.4	21.4
1973-74	1.8	0.0	0.0	4.1	0.1	182.9	37.9
1974-75	0.3	0.0	0.0	6.5	4.3	211.1	7.3
1975-76	0.1	0.0	0.0	0.3	4.7	110.2	47.9
1976-77	20.7	0.0	0.0	6.3	17.9	165.5	1.2
1977-78	10.1	0.0	0.0	9.4	10.2	161.9	7.2
1978-79	66.3	0.2	0.0	8.9	16.7	152.8	8.2
1979-80	0.0	2.2	0.0	30.7	41.2	168.5	24.2
1980-81	0.0	51.2	9.0	38.7	40.2	211.7	22.9
1981-82	0.0	50.5	8.9	62.7	43.2	239.2	18.5
1982-83	25.2	183.6	32.4	22.7	76.6	203.0	21.2
1983-84	35.1	257.5	45.9	14.7	64.0	227.9	4.5
1984-85	55.4	306.6	54.4	46.3	138.2	239.1	34.6
1985-86	48.1	229.4	40.2	41.7	144.2	194.4	6.2
1986-87	76.4	201.8	38.2	80.3	177.2	226.7	10.3
1987-88	88.4	124.7	15.3	98.9	212.0	276.7	16.1
1988-89	97.3	250.3	103.1	113.1	255.1	295.5	46.5
1989-90	114.3	320.3	164.2	78.6	361.7	285.0	48.3
1990-91	157.8	347.3	141.1	42.9	388.8	244.3	96.6
1991-92	264.4	355.0	206.2	90.2	364.5	243.4	60.8
1992-93	249.9	482.7	250.0	116.8	367.2	256.6	50.8
1993-94	204.2	501.2	237.5	133.7	526.5	298.6	76.6
1994-95	306.8	548.5	232.6	124.9	554.3	366.1	66.0
1995-96	269.3	715.4	291.5	154.0	594.9	364.4	40.0
1996-97	335.5	706.0	317.3	197.3	850.7	328.3	32.1
1997-98	351.8	757.1	391.6	118.1	953.3	431.6	43.2
1998-99 **p**	284.9	771.7	413.6	78.5	1 038.2	355.5	70.8

p Preliminary. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Primary Industry, *Chemical Fertilisers in Australia,* AGPS, Canberra.

97 Volume of Australian fertiliser imports, by state

	Triple superphosphate	Diammonium phosphate	Monammonium phosphate	Ammonium fertilisers		Urea	Potassic fertiliser	Phosphate rock
				Sulphate	Nitrate			
	kt	kt	kt	kt	kt	kt	kt	kt
New South Wales								
1994-95	17.5	54.9	51.7	0.1	0.7	33.0	23.0	134.4
1995-96	17.8	106.5	89.4	0.1	9.0	38.1	10.9	127.1
1996-97	16.7	66.0	90.6	6.4	17.2	96.8	18.3	145.1
1997-98	49.6	109.2	81.0	6.1	9.2	95.8	20.3	150.1
1998-99 **p**	15.9	84.9	88.0	7.6	6.3	119.1	16.4	142.7
Victoria								
1994-95	130.7	139.2	113.7	4.0	3.3	127.3	161.3	438.2
1995-96	109.9	179.5	112.0	2.3	2.1	154.0	120.9	334.1
1996-97	127.0	163.7	103.9	21.2	4.2	217.9	119.2	430.1
1997-98	148.3	197.8	143.7	22.6	3.3	253.7	145.0	484.4
1998-99 **p**	116.5	201.8	141.7	16.5	0.8	252.6	120.2	425.0
Queensland								
1994-95	8.1	71.4	16.5	7.9	43.2	128.0	90.0	0.2
1995-96	12.2	83.3	28.1	1.3	38.8	150.1	91.0	1.1
1996-97	9.5	91.9	48.7	0.2	47.1	190.1	99.0	0.3
1997-98	7.4	85.8	45.6	7.9	13.0	223.4	120.0	0.6
1998-99 **p**	10.3	103.4	48.4	6.8	8.8	193.6	98.0	0.3
Western Australia								
1994-95	108.7	119.7	0.2	9.7	50.8	196.8	57.7	370.9
1995-96	69.7	156.8	6.5	9.1	68.7	167.8	99.4	334.1
1996-97	132.8	196.0	37.6	36.1	48.6	263.9	64.0	252.4
1997-98	103.2	136.7	66.6	11.3	33.8	275.6	100.2	299.6
1998-99 **p**	90.6	167.4	95.4	0.0	21.9	351.1	90.4	267.6
South Australia								
1994-95	41.9	153.7	50.6	0.0	4.0	66.3	25.9	60.8
1995-96	58.3	179.8	55.5	15.5	3.7	81.8	20.1	48.7
1996-97	45.5	168.3	36.5	8.4	4.7	79.0	13.5	0.0
1997-98	39.0	200.2	54.6	2.7	3.6	98.5	13.3	0.0
1998-99 **p**	44.2	191.4	40.2	6.1	1.5	116.0	10.7	0.0
Tasmania								
1994-95	0.0	9.6	0.0	0.5	0.8	2.9	8.2	62.4
1995-96	1.5	9.5	0.0	2.5	0.9	3.2	22.0	65.7
1996-97	4.0	20.0	0.0	2.4	0.7	3.1	14.4	78.2
1997-98	4.3	25.2	0.0	4.5	0.1	6.2	32.8	125.1
1998-99 **p**	7.4	22.8	0.0	2.2	0.0	5.8	19.8	48.0
Australia								
1994-95	306.8	548.5	232.6	22.1	102.8	554.3	366.1	1 066.9
1995-96	269.3	715.4	291.5	30.8	123.2	594.9	364.4	910.8
1996-97	335.5	706.0	317.3	74.7	122.6	850.7	328.3	906.2
1997-98	351.8	757.1	391.6	55.0	63.1	953.3	431.6	1 059.7
1998-99 **p**	284.9	771.7	413.6	39.2	39.3	1 038.2	355.5	883.7

p Preliminary.

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

98 Value of Australian fertiliser imports, by state

	Triple superphosphate $m	Diammonium phosphate $m	Monammonium phosphate $m	Ammonium fertilisers: Sulphate $m	Ammonium fertilisers: Nitrate $m	Urea $m	Potassic fertiliser $m	Phosphate rock $m
New South Wales								
1994-95	3.01	14.64	14.22	0.04	0.19	8.33	4.47	7.06
1995-96	3.15	31.70	26.76	0.04	2.57	11.28	2.18	6.65
1996-97	3.75	17.14	23.19	0.95	4.19	24.04	3.50	8.98
1997-98	9.22	32.35	23.24	1.45	2.23	18.28	4.39	10.23
1998-99 **p**	4.23	26.53	27.69	1.94	1.59	19.43	4.79	11.33
Victoria								
1994-95	23.99	37.69	30.35	0.71	0.68	29.68	31.04	22.01
1995-96	24.73	54.04	32.76	0.36	0.48	43.81	20.87	18.93
1996-97	27.08	42.91	26.66	3.23	1.05	55.43	20.27	23.83
1997-98	35.47	57.58	42.00	4.93	0.83	48.99	28.18	29.95
1998-99 **p**	30.23	65.62	45.20	3.46	0.23	40.54	27.30	27.79
Queensland								
1994-95	1.52	18.04	4.61	1.22	12.25	27.17	15.72	0.08
1995-96	2.58	23.86	7.93	0.25	10.27	41.32	16.66	0.26
1996-97	2.14	24.28	12.79	0.04	13.01	48.13	18.08	0.06
1997-98	1.68	24.20	13.00	1.81	4.09	40.68	25.82	0.15
1998-99 **p**	2.79	33.67	15.76	0.90	2.44	34.90	25.73	0.08
Western Australia								
1994-95	20.49	30.77	0.12	1.35	13.10	56.40	9.64	19.74
1995-96	13.51	47.72	2.15	0.84	17.40	47.80	17.42	19.36
1996-97	28.89	52.01	10.22	3.80	12.65	64.86	10.48	13.04
1997-98	25.17	41.87	20.06	1.22	9.38	54.41	20.16	19.33
1998-99 **p**	24.60	55.47	32.35	0.00	6.20	51.96	20.92	21.80
South Australia								
1994-95	8.39	42.04	13.53	0.00	1.02	17.76	5.11	2.81
1995-96	12.68	53.98	16.96	3.22	0.96	23.14	4.25	2.65
1996-97	10.27	44.54	9.76	1.29	1.22	18.89	3.29	0.01
1997-98	9.96	60.08	16.05	0.67	1.09	16.62	3.62	0.00
1998-99 **p**	10.53	63.28	13.29	1.54	0.47	18.12	2.61	0.00
Tasmania								
1994-95	0.00	2.30	0.00	0.07	0.79	0.64	1.32	3.80
1995-96	0.29	2.72	0.00	0.32	0.33	0.89	3.72	4.27
1996-97	0.89	5.18	0.00	0.35	0.16	0.73	2.37	4.14
1997-98	1.04	6.97	0.00	1.08	0.04	1.24	6.14	7.93
1998-99 **p**	1.95	7.85	0.00	0.56	0.00	0.96	4.37	3.30
Australia								
1994-95	57.40	145.49	62.82	3.40	28.03	139.98	67.30	55.50
1995-96	56.94	214.02	86.57	5.02	32.02	168.24	65.10	52.12
1996-97	73.02	186.04	82.62	9.66	32.29	212.08	57.99	50.06
1997-98	82.55	223.82	114.35	11.17	17.65	180.23	88.33	67.59
1998-99 **p**	74.33	252.43	134.28	8.41	10.94	165.91	85.73	64.29

p Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

99 Volume of Australian fertiliser imports, by quarter

	Triple superphosphate	Diammonium phosphate	Monammonium phosphate	Ammonium fertilisers		Urea	Potassic fertiliser	Phosphate rock
				Sulphate	Nitrate			
	kt	kt	kt	kt	kt	kt	kt	kt
1992 quarter								
March	81.7	87.4	54.1	23.0	3.6	64.3	44.4	129.9
June	94.6	158.7	100.3	21.4	13.8	158.4	71.6	88.3
September	26.1	35.0	20.0	9.4	20.3	70.4	62.7	227.0
December	33.5	41.2	35.1	16.9	13.6	76.6	61.3	399.5
1993 quarter								
March	114.8	175.5	85.7	33.2	15.6	82.2	79.3	114.6
June	75.4	231.1	109.2	7.8	4.8	138.0	55.0	108.4
September	2.1	58.7	16.4	1.1	13.6	123.8	92.9	156.6
December	21.4	83.6	42.6	27.8	13.8	112.8	61.9	300.0
1994 quarter								
March	110.3	165.6	97.1	28.1	14.5	93.8	98.7	150.9
June	70.4	193.4	81.4	18.8	18.7	196.5	47.5	168.3
September	62.8	88.8	37.1	8.4	42.9	144.8	82.8	365.7
December	26.1	70.8	8.6	9.7	25.8	126.3	103.2	269.6
1995 quarter								
March	117.0	205.3	84.8	3.8	20.7	102.7	52.0	229.4
June	101.0	183.6	102.2	0.2	19.1	180.4	129.9	202.1
September	36.1	74.6	32.5	19.2	13.5	162.1	116.0	268.9
December	60.4	103.9	40.6	9.2	19.1	111.5	88.2	328.0
1996 quarter								
March	107.1	281.9	115.3	0.2	35.5	119.6	92.8	202.0
June	65.8	255.0	103.0	2.2	58.6	201.8	69.0	111.8
September	58.2	140.2	37.4	13.6	47.3	231.6	62.5	223.5
December	87.7	151.3	70.4	15.2	28.0	177.8	80.9	291.0
1997 quarter								
March	103.4	216.2	116.9	17.4	32.1	137.1	100.1	200.7
June	86.3	198.4	92.5	28.6	24.0	304.2	85.8	191.0
September	29.4	88.4	19.7	24.1	22.3	243.9	86.8	322.5
December	87.3	119.2	87.9	5.7	17.2	148.1	121.3	284.8
1998 quarter								
March	155.4	306.7	171.7	25.0	12.5	220.0	109.6	265.1
June	79.8	242.8	112.4	0.3	13.9	344.2	117.2	187.3
September	62.3	92.5	48.2	19.6	7.5	193.3	77.7	342.1
December	47.5	101.7	61.6	0.3	16.9	162.1	76.3	306.3
1999 quarter								
March	112.6	369.4	203.1	13.6	4.6	296.5	87.4	154.1
June	62.6	208.1	100.8	5.8	13.4	386.4	115.7	81.2
September	33.0	41.9	32.1	0.3	18.5	286.9	87.1	173.0

p Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

100 Value of Australian fertiliser imports, by quarter

	Triple superphosphate	Diammonium phosphate	Monammonium phosphate	Ammonium fertilisers		Urea	Potassic fertiliser	Phosphate rock
				Sulphate	Nitrate			
	kt	kt	kt	kt	kt	kt	kt	kt
1992 quarter								
March	81.7	87.4	54.1	23.0	3.6	64.3	44.4	129.9
June	94.6	158.7	100.3	21.4	13.8	158.4	71.6	88.3
September	26.1	35.0	20.0	9.4	20.3	70.4	62.7	227.0
December	33.5	41.2	35.1	16.9	13.6	76.6	61.3	399.5
1993 quarter								
March	114.8	175.5	85.7	33.2	15.6	82.2	79.3	114.6
June	75.4	231.1	109.2	7.8	4.8	138.0	55.0	108.4
September	2.1	58.7	16.4	1.1	13.6	123.8	92.9	156.6
December	21.4	83.6	42.6	27.8	13.8	112.8	61.9	300.0
1994 quarter								
March	110.3	165.6	97.1	28.1	14.5	93.8	98.7	150.9
June	70.4	193.4	81.4	18.8	18.7	196.5	47.5	168.3
September	62.8	88.8	37.1	8.4	42.9	144.8	82.8	365.7
December	26.1	70.8	8.6	9.7	25.8	126.3	103.2	269.6
1995 quarter								
March	117.0	205.3	84.8	3.8	20.7	102.7	52.0	229.4
June	101.0	183.6	102.2	0.2	19.1	180.4	129.9	202.1
September	36.1	74.6	32.5	19.2	13.5	162.1	116.0	268.9
December	60.4	103.9	40.6	9.2	19.1	111.5	88.2	328.0
1996 quarter								
March	107.1	281.9	115.3	0.2	35.5	119.6	92.8	202.0
June	65.8	255.0	103.0	2.2	58.6	201.8	69.0	111.8
September	58.2	140.2	37.4	13.6	47.3	231.6	62.5	223.5
December	87.7	151.3	70.4	15.2	28.0	177.8	80.9	291.0
1997 quarter								
March	103.4	216.2	116.9	17.4	32.1	137.1	100.1	200.7
June	86.3	198.4	92.5	28.6	24.0	304.2	85.8	191.0
September	29.4	88.4	19.7	24.1	22.3	243.9	86.8	322.5
December	87.3	119.2	87.9	5.7	17.2	148.1	121.3	284.8
1998 quarter								
March	155.4	306.7	171.7	25.0	12.5	220.0	109.6	265.1
June	79.8	242.8	112.4	0.3	13.9	344.2	117.2	187.3
September	62.3	92.5	48.2	19.6	7.5	193.3	77.7	342.1
December	47.5	101.7	61.6	0.3	16.9	162.1	76.3	306.3
1999 quarter								
March	112.6	369.4	203.1	13.6	4.6	296.5	87.4	154.1
June	62.6	208.1	100.8	5.8	13.4	386.4	115.7	81.2
September	33.0	41.9	32.1	0.3	18.5	286.9	87.1	173.0

p Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

101 Australian sales and prices of chemicals, by product type

	Herbicides ab	Fungicides/ plant growth regulants ab	Insecticides ab	Animal health products ac	Index of prices paid for chemicals d
	$'000	$'000	$'000	$'000	
1975	25 594	8 237	13 424	na	34
1976	35 518	10 337	13 627	na	40
1977	46 402	10 950	21 202	na	44
1978	54 362	12 090	25 317	61 462	45
1979	77 349	14 175	28 753	na	50
1980	94 301	17 551	34 986	88 552	58
1981	108 837	20 167	37 046	92 022	61
1982	109 722	19 744	37 957	91 810	63
1983	159 888	28 829	42 905	118 443	66
1984	192 830	29 536	53 906	137 878	70
1985	207 226	30 165	52 659	155 542	77
1986	216 820	34 845	60 233	171 839	84
1987	284 445	43 332	86 861	188 546	89.4
1988	366 727	46 622	104 395	284 375	89.4
1989	402 573	60 614	93 075	283 240	91.2
1990	398 336	57 856	115 108	267 017	93.2
1991	354 058	55 013	118 383	211 000	96.4
1992	463 104	87 699	120 688	247 823	97.5
1993	501 051	97 286	130 808	266 334	98.0
1994	421 457	79 710	130 823	259 940	97.2
1995	503 700	86 400	189 300	271 500	97.9
1996	600 500	101 300	251 600	285 000	98.1
1997	713 601	123 698	268 380	302 000	99.0
1998	833 987	138 570	328 270	291 500	100.0

a For the years to 1995 figures represent sales at the factory gate. These figures do not include sales from non-AVCARE members but are likely to represent about 90 per cent of actual total sales. **b** For the years after 1995, figures refer to total Australian sales as recorded by the National Registration Authority. **c** Estimated by ABARE for the years after 1995. **d** Base: 1997-98 = 100. **na** Not available.
Sources: Derived from data provided by AVCARE, Sydney; National Registration Authority, Kingston; ABARE.

102 Australian farm fuel prices

	Petrol a c/L	Off-road diesel c/L	Index of prices paid for fuel b
1970-71	8.70	4.39	12
1971-72	9.24	4.65	12
1972-73	9.32	4.66	12
1973-74	10.31	4.74	12
1974-75	11.68	5.97	15
1975-76	13.53	7.86	20
1976-77	14.51	9.02	22
1977-78	17.13	11.21	26
1978-79	21.16	14.92	33
1979-80	28.79	22.22	46
1980-81	34.04	27.78	58
1981-82	36.30	29.64	63
1982-83	42.13	33.22	73
1983-84	45.50	34.00	79
1984-85	47.95	36.13	84
1985-86	52.21	33.91	87
1986-87	54.32	30.83	86
1987-88	56.28	31.49	89
1988-89	53.89	27.17	80
1989-90	60.27	30.89	92
1990-91	67.58	36.39	106
1991-92	64.70	33.14	100
1992-93	67.07	35.10	104
1993-94	67.23	32.47	101
1994-95	68.87	29.25	97
1995-96	71.54	30.60	100
1996-97	73.52	32.69	105
1997-98	73.02	29.98	100
1998-99 p	69.20	27.80	95

a Super grade. **b** Base: 1997-98 = 100. **p** Preliminary.
Sources: Shell Australia Limited; ABARE.

103 Persons employed in agriculture, forestry, fishing and hunting

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	'000	'000	'000	'000	'000	'000	'000	'000
Agriculture								
Grains, sheep and beef cattle	205.9	211.7	217.1	200.5	201.7	203.5	202.6	199.3
Horticulture and fruit	93.3	83.1	80.5	77.4	93.0	87.1	90.7	91.7
Other crops	13.6	12.3	11.6	17.0	16.9	18.3	20.6	19.8
Dairy cattle	21.4	22.1	22.6	34.2	30.1	39.9	38.2	32.6
Poultry	10.3	9.2	10.3	10.0	11.7	10.1	9.4	8.2
Other livestock	22.8	21.7	21.2	17.4	16.4	16.1	16.4	14.3
Total	367.2	359.9	363.3	356.6	369.9	375.0	377.9	365.9
Services to agriculture	15.8	17.3	19.8	18.6	18.0	22.4	25.0	27.6
Forestry and logging	11.3	11.0	11.3	12.4	11.4	10.9	14.0	14.1
Marine fishing	9.2	10.8	9.4	10.5	9.4	9.1	9.5	9.7
Aquaculture	4.3	5.0	4.4	4.3	9.2	3.9	4.2	4.1
Hunting and trapping	0.2	0.2	0.5	0.9	0.6	0.6	0.4	0.4
Total	408.1	404.1	408.7	403.4	418.5	421.9	430.8	421.8

p Preliminary.
Source: ABS, *Labour Force Estimates, Labour Force Survey Data,* Canberra.

104 Australian wages and the consumer price index a

	Contract rates %	Shearing rates b %	Rural wages %	Average weekly earnings %	Consumer price index %
1971-72	– 1.4	na	5.6	10.2	6.9
1972-73	1.9	na	9.3	9.0	6.1
1973-74	6.3	na	20.0	16.2	12.9
1974-75	18.8	na	37.3	25.4	16.8
1975-76	14.9	na	13.7	14.4	12.9
1976-77	12.4	13.1	13.1	12.4	13.9
1977-78	6.7	9.2	10.8	9.9	9.5
1978-79	9.4	6.2	6.1	7.7	8.2
1979-80	8.4	12.3	7.2	9.8	10.2
1980-81	9.6	9.0	9.1	13.5	9.3
1981-82	9.7	9.6	11.7	15.8	10.5
1982-83	14.9	8.5	10.1	11.4	11.5
1983-84	7.8	3.8	6.2	8.5	6.7
1984-85	6.5	8.4	7.9	6.8	4.3
1985-86	3.8	4.2	4.7	6.4	8.4
1986-87	2.2	4.4	4.7	6.9	9.4
1987-88	3.7	2.9	3.9	6.2	7.3
1988-89	7.0	11.0	7.3	6.8	7.3
1989-90	6.1	6.5	7.4	6.9	8.0
1990-91	6.7	1.4	4.8	6.6	5.3
1991-92	4.1	1.0	4.6	2.9	1.9
1992-93	3.1	4.2	3.6	2.0	1.0
1993-94	3.0	0.4	1.4	2.9	1.8
1994-95	1.9	0.8	1.4	3.4	3.2
1995-96	1.0	2.3	3.1	2.5	4.2
1996-97	1.2	1.5	2.0	3.0	1.3
1997-98	0.5	1.8	3.1	3.1	0.0
1998-99 p	2.0	5.3	2.0	2.2	1.3

a Percentage change from previous year. **b** Based on price per 100 flock sheep. **p** Preliminary. **na** Not available.
Sources: ABS, *Average Weekly Earnings, Australia,* cat. no. 6302.0, Canberra (derived from average weekly earnings per employed male unit series); ABS, *Consumer Price Index,* cat. no. 6401.0, Canberra; ABARE.

105 Summary of Australian fisheries statistics

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Prawns									
Production **as**	kt	24.5	25.1	23.2	28.0	29.4	27.6	29.1	28.7
Value of production	$m	244.1	291.3	320.6	368.0	368.4	344.6	362.7	379.0
Exports **b**	kt	9.7	8.8	9.0	11.2	12.8	10.7	12.1	11.8
Value of exports	$m	140.9	153.1	195.5	229.3	218.3	180.6	229.6	220.6
Imports **b**	kt	12.4	12.7	13.2	14.3	13.1	13.8	14.8	15.8
Value of imports	$m	111.0	121.7	137.6	166.4	154.7	156.2	191.1	202.6
Rock lobster									
Production **a**	kt	18.5	18.4	16.8	16.3	15.8	15.8	16.5	18.8
Value of production	$m	369.1	348.8	429.8	450.1	372.4	412.6	372.4	395.4
Exports **b**	kt	12.3	13.6	13.5	12.4	12.3	12.5	12.3	14.4
Value of exports	$m	379.5	384.1	467.7	474.7	417.6	453.4	424.5	451.4
Abalone									
Production **as**	kt	5.0	4.7	4.7	5.2	5.4	5.2	4.9	4.9
Value of production	$m	94.6	127.5	178.4	144.7	142.4	140.9	167.7	167.7
Exports **b**	kt	22.4	18.6	9.9	2.9	3.0	2.9	3.0	3.4
Value of exports	$m	129.6	168.4	188.5	168.2	146.7	169.6	191.7	184.6
Scallops									
Production **a**	kt	29.8	33.7	23.6	15.4	16.0	8.6	9.8	6.3
Value of production	$m	82.8	72.2	71.6	63.6	71.4	35.8	41.3	34.0
Exports **b**	kt	3.1	5.3	4.7	2.9	2.7	1.3	1.3	1.6
Value of exports	$m	44.9	79.0	82.1	72.1	67.1	36.6	36.4	33.2
Oysters									
Production	kt	8.2	8.6	8.7	9.4	10.1	9.4	7.6	7.5
Value of production	$m	44.3	41.2	42.4	47.6	51.5	45.5	36.9	37.1
Tuna									
Production **acs**	kt	13.2	10.2	7.7	8.7	9.2	13.6	9.7	13.8
Value of production **c**	$m	76.2	116.2	107.8	129.8	85.0	55.8	40.6	56.5
Exports **bd**	kt	2.7	2.5	2.9	3.4	4.6	5.8	7.6	8.5
Value of exports **d**	$m	8.9	11.4	26.6	40.7	55.7	67.2	104.5	120.4
Imports **b**	kt	11.4	12.6	17.4	19.3	15.1	20.3	18.7	21.8
Value of imports	$m	28.9	34.6	48.7	54.3	50.9	57.2	66.4	82.0
Other fish									
Production **as**	kt	139.8	123.6	121.9	127.5	123.5	106.7	121.1	117.2
Value of production	$m	301.3	320.7	322.5	336.8	352.2	356.0	387.1	405.7
Exports **b**	kt	12.5	12.9	11.6	13.3	12.8	13.2	16.1	17.6
Value of exports	$m	94.7	113.5	106.3	101.5	111.4	115.4	129.1	154.3
Imports **b**	kt	65.7	63.6	68.3	67.1	67.5	69.9	72.2	75.7
Value of imports	$m	261.6	275.2	277.7	288.1	297.4	290.2	327.5	358.7

a Live weight. **b** Product weight. **c** Includes an estimate of tuna production from joint venture agreements**.** Excludes Commonwealth southern bluefin tuna as an input to South Australian farms. **d** Tuna transhipped at sea or captured under joint venture or bilateral agreements is not included**. s** Includes estimates of aquaculture. **p** Preliminary.

Sources: ABARE, *Australian Fisheries Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

106 Quantity and value of Australian production of fisheries products

	Unit	Prawns	Rock lobster	Abalone	Scallops a	Oysters	Fish b	Tuna c	Total d
Quantity c									
1977-78	kt	19.3	14.5 e	5.1	9.1	9.8	50.8	12.3	
1978-79	kt	21.7	15.4	6.2	10.5	6.7	50.2	11.3	
1979-80	kt	22.0	14.5	6.4	16.4	8.3	43.5	13.6	
1980-81	kt	26.9	15.6	6.9	9.8	8.3	58.0	18.2	
1981-82	kt	21.8	16.0	7.7	15.4	7.8	57.9	21.7	
1982-83	kt	22.2	18.0	6.1	32.0	7.8	58.5	21.3	
1983-84	kt	22.7	16.0	8.5	33.5	7.0 e	64.0	15.8	
1984-85	kt	20.5	14.1	7.7	19.2	7.5	73.0	13.0	
1985-86	kt	18.5	11.8	7.0	16.2	6.8	76.0	13.5	
1986-87 s	kt	21.0	12.0	7.0	12.0	7.1	85.0	12.0	
1987-88 s	kt	23.0	16.0	7.0	6.0	8.0	94.0	11.0	
1988-89 s	kt	28.0	18.0	6.0	5.0	8.0	98.0	9.0	
1989-90 s	kt	23.3	15.7	5.1	6.3	7.5	120.9	8.2 f	
1990-91 s	kt	29.1	14.7	5.2	14.5	8.1	145.4	11.7 f	
1991-92 s	kt	24.5	18.5	5.0	29.8	8.2	139.8	13.2 f	
1992-93 s	kt	25.1	18.4	4.7	33.7	8.6	123.6	10.2 f	
1993-94 s	kt	23.2	16.8	4.7	23.6	8.7	121.9	7.7 f	
1994-95 s	kt	28.0	16.3	5.2	15.4	9.4	127.5	8.7 f	
1995-96 s	kt	29.4	15.8	5.4	16.0	10.1	123.5	9.2 f	
1996-97 s	kt	27.6	15.8	5.2	8.6	9.4	106.7	13.6 f	
1997-98 s	kt	29.1	16.5	4.9	9.8	7.6	121.1	9.7 f	
1998-99 ps	kt	28.7	18.8	4.9	6.3	7.5	117.2	13.8 f	
Value									
1977-78	$m	71.0	65.9 e	9.3	4.4	12.0 e	48.2 g	5.6	217.6
1978-79	$m	100.6	73.6	11.3	5.4	11.9 e	51.2	5.3	265.0
1979-80	$m	101.4	83.1	16.9	10.1	14.1 e	61.4	11.5	298.5
1980-81	$m	127.8	88.4	23.5	9.7	17.5	53.9 h	15.9	330.2
1981-82	$m	109.0	107.7	27.3	11.1	21.0	54.2 h	13.7 h	344.0
1982-83 s	$m	150.3	129.7	21.0	21.4	20.3	65.5	14.3 h	422.5
1983-84 s	$m	145.3	134.0	29.4	24.6	20.1	83.0	12.6 h	449.0
1984-85 s	$m	164.0	172.0	35.0	20.0	29.0	88.0	14.0	522.0
1985-86 s	$m	190.0	140.0	60.0	24.0	30.0	102.0	17.0	563.0
1986-87 s	$m	216.0	186.0	84.0	25.0	31.0	137.0	23.0	702.0
1987-88 s	$m	246.0	252.0	96.0	22.0	36.0	157.0	19.0	828.0
1988-89 s	$m	274.0	280.0	86.0	21.0	38.0	215.0	19.0	1 019.0 i
1989-90 s	$m	226.0	245.0	90.0	25.0	36.0	278.0	66.0 f	1 092.0 i
1990-91 s	$m	262.9	287.5	92.1	42.3	43.2	269.8	66.5 f	1 224.1 i
1991-92 s	$m	244.1	369.1	94.6	82.8	44.3	301.3	76.2 f	1 376.2 i
1992-93 s	$m	291.3	348.8	127.5	72.2	41.2	320.7	116.2 f	1 475.7 i
1993-94 s	$m	320.6	429.8	178.4	71.6	42.4	322.5	107.8 f	1 679.3 i
1994-95 s	$m	368.0	450.1	144.7	63.6	47.6	336.8	129.8 f	1 813.3 i
1995-96 s	$m	368.4	372.4	142.4	71.4	51.5	352.2	85.0	1 689.8 i
1996-97 s	$m	344.6	412.6	140.9	35.8	45.5	356.0	55.8	1 702.1 i
1997-98 s	$m	362.7	372.4	167.7	41.3	36.9	387.1	40.6	1 734.1 i
1998-99 ps	$m	379.0	395.4	167.7	34.0	37.1	405.7	56.5	1 796.4 i

a Before 1980-81 excludes production in the Northern Territory. **b** Excludes tuna, freshwater catches and fish not for human consumption. **c** Live weight. **d** Total Australian quantities are excluded because not all products are measured in kt, for example, pearls. Value includes all fisheries products. **e** Excludes production in Victoria and Queensland. **f** Includes an estimate of tuna production from joint venture agreements. Excludes Commonwealth southern bluefin tuna as an input to South Australian farms. **g** Includes the value of seaweed harvested in Tasmania. **h** Excludes the value of Queensland production. **i** Includes pearls, aquaculture and other products. **p** Preliminary. **s** ABARE estimate; the values of production are based on values to fishing operators (ABS estimates of gross value of production include certain marketing costs in some cases).

Sources: ABARE, *Australian Fisheries Statistics,* Canberra; ABS, *Fisheries, Australia,* cat. no. 7603.0, Canberra; ABARE.

107 Australian exports of prawns, by product type and destination

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity a								
Headless	t	2 090	2 286	2 331	2 544	1 801	1 941	1 150
Japan	t	1 798	1 969	1 789	1 996	1 310	1 326	821
South Africa	t	0	0	2	19	7	5	5
United States	t	21	11	0	4	6	9	5
Other	t	272	306	540	525	477	602	319
Whole	t	6 675	6 757	8 822	10 212	8 891	10 174	10 630
Italy	t	20	10	13	33	8	40	91
Japan	t	4 387	4 499	5 262	5 526	4 611	4 549	4 667
South Africa	t	11	1	2	347	93	156	160
Spain	t	771	283	702	834	454	668	1 389
United States	t	14	29	23	1	9	1	3
Other	t	1 472	1 935	2 820	3 471	3 715	4 760	4 321
Other	t	232	149	194	345	283	272	215
Japan	t	27	75	56	144	69	88	40
Other	t	206	74	138	201	214	184	174
Total b	t	8 765	9 043	11 153	12 755	10 691	12 115	11 780
Value								
Headless	$'000	39 320	49 732	50 496	47 201	33 237	40 543	24 854
Japan	$'000	35 706	45 257	42 741	39 833	27 097	31 152	19 941
South Africa	$'000	0	0	59	473	197	162	164
United States	$'000	363	111	7	124	86	245	106
Other	$'000	3 252	4 365	7 690	6 770	5 857	8 984	4 643
Whole	$'000	113 780	145 798	178 828	171 059	147 361	189 055	195 710
Italy	$'000	265	127	121	431	84	942	1 730
Japan	$'000	87 292	114 707	129 943	111 371	93 755	105 749	101 199
South Africa	$'000	241	31	66	5 700	1 485	2 755	3 067
Spain	$'000	8 821	3 410	8 409	10 086	5 125	8 808	19 946
United States	$'000	324	914	1 145	14	197	14	85
Other	$'000	16 838	26 608	39 144	43 458	46 715	70 786	69 683
Other	$'000	2 283	2 204	2 348	5 122	4 191	4 643	3 691
Japan	$'000	298	1 472	601	2 094	847	1 577	852
Other	$'000	1 985	732	1 747	3 028	3 344	3 066	2 839
Total b	$'000	153 100	195 530	229 324	218 260	180 598	229 597	220 564

a Product weight. **b** Excludes other. **p** Preliminary.

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

108 Australian imports of prawns, by product type and source

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity a								
Fresh, chilled or frozen	t	6 681	7 480	8 439	7 777	8 287	8 679	9 632
China	t	94	99	157	212	70	41	27
Chinese Taipei	t	22	15	71	33	166	114	24
Malaysia	t	1 547	1 775	1 379	868	727	680	629
Thailand	t	1 989	2 574	4 159	4 402	5 103	5 259	5 162
Vietnam	t	934	639	739	607	660	553	1 059
Other	t	2 094	2 379	1 934	1 655	1 560	2 032	2 730
Canned	t	5 780	5 445	5 197	4 903	5 069	5 698	5 654
Malaysia	t	2 264	1 793	1 820	1 747	1 530	1 676	1 277
Thailand	t	2 796	2 856	2 572	2 451	2 631	3 049	3 488
Other	t	720	796	806	705	908	973	889
Other	t	253	278	638	452	457	430	476
Chinese Taipei	t	1	0	13	3	0	0	22
India	t	1	0	14	1	1	2	0
Malaysia	t	10	11	147	27	17	10	31
Thailand	t	130	119	282	279	295	311	265
Other	t	111	148	183	142	143	108	158
Total	t	12 713	13 203	14 275	13 133	13 812	14 807	15 761
Value								
Fresh, chilled or frozen	$'000	71 035	88 042	113 402	106 586	107 662	132 394	143 517
China	$'000	1 126	835	1 240	2 372	677	469	181
Chinese Taipei	$'000	331	229	855	538	2 575	2 109	482
Malaysia	$'000	14 397	17 742	14 224	8 881	7 445	6 800	6 117
Thailand	$'000	23 946	37 114	66 101	68 634	72 475	85 974	81 700
Vietnam	$'000	9 571	6 073	7 045	6 446	7 528	8 089	17 921
Other	$'000	21 665	26 049	23 937	19 714	16 962	28 954	37 117
Canned	$'000	47 589	45 938	44 925	41 420	42 046	50 860	51 147
Malaysia	$'000	17 110	13 627	14 936	13 962	11 742	13 217	9 709
Thailand	$'000	24 427	26 170	24 042	22 577	24 173	30 258	35 067
Other	$'000	6 053	6 141	5 947	4 881	6 131	7 385	6 372
Other	$'000	3 029	3 617	8 089	6 676	6 508	7 828	7 922
Chinese Taipei	$'000	3	0	169	16	4	4	505
India	$'000	12	3	100	65	34	107	5
Malaysia	$'000	69	105	1 314	264	159	115	333
Thailand	$'000	1 892	1 982	4 611	4 540	4 639	6 098	5 364
Other	$'000	1 053	1 526	1 896	1 790	1 672	1 505	1 714
Total	$'000	121 654	137 597	166 416	154 682	156 216	191 082	202 586

a Product weight. **p** Preliminary.

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

109 Australian exports of rock lobster, by product type and destination

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity a								
Tails b	t	1 789	934	991	1 324	973	1 049	1 464
Hong Kong	t	81	31	20	34	31	25	68
Japan	t	208	124	52	492	173	48	182
United States	t	1 348	756	524	539	668	963	1 113
Other	t	152	23	395	259	101	13	101
Whole b	t	11 490	12 357	11 003	10 804	11 322	11 091	12 752
Chinese Taipei	t	4 227	4 622	3 147	4 022	4 102	3 686	4 010
Hong Kong	t	1 798	2 469	2 462	2 846	2 750	2 280	3 219
Japan	t	5 080	4 798	2 698	3 416	3 425	3 019	3 326
United States	t	152	120	58	84	58	19	151
Other	t	233	348	2 639	436	987	2 086	2 045
Other	t	326	194	404	166	186	122	176
Japan	t	33	29	206	26	93	100	81
United States	t	279	130	138	71	1	4	14
Other	t	14	35	60	68	92	18	82
Total	t	13 605	13 486	12 399	12 294	12 481	12 261	14 392
Value								
Tails b	$'000	73 922	46 772	59 829	50 418	49 623	63 808	76 064
Hong Kong	$'000	2 949	1 532	1 157	1 263	1 358	1 209	2 542
Japan	$'000	8 239	6 182	3 115	17 898	7 409	3 230	6 831
United States	$'000	58 090	38 152	32 155	24 139	37 647	58 956	63 773
Other	$'000	4 643	906	23 402	7 118	3 208	413	2 917
Whole b	$'000	301 229	413 771	405 181	362 329	399 184	359 209	372 527
Chinese Taipei	$'000	97 117	146 581	110 399	123 026	137 423	103 830	101 669
Hong Kong	$'000	51 681	83 739	93 738	104 783	104 541	84 865	107 093
Japan	$'000	140 462	166 964	107 261	116 005	117 750	88 401	89 859
United States	$'000	5 725	5 843	2 721	3 267	2 651	798	5 643
Other	$'000	6 244	10 643	91 061	15 248	36 819	81 314	68 262
Other	$'000	8 944	7 134	9 691	4 878	4 589	1 442	2 835
Japan	$'000	463	700	1 420	245	838	1 058	1 244
United States	$'000	8 249	5 558	5 507	2 205	14	103	859
Other	$'000	232	876	2 764	2 428	3 737	281	731
Total	$'000	384 095	467 676	474 701	417 625	453 395	424 458	451 425

a Product weight. **b** Fresh, chilled or frozen. **p** Preliminary.

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

110 Australian imports of rock lobster, by source

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity a								
New Zealand	t	42	50	17	16	30	9	15
Papua New Guinea	t	0	28	63	68	41	60	48
Thailand	t	31	29	34	46	31	62	83
United States	t	7	16	20	29	48	113	53
Vietnam	t	35	29	22	12	75	50	75
Other	t	40	149	349	107	226	142	112
Total	t	154	301	506	278	451	436	386
Value								
New Zealand	$'000	808	857	216	449	769	154	301
Papua New Guinea	$'000	0	891	1 762	1 922	1 035	2 135	1 885
Thailand	$'000	546	444	577	888	607	949	1 118
United States	$'000	120	319	417	887	932	2 281	1 154
Vietnam	$'000	510	435	354	200	1 147	706	921
Other	$'000	478	2 645	6 255	1 996	4 014	2 885	1 883
Total	$'000	2 463	5 592	9 581	6 342	8 504	9 110	7 261

a Product weight. **p** Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

111 Australian exports of abalone, by product type and destination

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity a								
Fresh, chilled or frozen	t	1 306	970	1 119	1 299	1 429	1 439	1 688
Chinese Taipei	t	47	19	101	85	165	209	178
Hong Kong	t	230	121	178	274	371	529	847
Japan	t	981	814	799	883	809	583	572
United States	t	6	1	16	12	8	6	11
Other	t	41	15	25	45	75	111	80
Canned	t	17 328	8 937	1 797	1 670	1 511	1 564	1 707
Chinese Taipei	t	4 653	2 176	597	632	440	496	571
Hong Kong	t	2 305	1 218	314	216	408	380	456
Japan	t	7 368	3 885	619	536	416	406	328
Singapore	t	1 730	1 306	211	225	193	213	247
United States	t	404	201	36	36	34	49	56
Other	t	870	152	22	24	20	20	50
Total	t	18 634	9 907	2 915	2 969	2 940	3 003	3 396
Value								
Fresh, chilled or frozen	$'000	61 701	64 360	62 357	61 922	75 286	81 820	86 782
Chinese Taipei	$'000	1 869	1 048	5 058	3 017	6 472	9 178	6 884
Hong Kong	$'000	18 707	12 703	15 655	19 426	26 081	35 178	44 750
Japan	$'000	38 738	49 223	39 924	36 346	37 614	30 125	28 782
United States	$'000	224	76	189	835	474	384	797
Other	$'000	2 162	1 310	1 531	2 298	4 645	6 955	5 569
Canned	$'000	106 655	124 180	105 885	84 753	94 300	109 896	97 839
Chinese Taipei	$'000	29 505	29 413	32 633	30 305	27 045	34 452	33 299
Hong Kong	$'000	13 818	20 415	18 325	11 613	25 774	27 094	25 949
Japan	$'000	46 356	51 085	38 869	28 585	26 113	29 020	19 143
Singapore	$'000	10 617	17 104	12 520	11 175	12 021	14 131	13 765
United States	$'000	2 518	3 362	2 236	1 881	2 160	3 614	3 264
Other	$'000	3 841	2 801	1 301	1 195	1 186	1 584	2 418
Total	$'000	168 356	188 540	168 242	146 676	169 586	191 716	184 621

a Product weight. **p** Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

112 Australian exports of scallops, by product type and destination

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity a									
Fresh, chilled or frozen	t	2 956	5 167	4 662	2 789	2 662	1 273	1 309	1 530
France	t	486	1 362	1 132	589	640	200	194	103
Hong Kong	t	1 280	1 659	1 873	1 569	1 246	726	813	933
New Zealand	t	8	2	1	1	1	5	0	4
Singapore	t	243	379	409	419	356	188	177	268
United States	t	794	1 174	654	19	8	0	16	15
Other	t	145	592	593	191	410	153	110	206
Other	t	107	98	75	121	86	52	37	40
Belgium	t	0	0	13	1	0	0	0	0
Hong Kong	t	51	34	41	53	33	34	25	38
Singapore	t	1	1	5	25	13	1	0	0
Other	t	56	63	16	43	41	17	12	1
Total	t	3 064	5 265	4 737	2 910	2 748	1 325	1 346	1 569
Value									
Fresh, chilled or frozen	$'000	43 574	77 616	80 916	68 955	64 759	35 196	35 573	32 233
France	$'000	7 459	19 511	16 936	11 830	12 396	3 101	3 252	2 039
Hong Kong	$'000	21 518	27 876	35 261	42 036	33 513	22 605	24 487	20 133
New Zealand	$'000	109	21	20	20	19	63	0	60
Singapore	$'000	3 566	6 055	7 024	10 346	9 009	5 514	5 116	5 424
United States	$'000	9 073	15 458	11 880	346	221	3	234	290
Other	$'000	1 850	8 694	9 794	4 378	9 601	3 911	2 483	4 287
Other	$'000	1 369	1 401	1 185	3 161	2 353	1 374	818	1 002
Belgium	$'000	0	0	132	6	0	0	0	0
Hong Kong	$'000	709	681	719	1 552	884	1 027	668	932
Singapore	$'000	16	12	125	519	380	26	0	0
Other	$'000	643	708	209	1 085	1 088	321	150	70
Total	$'000	44 943	79 017	82 101	72 117	67 111	36 570	36 391	33 236

a Product weight. **p** Preliminary.

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

113 Australian exports of fish, by product type and destination a

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity b								
Live fish	t	na	na	na	na	na	na	na
Whole	t	5 645	6 817	8 251	8 313	8 370	9 344	10 198
Chinese Taipei	t	875	782	813	801	491	355	203
Germany c	t	279	283	202	192	285	192	147
Japan	t	2 338	2 083	2 805	3 050	3 097	3 171	4 535
Saudi Arabia	t	114	391	307	87	187	266	165
Thailand	t	595	1 415	1 704	1 512	1 448	2 160	1 415
Other	t	1 443	1 862	2 420	2 672	2 862	3 200	3 733
Fillets	t	5 289	3 369	3 404	2 671	2 421	3 914	5 343
Japan	t	694	274	546	327	596	792	1 121
United States	t	3 568	2 182	1 098	562	674	1 593	2 241
Other	t	1 028	912	1 760	1 782	1 152	1 529	1 981
Smoked, dried or salted	t	94	178	192	156	340	578	197
Canned	t	147	211	115	329	305	78	33
Other	t	1 752	990	1 387	1 305	1 796	2 169	1 871
Chinese Taipei	t	349	196	321	207	242	148	153
New Zealand	t	155	230	199	207	260	388	314
Other	t	1 249	563	867	890	1 294	1 632	1 403
Total d	t	12 927	11 564	13 349	12 775	13 234	16 083	17 641
Value								
Live fish	$'000	4 638	5 528	9 033	15 655	14 657	16 028	13 313
Whole	$'000	37 195	45 549	46 336	53 602	55 136	54 135	71 411
Chinese Taipei	$'000	4 485	5 446	6 519	8 262	5 374	3 385	1 611
Germany c	$'000	2 975	2 605	1 964	2 015	3 094	1 924	1 435
Japan	$'000	20 132	21 627	24 825	28 673	27 703	24 941	40 366
Saudi Arabia	$'000	160	562	345	93	181	266	174
Thailand	$'000	1 299	2 802	3 361	2 996	3 233	4 392	2 997
Other	$'000	8 145	12 507	9 322	11 563	15 551	19 228	24 829
Fillets	$'000	50 346	36 336	25 237	16 233	18 636	32 325	49 099
Japan	$'000	4 147	1 896	4 331	2 063	4 831	6 818	9 702
United States	$'000	41 919	28 445	13 824	7 148	7 571	19 668	30 424
Other	$'000	4 279	5 995	7 082	7 022	6 233	5 839	8 972
Smoked, dried or salted	$'000	4 432	6 024	6 258	7 369	10 197	10 159	6 866
Canned	$'000	676	1 106	1 231	1 579	1 694	607	307
Other	$'000	16 227	11 739	13 419	16 960	15 060	15 809	13 327
Chinese Taipei	$'000	7 693	5 904	6 889	8 275	5 307	4 065	2 702
New Zealand	$'000	794	1 052	989	1 189	1 586	2 064	1 501
Other	$'000	7 741	4 783	5 541	7 496	8 166	9 680	9 123
Total d	$'000	113 513	106 281	101 515	111 399	115 381	129 063	154 323

a Excludes tuna. **b** Product weight. **c** Unified Germany. **d** Excludes live tonnage but includes live value. **p** Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

114 Australian imports of fish, by product type and source

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity a								
Live	t	na	na	na	na	na	na	na
Fresh, chilled or frozen	t	45 045	51 168	48 853	45 941	55 009	56 273	57 433
Whole	t	19 897	22 043	19 300	15 583	24 227	21 771	21 280
New Zealand	t	7 348	8 574	7 562	7 348	9 189	8 137	8 088
Fillets	t	25 148	29 125	29 554	30 358	30 782	34 502	36 152
New Zealand	t	6 264	8 486	9 150	9 285	10 098	13 841	14 172
South Africa	t	106	1 167	2 361	2 082	2 250	5 175	5 848
Smoked, dried or salted	t	2 226	2 744	2 513	2 871	3 010	2 727	4 081
South Africa	t	0	823	926	1 025	1 031	1 050	1 673
Denmark	t	124	194	253	239	312	457	476
Canned	t	22 381	24 049	26 860	26 777	26 976	26 600	29 328
Canada	t	3 865	3 559	3 240	4 125	3 278	3 123	3 859
United States	t	3 650	4 671	5 909	5 367	5 901	5 845	5 144
Other fish preparations	t	6 528	7 710	8 178	7 005	5 258	5 268	6 722
Japan	t	882	550	554	389	350	348	267
New Zealand	t	3 533	3 514	3 600	3 138	1 715	1 573	2 361
Thailand	t	1 219	2 473	2 550	2 448	2 515	2 483	2 695
Total	t	76 183	85 674	86 404	82 594	90 256	90 871	97 563
Value								
Live	$'000	18	14	2	0	9	1	0
Fresh, chilled or frozen	$'000	140 517	155 668	156 427	169 852	184 930	204 690	215 714
Whole	$'000	44 590	44 857	42 365	44 475	58 961	58 024	57 585
New Zealand	$'000	21 980	21 805	22 023	26 215	30 375	29 207	30 888
Fillets	$'000	95 927	110 812	114 062	125 377	125 969	146 667	158 130
New Zealand	$'000	29 653	37 983	41 063	40 842	45 116	57 087	62 486
South Africa	$'000	350	3 916	8 725	8 248	8 429	21 157	25 077
Smoked, dried or salted	$'000	17 333	19 759	19 345	20 862	21 012	22 038	31 003
South Africa	$'000	0	2 744	3 064	3 668	4 054	4 024	6 563
Denmark	$'000	2 393	3 536	4 699	4 359	4 900	6 685	8 351
Canned	$'000	119 358	114 733	129 177	126 263	117 592	142 401	164 910
Canada	$'000	32 739	23 116	22 429	28 853	18 901	20 268	26 392
United States	$'000	26 732	26 311	33 099	25 281	24 081	35 312	33 445
Other fish preparations	$'000	32 637	36 180	37 537	31 367	23 889	24 730	29 069
Japan	$'000	5 691	3 262	2 980	2 614	2 210	2 424	1 952
New Zealand	$'000	15 674	16 637	17 365	12 414	5 441	5 322	8 100
Thailand	$'000	4 788	9 476	9 946	9 961	10 375	10 322	10 736
Total	$'000	309 863	326 355	342 488	348 344	347 432	393 861	440 696

a Product weight. **p** Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

115 Australian imports of canned seafood products, by product type

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity								
Anchovies	t	384	544	584	606	747	992	637
Herrings	t	824	796	1 047	904	1 011	901	887
Salmon	t	7 612	7 858	8 797	8 718	8 092	8 092	7 856
Sardines	t	3 089	3 116	3 524	2 800	3 228	3 226	3 695
Tuna	t	9 029	9 593	10 651	11 142	11 092	11 331	14 454
Other	t	1 487	2 147	2 259	2 609	2 809	2 063	1 799
Total fish	t	22 381	24 049	26 860	26 777	26 976	26 600	29 328
Crabs **a**	t	340	316	325	299	242	272	255
Prawns **a**	t	5 780	5 445	5 197	4 903	5 069	5 698	5 654
Smoked molluscs **a**	t	982	746	886	589	752	737	826
Other molluscs **a**	t	854	1 189	1 041	1 312	1 526	1 357	1 368
Total crustaceans and molluscs	t	7 955	7 697	7 449	7 104	7 590	8 065	8 103
Total	t	30 336	31 746	34 309	33 881	34 565	34 665	37 431
Value								
Anchovies	$'000	4 919	6 193	5 996	6 204	6 592	7 438	6 979
Herrings	$'000	3 745	3 473	4 134	3 865	4 315	4 133	4 352
Salmon	$'000	60 095	47 620	54 139	50 928	40 419	54 849	59 579
Sardines	$'000	15 024	15 583	17 385	15 140	16 328	17 770	18 263
Tuna	$'000	29 934	34 677	39 683	41 349	41 489	51 105	68 505
Other	$'000	5 849	7 214	7 847	8 786	8 490	7 137	7 231
Total fish	$'000	119 358	114 733	129 177	126 263	117 592	142 401	164 910
Crabs **a**	$'000	2 223	1 915	2 737	2 385	1 805	2 153	2 017
Prawns **a**	$'000	47 589	45 938	44 925	41 420	42 046	50 860	51 147
Smoked molluscs **a**	$'000	12 266	8 885	9 025	6 137	7 343	7 636	6 607
Other molluscs **a**	$'000	4 343	5 577	5 248	7 431	8 845	7 805	7 447
Total crustaceans and molluscs	$'000	66 422	62 316	61 934	57 372	60 038	68 454	67 218
Total	$'000	185 780	177 049	191 112	183 635	177 630	210 855	232 128

a Includes preserved products not in cans. **p** Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

116 Summary statistics for the Australian processed food industry

	Establishments at 30 June a		Employment at 30 June b		Wages and salaries c		Turnover		Industry gross product	
	1996-97	1997-98	1996-97	1997-98	1996-97	1997-98	1996-97	1997-98	1996-97	1997-98
	no.	no.	'000	'000	$m	$m	$m	$m	$m	$m
Meat										
Meat processing	346	350	28.9	31.5	891	1005	5734	6450	1314	1468
Poultry processing	130	143	11.7	12.6	341	373	2143	2229	453	542
Bacon, ham and smallgoods	147	153	6.5	6.7	191	201	1240	1260	321	358
Total	623	646	47.1	50.8	1423	1579	9117	9939	2089	2368
Dairy										
Milk and cream processing	51	49	6.5	6.9	253	286	2734	3010	536	648
Ice cream	59	96	2.7	2.9	85	116	636	654	225	183
Other dairy products	125	135	8.0	7.6	307	309	3650	3697	619	704
Total	235	280	17.2	17.4	645	710	7020	7361	1379	1535
Fruit and vegetables	249	249	11.0	10.3	415	426	3308	3202	801	807
Oil and fat	57	65	1.7	1.9	75	89	681	914	140	278
Flour mill and cereal food										
Flour mill products	55	47	2.5	2.2	110	100	1344	1143	266	269
Cereal food and baking mix	158	146	5.6	5.0	197	187	1994	2099	603	605
Total	213	193	8.1	7.2	307	287	3338	3242	869	873
Bakery products										
Bread	433	146	11.5	9.6	343	342	1345	1265	472	384
Cake and pastry	492	395	9.9	9.8	239	243	1048	1035	353	330
Biscuit	53	74	4.5	5.4	133	169	721	1014	258	562
Total	978	615	25.9	24.8	715	755	3114	3314	1083	1276
Other food										
Sugar	24	22	6.6	6.3	276	280	2521	2551	560	589
Confectionery	186	214	6.5	6.5	261	275	1322	1266	453	417
Seafood	167	200	3.7	4.1	91	100	1042	1130	175	204
Prepared animal and bird feed	225	217	4.3	4.2	175	172	2496	2527	444	438
Food n.e.c.	537	746	14.9	17.1	529	580	3101	3499	983	1201
Total	1139	1399	36.0	38.2	1331	1406	10481	10973	2614	2850
Beverage and malt										
Soft drink, cordial and syrup	119	141	5.4	6.1	225	245	2213	2443	472	637
Beer and malt	39	36	2.9	2.9	172	160	2370	2496	847	873
Wine	269	301	7.0	7.8	204	229	2269	2595	768	1064
Spirits	12	14	0.4	0.4	10	21	101	160	45	50
Total	439	492	15.7	17.2	611	655	6953	7694	2132	2625
Total food and beverage										
Minimally processed	2320	2324	96.0	99.0	3258	3485	25967	27517	6553	7440
Highly processed	1613	1615	66.7	68.8	2264	2422	18045	19122	4554	5170
Total	3933	3939	162.7	167.8	5522	5906	44012	46639	11107	12611

a Statistical data collection units and do not necessarily represent a separate physical unit. **b** Includes working proprietors. **c** Excludes drawings of working proprietors.

Source: ABS, *Manufacturing Industry,* cat. no. 8221.0, Canberra; ABS unpublished data, Canberra.

117 Australian exports of processed food

	1991-92 $m	1992-93 $m	1993-94 $m	1994-95 $m	1995-96 $m	1996-97 $m	1997-98 $m	1998-99 $m p
Meat								
Meat processing	3433	3740	4035	3650	3281	2942	3713	3986
Poultry processing	5	9	12	13	14	14	18	23
Bacon, ham and smallgoods	61	64	70	75	64	67	61	59
Total	3498	3814	4117	3739	3359	3024	3792	4068
Dairy								
Milk and cream processing	398	548	631	721	872	899	897	1057
Ice cream	13	14	33	38	43	46	50	50
Other dairy products	424	579	659	692	794	852	1008	1193
Total	834	1140	1324	1451	1709	1797	1954	2300
Fruit and vegetables	433	570	591	468	568	665	618	599
Oil and fat	43	62	65	80	94	101	164	167
Flour mill and cereal food								
Flour mill products	138	162	184	167	212	236	261	276
Cereal food and baking mix	314	297	415	393	436	429	520	504
Total	452	459	599	560	648	664	781	780
Bakery products								
Bread	1	1	1	1	2	1	2	3
Cake and Pastry	9	11	13	14	16	15	9	8
Biscuit	27	29	34	45	58	72	83	79
Total	37	41	48	61	75	88	94	89
Other food								
Sugar **a**	685	1008	1241	1586	1485	1509	1200 **b**	na
Confectionery	84	87	149	149	194	170	162	176
Seafood	588	600	660	641	569	532	611	657
Prepared animal and bird feed	136	174	234	248	273	328	317	328
Food n.e.c.	96	103	115	136	160	187	200	205
Total	1589	1972	2399	2760	2681	2725	2489	1367
Beverages and malt								
Soft drink, cordial and syrup	20	17	24	31	59	34	28	23
Beer and malt	185	170	170	166	204	215	216	207
Wine	243	293	367	386	474	604	874	1068
Spirit	12	15	22	27	27	29	31	38
Total	461	495	583	610	764	883	1150	1336
Total food and beverage								
Minimally processed	5290	5980	6647	6520	6147	5851	6500	5642
Highly processed	2057	2572	3079	3209	3751	4097	4541	5064
Total	7348	8552	9726	9729	9898	9948	11041	10706

a Data not available since December 1997 due to confidentiality restrictions. ABARE estimates the value of Australian sugar exports to be $1706 million in 1997-98 and $1259 million in 1998-99. **b** Six months data only. **p** Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

118 Australian exports of processed food, by selected countries

	Asia			Europe			North America		
	1996-97 $m	1997-98 $m	1998-99 p $m	1996-97 $m	1997-98 $m	1998-99 p $m	1996-97 $m	1997-98 $m	1998-99 p $m
Meat									
Meat processing	1 737.5	2 042.3	2 156.6	256.9	400.6	313.6	665.5	901.9	1 116.4
Poultry processing	6.1	8.1	10.7	0.0	0.0	0.7	0.0	0.0	0.0
Bacon, ham and smallgoods	47.6	41.0	34.0	10.0	9.2	18.0	0.6	0.4	0.2
Total	1 791.2	2 091.3	2 201.3	266.9	409.7	332.3	666.1	902.2	1 116.7
Dairy									
Milk and cream processing	758.2	731.2	862.3	5.9	10.1	5.1	7.8	17.6	17.8
Ice cream	32.2	33.2	33.2	0.6	0.7	0.9	0.2	0.6	4.8
Other dairy products	500.9	549.6	614.0	76.9	99.2	109.2	73.3	96.4	152.2
Total	1 291.3	1 314.0	1 509.5	83.5	110.0	115.2	81.4	114.6	174.9
Fruit and vegetables	354.2	301.4	250.7	97.7	94.7	92.9	74.4	72.1	86.0
Oil and fat	60.2	114.0	116.3	2.8	5.8	4.8	2.8	2.9	2.4
Flour mill and cereal food									
Flour mill products	146.1	157.6	168.1	0.7	1.9	1.7	50.7	52.6	69.9
Cereal food and baking mix	61.3	66.4	61.8	3.0	5.5	3.7	2.3	2.2	2.2
Total	207.4	224.0	229.8	3.7	7.4	5.4	53.0	54.9	72.1
Bakery products									
Bread	0.2	0.3	0.8	0.0	0.0	0.0	0.0	0.3	0.2
Cake and Pastry	9.0	4.7	3.2	0.3	0.6	0.4	0.1	0.0	0.2
Biscuit	22.4	16.3	14.5	0.4	2.0	0.9	3.8	2.9	2.0
Total	31.6	21.3	18.5	0.7	2.5	1.4	3.9	3.2	2.4
Other food									
Sugar **a**	950.4	143.5 **b**	na	25.0	20.3 **b**	na	374.0	63.8 **b**	na
Confectionery	115.7	103.9	106.5	0.7	2.3	1.5	2.0	2.3	3.4
Seafood	458.3	490.3	490.6	15.2	20.2	36.8	50.9	88.4	116.6
Prepared animal and bird feed	267.6	250.3	255.6	10.4	10.0	7.1	1.2	1.9	6.1
Food n.e.c.	85.5	89.3	98.7	14.5	14.7	14.4	5.2	6.3	7.1
Total	1 877.5	1 077.3	966.7	65.7	67.4	59.9	433.3	162.6	142.6
Beverage and malt									
Soft drink, cordial and syrup	14.7	7.6	5.5	0.6	0.8	0.6	0.7	1.3	0.3
Beer and malt	169.1	165.8	163.6	1.7	1.1	1.7	1.2	1.1	1.1
Wine	55.9	68.6	68.3	349.2	505.7	638.9	149.7	238.4	288.6
Spirit	22.9	22.1	19.9	0.6	0.3	1.7	0.1	0.1	0.4
Total	262.6	264.0	257.2	352.2	507.9	642.9	151.7	240.9	290.3
Total food and beverage									
Minimally processed	3 507.4	3 075.4	3 087.3	355.2	486.1	392.1	1 136.2	1 097.7	1 283.1
Highly processed	2 368.6	2 331.9	2 447.6	518.1	719.4	862.6	330.5	455.6	594.9
Total	5 876.0	5 407.4	5 525.9	873.3	1 205.5	1 254.7	1 466.7	1 553.3	1 878.0

a Data not available since December 1997 due to confidentiality restrictions. **b** Six months data only.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

119 Australian imports of processed food

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	$m	$m	$m	$m	$m	$m	$m	$m
Meat								
Meat processing	27	15	33	33	30	50	42	51
Poultry processing	0	0	0	0	0	0	0	0
Bacon, ham and smallgoods	24	26	24	24	26	29	33	28
Total	51	41	57	57	56	79	75	79
Dairy								
Milk and cream processing	13	18	14	17	23	19	25	33
Ice cream	7	12	6	8	5	13	15	33
Other dairy products	118	137	143	148	169	164	181	200
Total	138	167	163	173	196	196	220	266
Fruit and vegetables	500	530	584	606	669	681	727	841
Oil and fat	151	193	203	233	267	258	253	288
Flour mill and cereal food								
Flour mill products	29	46	56	117	74	79	63	58
Cereal food and baking mix	67	71	74	75	93	103	123	129
Total	96	117	130	192	167	182	186	187
Bakery products								
Bread, cake and pastry	25	41	47	39	41	49	63	76
Biscuit	41	45	45	46	51	55	58	62
Total	66	86	92	86	92	103	120	138
Other food								
Sugar	8	4	2	4	2	2	3	3
Confectionery	90	120	117	141	155	182	215	207
Seafood	456	483	526	589	579	584	666	720
Prepared animal and bird feed	72	54	72	83	77	103	131	128
Food n.e.c.	277	318	360	392	401	301	392	451
Total	902	980	1 076	1 210	1 215	1 172	1 406	1 509
Beverage and malt								
Soft drink, cordial and syrup	140	172	229	215	246	252	286	276
Beer and malt	16	20	17	19	21	26	32	44
Wine	46	47	48	61	61	67	94	103
Spirit	186	194	198	186	189	304	347	407
Total	388	433	492	481	517	648	758	829
Total food and beverage								
Minimally processed	657	668	790	923	907	981	1 080	1 159
Highly processed	1 636	1 879	2 006	2 115	2 273	2 338	2 664	2 979
Total	2 293	2 547	2 797	3 038	3 179	3 320	3 744	4 138

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

120 Australian imports of processed food, by selected countries

	Asia			Europe			North America		
	1996-97	1997-98	1998-99 p	1996-97	1997-98	1998-99 p	1996-97	1997-98	1998-99 p
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Meat									
Meat processing	0.4	0.3	0.1	0.0	0.1	2.2	37.0	31.5	41.1
Poultry processing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bacon, ham and smallgoods	0.4	0.6	0.3	6.2	6.7	6.0	7.1	11.4	11.9
Total	0.8	0.9	0.4	6.2	6.8	8.2	44.1	42.9	53.0
Dairy									
Milk and cream processing	0.2	0.1	0.4	0.4	0.6	0.6	0.2	0.1	0.0
Ice cream	0.1	0.0	0.0	7.0	4.0	14.8	0.6	0.4	1.1
Other dairy products	0.1	0.1	0.3	69.7	71.8	73.4	3.8	4.5	3.6
Total	0.4	0.1	0.7	77.1	76.4	88.8	4.6	5.0	4.7
Fruit and vegetables	208.3	211.6	248.0	127.1	148.4	181.5	119.7	130.8	141.0
Oil and fat	108.8	131.9	144.7	94.3	79.6	95.1	6.3	4.7	5.9
Flour mill and cereal food									
Flour mill products	7.1	7.4	9.3	5.7	6.0	7.1	61.0	44.4	36.0
Cereal food and baking mix	66.3	80.2	82.3	24.5	28.9	30.6	4.5	6.2	6.2
Total	73.3	87.5	91.6	30.2	34.9	37.7	65.5	50.6	42.3
Bakery products									
Bread, cake and pastry	13.0	14.3	16.4	20.7	20.5	19.3	7.0	14.9	25.8
Biscuit	8.8	12.4	18.0	23.6	25.8	25.5	3.1	3.3	3.7
Total	21.8	26.7	34.4	44.3	46.3	44.8	10.0	18.2	29.5
Other food									
Sugar	0.5	0.8	0.9	0.5	0.7	1.3	0.1	0.1	0.1
Confectionery	8.9	17.0	18.7	113.1	117.2	110.3	33.6	51.5	46.9
Seafood	309.1	379.7	399.2	41.9	42.2	44.4	56.6	62.6	65.8
Prepared animal and bird feed	49.1	46.9	47.9	10.1	11.2	8.0	39.3	61.4	59.3
Food n.e.c.	145.0	197.1	224.7	90.5	96.1	97.5	19.8	18.4	23.9
Total	512.6	641.5	691.4	256.0	267.3	261.5	149.4	194.0	196.1
Beverages and malt									
Soft drink, cordial and syrup	5.4	4.9	5.5	21.7	197.6	246.8	10.1	12.6	12.5
Beer and malt	0.9	1.3	1.7	18.6	22.8	33.1	5.9	6.8	7.6
Wine	0.0	0.0	0.1	54.2	73.8	81.0	0.7	0.9	0.9
Spirit	30.7	34.0	41.6	147.2	158.5	189.2	76.9	96.8	115.6
Total	36.9	40.2	48.8	241.8	452.6	550.1	93.7	117.2	136.6
Total food and beverage									
Minimally processed	425.9	521.8	550.7	87.7	88.6	118.5	183.3	173.9	164.3
Highly processed	537.0	618.6	709.2	789.3	1023.7	1149.3	310.0	389.4	444.8
Total	962.9	1140.5	1259.9	876.9	1112.3	1267.9	493.3	563.3	609.1

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

121 Value of world imports of processed food [a]

	1994 US$m	1995 US$m	1996 US$m	1997 US$m	1998 [p] US$m	Share [b] %
Meat						
Beef, fresh, chilled or frozen	14 333	14 869	12 847	13 062	12 343	5.6
Meat, fresh, chilled or frozen	18 684	22 174	25 145	22 999	19 897	9.1
Meat or offal, preserved	1 271	1 575	1 874	1 723	1 496	0.7
Meat or offal, preserved, n.e.c.	4 336	4 974	5 297	5 106	4 860	2.1
Dairy						
Milk products, excluding butter and cheese	10 855	14 018	13 105	12 176	10 413	5.1
Butter and cheese	2 680	3 481	3 166	3 173	2 765	1.3
Cheese and curd	8 895	10 431	10 665	9 726	9 250	4.1
Fish or shellfish	7 615	8 652	9 256	9 108	8 695	3.6
Cereal products						
Flour or meal from wheat or meslin	1 062	1 322	1 622	1 298	727	0.5
Cereal flour or meal, n.e.c.	277	309	399	370	296	0.1
Cereal etc flour or starch	10 511	12 384	13 266	12 568	11 745	5.1
Horticulture						
Vegetables, prepared or preserved	8 209	9 679	9 761	9 397	9 120	3.9
Fruit, prepared or preserved	5 662	6 128	6 384	6 326	6 049	2.6
Fruit or vegetable juices	4 810	5 903	6 782	5 930	5 811	2.4
Sugar and confectionary						
Sugar, molasses and honey	10 089	12 422	14 767	12 704	10 231	5.0
Sugar confectionary	2 886	3 452	3 661	3 643	3 228	1.4
Chocolate and cocoa preparations	5 462	6 333	6 837	6 637	6 208	2.6
Animal and vegetable oil						
Margarine and shortening	709	891	1 028	1 153	970	0.4
Animal oil or fat	1 618	2 247	2 087	1 969	1 700	0.8
Vegetable oil or fat, fixed, soft	8 113	10 248	10 478	10 560	8 972	4.0
Vegetable oils, fixed, not soft	5 872	7 916	7 480	7 235	6 456	2.9
Animal or vegetable oils, processed	2 620	3 442	2 892	2 693	2 428	1.2
Other food						
Coffee and coffee substitutes	13 408	17 305	14 292	17 458	15 181	6.5
Tea and mate	2 004	2 107	2 361	2 451	2 262	0.9
Spices	1 575	1 854	2 005	2 245	2 048	0.8
Edible products, n.e.c.	12 980	14 970	16 327	16 121	14 580	6.3
Beverage						
Beverages, nonalcoholic, n.e.c.	3 413	3 792	3 780	3 874	3 770	1.6
Alcoholic beverages	21 531	23 859	26 148	27 102	26 974	10.5
Animal feed [c]	19 363	20 759	24 618	24 322	18 877	9.0
Total	210 843	247 495	258 333	253 127	227 354	100.0

a Based on over 100 reporting countries representing more than 90 per cent of world trade. **b** Average, 1994–98. **c** Excludes unmilled cereal.
Source: International Trade Centre, UNCTAD/WTO, www.intracen.org/itc/infobase/data/chap32/imp_cat.htm.

122 World trade in processed foods, major exporting countries [a]

	1994 US$m	1995 US$m	1996 US$m	1997 US$m	1998 [p] US$m	Share [b] %
Meat						
Australia	2 780	2 622	2 263	2 554	2 450	5.9
Denmark	3 876	4 119	3 995	4 018	3 575	9.1
France	4 090	4 613	4 317	4 218	3 870	9.8
Netherlands	5 104	5 422	5 303	4 645	4 332	11.5
United States	5 195	6 462	6 958	6 894	6 411	14.8
Other	18 723	21 707	22 606	22 838	19 398	48.9
Total	39 768	44 944	45 443	45 167	40 036	100.0
Dairy						
Australia	1 039	1 102	1 373	1 356	1 349	4.5
France	4 150	4 807	4 402	4 176	4 088	15.5
Germany	4 123	5 111	5 199	4 816	4 666	17.2
Netherlands	3 862	4 646	4 355	3 488	3 779	14.5
New Zealand	1 683	1 811	2 326	2 406	2 135	7.4
Other	9 771	12 480	11 964	11 719	10 954	40.9
Total	24 630	29 957	29 619	27 960	26 972	100.0
Seafood						
Australia	83	78	78	99	86	1.0
China	523	788	1 131	1 054	923	10.9
Denmark	483	511	483	439	463	5.8
South Korea	362	395	417	375	287	4.5
Thailand	1 489	1 590	1 611	1 882	2 437	22.1
Other	4 055	4 603	4 898	4 876	4 179	55.6
Total	6 994	7 966	8 619	8 725	8 375	100.0
Horticulture						
Australia	148	163	156	150	115	0.7
China	1 166	1 576	1 391	1 397	1 390	6.7
Italy	1 414	1 719	1 812	1 626	1 745	8.1
Netherlands	2 185	2 744	2 257	1 882	1 931	10.7
United States	2 057	2 116	2 246	2 368	2 393	10.8
Other	11 575	13 390	14 580	13 611	11 776	63.0
Total	18 545	21 708	22 442	21 033	19 350	100.0
Beverages [c]						
Australia	341	383	507	593	632	1.6
France	7 145	8 065	8 087	8 277	8 831	26.2
Germany	1 860	2 027	1 971	1 721	1 641	6.0
Italy	2 287	2 740	2 893	2 744	3 022	8.9
United Kingdom	4 341	4 729	4 913	5 388	4 788	15.7
Other	11 147	12 983	13 835	13 840	12 411	41.7
Total	27 121	30 926	32 207	32 564	31 325	100.0
Sugar and confectionary						
Australia	1 318	1 483	1 398	1 377	1 016	5.6
Belgium–Luxembourg	1 498	1 992	1 794	1 708	1 747	7.5
Brazil	1 112	2 050	1 735	1 919	2 082	7.6
France	2 593	3 190	3 144	2 526	2 455	11.9
Germany	2 268	2 545	2 826	2 472	2 286	10.6
Other	11 784	13 847	15 303	14 518	10 905	56.8
Total	20 573	25 107	26 200	24 520	20 490	100.0

Continued

122 World trade in processed foods, major exporting countries *(continued)*

	1994 US$m	1995 US$m	1996 US$m	1997 US$m	1998 p US$m	Share b %
Animal and vegetable oil						
Argentina	1 533	2 095	1 902	2 234	2 621	8.3
Australia	199	238	238	263	286	1.0
Malaysia	4 066	5 140	4 776	4 775	5 575	19.4
Netherlands	1 484	1 857	1 764	1 738	1 933	7.0
United States	1 919	2 597	1 880	2 225	2 815	9.1
Other	11 534	15 083	14 253	15 766	12 692	55.3
Total	20 735	27 010	24 813	27 001	25 922	100.0
Animal feed d						
Argentina	1 349	1 255	2 367	2 399	1 946	8.9
Australia	294	305	390	413	324	1.6
Brazil	2 152	2 184	2 930	2 842	1 800	11.3
Netherlands	2 038	2 315	2 229	2 080	1 820	10.0
United States	3 445	3 785	4 338	4 782	4 206	19.5
Other	9 011	10 259	11 510	11 619	8 860	48.7
Total	18 289	20 103	23 763	24 135	18 956	100.0
Cereal products						
Australia	199	237	304	318	262	1.7
Belgium–Luxembourg	1 002	1 261	1 370	1 402	1 396	8.3
France	1 515	1 886	2 066	1 913	1 817	11.9
Germany	1 461	1 602	1 660	1 630	1 541	10.2
Italy	1 512	1 790	2 109	1 980	1 986	12.1
Other	7 098	8 513	9 827	9 731	8 224	55.9
Total	12 787	15 290	17 336	16 973	15 227	100.0
Other processed food						
Australia	142	146	178	193	156	0.5
Brazil	2 724	2 610	2 291	3 321	2 854	8.5
France	1 996	2 320	2 575	2 608	2 191	7.2
Netherlands	1 578	1 915	1 735	1 703	1 593	5.3
United States	2 375	2 150	2 563	2 858	2 798	7.9
Other	20 936	24 372	23 399	25 032	20 169	70.5
Total	29 750	33 513	32 740	35 715	29 760	100.0
All processed food						
Australia	6 544	6 757	6 885	7 316	6 661	2.8
France	24 320	28 342	27 901	26 961	26 560	10.8
Germany	17 944	20 791	21 109	19 945	19 719	8.0
Netherlands	20 142	23 453	21 989	19 390	18 734	8.4
United States	19 146	21 466	22 201	23 670	23 175	8.8
Other	131 095	155 713	163 099	166 512	141 592	61.2
Total	219 192	256 524	263 183	263 794	236 442	100.0

a Based on over 100 reporting countries representing more than 90 per cent of world trade. **b** Average, 1994-1998. **c** Alcoholic and nonalcoholic. **d** Excludes unmilled cereal.

Source: International Trade Centre UNCTAD/WTO, www.intracen.org/itc/infobase/data/chap33/exp_cat.htm.

123 World trade in processed foods, major importing countries [a]

	1994 US$m	1995 US$m	1996 US$m	1997 US$m	1998 [p] US$m	Share [b] %
Meat						
Australia	31	37	43	51	36	0.1
Germany	5 260	5 835	5 852	5 016	4 495	12.7
Italy	3 552	3 692	3 633	3 447	3 517	8.5
Japan	7 764	9 653	9 373	7 584	6 759	19.7
United Kingdom	2 889	3 619	3 937	3 678	3 354	8.4
Other	19 128	20 757	22 325	23 112	20 435	50.6
Total	38 623	43 592	45 164	42 889	38 595	100.0
Dairy						
Australia	114	135	154	141	147	0.6
Belgium–Luxembourg	1 988	2 853	2 265	1 975	2 129	9.0
Germany	3 101	3 941	3 627	3 376	3 097	13.7
Italy	2 787	3 077	2 993	2 731	2 763	11.5
Netherlands	2 024	2 979	2 280	1 969	1 943	9.0
Other	12 417	14 945	15 617	14 882	12 350	56.3
Total	22 431	27 930	26 936	25 075	22 428	100.0
Seafood						
Australia	166	162	175	160	156	1.9
France	604	780	774	698	792	8.4
Japan	1 960	2 336	2 419	2 382	1 904	25.4
United Kingdom	630	794	851	838	898	9.3
United States	952	970	1 074	1 241	1 431	13.1
Other	3 304	3 610	3 964	3 790	3 513	42.0
Total	7 615	8 652	9 256	9 108	8 695	100.0
Horticulture						
Australia	204	237	255	221	212	1.1
France	1 694	2 062	2 001	1 835	1 978	9.0
Germany	3 006	3 486	3 545	3 100	3 011	15.2
Japan	2 314	2 629	2 549	2 316	2 214	11.3
United States	2 272	2 338	2 739	2 819	2 769	12.2
Other	9 192	10 958	11 839	11 362	10 796	51.1
Total	18 682	21 710	22 928	21 653	20 981	100.0
Beverages [c]						
Australia	247	253	267	297	294	0.9
Germany	2 753	3 021	3 123	3 000	3 036	10.4
Japan	2 193	2 272	1 972	1 902	2 420	7.5
United Kingdom	2 776	3 097	3 482	3 913	4 325	12.2
United States	4 611	4 903	5 647	6 376	6 896	19.7
Other	12 364	14 106	15 437	15 488	13 774	49.3
Total	24 944	27 651	29 928	30 976	30 745	100.0
Sugar and confectionary						
Australia	112	129	148	163	157	0.7
France	1 431	1 800	1 671	1 527	1 523	7.3
Germany	1 687	1 845	1 866	1 778	1 759	8.2
United Kingdom	1 757	1 885	1 951	1 857	1 823	8.5
United States	1 677	1 916	2 464	2 562	2 385	10.1
Other	11 774	14 631	17 165	15 097	12 020	65.1
Total	18 437	22 206	25 265	22 984	19 666	100.0

Continued

123 World trade in processed foods, major importing countries a *(continued)*

	1994 US$m	1995 US$m	1996 US$m	1997 US$m	1998 p US$m	Share b %
Animal and vegetable oil						
Australia	165	197	218	204	205	0.9
Germany	1 207	1 406	1 404	1 378	1 401	6.1
Italy	1 418	1 419	1 802	1 849	1 494	7.1
United Kingdom	896	1 055	1 173	1 128	1 043	4.7
United States	1 290	1 457	1 660	1 650	1 603	6.9
Other	13 957	19 210	17 709	17 400	14 780	74.3
Total	18 932	24 744	23 966	23 610	20 526	100.0
Animal feed d						
Australia	78	76	82	99	100	0.4
China	348	421	1 298	1 791	1 405	4.9
France	1 530	1 490	1 700	1 714	1 523	7.4
Germany	1 599	1 793	1 969	1 841	1 656	8.2
Japan	1 852	2 209	2 287	2 374	2 046	10.0
Other	13 957	14 770	17 282	16 504	12 147	69.2
Total	19 363	20 759	24 618	24 322	18 877	100.0
Cereal products						
Australia	86	101	107	122	104	0.8
France	1 164	1 342	1 445	1 344	1 370	9.8
Germany	1 251	1 456	1 449	1 273	1 264	9.8
United Kingdom	640	763	881	988	1 056	6.3
United States	1 039	1 157	1 288	1 407	1 541	9.4
Other	7 670	9 195	10 118	9 101	7 433	63.8
Total	11 850	14 015	15 287	14 236	12 768	100.0
Other processed food						
Australia	521	621	634	676	854	1.9
France	1 897	2 346	2 112	2 232	2 244	6.2
Germany	3 851	5 101	4 258	4 554	4 337	12.7
Japan	2 157	2 580	2 632	2 775	2 549	7.3
United States	3 740	4 591	4 253	5 493	5 271	13.5
Other	17 799	20 996	21 097	22 545	18 817	58.3
Total	29 965	36 236	34 985	38 275	34 072	100.0
All processed food						
Australia	1 789	2 015	2 158	2 217	2 265	0.9
Germany	24 961	29 250	28 517	26 643	25 446	11.3
Japan	21 066	25 222	24 877	22 827	21 113	9.6
United Kingdom	16 234	18 594	19 959	20 146	20 399	8.0
United States	20 303	21 775	24 075	26 856	27 706	10.1
Other	126 490	150 638	158 748	154 437	130 424	60.2
Total	210 843	247 495	258 333	253 127	227 353	100.0

a Based on over 100 reporting countries representing more than 90 per cent of world trade. **b** Average, 1994-1998. **c** Alcoholic and nonalcoholic.
d Excludes unmilled cereal.
Source: International Trade Centre, UNCTAD/WTO, www.intracen.org/itc/infobase/data/chap32/imp_cat.htm.

124 Summary of Australian statistics for roundwood [a]

	Removals of roundwood						
	Broadleaved	Coniferous	Total	Imports	Exports	Consumption	Consumption per person
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	m^3
1960-61	9 135	1 664	10 799	4 101	271	14 629	1.38
1961-62	8 376	1 678	10 054	2 969	348	12 675	1.18
1962-63	8 784	1 869	10 653	3 423	276	13 800	1.25
1963-64	9 341	1 934	11 275	3 774	315	14 734	1.32
1964-65	9 555	2 054	11 609	4 138	308	15 439	1.35
1965-66	9 583	2 169	11 752	4 002	243	15 511	1.34
1966-67	9 144	2 183	11 327	4 110	414	15 023	1.27
1967-68	9 187	2 238	11 425	4 396	301	15 520	1.29
1968-69	8 987	2 344	11 331	4 624	342	15 613	1.27
1969-70	9 106	2 415	11 521	4 904	406	16 019	1.28
1970-71	9 256	2 555	11 811	4 999	435	16 375	1.27
1971-72	8 988	2 673	11 661	4 603	465	15 799	1.20
1972-73	9 778	2 808	12 586	5 937	2 110	16 413	1.22
1973-74	11 063	2 636	13 699	4 896	2 860	15 735	1.15
1974-75	10 921	2 850	13 771	5 404	3 145	16 030	1.15
1975-76	9 995	2 877	12 872	4 752	2 798	14 826	1.06
1976-77	11 331	3 078	14 409	5 558	3 831	16 136	1.14
1977-78	11 259	3 282	14 541	4 690	3 670	15 561	1.08
1978-79	10 595	3 381	13 976	5 478	4 156	15 298	1.06
1979-80	11 720	3 866	15 586	5 667	5 185	16 068	1.09
1980-81	11 464	4 447	15 911	6 019	4 568	17 362	1.17
1981-82	10 348	4 524	14 872	6 403	4 245	17 030	1.12
1982-83	9 217	4 442	13 659	4 694	4 206	14 147	0.92
1983-84	10 537	4 689	15 226	5 856	4 586	16 496	1.06
1984-85	10 919	5 768	16 687	7 195	4 626	19 256	1.20
1985-86	10 949	5 958	16 907	6 943	4 836	19 014	1.17
1986-87	11 222	5 516	16 738	6 333	5 845	17 226	1.06
1987-88	11 162	5 686	16 848	7 894	5 654	19 088	1.15
1988-89	11 475	6 153	17 628	8 069	5 093	20 604	1.22
1989-90	10 534	7 030	17 564	7 947	5 266	20 245	1.18
1990-91	10 037	6 553	16 590	6 836	5 522	17 904	1.03
1991-92	9 512	7 141	16 653	7 351	5 748	18 256	1.04
1992-93	9 801	7 866	17 667	7 697	6 106	19 258	1.09
1993-94	9 793	8 969	18 762	7 681	6 689	19 754	1.11
1994-95	10 857	8 703	19 560	8 915	7 976	20 499	1.14
1995-96	9 920	9 305	19 225	6 918	7 384	18 759	1.03
1996-97	9 197	10 434	19 631	7 502	7 771	19 362	1.05
1997-98	9 511	10 686	20 197	8 047	9 713	18 531	1.00
1998-99 **p**	9 370	10 530	19 900	8 122	9 352	18 670	0.99

a Gross roundwood equivalent. **p** Preliminary.

Sources: ABARE forestry database; Forestry and Timber Bureau, Department of National Development, *Compendium of Australian Forest Products Statistics: 1935-36 to 1967,* Canberra.

125 Australian roundwood and woodchip trade

	Imports	Exports			
			Woodchips b		
	Roundwood a	Roundwood a	Coniferous	Broadleaved	Total
	'000m^3	'000m^3	kt	kt	kt
1971-72	122.2	na	na	na	1 880
1972-73	97.1	na	na	na	2 794
1973-74	102.1	na	na	na	2 664
1974-75	37.2	na	na	na	2 566
1975-76	46.4	na	na	na	2 336
1976-77	32.2	na	na	na	3 234
1977-78	27.6	na	na	na	3 132
1978-79	17.0	na	na	na	3 349
1979-80	0.6	na	na	na	4 459
1980-81	0.1	na	na	na	4 143
1981-82	1.7	na	na	na	3 821
1982-83	1.7	na	na	na	3 689
1983-84	0.5	na	na	na	4 443
1984-85	0.5	na	na	na	4 565
1985-86	1.0	na	na	na	4 447
1986-87	1.0	na	na	na	5 020
1987-88	1.7	na	na	na	5 108
1988-89	2.9	8.4	247	5 462	5 709
1989-90	6.3	5.3	273	4 851	5 123
1990-91	0.5	79.5	263	5 266	5 529
1991-92	0.3	86.2	710	4 809	5 519
1992-93	1.6	242.0	861	4 818	5 679
1993-94	6.1	420.7	1 126	4 960	6 085
1994-95	2.1	286.7	1 921	5 626	7 547
1995-96	1.6	351.1	1 837	4 961	6 798
1996-97	1.1	615.5	1 909	4 843	6 752
1997-98	6.1	391.0	2 340	6 410	8 750
1998-99 p	5.7	781.1	2 311	5 624	7 935

a Includes pulplogs from 1 January 1988. **b** Green tonne equivalent of bone dry tonnes. **p** Preliminary. **na** Not available.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

126 Total Australian forest areas [a]

	1991-92 '000 ha	1992-93 '000 ha	1993-94 '000 ha	1994-95 '000 ha	1995-96 '000 ha	1996-97 [b] '000 ha	1997-98 [c] '000 ha
Closed forest [d]	na	na	na	na	na	4 627	na
(proportion of total land area)	na	na	na	na	na	0.6	na
Open forest [e]	na	na	na	na	na	39 175	na
(proportion of total land area)	na	na	na	na	na	5.1	na
Woodland [f]	63 436	63 426	63 426	63 426	63 426	112 033	na
(proportion of total land area)	8.3	8.3	8.3	8.3	8.3	14.6	na
Native forest	41 057	40 719	40 719	40 719	40 719	na	na
(proportion of total land area)	5.3	5.3	5.3	5.3	5.3	na	na
Total native forest	104 493	104 145	104 145	104 145	104 145	155 835	na
(proportion of total land area)	13.6	13.6	13.6	13.6	13.6	20.3	na
Plantation [g]	1 072	1 083	1 105	1 043 [h]	na	na	1 222 [i]
(proportion of total land area)	0.1	0.1	0.1	0.1	0.0	0.0	0.2
Coniferous [g]	955	955	959	884	na	na	931 [i]
Broadleaved [g]	117	128	146	159	na	na	291
Total forest vegetation cover	105 566	105 228	105 250	105 188	na	na	157 057 [j]
Total land area	768 230	768 230	768 230	768 230	768 230	768 230	768 230
Plantations established [gk]	31.4	33.6	23.6	30.3 [h]	48.9	54.4	60.5
Crown land	17.6	17.9	13.5	13.8	na	na	na
Private property	13.8	15.7	10.1	13.1	na	na	na
Coniferous	22.2	19.6	12.6	11.2	14.1	14.8	11.4
Broadleaved	9.3	14.0	11.0	19.1	34.7	39.6	49.1

a At 30 June. **b** Data from 1996-97 is sourced from the National Forest Inventory which uses new definitions for forest cover. Hence the data is not comparable with previous years. **c** Data from National Plantation Inventory Tabular Update June 1999, National Forest Inventory. **d** Closed forest refers to areas with trees over 2 metres tall and with a canopy cover greater than 80 per cent. **e** Open forest refers to areas with trees over 2 metres tall and with a canopy cover between 50 and 80 per cent. **f** Woodland refers to areas with trees over 2 metres tall and with a canopy of cover of between 20 and 50 per cent. **g** Prior to 1995-96 areas at 31 March. **h** Data from 1994-95 is sourced from the National Forest Inventory. Excludes Victoria. **i** An estimated 30,000ha (coniferous) in NSW has not been included. **j** Includes native forest as at June 1997. **k** New plantation areas (excludes replanting). **na** Not available.

Sources: ABARE, *Australian Forest Resources,* Canberra; National Forest Inventory; Bureau of Rural Sciences, Canberra.

127 Land areas, by vegetation cover at 30 June 1997, by state

	NSW	Vic.	Qld	WA	SA	Tas.	NT	ACT	Aust.
	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha
Closed forest a	217	8	2 964	180	20	545	693	0 **b**	4 627
(% of land area)	0.27	0.04	1.72	0.07	0.02	8.04	0.51	0.00	0.60
Open forest c	8 364	6 029	9 989	3 003	2 309	2 359	7 020	102	39 175
(% of land area)	10.43	26.49	5.78	1.19	2.35	34.79	5.21	42.50	5.10
Woodland d	12 207	1 248	36 102	31 617	3 170	0.0 **b**	27 672	17	112 033
(% of land area)	15.23	5.48	20.90	12.52	3.22	0.00	20.56	7.08	14.58
Plantation e	268 **f**	270	182	212	121	149	6	15	1 222
(% of land area)	0.33	1.18	0.11	0.08	0.12	2.20	0.00	6.33	0.16
Total forest e									
vegetation cover	21 056	7 555	49 237	35 012	5 620	3 053	35 391	134	157 057
(% of land area)	26.27	33.19	28.51	13.86	5.71	45.03	26.29	55.92	20.44
Total land area	80 160	22 760	172 720	252 550	98 400	6 780	134 620	240	768 230

a Closed forest refers to areas with trees over 2 metres tall and with a canopy cover greater than 80 per cent. **b** The area of closed forest in the ACT is too small to be mapped at the scale used for this table. The area of woodland forest in Tasmania is too small to be mapped at the scale used for this table. **c** Open forest refers to areas with with trees over 2 metres tall and with a canopy cover between 50 and 80 per cent. **d** Woodland refers to areas with trees over 2 meters tall and with a canopy cover between 20 and 50 per cent. **e** Plantation areas as at 30 June 1998. Data from National Plantation Tabular Update June 1999. **f** An estimated 30,000 ha (coniferous) in NSW has not been included.

Source: National Forest Inventory 1997, National Plantation Inventory 1999; Bureau of Rural Sciences, Canberra.

128 Australian prices of selected forest products

	Structural timber					
	Hardwood a	Softwood a	Plywood and board a	Hardwood chips b	Softwood chips	Newsprint c
	index	index	index	$/t	$/t	$/t
1980-81	50.2	53.1	49.1	na	na	na
1981-82	55.7	55.4	53.9	41.06	41.72	na
1982-83	60.4	60.1	60.6	42.00	35.59	na
1983-84	65.2	65.7	64.4	44.43	37.76	na
1984-85	72.2	72.6	67.3	50.68	50.31	na
1985-86	76.5	79.7	72.6	58.29	56.52	na
1986-87	79.9	81.7	75.3	66.02	45.76	na
1987-88	82.8	83.5	83.6	72.29	49.91	na
1988-89	94.4	94.0	92.9	73.47	51.49	672.23
1989-90	100.0	100.0	100.0	75.01	56.58	708.97
1990-91	101.7	103.7	104.0	75.46	56.58	708.76
1991-92	100.1	100.9	107.1	76.99	66.66	716.31
1992-93	105.0	109.2	106.9	75.68	66.61	687.75
1993-94	114.0	137.4	113.9	76.48	61.50	703.22
1994-95	122.7	137.4	117.5	77.94	62.79	715.79
1995-96	121.7	127.8	111.0	81.86	74.78	1 007.91
1996-97	118.6	123.2	108.2	82.63	61.87	888.20
1997-98	121.6	129.2	109.0	77.33	64.36	900.13
1998-99 p	126.8	133.0	108.7	77.93	66.41	930.02

a Index of prices paid by building contractors or subcontractors for materials delivered on building sites; weighted average for six capital cities; base 1989 90 = 100. **b** Average unit fob value of Australian exports in green tonnes. **c** Average unit value of Australian imports, fob New Zealand. **na** Not available. **p** Preliminary.

Sources: ABS, *Average Retail Prices of Selected Items, Eight Capital Cities,* cat. no. 6403.0, Canberra; ABS, *Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities,* cat. no. 6407.0, Canberra; ABARE.

129 Value of turnover in forest products industries [a]

	1991-92 $m	1992-93 $m	1993-94 $m	1994-95 $m	1995-96 $m	1996-97 $m	1997-98 $m
ANZSIC group and class **b**							
Wood and wood products							
Log sawmilling	1 010	1 321	943	991	846	803	771
Resawn and dressed timber	533	598	1 049	1 158	1 035	1 036	1 215
Veneers, plywood and fabricated wood manufacturing	766	887 **c**	1 067 **c**	1 189 **c**	1 130 **c**	1 185 **c**	1 081 **c**
Wooden doors	167	na	na	na	na	na	na
Wooden structural fittings and joinery n.e.c.	1 639	1 860	1 899	1 838	1 874	1 894	2 184
Wooden containers	118	na	na	na	na	na	na
Hardwood woodchips	341	317	366	473	447	465	507
Wood products n.e.c.	225	503	675	760	632	604	560
Total	4 799	5 486	5 999	6 408	5 964	5 986	6 319
Paper and paper products							
Pulp, paper and paperboard	1 953	1 871	2 137	2 260	2 425	2 020	1 961
Paper bags including sack manufacturing	305	300 **c**	192 **c**	194 **c**	214 **c**	288 **c**	278 **c**
Solid fibreboard containers	273	328 **c**	473 **c**	467 **c**	619 **c**	537 **c**	506 **c**
Corrugated fibreboard containers	1 205	1 316 **c**	1 338 **c**	1 445 **c**	1 517 **c**	1 484 **c**	1 440 **c**
Paper products n.e.c.	801	1 014	787	825	801	867	993
Total	4 537	4 830	4 927	5 190	5 575	5 196	5 179
Total value	9 336	10 315	10 926	11 598	11 539	11 182	11 498

a Turnover is defined as follows: sales of goods whether produced by the establishment or not, plus transfers out of goods to other establishments of the same enterprise, plus bounties and subsidies on production, plus all other operating revenue from outside the enterprise such as commission, repair and service revenue, plus capital work done for own use or for rental or lease. Receipts from rent, leasing, interest other than hire purchase, royalties and the sale of fixed tangible assets are excluded. Since 1988-89, full ABS censuses of manufacturing establishments have been conducted triennially. **b** Before 1992-93 based on Australian Standard Industrial Classification. **c** ABS reclassification of industry classes as from 1992-93. **na** Not available.
Source: ABS, *Manufacturing Industry: Australia,* cat. no. 8221.0, Canberra.

130 Employment in forest products industries a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
	'000	'000	'000	'000	'000	'000	'000
ANZIC group and class **a**							
Wood and wood products							
Log sawmilling	9.8	11.1	8.3	9.0	8.1	7.1	7.0
Resawn and dressed timber	3.8	4.3	6.7	7.1	6.4	6.9	7.4
Veneers, plywood and fabricated wood manufacturing **b**	4.4	4.8	5.6	6.2	5.9	5.6	4.9
Wooden doors	1.1	na	na	na	na	na	na
Wooden structural fittings and joinery n.e.c.	16.3	17.4	18.0	17.2	17.1	16.4	18.7
Wooden containers	1.2	na	na	na	na	na	na
Hardwood woodchips	0.6	0.6	0.7	0.8	0.9	0.9	0.9
Wood products n.e.c.	3.1	5.6	7.6	7.8	7.4	6.7	6.5
Total	40.3	43.8	46.9	48.1	45.8	43.8	45.4
Paper and paper products							
Pulp, paper and paperboard	6.5	5.9	5.8	5.6	5.8	5.2	4.8
Paper bags including sack manufacturing **b**	1.4	1.4	1.0	0.9	1.0	1.2	1.2
Solid fibreboard containers **b**	1.8	2.2	2.4	2.3	4.1	2.4	2.4
Corrugated fibreboard containers **b**	5.2	5.2	4.8	5.3	5.7	5.6	5.4
Paper products n.e.c.	3.9	4.2	3.8	3.6	3.5	3.4	3.5
Total	18.8	18.8	17.9	17.8	20.0	17.9	17.2
Total employment	59.1	62.6	64.8	65.9	65.8	61.7	62.6

a Prior to 1992-93 based on Australian Standard Industrial Classification. **b** ABS reclassification of industry classes as from 1992-93. **na** Not available.
Source: ABS, *Manufacturing Industry: Australia,* cat. no. 8221.0, Canberra.

131 Value of Australian forest products trade [a]

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 [p]
	$m	$m	$m	$m	$m	$m	$m
Imports							
Roundwood	0.5	0.7	1.1	1.2	1.3	1.7	1.4
Sawnwood							
Coniferous roughsawn	276.8	312.3	265.2	193.4	192.1	215.0	201.3
Coniferous dressed	116.3	160.0	149.9	92.8	100.0	121.0	120.7
Broadleaved roughsawn	66.0	66.3	70.8	45.8	46.9	51.1	55.9
Broadleaved dressed	47.9	52.8	52.4	35.1	34.7	35.5	38.6
Total	507.0	591.4	538.4	367.1	373.8	422.7	416.5
Railway sleepers	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Forest products	235.0	259.9	295.6	282.5	297.8	353.4	392.7
Veneer	19.1	23.2	25.4	21.5	20.0	24.1	25.5
Plywood	41.8	49.1	50.9	42.8	48.6	62.0	63.7
Particleboard	5.2	6.4	8.8	5.2	4.0	6.7	7.9
Hardboard	3.1	7.6	7.9	6.8	4.5	5.7	6.2
Medium density fibreboard	48.9	50.2	53.6	42.2	38.6	35.2	30.7
Softboard and other fibreboard	5.8	6.7	6.7	5.2	9.6	11.2	8.5
Paper and paperboard							
Newsprint	139.8	143.7	189.9	290.8	216.8	238.8	239.5
Printing and writing	689.3	731.3	963.0	935.0	853.6	966.9	993.1
Household and sanitary	23.9	31.4	39.1	49.5	37.7	52.7	65.4
Packaging and industrial	349.5	371.1	413.8	410.0	399.0	438.3	458.2
Total	1 202.4	1 277.5	1 605.8	1 685.3	1 507.1	1 696.7	1 756.2
Paper manufactures [b]	231.8	258.1	269.9	275.3	282.5	315.5	348.1
Wastepaper	4.5	3.9	5.3	6.0	8.8	7.1	6.2
Pulp	150.9	121.9	153.6	183.7	125.2	126.1	192.7
Pulpwood	0.4	0.4	0.3	0.5	0.7	1.0	1.6
Total	2 456.5	2 657.1	3 023.2	2 925.4	2 722.3	3 068.9	3 257.9

Continued

131 Value of Australian forest products trade a *(continued)*

	1992-93 $m	1993-94 $m	1994-95 $m	1995-96 $m	1996-97 $m	1997-98 $m	1998-99 p $m
Exports							
Roundwood	23.26	41.34	29.17	37.78	52.95	37.70	48.16
Sawnwood							
Coniferous roughsawn	0.75	0.96	0.79	1.78	4.67	3.85	5.07
Coniferous dressed	5.67	10.33	14.56	11.65	7.97	6.11	9.88
Broadleaved roughsawn	7.65	13.95	19.46	24.29	23.82	15.07	22.08
Broadleaved dressed	0.76	0.71	0.84	2.17	3.49	4.48	5.73
Total	14.83	25.96	35.64	39.89	39.96	29.51	42.77
Railway sleepers	3.98	1.65	1.08	0.61	5.24	3.46	6.32
Forest products	25.63	32.73	36.76	46.35	55.35	68.23	65.59
Veneer	3.83	3.72	3.85	6.68	6.77	5.44	6.49
Plywood	1.24	1.40	1.97	2.23	2.42	2.13	2.76
Particleboard	12.55	24.19	24.10	38.60	31.16	19.63	23.29
Hardboard	0.10	0.60	0.06	0.25	0.24	0.03	0.03
Medium density fibreboard	30.36	37.26	38.37	23.43	34.74	50.09	64.50
Softboard and other fibreboard	0.04	0.55	0.51	0.32	1.14	2.47	3.85
Paper and paperboard							
Newsprint	4.02	1.80	0.75	1.30	0.09	7.45	6.90
Printing and writing	61.27	64.71	45.78	51.87	57.01	65.99	81.51
Household and sanitary	16.39	28.99	37.89	47.86	58.80	63.93	59.71
Packaging and industrial	144.66	122.45	140.97	146.94	235.86	238.85	212.12
Total	226.34	217.94	225.40	247.97	351.77	376.22	360.25
Paper manufactures b	38.00	45.82	51.67	52.29	66.14	64.65	57.11
Wastepaper	12.13	14.91	43.72	26.23	10.70	17.88	25.09
Pulp	0.14	0.02	0.16	0.67	1.74	0.60	0.90
Woodchips	422.39	448.55	559.21	543.52	518.31	646.35	590.60
Total	814.84	896.64	1 051.68	1 066.82	1 178.63	1 324.38	1 297.69

a Values are duty or customs values for imports and fob from Australian ports for exports. **b** Includes such items as boxes, bags, account books, note books, letter pads and other paper stationary. **p** Preliminary. **na** Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

132 Australian production, trade and consumption of sawnwood

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Broadleaved (hardwood)							
Production	1 440	1 533	1 555	1 406	1 418	1 322	1 244
Imports	163	133	145	94	100	106	113
Exports	12	19	25	28	27	21	30
Consumption	1 592	1 647	1 675	1 472	1 490	1 408	1 327
Coniferous (softwood)							
Production	1 660	1 898	2 118	2 054	2 063	2 327	2 313
Imports	1 062	947	914	648	657	678	662
Exports	11	22	26	26	24	18	21
Consumption	2 711	2 823	3 005	2 676	2 696	2 987	2 954
Total broadleaved and coniferous							
Production	3 100	3 431	3 672	3 460	3 481	3 649	3 557
Imports	1 225	1 080	1 058	742	756	784	775
Exports	23	41	51	54	51	38	51
Consumption	4 303	4 471	4 680	4 148	4 186	4 395	4 281

p Preliminary.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; state and territory forest agencies.

133 Australian exports of sawnwood, by destination

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Africa								
South Africa	0.38	0.14	0.10	0.12	0.18	0.10	0.02	0.03
Total	0.38	0.15	0.10	0.12	0.19	0.38	0.06	0.03
America								
United States	1.46	1.87	2.48	5.56	3.43	3.38	5.98	6.72
Total	1.64	2.00	2.68	5.63	3.99	3.55	6.04	6.76
Asia								
Total	2.91	8.60	20.59	27.62	32.26	32.55	19.21	25.26
Europe								
Belgium–Luxembourg	2.72	1.21	2.84	2.99	1.83	0.92	1.22	2.00
France	0.02	0.07	0.04	0.01	0.00	0.00	0.04	0.00
Germany **a**	0.01	0.15	0.05	0.00	0.03	0.05	0.07	0.32
Netherlands	6.91	3.78	2.64	3.15	2.48	3.41	2.77	2.96
United Kingdom	1.89	0.65	6.29	5.57	7.36	3.37	0.94	3.88
Total	12.01	6.69	12.81	12.30	12.71	8.87	6.41	11.95
Oceania								
New Zealand	3.63	2.73	3.28	4.00	3.77	4.60	5.10	6.51
Total	4.50	4.76	4.07	5.11	4.47	5.06	6.31	7.10
Other	5.29	0.47	0.35	0.23	0.15	0.78	0.27	0.28
Total	26.73	22.68	40.60	51.01	53.77	51.19	38.30	51.38
(value, $m)	13.3	14.8	26.0	35.6	39.9	40.0	29.5	42.8

a Unified Germany. **p** Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

134 Australian imports of sawnwood, by source and type

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Country								
Canada								
Douglas fir	140	107	133	125	71	88	109	104
Hemlock	0	0	1	1	1	0	0	0
Western red cedar	60	73	67	76	63	63	67	55
Other	6	13	46	16	12	22	21	12
Total	206	193	248	219	146	173	197	171
New Zealand								
Radiata pine	332	431	413	402	272	275	308	315
Douglas fir	70	49	24	26	16	24	29	57
Other	45	49	41	41	34	33	35	48
Total	447	528	479	469	322	332	372	419
United States								
Douglas fir	324	295	169	188	151	125	84	46
Hemlock	0	2	2	1	0	0	0	0
Western red cedar	12	8	5	4	3	3	2	1
Other	18	20	22	18	11	14	12	10
Total	354	324	197	211	166	142	98	58
Region								
Asia	146	146	114	111	70	73	81	87
Europe	11	9	14	16	16	18	16	17
North America	560	517	445	430	312	315	296	229
Pacific	473	550	503	495	338	346	386	437
South America	3	2	5	4	3	2	2	2
Other	0	1	1	1	2	4	3	4
Total	1 193	1 225	1 080	1 058	742	756	784	775
(value $m)	410.4	507.0	591.4	538.4	367.1	373.8	422.7	416.5

p Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

135 Australian production, trade and consumption of railway sleepers

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Production	100	87	82	84	78	68	62	68
Imports	0	0	0	0	0	0	2	0
Exports	8	8	3	3	2	11	8	16
Consumption	91	79	79	81	77	57	57	52

p Preliminary.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Conservation and Land Management, Western Australia; state rail authorities.

136 Australian production, trade and consumption of panel products

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Production									
Plywood	101	107	122	138	145	131	151	170	169
Particleboard	636	660	726	828	864	826	790	882	902
Hardboard	86	84	na	na	na	na	na	na	na
Medium density fibreboard	na	na	318	421	436	377	434	501	495
Softboard and other fibreboards	13	2	na	na	na	na	na	na	na
Total	na	na	1 166	1 388	1 445	1 333	1 376	1 554	1 566
Imports									
Plywood	63	69	72	63	73	66	74	89	100
Particleboard	15	17	17	22	35	20	13	17	22
Hardboard	4	5	5	12	15	11	6	6	8
Medium density fibreboard	76	94	103	88	102	78	85	77	74
Softboard and other fibreboards	4	7	13	14	14	11	18	23	17
Total	163	191	210	199	239	187	197	213	222
Exports									
Plywood	3	3	1	1	2	2	3	2	4
Particleboard	36	26	37	71	71	112	100	61	77
Hardboard	1	19	0	1	0	0	0	0	0
Medium density fibreboard	41	105	106	133	128	90	118	139	206
Softboard and other fibreboards	1	0	0	1	2	0	7	9	17
Total	82	153	144	209	204	205	228	212	304
Consumption									
Plywood	161	172	192	200	216	195	222	257	265
Particleboard	615	651	707	779	827	734	703	838	846
Hardboard	89	69	na	na	na	na	na	na	na
Medium density fibreboard	na	na	315	376	410	365	402	440	364
Softboard and other fibreboards	16	9	na	na	na	na	na	na	na
Total	na	na	1 214	1 355	1 453	1 294	1 327	1 535	1 475

p Preliminary. **na** Not available

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Australian medium density fibreboard manufacturers; Australian particleboard manufacturers; B.L. Steenson, Chartered Accountant; Plywood Association of Australia; ABARE.

137 Australian production of plywood, by type

	Interior	Sliced and random grooved	Marine	Overlaid	Tongue and groove flooring	Structural	Exterior and other commercial	Total
	m^3	m^3	m^3	m^3	m^3	m^3	m^3	m^3
1971-72	na	na	na	na	na	na	na	76 090
1972-73	na	na	na	na	na	na	na	72 515
1973-74	na	na	na	na	na	na	na	78 449
1974-75	na	na	na	na	na	na	na	81 984
1975-76	na	na	na	na	na	na	na	78 191
1976-77	na	na	na	na	na	na	na	85 333
1977-78	17 771	2 777	4 208	26 836	9 872	15 084	8 133	84 681
1978-79	14 914	1 625	3 706	28 978	10 807	19 768	8 451	88 249
1979-80	14 995	1 311	3 505	27 097	11 167	21 656	7 131	86 862
1980-81	12 862	1 482	3 026	29 012	10 959	23 812	7 622	88 775
1981-82	11 586	1 782	1 784	28 520	11 586	24 955	8 913	89 126
1982-83	10 724	715	2 860	21 448	7 149	22 163	6 434	71 493
1983-84	13 109	742	2 144	18 798	8 904	31 001	7 750	82 448
1984-85	8 287	1 515	2 584	24 595	9 624	35 111	7 396	89 112
1985-86	8 723	1 437	2 637	27 001	9 659	34 949	11 489	95 895
1986-87	7 908	917	2 208	30 169	7 829	39 534	8 672	97 237
1987-88	8 326	928	2 382	37 242	9 028	44 249	9 002	111 157
1988-89	7 526	779	2 976	39 584	11 808	54 757	12 326	129 756
1989-90	7 005	635	2 087	37 135	12 114	55 011	11 192	125 179
1990-91	4 753	404	1 618	25 686	11 933	47 226	9 506	101 126
1991-92	4 927	194	1 490	22 010	15 295	44 682	17 962	106 560
1992-93	5 190	207	1 482	22 585	18 813	53 290	20 446	122 014
1993-94	6 048	201	1 475	26 866	17 416	63 232	23 086	138 324
1994-95	4 400	190	1 332	33 206	14 804	69 300	21 800	145 032
1995-96	4 202	160	1 339	42 503	13 390	63 025	6 236	130 855
1996-97	5 218	70	1 188	32 402	14 140	75 175	23 183	151 376
1997-98	4 422	47	1 336	35 373	15 743	89 074	24 341	170 336
1998-99 **p**	3 615	0	1 151	31 105	15 183	92 698	25 258	169 010

p Preliminary. **na** Not available.
Sources: Plywood Association of Australia; ABARE.

138 Australian imports of plywood and veneer, by source

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Plywood								
Chinese Taipei	0.27	0.06	0.12	0.04	0.01	0.00	0.00	0.04
Indonesia	28.79	30.92	34.41	37.97	30.95	32.51	38.30	37.02
Malaysia	5.78	6.01	6.29	5.15	6.84	6.74	8.41	10.39
New Zealand	22.75	28.21	19.20	24.51	23.83	27.07	32.86	37.33
Papua New Guinea	0.00	0.00	0.08	0.23	0.06	0.18	0.33	0.19
Singapore	6.95	4.50	0.45	0.41	0.24	0.23	0.64	3.18
South Korea	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Other	4.28	2.01	2.72	5.05	4.50	7.37	8.49	12.31
Total	68.82	71.69	63.27	73.37	66.47	74.08	89.03	100.45
(value, $m)	40.2	41.8	49.1	50.9	42.8	48.6	62.0	63.7
Veneer								
New Zealand	0.52	0.91	0.60	1.73	0.46	0.82	1.61	4.55
Philippines	2.62	2.21	2.78	3.22	1.85	4.38	3.79	4.54
Singapore	1.25	1.49	1.73	1.24	0.25	0.35	0.24	0.34
South Africa	0.09	0.11	0.05	0.02	0.02	0.05	0.36	0.80
Thailand	0.04	0.08	0.05	0.03	0.05	0.03	0.06	0.03
United States	1.56	1.74	1.86	1.76	2.26	2.24	2.29	2.12
Other	6.63	6.67	11.58	12.71	7.57	9.81	13.51	6.38
Total	12.71	13.20	18.65	20.70	12.46	17.68	21.86	18.75
(value, $m)	16.9	19.1	23.2	25.4	21.5	20.0	24.1	25.5

p Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

139 Australian production, trade and consumption of paper and paper products

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Production								
Newsprint	403.7	433.5	426.1	444.1	445.4	420.8	443.8	404.0
Printing and writing paper	396.0	396.0	386.0	365.0	351.0	364.0	424.0	497.0
Household and sanitary	143.2	164.6	169.8	173.0	180.0	181.0	191.0	208.0
Packaging and industrial paper	1 128.0	1 164.0	1 255.0	1 312.0	1 344.0	1 452.0	1 483.0	1 431.0
Total	2 070.9	2 158.1	2 236.9	2 294.1	2 320.4	2 417.8	2 541.8	2 540.0
Imports								
Newsprint	212.2	204.7	206.0	257.1	281.6	250.1	289.5	275.1
Printing and writing paper	495.5	541.0	581.2	782.5	576.8	688.8	741.5	718.0
Household and sanitary	12.2	15.7	20.3	26.8	25.4	24.1	32.4	40.1
Packaging and industrial paper	186.2	196.1	237.2	293.0	226.8	254.8	275.9	263.9
Total	906.1	957.5	1 044.7	1 359.4	1 110.7	1 217.7	1 339.2	1 297.2
Exports								
Newsprint	0.0	0.0	0.0	0.0	1.9	0.6	15.2	13.0
Printing and writing paper	37.6	42.1	46.0	26.8	26.2	35.0	46.9	59.9
Household and sanitary	4.5	5.4	9.4	11.2	12.0	14.9	15.4	14.7
Packaging and industrial paper	205.2	236.9	216.4	208.4	201.5	369.1	355.8	289.3
Total	247.3	284.4	271.8	246.4	241.6	419.5	433.4	376.8
Total consumption								
Newsprint	616.0	638.1	632.1	701.2	725.1	670.3	718.0	666.2
Printing and writing paper	854.0	894.9	921.1	1 120.7	901.6	1 017.8	1 118.7	1 155.1
Household and sanitary	150.9	174.9	180.8	188.6	193.4	190.2	208.0	233.4
Packaging and industrial paper	1 108.9	1 123.2	1 275.7	1 396.7	1 369.4	1 337.7	1 403.0	1 405.6
Total	2 729.7	2 831.1	3 009.7	3 407.1	3 189.5	3 216.0	3 447.7	3 460.3
Consumption per person								
Newsprint	35.1	36.1	35.4	38.9	39.8	36.4	38.6	35.5
Printing and writing paper	48.7	50.7	51.6	62.2	49.5	55.3	60.2	61.5
Household and sanitary	8.6	9.9	10.1	10.5	10.6	10.3	11.2	12.4
Packaging and industrial paper	63.3	63.6	71.5	77.5	75.2	72.7	75.5	74.8
Total	155.7	160.3	168.7	189.1	175.2	174.8	185.5	184.3

p Preliminary. **s** ABARE estimate.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Pulp and Paper Manufacturers Federation of Australia.

140 Australian imports of paper and paper products, by type and source

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Newsprint a								
Canada	50.7	47.2	35.2	47.8	53.6	50.8	10.1	4.3
Finland	4.2	1.8	3.9	11.3	21.4	19.0	38.9	20.5
New Zealand	148.4	141.4	149.1	160.3	170.3	134.1	163.4	141.8
Sweden	0.1	0.3	0.3	0.0	0.0	0.3	0.6	0.0
Other	8.9	14.0	17.5	37.7	36.3	45.9	76.4	108.5
Total	212.2	204.7	206.0	257.1	281.6	250.1	289.5	275.1
(value, $m)	151.1	139.8	143.7	189.9	290.8	216.8	238.8	239.5
Printing and writing paper								
Canada	3.6	4.4	1.7	5.7	10.4	3.1	5.7	32.6
Finland	117.1	151.2	172.9	215.3	149.0	141.1	188.0	148.3
Germany b	67.4	63.7	70.9	79.6	56.1	61.4	75.5	56.5
Italy	44.8	42.9	53.7	66.1	54.3	45.2	53.2	43.9
Japan	43.3	38.2	32.0	30.0	23.6	30.5	40.3	31.7
New Zealand	25.5	27.8	24.2	23.4	18.9	10.8	5.0	7.4
Sweden	26.7	23.4	20.4	25.7	23.2	29.2	36.9	40.6
United States	50.2	53.5	44.7	80.1	68.4	86.6	85.1	52.6
Other	117.1	136.0	160.6	256.5	173.0	281.0	251.8	304.3
Total	495.5	541.0	581.2	782.5	576.8	688.8	741.5	718.0
(value, $m)	659.6	689.3	731.3	963.0	935.0	853.6	966.9	993.1
Household and sanitary products								
Chinese Taipei	1.3	0.4	0.1	3.0	5.5	7.9	7.8	7.9
Sweden	1.1	1.1	1.2	1.2	1.2	0.5	0.9	1.2
Other	6.7	8.5	8.9	8.5	8.1	7.4	10.3	14.0
Total	12.2	15.7	20.3	26.8	25.4	24.1	32.4	40.1
(value, $m)	19.7	23.9	31.4	39.1	49.5	37.7	52.7	65.4
Packaging and industrial								
Brazil	11.1	13.7	10.3	13.7	14.2	14.4	11.4	3.2
China	2.2	2.2	4.7	6.3	3.0	4.0	3.8	6.3
Finland	15.2	21.1	28.7	31.9	26.6	25.2	28.4	26.4
France	4.4	5.3	4.7	6.3	3.7	2.9	4.4	5.6
Germany	8.6	9.2	9.3	10.0	9.4	10.2	10.1	16.5
Indonesia	5.9	9.0	6.5	5.7	2.7	4.2	3.7	4.5
Italy	1.2	1.6	3.0	24.4	4.5	4.6	3.7	4.2
Japan	2.0	1.9	1.7	2.3	1.9	1.8	2.4	1.7
New Zealand	25.5	15.0	18.7	20.9	22.6	20.3	26.3	45.3
Singapore	3.1	2.8	2.3	3.8	2.6	3.0	2.8	1.7
South Africa	1.6	6.1	8.2	5.2	2.1	1.7	6.7	3.9
Sweden	5.6	3.3	3.5	5.9	5.4	5.6	3.1	3.6
Thailand	0.0	0.1	0.1	0.1	0.5	0.4	1.7	9.2
United Kingdom	5.2	5.8	10.0	18.6	7.3	8.3	9.4	5.9
United States	78.3	80.9	102.9	105.5	103.9	126.8	138.2	109.2
Other	16.3	18.0	22.6	32.4	16.4	21.5	19.9	17.0
Total	186.2	196.1	237.2	293.0	226.8	254.8	275.9	263.9
(value, $m)	308.8	349.5	371.1	413.8	410.0	399.0	438.3	458.2

a Uncoated paper (at least 60 per cent mechanical pulp) used mainly for the printing of newspapers. **b** Unified Germany. **p** Preliminary. **na** Not available.
Sources: ABS, International Trade,electronic data service, cat. no. 5464.0, Canberra; ABS.

141 Australian production of wood pulp and use of wastepaper

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Mechanical	428	436	363	399	355	351	345	366
Chemical a	591	560	634	583	613	563	591	506
Total pulp	1 019	996	997	982	968	914	936	872
Wastepaper used	875	950	1 059	1 056	1 340	1 488	1 463	1 536

a Details for semichemical pulp are included in chemical pulp. **p** Preliminary.
Sources: ABS, *Manufacturing Production, Australia, cat.* no. 8301.0, Canberra; Pulp and Paper Manufacturers Federation of Australia; ABARE.

142 Australian imports of wood pulp, by type and source

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Mechanical								
Canada	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1
New Zealand	0.1	0.4	2.4	0.0	0.0	0.0	1.6	7.6
United States	0.4	0.0	0.0	0.0	0.2	1.4	0.4	0.0
Total	0.5	0.5	2.5	0.1	0.3	2.1	2.4	8.1
(value, $m)	0.3	0.2	1.2	0.2	0.2	1.3	1.6	5.8
Chemical								
Brazil	16.0	14.3	4.5	4.1	3.0	1.6	1.7	51.4
Canada	71.4	67.3	76.8	49.1	47.0	69.6	37.2	40.8
Finland	3.0	4.6	5.7	1.8	0.0	0.0	0.0	0.0
Indonesia	0.0	0.0	0.0	0.2	3.0	7.9	9.5	48.7
New Zealand	74.9	78.4	81.5	93.7	80.1	71.0	82.3	91.0
United States	38.4	54.3	37.5	37.4	31.7	27.5	24.8	23.9
Other	12.9	13.1	10.3	4.7	8.8	11.3	12.9	22.5
Total	216.6	232.0	216.3	191.0	173.6	189.1	168.3	278.1
(value, $m)	132.0	148.8	118.3	149.4	173.7	117.8	118.5	172.5
Semichemical								
Total	8.8	3.4	5.2	5.0	9.7	11.0	9.4	23.6
(value, $m)	5.1	1.9	2.4	4.0	9.7	6.1	5.9	14.6
Total wood pulp	225.9	235.8	224.0	196.1	183.6	202.1	180.1	309.8
(value, $m)	137.3	150.9	121.9	153.6	183.7	125.2	126.1	192.7

p Preliminary.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

180 Summary of Australian statistics for oilseeds [a]

	Area	Yield	Production	Exports [b]	Domestic use [c]
	'000 ha	t/ha	kt	kt	kt
1960-61	58	na	na	0	na
1961-62	43	0.70	30	0	30
1962-63	56	0.79	44	1	43
1963-64	74	0.80	59	6	53
1964-65	92	0.77	71	7	64
1965-66	58	0.76	44	0	44
1966-67	81	1.00	81	6	75
1967-68	93	0.63	59	9	50
1968-69	95	0.58	55	12	43
1969-70	161	0.96	155	6	149
1970-71	269	0.76	204	9	195
1971-72	528	0.70	371	103	268
1972-73	447	0.60	268	48	220
1973-74	306	0.84	258	17	241
1974-75	402	0.86	345	48	297
1975-76	292	0.83	243	82	161
1976-77	271	0.88	240	5	235
1977-78	444	0.94	416	8	408
1978-79	511	1.02	520	65	455
1979-80	497	0.97	484	141	343
1980-81	400	1.12	450	6	444
1981-82	411	1.24	509	26	483
1982-83	386	0.91	349	3	346
1983-84	529	1.04	549	20	529
1984-85	710	1.30	925	51	874
1985-86	686	1.27	872	183	689
1986-87	552	1.28	708	125	583
1987-88	633	1.35	856	91	765
1988-89	569	1.47	838	217	621
1989-90	458	1.67	763	172	591
1990-91	599	1.74	1 040	187	853
1991-92	638	1.78	1 136	231	905
1992-93	541	1.60	864	241	623
1993-94	708	1.49	1 055	287	769
1994-95	808	1.54	1 244	252	991
1995-96	879	1.92	1 684	523	1 161
1996-97	1 064	1.71	1 815	523	1 292
1997-98	1 330	1.55	2 056	908	1 148
1998-99 p	2 114	1.50	3 166	1 708	1 459

a Oilseeds are comprised of canola, cottonseed, linola, linseed, peanuts, safflowerseed, soybeans and sunflowerseed. **b** Seed only. **c** Includes any imports of seed, stocks carried over to the next season, feed and seed use, and any processing, some of which may be exported. **p** Preliminary. **na** Not available.

Sources: ABS, *Agricultural Commodities, Australia,* cat no. 7121.0, Canberra; ABS, *Agriculture, Australia, cat. no.* 7113.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; Australian Oilseeds Federation, *AOF Oilseeds,* Sydney; ABARE.

181 Australian oilseeds area, yield and production, by state and type

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
Canola								
Area								
1992-93	'000 ha	70.5	18.5	0.3	11.6	6.2	0.1	107.1
1993-94	'000 ha	100.6	29.2	0.1	35.8	10.8	0.1	176.5
1994-95	'000 ha	152.9	74.5	0.1	104.1	24.5	0.2	356.2
1995-96	'000 ha	170.2	76.2	0.2	99.4	30.4	0.1	376.6
1996-97	'000 ha	179.0	99.0	0.3	106.5	36.0	0.0	420.8
1997-98	'000 ha	250.0	130.0	0.3	250.0	55.0	0.0	685.3
1998-99 p	'000 ha	342.6	217.0	0.8	563.4	146.5	0.0	1 270.2
Yield								
1992-93	t/ha	1.9	1.3	0.6	1.0	1.5	1.4	1.7
1993-94	t/ha	1.9	1.6	0.4	1.3	1.7	1.3	1.7
1994-95	t/ha	0.5	0.8	0.1	1.0	1.1	0.7	0.7
1995-96	t/ha	1.6	1.6	0.4	1.2	1.6	1.4	1.5
1996-97	t/ha	1.9	1.4	0.0	1.0	1.5	na	1.5
1997-98	t/ha	1.2	1.4	0.0	1.2	1.5	na	1.3
1998-99 p	t/ha	1.8	1.4	1.0	1.1	1.5	na	1.4
Production								
1992-93	kt	133.0	23.5	0.2	11.5	9.5	0.1	177.9
1993-94	kt	192.6	46.8	0.0	47.3	18.1	0.2	305.0
1994-95	kt	73.2	56.7	0.0	107.9	25.9	0.2	263.9
1995-96	kt	272.3	119.6	0.1	116.9	48.1	0.2	557.1
1996-97	kt	340.0	141.0	0.0	107.9	52.9	0.0	641.8
1997-98	kt	310.0	181.0	0.0	288.0	81.0	0.0	860.0
1998-99 p	kt	616.7	303.8	0.8	619.7	219.7	0.0	1 760.7
Cottonseed								
Area								
1992-93	'000 ha	204.0	0.0	82.0	0.0	0.0	0.0	286.0
1993-94	'000 ha	210.0	0.0	84.0	0.0	0.0	0.0	294.0
1994-95	'000 ha	157.0	0.0	89.0	0.0	0.0	0.0	246.0
1995-96	'000 ha	201.0	0.0	120.0	0.0	0.0	0.0	321.0
1996-97	'000 ha	277.0	0.0	119.1	0.0	0.0	0.0	396.1
1997-98	'000 ha	299.3	na	138.8	0.0	0.0	0.0	438.2
1998-99 p	'000 ha	381.7	na	179.9	0.0	0.0	0.0	561.5
Yield								
1992-93	t/ha	1.8	na	2.0	na	na	na	1.8
1993-94	t/ha	1.6	na	1.6	na	na	na	1.6
1994-95	t/ha	3.5	na	2.8	na	na	na	3.2
1995-96	t/ha	3.1	na	2.5	3.0	na	na	2.9
1996-97	t/ha	2.3	na	2.0	na	na	na	2.2
1997-98	t/ha	2.2	na	1.9	na	na	na	2.1
1998-99 p	t/ha	1.8	na	1.9	na	na	na	1.8
Production								
1992-93	kt	365.1	0.0	162.4	0.0	0.0	0.0	527.5
1993-94	kt	334.2	0.0	131.3	0.0	0.0	0.0	465.5
1994-95	kt	550.0	0.0	246.0	0.0	0.0	0.0	796.0
1995-96	kt	630.0	0.0	303.0	0.0	0.0	0.0	933.0
1996-97	kt	627.5	0.0	232.6	0.0	0.0	0.0	860.1
1997-98	kt	672.3	0.0	269.0	0.0	0.0	0.0	941.3
1998-99 p	kt	671.1	0.0	341.0	0.0	0.0	0.0	1 012.1

Continued

181 Australian oilseeds area, yield and production, by state and type *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
Linseed								
Area								
1992-93	'000 ha	1.4	1.1	0.2	0.1	0.6	0.0	3.4
1993-94	'000 ha	1.9	3.0	0.1	0.7	2.3	0.0	8.1
1994-95	'000 ha	2.0	3.0	1.0	0.4	1.8	0.0	8.2
1995-96	'000 ha	2.0	7.0	1.0	2.0	1.6	0.0	13.6
1996-97	'000 ha	2.4	3.0	1.2	1.0	0.2	0.0	7.8
1997-98	'000 ha	2.5	3.2	1.3	1.1	0.7	0.0	8.6
1998-99 **p**	'000 ha	2.8	3.5	1.4	1.2	0.3	0.0	9.1
Yield								
1992-93	t/ha	1.4	1.0	0.5	1.0	1.0	na	1.1
1993-94	t/ha	1.1	1.1	0.5	1.0	1.1	na	1.1
1994-95	t/ha	0.8	0.7	0.4	0.8	0.9	na	0.7
1995-96	t/ha	1.0	1.1	0.4	1.2	0.0	na	0.9
1996-97	t/ha	0.8	1.0	0.7	0.7	1.5	na	0.9
1997-98	t/ha	0.6	0.8	0.4	0.8	0.9	na	0.7
1998-99 **p**	t/ha	0.9	1.1	0.8	1.1	1.2	na	1.0
Production								
1992-93	kt	2.0	1.0	0.1	0.1	0.6	0.0	3.9
1993-94	kt	2.2	3.3	0.1	0.7	2.5	0.0	8.8
1994-95	kt	1.5	2.1	0.4	0.3	1.6	0.0	5.9
1995-96	kt	2.0	8.0	0.4	2.3	0.0	0.0	12.7
1996-97	kt	1.9	3.0	0.8	0.7	0.4	0.0	6.8
1997-98	kt	1.6	2.5	0.6	0.8	0.6	0.0	6.0
1998-99 **p**	kt	2.4	3.8	1.1	1.2	0.4	0.0	8.8
Peanuts								
Area								
1992-93	'000 ha	0.7	0.0	21.9	0.1	0.0	0.0	22.6
1993-94	'000 ha	0.7	0.0	21.1	0.0	0.0	0.0	21.8
1994-95	'000 ha	0.2	0.0	12.9	0.1	0.0	0.0	13.2
1995-96	'000 ha	0.8	0.0	19.8	0.0	0.0	0.0	20.7
1996-97	'000 ha	1.0	0.0	21.0	0.1	0.0	0.0	22.1
1997-98	'000 ha	1.0	0.0	21.3	0.1	0.0	0.0	22.4
1998-99 **p**	'000 ha	1.0	0.0	21.6	0.1	0.0	0.0	22.8
Yield								
1992-93	t/ha	1.8	na	1.4	1.4	na	na	1.4
1993-94	t/ha	1.9	na	2.1	0.3	na	na	2.1
1994-95	t/ha	3.2	na	1.8	1.0	na	na	1.8
1995-96	t/ha	1.1	na	1.9	na	na	na	1.9
1996-97	t/ha	1.1	na	1.8	1.7	na	na	1.7
1997-98	t/ha	1.1	na	1.8	1.6	na	na	1.8
1998-99 **p**	t/ha	1.1	na	1.8	1.6	na	na	1.7
Production								
1992-93	kt	1.2	0.0	31.0	0.1	0.0	0.0	32.3
1993-94	kt	1.4	0.0	43.6	0.0	0.0	0.0	45.0
1994-95	kt	0.8	0.0	22.5	0.1	0.0	0.0	23.4
1995-96	kt	0.8	0.0	37.6	0.0	0.0	0.0	38.5
1996-97	kt	1.1	0.0	37.2	0.2	0.0	0.0	38.5
1997-98	kt	1.1	0.0	38.0	0.2	0.0	0.0	39.3
1998-99 **p**	kt	1.2	0.0	38.0	0.2	0.0	0.0	39.3

Continued

181 Australian oilseeds area, yield and production, by state and type *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
Safflowerseed								
Area								
1992-93	’000 ha	9.1	15.4	1.3	0.0	6.0	0.0	31.8
1993-94	’000 ha	14.3	29.4	0.8	0.0	10.0	0.0	54.4
1994-95	’000 ha	4.5	17.7	0.3	0.0	7.9	0.0	30.3
1995-96	’000 ha	10.3	25.1	0.0	0.0	4.7	0.0	40.1
1996-97	’000 ha	11.0	18.0	0.7	0.0	5.7	0.0	35.4
1997-98	’000 ha	10.0	16.0	3.0	0.0	2.2	0.0	31.2
1998-99 **p**	’000 ha	8.8	18.6	5.9	0.0	1.7	0.0	35.1
Yield								
1992-93	t/ha	0.6	0.8	0.5	na	0.8	na	0.7
1993-94	t/ha	0.8	0.8	0.3	na	1.0	na	0.8
1994-95	t/ha	0.5	0.5	0.4	na	0.5	na	0.5
1995-96	t/ha	0.6	0.7	1.2	na	0.6	na	0.7
1996-97	t/ha	0.3	0.9	0.3	na	0.7	na	0.7
1997-98	t/ha	0.5	0.6	0.5	na	1.1	na	0.6
1998-99 **p**	t/ha	0.7	0.8	0.7	na	1.0	na	0.8
Production								
1992-93	kt	5.6	12.3	0.6	0.0	4.8	0.0	23.3
1993-94	kt	10.7	24.4	0.2	0.0	9.6	0.0	45.0
1994-95	kt	2.3	8.2	0.1	0.0	3.8	0.0	14.5
1995-96	kt	6.3	17.1	0.0	0.0	3.0	0.0	29.8
1996-97	kt	3.0	16.0	0.2	0.0	3.8	0.0	23.0
1997-98	kt	4.8	9.9	1.5	0.0	2.5	0.0	18.8
1998-99 **p**	kt	6.1	15.5	4.3	0.0	1.7	0.0	27.5
Soybeans								
Area								
1992-93	’000 ha	12.7	1.2	16.4	0.0	0.0	0.0	30.2
1993-94	’000 ha	22.1	2.0	16.5	0.0	0.0	0.0	40.6
1994-95	’000 ha	9.4	1.8	6.6	0.3	0.0	0.0	18.1
1995-96	’000 ha	11.6	2.0	10.1	0.3	0.0	0.0	24.0
1996-97	’000 ha	22.0	2.0	15.5	0.3	0.0	0.0	39.8
1997-98	’000 ha	38.0	2.0	12.0	0.3	0.0	0.0	52.3
1998-99 **p**	’000 ha	35.0	1.5	11.5	0.0	0.0	0.0	48.0
Yield								
1992-93	t/ha	2.2	2.1	1.1	na	na	na	1.6
1993-94	t/ha	2.2	2.2	1.8	na	na	na	2.0
1994-95	t/ha	1.8	1.3	1.2	1.0	na	na	1.5
1995-96	t/ha	1.8	2.0	1.8	1.0	na	na	1.8
1996-97	t/ha	2.3	2.5	1.6	1.3	na	na	2.1
1997-98	t/ha	1.8	2.0	1.7	0.0	na	na	1.8
1998-99 **p**	t/ha	2.3	2.0	2.2	na	na	na	2.3
Production								
1992-93	kt	28.1	2.5	18.3	na	na	0.0	48.9
1993-94	kt	47.7	4.4	29.2	na	0.0	0.0	81.3
1994-95	kt	17.1	2.3	7.8	0.3	0.0	0.0	27.5
1995-96	kt	21.3	4.0	18.6	0.3	0.0	0.0	44.2
1996-97	kt	51.3	5.0	24.3	0.4	0.0	1.0	82.1
1997-98	kt	69.0	4.0	20.0	0.0	0.0	0.0	93.0
1998-99 **p**	kt	80.5	3.0	25.3	0.0	0.0	0.0	108.8

Continued

181 Australian oilseeds area, yield and production, by state and type *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
Sunflowerseed								
Area								
1992-93	'000 ha	25.1	1.2	32.0	na	1.5	0.0	59.7
1993-94	'000 ha	38.6	2.4	70.4	na	1.3	0.0	112.7
1994-95	'000 ha	49.9	0.9	84.6	0.4	0.3	0.0	136.1
1995-96	'000 ha	34.5	1.6	46.0	0.4	0.2	0.0	82.8
1996-97	'000 ha	43.0	2.0	95.8	0.4	0.5	0.0	141.7
1997-98	'000 ha	20.0	3.0	68.0	0.4	1.0	0.0	92.4
1998-99 **p**	'000 ha	78.0	3.0	85.0	0.4	1.1	0.0	167.5
Yield								
1992-93	t/ha	1.2	1.6	0.5	na	1.0	na	0.8
1993-94	t/ha	1.2	1.5	0.7	na	1.0	na	0.9
1994-95	t/ha	1.1	1.7	0.7	1.3	1.3	na	0.8
1995-96	t/ha	1.1	1.3	0.6	1.3	0.6	na	0.8
1996-97	t/ha	1.5	1.5	1.0	1.8	1.2	na	1.2
1997-98	t/ha	1.3	1.7	1.0	2.5	1.0	na	1.1
1998-99 **p**	t/ha	1.3	1.8	1.2	2.4	1.0	na	1.2
Production								
1992-93	kt	29.7	1.8	16.9	na	1.5	0.0	49.8
1993-94	kt	47.5	3.7	52.2	na	1.3	0.0	104.7
1994-95	kt	53.9	1.5	56.0	0.5	0.4	0.0	112.3
1995-96	kt	38.7	2.2	27.4	0.5	0.1	0.0	68.9
1996-97	kt	63.5	3.0	95.2	0.7	0.6	0.0	163.0
1997-98	kt	25.0	5.0	66.0	1.0	1.0	0.0	98.0
1998-99 **p**	kt	101.4	5.3	100.3	1.0	1.0	0.0	209.0
Total oilseeds								
Area								
1992-93	'000 ha	323.3	37.9	154.1	na	14.3	0.0	540.8
1993-94	'000 ha	388.2	66.7	193.0	na	24.4	0.0	708.2
1994-95	'000 ha	375.9	98.1	194.5	105.3	34.5	0.0	808.1
1995-96	'000 ha	430.4	112.8	197.2	102.1	36.8	0.0	878.8
1996-97	'000 ha	535.4	125.0	253.5	108.3	42.4	0.0	1 063.7
1997-98	'000 ha	620.9	155.2	244.7	251.9	58.9	0.0	1 330.5
1998-99 **p**	'000 ha	849.9	244.6	306.1	565.0	149.5	0.0	2 114.1
Yield								
1992-93	t/ha	1.7	1.1	1.5	na	1.2	na	1.6
1993-94	t/ha	1.6	1.2	1.3	na	1.3	na	1.5
1994-95	t/ha	1.9	0.7	1.7	1.0	0.9	na	1.5
1995-96	t/ha	2.3	1.3	2.0	1.2	1.4	na	1.9
1996-97	t/ha	2.0	1.3	1.5	1.0	1.4	na	1.7
1997-98	t/ha	1.7	1.3	1.6	1.2	1.4	na	1.5
1998-99 **p**	t/ha	1.7	1.4	1.7	1.1	1.5	na	1.5
Production								
1992-93	kt	564.7	41.3	229.5	na	16.5	0.0	863.6
1993-94	kt	636.2	82.6	256.7	na	31.6	0.0	1 055.3
1994-95	kt	698.9	70.9	332.8	109.1	31.9	0.0	1 243.5
1995-96	kt	971.4	150.9	387.1	120.0	51.2	0.0	1 684.2
1996-97	kt	1 088.3	168.0	390.4	109.9	57.8	0.0	1 815.3
1997-98	kt	1 083.8	202.4	395.1	290.0	85.3	0.0	2 056.4
1998-99 **p**	kt	1 479.3	331.3	510.7	622.1	222.9	0.0	3 166.2

p Preliminary. **na** Not available

Sources: ABS, *Agricultural Commodities, Australia,* cat no. 7121.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; ABARE, *Australian Crop Report,* Canberra; ABARE.

182 Australian exports of oilseeds, vegetable oils and meals, by type

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Oilseeds								
Canola	10.56	48.70	106.17	84.47	347.77	283.43	590.07	1 320.48
Cottonseed	158.42	164.50	151.33	131.52	157.42	211.48	296.06	359.94
Linseed	0.01	0.10	0.47	0.34	0.41	0.64	0.06	0.32
Peanuts	0.52	1.55	1.33	1.25	0.79	1.89	3.66	4.75
Safflowerseed	12.21	22.02	21.05	19.86	10.52	17.54	12.01	8.60
Soybeans	1.00	2.87	4.34	4.35	2.39	3.65	3.13	2.53
Sunflowerseed	48.45	1.05	1.95	10.50	3.52	4.44	3.15	10.97
Total **a**	231.17	240.79	286.62	252.29	522.81	523.07	908.14	1 707.58
(value, $m)	55.67	70.37	100.60	94.84	194.27	190.41	344.80	672.52
Oils								
Canola	0.00	0.07	4.07	0.15	6.95	8.56	28.72	56.18
Cottonseed	0.09	0.04	0.04	0.11	0.18	0.74	18.32	1.35
Linseed	0.03	0.07	0.06	0.05	0.02	0.03	0.02	0.03
Palm	0.01	0.03	0.02	0.26	0.12	0.34	2.09	0.67
Peanut	0.06	0.10	0.18	0.33	0.13	0.63	0.44	0.67
Safflowerseed	1.42	3.05	0.35	1.14	0.51	1.05	1.60	1.45
Soybeans	0.15	0.20	0.01	0.75	0.07	0.02	0.12	2.06
Sunflowerseed	1.14	2.59	0.28	0.26	0.44	0.68	3.97	8.23
Olive	0.18	0.06	0.09	0.06	0.06	0.06	0.10	0.24
Other **b**	0.96	2.25	2.15	8.13	5.82	1.86	4.47	2.00
Total	4.05	8.47	7.26	11.24	14.28	13.98	59.84	72.88
(value, $m)	5.32	12.92	10.33	16.50	16.96	15.83	64.92	76.53
Oilseed meals								
Canola	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
Cottonseed and sunflowerseed	0.64	0.65	2.13	0.26	4.08	54.10	9.29	29.97
Linseed	0.00	0.01	0.00	0.02	0.02	0.00	0.00	0.00
Soybean	2.33	2.99	2.83	7.41	4.55	2.83	3.65	1.77
Other **c**	2.55	8.21	3.66	2.30	3.07	1.58	41.33	na
Total	5.51	11.86	8.62	9.99	11.73	58.52	54.27	na
(value, $m)	2.97	4.08	4.53	4.82	5.06	11.04	13.22	na

a Excludes sesameseed and other oleaginous fruit. **b** Comprises canola, coconut, olive, palm kernel and soybean oils. Excludes exports of vegetable oils exported as margarine. **c** Includes flour, meal of oilseeds, and oleaginous fruit. Excludes peanut meal. **p** Preliminary.
Sources: ABS, *International Trade* , electronic data service, cat. no. 5464.0, Canberra; ABARE.

183 Australian imports of oilseeds, vegetable oils and meals, by type

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Oilseeds								
Canola	0.08	0.06	0.14	0.16	0.25	0.16	0.16	0.17
Copra	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.01
Linseed	0.01	0.00	0.00	0.24	0.06	1.02	3.33	0.40
Peanuts	13.18	6.97	8.26	4.89	14.22	4.12	3.84	5.68
Soybeans	61.61	58.87	50.37	104.58	69.15	54.05	47.59	23.32
Sunflowerseed	0.13	0.19	0.98	0.63	0.83	1.05	0.88	0.63
Other **a**	5.76	4.76	5.59	5.56	5.92	6.06	6.03	5.87
Total	80.77	70.85	65.36	116.06	90.44	66.47	61.84	36.08
(value, $m)	42.88	34.35	38.10	51.10	51.23	37.47	39.21	28.84
Oils								
Canola	0.82	0.98	0.58	0.76	0.49	2.19	1.54	2.17
Cottonseed	0.00	0.00	0.01	0.02	0.03	0.02	0.11	40.62
Linseed	2.79	2.32	5.26	3.55	3.00	2.74	2.08	2.35
Maize	0.46	0.65	6.11	1.52	1.57	2.42	1.54	1.41
Peanut	0.88	0.18	0.75	0.62	1.22	0.19	0.11	0.36
Safflowerseed and sunflowerseed	22.74	28.16	35.65	15.68	12.36	33.36	14.37	9.53
Soybean	29.10	36.02	34.05	33.06	29.17	18.30	12.24	13.82
Castor	1.05	1.26	1.03	1.52	1.34	1.69	1.87	1.76
Coconut	11.27	13.32	16.05	16.45	16.67	17.86	17.02	16.39
Olive	12.42	17.10	15.91	18.84	15.89	17.69	20.00	22.97
Palm	4.85	4.39	6.18	7.48	6.44	6.96	7.30	7.81
Palm kernel	4.34	3.26	3.02	2.64	5.06	5.63	7.22	6.65
Palm olein	60.16	67.20	66.76	68.56	74.97	71.30	76.72	72.91
Palm stearin	20.68	24.18	18.38	19.48	22.78	23.51	27.99	19.59
Tung	0.32	15.38	0.26	0.23	0.18	0.26	15.40	16.23
Other **b**	19.77	23.97	25.98	26.26	26.96	30.47	28.07	29.12
Total oils	191.67	238.38	235.95	216.66	218.15	234.59	233.57	263.68
(value, $m)	155.32	199.07	210.84	241.39	277.98	272.10	267.13	305.51
Oilseed meals								
Soybean	112.99	106.49	123.81	309.06	152.28	183.42	159.78	176.90
Other **c**	18.60	6.90	22.43	32.11	29.36	22.89	36.68	32.30
Total	131.59	113.39	146.24	341.17	181.64	206.31	196.46	209.20
(value, $m)	35.95	35.23	47.18	87.87	51.08	71.28	73.09	59.12

a Oilseeds, oleaginous fruit, used for extraction of vegetable oils, not elsewhere specified; excludes palm nuts and kernels, sesameseeds, mustardseeds and poppyseeds before 1988-89. **b** Includes fixed vegetable oils not elsewhere specified including mixtures; vegetable oils, boiled, oxidised, dehydrated not elsewhere specified; vegetable oils and fats not elsewhere specified. **c** Includes flours. **p** Preliminary.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

184 Summary of world statistics for oilseeds a

	Area	Production	Use b	Closing stocks World	Closing stocks Exporters c	Stocks to use ratio	Trade d	Use per person	Price e
	million ha	Mt	Mt	Mt	Mt	%	Mt	kg	US$/t
1972-73	105.0	109.4	109.6	4.7	3.2	4.3	20.4	28.5	140
1973-74	110.4	127.0	122.6	8.3	6.7	6.8	22.2	31.2	290
1974-75	109.8	120.2	119.7	9.5	7.4	8.0	19.8	29.9	277
1975-76	109.1	130.2	127.6	13.0	10.7	10.2	23.9	31.3	220
1976-77	107.3	120.8	127.0	7.2	5.9	5.7	23.7	30.6	231
1977-78	118.0	140.3	138.9	9.7	7.4	6.9	27.0	32.9	280
1978-79	122.9	147.5	147.8	10.6	8.5	7.2	30.2	34.4	268
1979-80	130.2	166.9	158.6	18.1	15.5	11.4	35.3	36.3	298
1980-81	127.8	152.8	157.7	14.8	12.2	9.4	30.8	35.6	296
1981-82	131.1	167.1	169.0	12.9	10.0	7.6	35.6	37.9	288
1982-83	132.2	175.6	173.2	15.0	11.8	8.7	34.7	38.2	245
1983-84	132.5	163.0	167.4	10.0	6.6	6.0	32.6	36.2	282
1984-85	140.3	188.9	183.8	15.7	11.9	8.5	32.1	39.1	282
1985-86	139.2	193.9	189.3	21.3	18.0	11.2	33.9	39.5	224
1986-87	135.7	191.7	195.8	18.4	14.8	9.4	36.9	40.2	208
1987-88	143.2	207.2	206.9	16.2	11.4	7.8	39.3	41.7	216
1988-89	153.0	201.8	204.7	13.9	9.6	6.8	31.9	40.6	292
1989-90	153.5	212.4	211.0	14.4	10.1	6.8	36.4	41.1	247
1990-91	152.8	215.5	216.3	16.0	11.9	7.4	32.7	41.3	241
1991-92	164.0	224.3	226.4	14.9	10.7	6.6	37.6	42.5	237
1992-93	163.4	227.8	228.2	14.8	11.0	6.5	38.3	42.1	246
1993-94	166.5	228.3	232.0	12.1	8.2	5.2	38.6	42.0	259
1994-95	169.8	261.9	257.7	16.4	12.2	6.4	44.1	45.3	248
1995-96	176.3	258.4	261.8	13.3	8.3	5.1	44.5	45.3	303
1996-97	172.4	262.0	265.0	10.5	6.2	3.9	49.5	45.1	297
1997-98	179.4	286.7	282.9	11.9	8.0	4.2	54.4	47.4	258
1998-99 p	185.8	292.5	285.8	17.3	12.7	6.1	55.6	47.2	207

a October–September years, except where otherwise noted. Oilseeds comprise canola, copra, cottonseed, palm kernels, peanuts, soybeans and sunflowerseed. **b** Disappearance. **c** Stocks are indicative for the year in question. Soybeans: United States, Brazil, Argentina; cottonseed: United States; peanuts: United States, China; sunflowerseed: United States, Argentina; canola: Canada; copra: Philippines; palm kernels: Malaysia; linseed: Canada, Argentina. **d** Exports. **e** United States soybeans, cif Rotterdam, January–December year (for example, 1960-61 = 1960). **p** Preliminary. **na** Not available.
Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *Oilseeds: World Markets and Trade,* Washington DC.

185 World oilseeds production, by country a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Africa								
South Africa	398	627	707	659	1 108	783	939	1 525
Americas								
Argentina	15 601	14 933	16 944	19 240	19 236	17 460	25 873	26 500
Brazil	20 677	23 404	25 664	27 071	25 032	28 008	33 411	31 955
Canada	5 819	5 447	7 410	9 601	8 795	7 283	9 195	10 435
Mexico	1 411	962	883	983	913	757	870	822
United States	64 316	68 442	59 463	79 671	69 026	74 755	83 095	84 797
Asia								
China	34 526	33 038	38 610	42 248	43 327	41 445	43 410	43 016
India	21 059	23 105	23 260	23 917	25 518	27 936	24 943	26 602
Indonesia	4 691	4 669	4 931	5 232	5 449	5 972	5 067	5 307
Malaysia	1 904	2 214	2 254	2 403	2 521	2 678	2 523	2 899
Pakistan	4 767	3 489	3 166	3 152	4 031	3 671	3 660	3 297
Philippines	2 019	2 311	2 004	2 722	2 036	2 465	2 436	1 618
Turkey	1 685	2 018	1 657	1 677	2 179	1 870	1 967	2 065
Europe								
European Union b	14 024	12 425	11 501	12 687	13 137	12 951	14 970	15 085
Finland	105	119	127	108	135	140	90	88
Hungary	964	841	751	718	785	966	723	831
Poland	1 043	758	594	756	1 377	449	595	1 093
Romania	800	745	792	860	1 042	1 297	991	1 182
Sweden	252	247	313	214	215	139	118	124
Former Soviet Union	11 201	na	na	na	na	na	na	na
Russia	c	3 743	3 358	3 096	4 615	3 154	3 182	3 400
Turkmenistan	c	710	741	644	550	260	370	415
Ukraine	c	2 423	2 351	1 620	2 897	2 156	2 370	2 353
Uzbekistan	c	2 400	2 200	2 400	2 200	2 014	2 300	2 000
Oceania								
Australia	1 105	836	1 002	1 223	1 642	1 785	2 032	3 011
Other countries	13 996	25 178	24 362	24 557	28 033	32 199	32 272	33 543
Total	224 288	227 777	228 315	261 897	258 445	262 018	286 663	292 477

a Oilseeds comprise soybeans, cottonseed, peanuts, sunflowerseed, canola, palm kernels and copra. **b** Regarded as fifteen countries for all years.
c Included in former Soviet Union total. **p** Preliminary. **na** Not applicable.
Sources: ABARE, *Australian Crop Report,* Canberra; ABS, *Agricultural Commodities, Australia,* cat no. 7121.0, Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

186 World oilseeds production, by type

	Castor-seed	Copra	Cotton-seed	Linseed	Palm kernels	Peanuts	Rape-seed a	Sesame-seed	Soybeans	Sunflower-seed
	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
1960-61	595	3 390	18 064	3 245	927	9 049	3 702	1 183	23 551	6 056
1961-62	570	3 079	17 767	3 265	831	9 537	3 556	1 413	26 945	7 085
1962-63	590	3 156	18 772	3 625	846	9 749	3 734	1 516	27 016	6 795
1963-64	675	3 423	20 163	3 525	858	10 611	2 924	1 546	28 121	6 466
1964-65	811	3 464	21 411	3 700	918	11 625	4 520	1 741	29 239	8 580
1965-66	784	3 618	22 085	3 675	900	10 956	5 057	1 572	31 701	8 110
1966-67	853	3 379	20 635	3 273	762	11 087	4 679	1 544	36 469	9 410
1967-68	909	3 431	20 163	2 738	814	11 849	5 742	1 727	37 774	9 791
1968-69	888	3 331	22 588	3 155	859	11 001	5 398	1 572	41 699	9 685
1969-70	866	3 293	21 373	3 995	948	10 705	5 286	1 624	42 479	10 155
1970-71	814	3 796	20 895	4 420	996	11 346	7 096	1 984	44 278	9 790
1971-72	854	4 401	22 989	3 024	961	11 777	7 687	1 827	47 201	10 019
1972-73	807	3 830	23 792	2 579	900	14 644	7 278	1 776	49 203	9 761
1973-74	997	3 293	24 394	2 763	1 031	16 487	7 120	1 873	62 410	12 255
1974-75	1 101	4 477	24 515	2 625	1 100	16 849	7 835	1 770	54 656	10 813
1975-76	800	5 112	21 197	2 873	1 131	18 701	8 416	1 671	65 635	10 053
1976-77	694	4 665	21 554	2 580	1 162	16 605	7 157	1 657	59 475	10 224
1977-78	773	4 838	24 280	3 392	1 189	16 952	7 880	1 779	72 238	12 943
1978-79	907	4 218	22 908	2 740	1 320	17 922	10 721	1 854	77 528	12 843
1979-80	875	4 375	24 666	3 089	1 451	17 429	10 080	1 852	93 546	15 336
1980-81	782	4 835	24 800	2 526	1 475	16 271	11 137	1 713	81 033	13 241
1981-82	914	4 593	27 548	2 459	1 748	19 832	12 350	2 069	86 196	14 825
1982-83	924	4 480	26 784	3 001	1 796	17 435	14 798	1 769	93 571	16 691
1983-84	970	3 781	25 372	2 640	2 005	18 738	14 386	1 951	83 186	15 510
1984-85	1 070	4 681	34 085	2 790	2 218	19 684	17 079	1 970	93 135	17 986
1985-86	1 180	5 306	30 715	3 010	2 495	20 022	18 699	1 960	97 044	19 560
1986-87	1 050	4 709	27 290	3 290	2 481	20 419	19 473	2 270	98 101	19 264
1987-88	830	4 385	31 358	2 790	2 637	20 928	23 333	2 230	103 510	20 964
1988-89	1 010	4 340	32 467	2 300	2 888	22 924	22 630	2 210	96 013	20 337
1989-90	1 110	5 103	30 659	2 450	3 279	21 925	21 977	2 140	107 326	21 926
1990-91	1 350	4 761	33 419	2 880	3 271	21 876	25 132	2 070	104 187	22 884
1991-92	1 170	4 730	36 581	2 460	3 350	22 147	28 265	2 350	107 362	21 853
1992-93	1 140	4 904	31 599	1 966	3 907	23 262	25 327	2 190	117 430	21 348
1993-94	1 115	4 955	29 607	2 191	4 132	24 180	26 802	2 400	117 802	20 837
1994-95	1 226	5 599	33 010	2 474	4 517	27 173	30 375	2 251	137 676	23 547
1995-96	1 368	5 198	35 920	2 619	4 876	27 142	34 516	2 408	124 887	25 906
1996-97	1 166	6 127	34 381	2 299	5 240	28 530	31 622	2 641	132 193	23 925
1997-98	1 191	5 445	35 071	2 436	5 126	26 633	33 350	2 752	157 752	23 286
1998-99 p	1 127	4 670	32 687	2 783	5 759	28 875	36 595	2 649	158 001	25 890

a Predominantly canola since the late 1980s. **na** Not available **p** Preliminary.

Sources: ISTA Mielke GmbH, *Oil World Annual,* Hamburg; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

187 World oilseeds trade, by type and country a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Imports								
Canola	4.69	4.01	5.20	5.91	5.76	5.76	6.41	8.12
European Union b	2.29	1.73	2.32	2.80	2.62	2.29	2.58	2.46
Japan	1.93	1.86	1.85	1.83	1.98	2.00	2.09	2.10
Other	0.47	0.42	1.03	1.28	1.16	1.47	1.73	3.56
Copra	0.24	0.25	0.26	0.21	0.21	0.21	0.24	0.24
European Union b	0.09	0.10	0.10	0.08	0.08	0.08	0.13	0.13
Other	0.15	0.15	0.16	0.13	0.14	0.13	0.11	0.11
Linseed	0.55	0.45	0.66	0.84	0.87	0.78	0.91	0.95
European Union b	0.25	0.21	0.41	0.54	0.56	0.43	0.57	0.59
Japan	0.08	0.08	0.08	0.07	0.07	0.08	0.08	0.08
Other	0.22	0.16	0.17	0.24	0.23	0.27	0.26	0.27
Soybeans	28.94	30.05	29.17	32.42	32.55	37.14	38.83	39.13
European Union b	13.94	15.17	13.11	16.05	14.25	15.31	16.30	16.14
Japan	4.67	4.87	4.86	4.84	4.78	5.04	4.87	4.65
Other	10.32	10.02	11.21	11.53	13.52	16.78	17.66	18.34
Sunflowerseed	2.51	1.97	2.51	3.14	3.72	4.09	3.98	4.36
European Union b	1.87	1.52	2.18	2.29	2.91	3.27	2.82	3.16
Mexico	0.19	0.14	0.06	0.05	0.07	0.17	0.15	0.15
Other	0.45	0.31	0.26	0.81	0.74	0.65	1.02	1.05
Other oilseeds c	1.60	1.86	1.70	1.78	1.61	1.66	1.73	1.55
Total	38.51	38.59	39.50	44.31	44.71	49.64	52.09	54.35
Exports								
Canola	4.80	4.02	5.28	5.85	5.86	5.73	6.59	8.21
Canada	1.86	1.89	3.35	3.91	2.81	2.52	2.96	3.60
Other	2.94	2.13	1.94	1.94	3.06	3.21	3.63	4.61
Copra	0.24	0.23	0.24	0.22	0.23	0.24	0.24	0.25
Papua New Guinea	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07
Philippines	0.04	0.05	0.02	0.04	0.01	0.00	0.01	0.00
Other	0.13	0.12	0.15	0.11	0.15	0.17	0.16	0.18
Linseed	0.53	0.44	0.67	0.84	0.87	0.78	0.89	0.95
Canada	0.48	0.41	0.63	0.80	0.83	0.75	0.84	0.90
Other	0.05	0.03	0.04	0.04	0.05	0.04	0.05	0.05
Soybeans	28.11	29.79	28.03	32.19	32.05	36.89	40.98	40.17
Argentina	2.92	2.27	2.96	2.61	2.01	0.75	3.23	2.80
Brazil	3.83	4.18	5.40	3.49	3.63	8.34	9.30	9.70
United States	18.61	20.94	16.03	22.81	23.17	24.00	23.69	21.91
Other	2.75	2.39	3.65	3.27	3.24	3.80	4.76	5.76
Sunflowerseed	2.24	1.87	2.57	3.18	3.67	4.15	3.87	4.51
United States	0.16	0.12	0.10	0.29	0.22	0.15	0.19	0.25
Other	2.08	1.75	2.47	2.89	3.45	4.00	3.68	4.26
Other oilseeds c	1.69	1.91	1.79	1.86	1.79	1.71	1.80	1.57
Total	37.60	38.26	38.58	44.14	44.47	49.49	54.36	55.65

a Imports may not equal exports in any given period as a result of lags in shipping time. **b** Regarded as fifteen countries for all years. **c** Cottonseed, palm kernels and peanuts. **p** Preliminary. **na** Not available.

Sources: ISTA Mielke GmbH, *Oil World Annual,* Hamburg; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

188 World protein meals trade, by type and country [a]

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 [p]
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Imports								
Copra meal	0.92	1.04	1.01	1.10	0.83	1.04	1.00	0.88
European Union [b]	0.90	1.00	0.98	0.95	0.74	0.75	0.70	0.59
Other	0.01	4.80	0.03	0.16	0.09	0.29	0.31	0.29
Fish meal	3.44	3.69	4.32	4.21	3.97	4.17	2.88	3.40
Chinese Taipei	0.40	0.47	0.46	0.42	0.35	0.31	0.16	0.23
European Union [b]	1.09	1.16	1.40	1.08	1.04	1.15	1.06	1.09
Hungary	0.04	0.04	0.04	0.05	0.05	0.06	0.06	0.06
Poland	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Other	1.91	2.01	2.41	2.65	2.53	2.65	1.59	2.02
Peanut meal	0.70	0.68	0.78	0.64	0.55	0.52	0.42	0.42
European Union [b]	0.28	0.23	0.27	0.24	0.26	0.25	0.19	0.19
Poland	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01
Other	0.42	0.45	0.51	0.39	0.28	0.27	0.23	0.23
Soybean meal	27.71	28.01	29.47	31.43	32.87	34.43	37.31	39.60
European Union [b]	14.51	15.49	16.47	16.80	15.78	14.68	16.78	20.24
Hungary	0.30	0.40	0.43	0.45	0.47	0.46	0.51	0.60
Poland	0.62	0.50	0.49	0.70	0.78	0.80	0.90	0.89
Other	12.28	11.63	12.09	13.48	15.84	18.49	19.12	17.87
Other meals [c]	8.58	8.55	8.67	9.58	10.20	10.66	10.49	10.43
Total	41.34	41.97	44.24	46.95	48.42	50.82	52.11	54.73
Exports								
Fish meal	3.30	3.78	4.58	4.21	3.78	4.46	2.53	3.44
Europe [d]	0.71	0.92	0.92	0.82	0.88	0.88	1.04	1.00
South America [e]	2.33	2.62	3.45	3.18	2.69	3.12	1.17	2.13
Other	0.27	0.24	0.21	0.21	0.21	0.46	0.32	0.31
Peanut meal	0.67	0.64	0.85	0.63	0.59	0.54	0.52	0.52
India	0.17	0.29	0.37	0.32	0.26	0.30	0.22	0.22
Other	0.50	0.35	0.48	0.31	0.33	0.24	0.30	0.30
Soybeans	27.92	28.99	30.13	32.37	32.33	32.59	41.35	39.54
Brazil	8.14	9.30	10.52	11.47	10.90	9.80	10.95	10.85
European Union [b]	3.97	4.04	3.85	3.67	4.08	4.49	5.01	5.04
United States	6.30	5.65	4.86	6.09	5.45	6.35	8.46	6.31
Other	9.51	9.99	10.90	11.13	11.90	11.96	16.93	17.35
Other meals [f]	9.31	9.32	9.57	10.94	11.52	11.75	11.80	11.46
Total	41.19	42.73	45.13	48.14	48.22	49.33	56.19	54.96

a Imports may not equal exports in any given period because of lags in shipping time. **b** Regarded as twelve countries for all years. **c** Canola, cottonseed, linseed, palm kernel, sesameseed and sunflowerseed. **d** Regarded as fifteen countries for all years. **e** Chile and Peru. **f** Canola, copra, cottonseed, linseed, palm kernel, sesameseed and sunflowerseed. **p** Preliminary.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *Oilseeds: World Markets and Trade,* Washington DC.

189 World vegetable oils trade, by type and country

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Imports								
Canola oil	2.11	1.72	2.20	2.77	2.54	2.58	2.75	2.78
European Union **a**	0.58	0.57	0.66	0.76	0.76	0.97	0.93	1.02
India	0.02	0.01	0.02	0.02	0.04	0.03	0.00	1.00
Coconut oil	1.33	1.39	1.39	1.72	1.51	1.70	2.05	1.36
European Union **a**	0.56	0.49	0.58	0.69	0.70	0.77	0.94	0.66
United States	0.38	0.53	0.45	0.50	0.40	0.54	0.65	0.37
Palm oil	8.58	9.00	10.37	10.45	10.70	11.84	11.86	13.24
European Union **a**	1.74	1.75	1.98	2.03	2.28	2.57	2.45	2.57
India	0.17	0.03	0.20	0.48	0.97	1.12	1.43	2.30
Pakistan	0.94	0.88	1.06	1.21	1.02	1.07	1.05	1.10
Singapore	0.90	0.94	0.98	0.98	0.98	0.98	0.98	0.90
Soybean oil	3.82	3.86	4.80	6.12	5.34	5.82	6.71	7.39
European Union **a**	0.66	0.53	0.50	0.63	0.54	0.46	0.40	0.44
India	0.07	0.04	0.04	0.06	0.06	0.05	0.24	0.85
Poland	0.07	0.09	0.10	0.08	0.07	0.07	0.10	0.08
Russia	0.04	0.03	0.04	0.02	0.03	0.02	0.00	0.00
Sunflowerseed oil	2.52	2.16	2.38	3.32	3.21	3.71	3.44	3.87
European Union **a**	0.62	0.62	0.63	0.70	0.71	0.65	0.79	0.82
Other vegetable oils **b**	4.45	4.65	4.88	5.08	4.81	5.40	4.37	4.60
Total	22.81	22.78	26.03	29.47	28.11	31.04	31.19	33.23
Exports								
Canola oil **c**	2.09	1.63	2.23	2.65	2.65	2.50	2.98	2.88
Canada	0.29	0.37	0.41	0.42	0.55	0.70	0.89	0.80
European Union **a**	1.67	1.16	1.54	1.80	1.80	1.48	1.70	1.70
Coconut oil	1.47	1.70	1.50	1.83	1.62	1.80	2.16	1.37
Philippines	0.79	1.12	0.77	1.33	0.90	0.90	1.39	0.66
Cottonseed oil	0.64	0.50	0.50	0.59	0.54	0.48	0.18	0.00
United States	0.13	0.08	0.11	0.15	0.10	0.10	0.09	0.09
Palm oil	8.66	9.46	10.76	10.57	10.85	12.21	11.89	13.25
Malaysia	5.55	5.74	6.50	6.63	6.66	6.66	7.42	8.10
Soybean oil	4.51	4.25	5.06	6.15	5.11	5.66	7.75	7.39
Brazil	0.71	0.77	1.56	1.64	1.35	1.08	1.41	1.43
European Union **a**	1.43	1.06	0.91	1.29	1.11	1.32	1.61	1.50
United States	0.75	0.64	0.69	1.22	0.45	0.92	1.40	1.07
Sunflowerseed oil	2.55	2.15	2.33	3.45	3.11	3.78	3.57	3.75
Argentina	1.05	0.78	0.92	1.56	1.51	1.61	1.51	1.79
European Union **a**	0.70	0.62	0.66	0.89	0.74	1.12	1.07	0.98
Other vegetable oils **b**	2.17	2.10	2.84	2.80	2.73	3.05	2.87	3.15
Total	22.08	21.78	25.21	28.03	26.60	29.47	31.39	31.79

a Regarded as fifteen countries for all years. **b** Castor, cottonseed, linseed, olive, palm kernel, peanut and sesameseed. **c** Imports may not equal exports in any given period because of lags in shipping time. **p** Preliminary.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *Oilseeds: World Markets and Trade,* Washington DC.

190 Selected oilseed, oilseed meal and vegetable oil import price quotations, by country a

	Canola b	Palm oil c	Soybeans d	Soybean meal e	Soybean oil f
	US$/t	US$/t	US$/t	US$/t	US$/t
1972-73	na	na	267	283	359
1973-74	na	na	260	193	727
1974-75	na	na	249	163	616
1975-76	na	na	215	169	418
1976-77	na	na	288	237	570
1977-78	na	na	259	205	581
1978-79	na	na	295	238	655
1979-80	na	na	278	242	609
1980-81	308	na	310	273	545
1981-82	292	na	253	225	463
1982-83	303	406	260	224	463
1983-84	351	767	301	221	722
1984-85	303	569	223	155	625
1985-86	239	274	211	183	377
1986-87	180	310	209	191	324
1987-88	222	402	282	254	443
1988-89	219	358	292	263	435
1989-90	213	271	247	204	438
1990-91	199	318	241	198	454
1991-92	204	365	237	203	437
1992-93	234	382	246	207	453
1993-94	284	446	259	202	580
1994-95	289	660	248	184	642
1995-96	298	523	303	256	575
1996-97	284	526	297	278	536
1997-98	306	604	258	197	633
1998-99 p	252	606	207	162	657

a October–September average. **b** Cif Rotterdam; Europe '00' oil. **c** Malaysia fob; RBD. **d** Cif Rotterdam; US no. 2 yellow. **e** Cif Rotterdam; Arg. 45/46%. **f** Dutch fob; ex mill. **p** Preliminary. **na** Not available.

Sources: US Department of Agriculture, *Oilseeds: World Markets and Trade,* Washington DC; ABARE.

191 Summary of Australian statistics for pulses

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Lupins									
Area	'000 ha	938.5	1 032.5	1 150.4	1 407.1	1 322.8	1 274.4	1 270.4	1 215.3
Yield	t/ha	1.1	1.2	1.3	0.8	1.2	1.2	1.1	1.2
Production	kt	1 047.4	1 195.0	1 479.7	1 076.2	1 559.0	1 559.6	1 380.0	1 421.0
Exports **a**	kt	547.9	717.9	1 014.9	491.1	886.9	881.0	972.0	969.5
Value of exports	$m	101.9	148.1	199.1	89.4	84.7	195.0	193.0	170.7
Average unit value	$/t	168.0	200.6	181.9	180.3	201.9	211.4	189.1	169.9
Gross value of production	$m	176.0	239.7	269.1	194.1	314.7	329.8	261.0	241.4
Field peas									
Area	'000 ha	426.5	382.3	399.8	460.6	381.6	347.2	326.0	297.0
Yield	t/ha	1.1	1.2	1.4	0.5	1.4	1.3	0.9	1.0
Production	kt	472.6	456.3	558.5	240.4	529.9	466.0	305.0	298.0
Exports **ab**	kt	192.0	363.0	352.7	134.3	216.6	334.7	203.8	207.2
Value of exports **b**	$m	49.8	96.2	91.2	41.0	62.2	97.1	66.9	62.6
Average unit value	$/t	227.3	245.7	245.3	295.3	273.6	283.3	304.9	275.7
Gross value of production	$m	107.4	112.1	137.0	71.0	145.0	132.0	93.0	82.2
Chickpeas									
Area	'000 ha	250.2	151.8	146.8	208.9	216.4	256.0	205.0	265.0
Yield	t/ha	0.9	1.2	1.3	0.3	1.3	1.1	0.9	0.6
Production	kt	223.1	176.9	193.1	68.9	286.9	278.0	191.0	160.0
Exports **a**	kt	86.4	228.5	222.1	36.4	112.1	341.8	255.9	109.4
Value of exports	$m	27.8	72.8	87.3	23.5	51.1	119.7	118.0	50.1
Average unit value	$/t	291.5	379.5	399.9	549.3	364.0	428.1	506.0	323.1
Gross value of production	$m	65.0	67.2	77.2	37.8	104.4	119.0	96.6	51.7
Total legumes c									
Area	'000 ha	1 733.0	1 779.6	1 847.9	2 223.6	2 078.0	2 060.3	2 018.0	1 981.1
Yield	t/ha	1.1	1.1	1.3	0.7	1.2	1.2	1.0	1.1
Production	kt	1 857.3	2 040.8	2 438.1	1 468.0	2 557.5	2 518.4	2 080.7	2 101.8
Exports **ad**	kt	1 170.0	1 437.5	1 691.1	741.8	1 339.5	1 691.2	1 553.1	1 495.6
Value of exports **d**	$m	305.7	510.5	415.4	190.3	357.9	473.3	441.9	368.8
Average unit value	$/t	215.4	218.0	214.4	222.1	224.8	210.1	260.1	225.8
Gross value of production	$m	400.0	444.8	522.7	326.1	574.8	529.0	541.2	474.5

a Exports are on a financial year basis. **b** Includes only field peas and cow peas. **c** Lupins, field peas, chickpeas, faba beans, mung beans, navy beans, vetch and lentils. **d** Also includes cow peas, lentils, pigeon peas and some other minor legumes on a financial year basis. **p** Preliminary. **na** Not available.
Sources: ABS, *Agricultural Commodities, Australia,* cat no. 7121.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia,* cat. no. 7503.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

192 Australian area sown, yields and production of selected pulses, by state

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
Lupins							
Area							
1992-93	'000 ha	98.8	52.6	0.1	822.8	57.6	1 032.5
1993-94	'000 ha	96.2	55.1	0.1	928.7	69.6	1 150.4
1994-95	'000 ha	107.0	64.4	0.3	1 152.1	82.7	1 407.1
1995-96	'000 ha	91.7	50.5	0.5	1 100.3	79.6	1 322.8
1996-97	'000 ha	63.0	43.0	0.6	1 097.0	103.0	1 274.4
1997-98	'000 ha	70.0	30.0	0.4	1 100.0	70.0	1 270.4
1998-99 p	'000 ha	70.0	25.0	0.3	1 050.0	70.0	1 215.3
Yield							
1992-93	t/ha	1.90	1.57	0.81	1.00	1.69	1.16
1993-94	t/ha	1.62	1.08	1.10	1.27	1.18	1.29
1994-95	t/ha	0.13	0.36	0.59	0.85	0.68	0.76
1995-96	t/ha	1.27	1.23	0.57	1.17	1.13	1.18
1996-97	t/ha	1.00	1.00	1.00	1.00	1.00	1.22
1997-98	t/ha	1.29	0.67	0.00	1.09	1.00	1.09
1998-99 p	t/ha	1.64	1.20	0.00	1.12	1.37	1.17
Production							
1992-93	kt	187.7	82.5	0.1	826.5	97.4	1 195.0
1993-94	kt	156.0	59.5	0.1	1 181.1	82.0	1 479.7
1994-95	kt	14.3	23.0	0.2	982.2	56.3	1 076.2
1995-96	kt	116.5	62.0	0.3	1 290.0	89.9	1 559.0
1996-97	kt	95.0	53.0	0.6	1 307.0	103.0	1 559.6
1997-98	kt	90.0	20.0	0.0	1 200.0	70.0	1 380.0
1998-99 p	kt	115.0	30.0	0.0	1 180.0	96.0	1 421.0
Field peas							
Area							
1992-93	'000 ha	31.5	174.3	0.0	32.4	143.7	382.3
1993-94	'000 ha	27.1	199.9	0.0	33.7	138.5	399.8
1994-95	'000 ha	27.3	223.2	0.0	42.7	167.0	460.6
1995-96	'000 ha	20.1	171.9	0.0	37.6	151.6	381.6
1996-97	'000 ha	15.0	184.0	1.0	27.0	119.0	347.2
1997-98	'000 ha	17.0	150.0	3.0	30.0	125.0	326.0
1998-99 p	'000 ha	17.0	120.0	0.0	40.0	119.0	297.0
Yield							
1992-93	t/ha	1.10	1.41	na	0.68	1.06	1.19
1993-94	t/ha	1.34	1.46	na	0.91	1.42	1.40
1994-95	t/ha	0.19	0.31	na	0.57	0.85	0.52
1995-96	t/ha	1.09	1.51	na	0.90	1.41	1.39
1996-97	t/ha	1.27	1.21	1.00	1.00	1.65	1.34
1997-98	t/ha	1.29	0.67	0.67	1.00	1.20	0.94
1998-99 p	t/ha	1.18	0.75	na	0.80	1.30	1.00
Production							
1992-93	kt	34.5	246.3	0.0	22.2	151.9	456.3
1993-94	kt	36.4	292.5	0.0	30.8	197.2	558.5
1994-95	kt	5.3	68.9	0.0	24.2	141.4	240.4
1995-96	kt	21.9	260.0	0.0	33.6	213.5	529.9
1996-97	kt	19.0	222.0	1.0	27.0	196.0	466.0
1997-98	kt	22.0	100.0	2.0	30.0	150.0	305.0
1998-99 p	kt	20.0	90.0	0.0	32.0	155.0	298.0

Continued

192 Australian area sown, yields and production of selected pulses, by state *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
Chickpeas							
Area							
1992-93	'000 ha	28.1	78.3	32.5	1.0	11.9	151.8
1993-94	'000 ha	26.4	100.3	7.4	3.4	9.3	146.8
1994-95	'000 ha	20.2	143.5	18.9	13.4	12.9	208.9
1995-96	'000 ha	31.4	115.0	26.3	31.4	12.3	216.4
1996-97	'000 ha	34.0	144.0	20.0	45.0	12.0	256.0
1997-98	'000 ha	40.0	80.0	30.0	40.0	15.0	205.0
1998-99 p	'000 ha	60.0	80.0	56.0	54.0	15.0	265.0
Yield							
1992-93	t/ha	0.88	1.63	0.44	1.60	0.76	1.17
1993-94	t/ha	1.09	1.46	0.57	0.99	1.14	1.32
1994-95	t/ha	0.38	0.26	0.41	0.61	0.61	0.33
1995-96	t/ha	0.98	1.74	0.50	0.84	1.40	1.33
1996-97	t/ha	0.88	0.97	2.00	1.07	1.67	1.09
1997-98	t/ha	1.25	0.78	0.83	1.00	0.93	0.93
1998-99 p	t/ha	0.67	0.25	0.89	0.74	0.67	0.60
Production							
1992-93	kt	24.7	127.5	14.2	1.6	9.0	176.9
1993-94	kt	28.6	146.2	4.2	3.4	10.6	193.1
1994-95	kt	7.6	37.5	7.8	8.1	7.9	68.9
1995-96	kt	30.6	199.6	13.1	26.3	17.3	286.9
1996-97	kt	30.0	140.0	40.0	48.0	20.0	278.0
1997-98	kt	50.0	62.0	25.0	40.0	14.0	191.0
1998-99 p	kt	40.0	20.0	50.1	40.0	10.0	160.0
Faba beans							
Area							
1992-93	'000 ha	16.0	37.0	0.0	2.0	27.0	82.0
1993-94	'000 ha	16.0	45.0	0.0	4.0	22.0	87.0
1994-95	'000 ha	20.0	30.0	0.0	15.0	21.0	86.0
1995-96	'000 ha	16.0	26.0	0.0	20.0	20.0	82.0
1996-97	'000 ha	12.0	30.0	0.0	25.0	23.0	90.0
1997-98	'000 ha	30.0	30.0	3.0	40.0	30.0	133.0
1998-99 p	'000 ha	27.0	24.0	0.0	24.0	32.0	107.0
Yield							
1992-93	t/ha	1.75	1.08	na	1.00	1.07	1.21
1993-94	t/ha	2.50	1.22	na	1.25	1.59	1.55
1994-95	t/ha	0.50	0.47	na	0.53	0.86	0.58
1995-96	t/ha	1.31	1.54	na	1.20	1.70	1.45
1996-97	t/ha	2.08	1.00	na	1.20	1.65	1.37
1997-98	t/ha	0.67	1.00	0.67	0.45	2.17	1.02
1998-99 p	t/ha	0.74	1.25	na	0.75	2.03	1.24
Production							
1992-93	kt	28.0	40.0	0.0	2.0	29.0	99.0
1993-94	kt	40.0	55.0	0.0	5.0	35.0	135.0
1994-95	kt	10.0	14.0	0.0	8.0	18.0	50.0
1995-96	kt	21.0	40.0	0.0	24.0	34.0	119.0
1996-97	kt	25.0	30.0	0.0	30.0	38.0	123.0
1997-98	kt	20.0	30.0	2.0	18.0	65.0	135.0
1998-99 p	kt	20.0	30.0	0.0	18.0	65.0	133.0

Continued

192 Australian area sown, yields and production of selected pulses, by state *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
Mung beans							
Area							
1992-93	'000 ha	7.0	0.0	25.0	0.0	0.0	32.0
1993-94	'000 ha	7.0	0.0	14.0	0.0	0.0	21.0
1994-95	'000 ha	7.3	0.0	21.7	0.0	0.0	29.0
1995-96	'000 ha	11.1	0.0	23.5	0.0	0.0	34.5
1996-97	'000 ha	12.0	0.0	35.0	0.0	0.0	47.0
1997-98	'000 ha	17.0	0.0	23.0	0.0	0.0	40.0
1998-99 p	'000 ha	21.0	0.0	29.0	0.0	0.0	50.0
Yield							
1992-93	t/ha	0.71	na	0.40	na	na	0.47
1993-94	t/ha	1.00	na	1.43	na	na	1.29
1994-95	t/ha	0.40	na	0.44	na	na	0.43
1995-96	t/ha	0.65	na	0.42	na	na	0.49
1996-97	t/ha	0.83	na	1.00	na	na	0.96
1997-98	t/ha	0.50	na	1.01	na	na	0.79
1998-99 p	t/ha	0.95	na	1.03	na	na	1.00
Production							
1992-93	kt	5.0	0.0	10.0	0.0	0.0	15.0
1993-94	kt	7.0	0.0	20.0	0.0	0.0	27.0
1994-95	kt	2.9	0.0	9.7	0.0	0.0	12.6
1995-96	kt	7.2	0.0	9.8	0.0	0.0	17.0
1996-97	kt	10.0	0.0	35.0	0.0	0.0	45.0
1997-98	kt	8.5	0.0	23.2	0.0	0.0	31.7
1998-99 p	kt	20.0	0.0	30.0	0.0	0.0	50.0
Navy beans							
Area							
1992-93	'000 ha	0.0	0.0	6.0	0.0	0.0	6.0
1993-94	'000 ha	0.1	0.7	6.0	0.0	0.0	6.8
1994-95	'000 ha	0.1	0.5	8.5	0.0	0.0	9.1
1995-96	'000 ha	0.1	0.1	6.4	0.0	0.0	6.6
1996-97	'000 ha	0.1	0.1	5.5	0.0	0.0	5.7
1997-98	'000 ha	0.0	0.0	5.0	0.0	0.0	4.0
1998-99 p	'000 ha	0.0	0.0	6.0	0.0	0.0	6.0
Yield							
1992-93	t/ha	na	na	0.67	na	na	0.67
1993-94	t/ha	0.75	1.23	0.67	na	na	0.72
1994-95	t/ha	0.70	0.80	0.87	na	na	0.86
1995-96	t/ha	1.00	1.00	0.94	na	na	0.94
1996-97	t/ha	1.01	1.01	0.74	na	na	0.84
1997-98	t/ha	na	na	1.06	na	na	1.33
1998-99 p	t/ha	na	na	1.00	na	na	1.00
Production							
1992-93	kt	0.0	0.0	4.0	0.0	0.0	4.0
1993-94	kt	0.1	0.8	4.0	0.0	0.0	4.9
1994-95	kt	0.1	0.4	7.4	0.0	0.0	7.9
1995-96	kt	0.1	0.1	6.0	0.0	0.0	6.2
1996-97	kt	0.1	0.1	4.1	0.0	0.0	4.8
1997-98	kt	0.0	0.0	5.3	0.0	0.0	5.3
1998-99 p	kt	0.0	0.0	6.0	0.0	0.0	6.0

Continued

192 Australian area sown, yields and production of selected pulses, by state *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
Total pulses **b**							
Area							
1992-93	'000 ha	187.4	392.2	63.6	858.2	277.2	1 779.6
1993-94	'000 ha	178.8	416.0	27.5	969.8	254.4	1 847.9
1994-95	'000 ha	186.9	469.6	49.4	1 223.2	293.6	2 223.6
1995-96	'000 ha	175.4	375.5	56.6	1 189.3	280.5	2 078.0
1996-97	'000 ha	173.1	423.1	62.1	1 404.0	280.0	2 060.3
1997-98	'000 ha	179.0	302.6	64.4	1 210.0	262.0	2 018.0
1998-99 **p**	'000 ha	200.0	262.2	91.3	1 168.0	258.6	1 981.1
Yield							
1992-93	t/ha	1.5	1.4	0.4	1.0	1.2	1.1
1993-94	t/ha	1.5	1.4	1.0	1.3	1.3	1.3
1994-95	t/ha	0.2	0.3	0.5	0.8	0.8	0.7
1995-96	t/ha	1.2	1.5	0.5	1.2	1.3	1.2
1996-97	t/ha	1.1	1.1	1.3	1.0	1.4	1.2
1997-98	t/ha	1.1	0.7	0.9	1.1	1.2	1.0
1998-99 **p**	t/ha	1.1	0.7	0.9	1.1	1.3	1.1
Production							
1992-93	kt	286.5	541.3	28.3	852.3	330.3	2 040.8
1993-94	kt	271.0	574.1	28.3	1 220.3	341.8	2 438.1
1994-95	kt	42.2	147.7	25.0	1 022.6	229.6	1 468.0
1995-96	kt	204.8	573.7	29.2	1 373.9	374.7	2 557.5
1996-97	kt	184.1	455.1	80.7	1 412.0	384.0	2 518.4
1997-98	kt	195.5	222.1	57.5	1 288.0	316.6	2 080.7
1998-99 **p**	kt	220.0	180.6	86.1	1 270.0	344.1	2 101.8

a Includes data for Tasmania and the Northern Territory. **b** Lupins, field peas, chickpeas, faba beans, mung beans, navy beans, vetch and lentils.
p Preliminary. **na** Not available.
Sources: ABS, *Agricultural Commodities,* Australia, cat no. 7121.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABARE, *Australian Crop Report,* Canberra; ABS, *Crops and Pastures, Queensland,* cat. no. 7321.3, Brisbane; ABS, *Summary of Crops, Australia,* cat. no. 7330, Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra.

193 World pulses production, by region and country

	1990	1991	1992	1993	1994	1995	1996	1997
	kt	kt	kt	kt	kt	kt	kt	kt
Africa								
Burundi	369	377	386	377	259	358	327	311
Egypt	531	544	447	507	421	459	509	537
Ethiopia	711	824	815	872	955	1 113	1 138	1 138
Nigeria	1 404	1 402	1 461	1 626	1 595	1 694	1 550	1 600
Uganda	502	492	512	543	498	512	359	351
Americas								
Brazil	2 270	2 783	2 825	2 491	3 385	2 966	2 843	3 012
Canada	587	896	988	1 460	2 074	2 102	1 700	2 313
Mexico	1 490	1 613	904	1 435	1 483	1 428	1 611	1 205
United States	1 668	1 830	1 244	1 288	1 556	1 769	1 455	1 734
Asia								
China	6 137	2 770	2 273	4 222	4 968	4 384	4 692	4 203
India	13 058	14 265	12 014	12 815	13 305	14 097	12 973	14 237
Myanmar	427	527	694	858	838	1 029	1 289	1 188
Pakistan	1 073	990	940	755	803	994	1 098	1 024
Thailand	461	454	410	361	381	359	338	333
Europe								
Denmark	551	418	303	454	379	297	260	387
France	3 724	3 302	3 399	3 749	3 451	2 770	2 629	3 121
Poland	609	680	380	411	215	268	276	260
United Kingdom	806	703	706	943	824	605	558	674
Former Soviet Union	9 368	9 054	na	na	na	na	na	na
Russia	**a**	**a**	3 078	2 891	2 673	1 498	1 711	1 711
Ukraine	**a**	**a**	2 986	2 898	2 636	1 570	1 122	1 122
Middle East								
Turkey	2 188	1 972	1 822	1 946	1 679	1 848	1 832	1 832
Oceania								
Australia **b**	1 339	1 353	1 857	2 041	2 438	1 468	2 557	2 557
Total **c**	58 423	54 119	50 936	55 142	56 521	54 903	54 037	54 037

a Included in former Soviet Union total. **b** On a fiscal year basis, for example 1992-93 = 1993. **c** Includes some unspecified countries.
p Preliminary. **na** Not applicable
Sources: ABARE, *Australian Crop Report,* Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; FAO, *Production Yearbook,* Rome; FAO, *Quarterly Bulletin of Statistics,* Rome.

194 World pulses trade, by region and country

	1991	1992	1993	1994	1995	1996	1997
	kt	kt	kt	kt	kt	kt	kt
Imports							
Africa							
Algeria	145.1	87.4	49.5	160.1	129.8	250.4	135.4
Egypt	148.0	304.7	131.2	200.7	174.3	187.5	123.2
South Africa	17.1	131.2	74.7	81.3	118.4	61.6	82.4
Americas							
Brazil	114.9	123.2	110.9	258.4	205.9	122.7	196.5
Colombia	74.4	135.8	83.0	120.3	107.5	101.8	148.3
Cuba	98.0	150.0	100.0	140.0	100.0	100.0	100.0
Mexico	50.5	21.3	23.0	83.1	45.8	173.1	129.8
United States	75.4	77.3	80.6	89.5	110.8	111.0	130.0
Venezuela	85.5	104.9	89.5	69.9	115.4	81.4	92.6
Asia							
China	80.5	127.7	99.9	72.2	71.6	263.5	187.1
Hong Kong	73.9	66.9	43.1	25.9	25.0	na	na
India	366.3	388.6	650.2	582.1	502.0	692.4	691.9
Japan	187.0	209.4	196.6	237.4	186.2	162.6	173.2
Malaysia	58.0	55.4	55.1	55.0	62.0	88.5	85.1
Singapore	65.7	54.1	42.1	38.0	36.4	44.0	57.5
Europe							
Belgium–Luxembourg	481.2	415.3	440.8	519.7	675.2	661.1	538.2
France	119.2	136.3	131.0	168.3	234.5	166.9	114.4
Germany **a**	783.0	721.8	617.0	563.9	469.9	278.2	202.6
Italy	490.2	381.1	377.9	419.9	552.7	386.6	379.6
Netherlands	929.0	820.6	742.7	719.2	776.2	613.5	450.7
Spain	421.4	560.7	667.8	748.4	830.1	589.1	636.3
United Kingdom	188.3	176.8	169.8	174.5	154.5	174.5	176.5
Middle East							
Iraq	30.0	24.0	23.0	18.0	11.8	13.4	14.5
United Arab Emirates	26.8	59.4	60.0	102.0	83.8	74.8	74.8
Total **b**	6 246.7	6 637.9	6 576.7	7 443.0	7 521.0	6 978.5	6 530.0

Continued

194 World pulses trade, by region and country *(continued)*

	1991	1992	1993	1994	1995	1996	1997
	kt	kt	kt	kt	kt	kt	kt
Exports							
Americas							
Argentina	212.1	254.3	216.9	214.7	201.0	162.7	310.7
Canada	433.2	637.8	839.4	1 067.6	1 487.1	1 275.7	1 304.6
Chile	66.3	81.4	47.6	36.9	35.8	26.8	21.8
Mexico	42.6	54.8	41.6	164.1	171.9	146.9	106.3
United States	615.3	469.4	489.5	599.3	594.6	544.8	539.1
Asia							
China	805.8	968.8	799.8	1 462.1	1 041.6	547.5	594.1
Myanmar	217.4	375.0	535.9	400.2	609.6	602.4	750.0
Singapore	24.0	26.5	23.3	23.9	24.0	30.2	46.2
Thailand	146.7	79.9	91.3	75.9	47.0	37.0	21.1
Europe							
Belgium–Luxembourg	49.3	34.3	43.0	105.5	194.3	177.7	117.1
Denmark	270.2	128.8	201.9	177.8	65.1	47.0	131.5
France	1 349.5	969.0	1 291.7	898.3	1 093.0	918.3	846.1
Hungary	304.6	197.3	90.6	64.8	54.3	26.2	16.0
Netherlands	83.1	65.8	133.7	112.2	64.9	54.0	80.4
United Kingdom	237.0	297.9	207.3	221.7	293.3	183.3	195.1
Middle East							
Turkey	549.9	430.8	440.6	411.7	282.7	502.3	489.8
Oceania							
Australia **c**	727.2	916.6	1 379.0	1 683.5	740.2	1 336.0	1 673.2
New Zealand	47.6	59.6	56.2	45.2	39.9	35.0	34.3
Total **b**	6 703.7	6 248.4	7 082.2	7 813.9	8 007.9	6 802.3	7 453.7

a West Germany until 1991; unified Germany from 1992. **b** Includes some unspecified countries. **c** Includes lupin exports. On a fiscal year basis, for example 1992-93 = 1993.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; FAO, *Trade Yearbook,* Rome.

195 Summary of Australian statistics for rice a

	Area	Yield b	Production a Volume b	Production a Unit value c	Exports Volume de	Exports Unit value f	Apparent consumption deg
	'000 ha	t/ha	kt	$/t	kt	$/t	kt
1960-61	18.7	6.1	114.3	72.6	60.3	107.8	17.2
1961-62	20.3	6.6	134.2	57.4	50.8	114.2	17.5
1962-63	22.2	6.1	135.8	56.7	56.8	121.5	17.9
1963-64	24.0	5.9	142.0	55.6	56.1	130.1	18.2
1964-65	24.9	6.1	153.0	55.6	64.2	124.6	21.3
1965-66	26.1	7.0	181.7	56.1	63.9	126.8	25.2
1966-67	29.8	7.2	214.3	57.9	89.2	128.9	27.5
1967-68	30.7	7.0	214.5	59.7	99.0	141.4	28.2
1968-69	33.7	7.4	248.2	58.0	107.0	146.7	29.1
1969-70	40.2	6.1	247.0	58.7	120.7	141.7	30.2
1970-71	40.7	7.4	299.8	45.7	95.9	137.6	32.6
1971-72	40.5	6.1	248.4	47.9	169.3	114.6	33.1
1972-73	45.2	6.8	308.6	81.0	152.0	139.5	29.0
1973-74	67.5	6.1	408.8	123.5	124.8	229.2	27.4
1974-75	75.6	5.1	386.7	92.8	159.8	268.5	32.2
1975-76	74.8	5.6	417.0	98.8	215.2	238.8	33.5
1976-77	92.0	5.8	529.8	112.1	254.4	224.4	33.3
1977-78	91.4	5.4	490.3	124.6	273.2	241.9	34.8
1978-79	110.2	6.3	692.2	141.3	239.4	276.1	35.5
1979-80	116.4	5.3	613.1	153.3	449.6	288.9	37.1
1980-81	103.9	7.3	759.8	181.6	276.0	362.3	43.0
1981-82	123.0	7.0	857.0	121.4	558.0	349.5	43.9
1982-83	84.8	6.1	519.8	169.3	384.0	312.5	46.3
1983-84	119.1	5.3	634.2	140.3	241.0	381.7	50.5
1984-85	121.8	7.1	864.1	142.5	327.0	357.8	57.1
1985-86	106.1	6.5	687.5	138.8	464.6	398.2	58.6
1986-87	95.9	5.7	549.2	142.0	394.0	352.8	60.0
1987-88	105.4	7.2	761.1	204.0	314.6	391.0	80.2
1988-89	97.0	8.3	805.0	165.9	160.6	452.5	89.4
1989-90	105.0	8.8	924.0	153.0	149.8	486.7	97.6
1990-91	89.0	8.8	787.0	173.0	257.7	437.4	103.0
1991-92	127.0	8.8	1 122.0	158.1	465.1	463.8	90.6
1992-93	125.0	7.6	955.0	182.9	484.5	477.6	86.9
1993-94	132.7	8.2	1 082.0	265.2	533.7	506.5	98.7
1994-95	129.2	8.8	1 137.0	232.5	583.8	586.1	108.5
1995-96	149.7	6.4	951.2	207.1	632.5	531.7	118.2
1996-97	166.7	8.3	1 388.0	194.7	520.3	559.9	133.7
1997-98	141.2	9.4	1 330.9	225.6	680.4	582.7	na
1998-99 p	151.7	9.2	1 389.8	212.0	581.8	667.5	na

a Based on rice industry figures calculated on a crop year basis. For example, the 1985-86 data are for the Queensland summer crop harvested from December 1985, the New South Wales crop harvested from April 1986, and the Queensland winter crop harvested from June 1986. **b** Paddy. **c** Unit gross value of production. **d** Based on ABS data; April–March marketing year basis; generally exports of the crop harvested in the previous year, ie 1998-99 exports are sourced from the 1997-98 crop harvest. **e** Milled. **f** Unit gross value of exports, from 1952-53 to 1987-88 calculated from financial year total export values. From 1988-89 onwards calculated from marketing year (April–March) total export values. **g** Table rice only, excludes rice used for feed, breakfast cereals and rice used for other purposes; includes imports; Financial year basis. **p** Preliminary.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Crops and Pastures,* cat. no. 7321.0, Canberra; ABS, *Agstats,* cat. no. 7116.0, Canberra; ABS, Apparent Consumption of Foodstuffs and Nutrients Australia, Cat. no. 4306.0, Canberra; Commonwealth Bureau of Census and Statistics, *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients Australia* , ref no. 10.10, Canberra; Rice Marketing Board for the State of New South Wales, *Annual Report,* Leeton; ABARE.

196 Australian rice area, yield and production, by state and type

		New South Wales			Queensland	
	Unit	Medium grain	Long grain	Total a	Long grain	Australia
Area b						
1989-90	'000 ha	na	na	100	5	105
1990-91	'000 ha	na	na	85	4	89
1991-92	'000 ha	na	na	123	4	127
1992-93	'000 ha	na	na	123	2	125
1993-94	'000 ha	na	na	133	0	133
1994-95	'000 ha	na	na	129	0	129
1995-96	'000 ha	na	na	150	0	150
1996-97	'000 ha	na	na	166	0	167
1997-98	'000 ha	na	na	140	0	141
1998-99 p	'000 ha	na	na	151	0	152
Yield c						
1989-90	t/ha	na	na	8.94	6.00	8.80
1990-91	t/ha	na	na	9.01	5.25	8.84
1991-92	t/ha	na	na	8.89	7.00	8.83
1992-93	t/ha	na	na	7.67	5.50	7.64
1993-94	t/ha	na	na	8.16	na	8.16
1994-95	t/ha	na	na	8.77	na	8.80
1995-96	t/ha	na	na	6.35	na	6.35
1996-97	t/ha	na	na	8.33	na	8.33
1997-98	t/ha	na	na	9.42	na	9.42
1998-99 p	t/ha	na	na	9.17	na	9.16
Production c						
1989-90	kt	704	190	894	30	924
1990-91	kt	531	235	766	21	787
1991-92	kt	804	290	1 094	28	1 122
1992-93	kt	691	195	944	11	955
1993-94	kt	738	282	1 082	0	1 082
1994-95	kt	814	274	1 134	0	1 137
1995-96	kt	698	217	951	0	951
1996-97	kt	1 077	256	1 381	0	1 388
1997-98	kt	978	284	1 321	0	1 331
1998-99 p	kt	978	286	1 382	0	1 390

a Includes medium grain, long grain, fragrant, and other varieties from 1992-93 onward. **b** Rice industry figures. **c** Paddy. **p** Preliminary. **na** Not available or not applicable.

Sources: ABARE, *Australian Crop Report,* Canberra; ABS, *Agstats,* cat. no. 7116.0, Canberra; Queensland Rice Marketing Board, *Annual Report,* Home Hill; Rice Marketing Board for the State of New South Wales, *Annual Report,* Leeton; Ricegrowers' Co-operative Mills Ltd.

197 Australian rice trade and payments to growers

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Exports a									
Quantity	kt	465	484	534	584	632	520	680	582
Total export value b	$m	216	231	270	342	336	291	397	388
Imports ac									
Quantity	kt	29	27	29	27	28	36	38	39
Total import value	$m	19	19	21	19	20	26	33	34
Indicator price									
Thai white rice d	US$/t	287	244	294	290	362	338	302	284
Exchange rate	US$/A$	0.77	0.70	0.69	0.74	0.76	0.78	0.68	0.63
Australian price e	A$/t	375	349	427	392	480	433	445	453
Average returns to growers f									
New South Wales	$/t	156	182	265	233	207	195	226	213
Queensland	$/t	220	226	0	0	0	0	0	0

a Milled equivalent; marketing year (April–March) basis. **b** Free on board (fob). **c** Excludes broken rice. **d** Prices previously reported by the Thailand Board of Trade are no longer available. From the 1998 issue, the price quoted will be the US Department of Agriculture sourced nominal quote for Thai white rice,100 per cent, grade B/2nd grade, fob Bangkok (August–July basis). **e** Derived. **f** For paddy rice from harvest in year indicated. Returns to New South Wales and Queensland growers include bonuses paid by respective rice growers' cooperatives. For New South Wales growers, returns take into account a deduction for grower equity in storage facilities made by the Rice Marketing Board, New South Wales. **p** Preliminary.
Sources: ABS, *Agstats,* cat. no. 7116.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Queensland Rice Marketing Board, *Annual Report,* Home Hill; Rice Marketing Board, New South Wales, *Annual Report,* Leeton; Ricegrowers' Co-operative Mills Ltd; US Department of Agriculture, *Rice News,* Little Rock, Arkansas; ABARE.

198 Summary of world statistics for rice [a]

	Area harvested	Production [b]	Total use	Closing stocks [bc]	Stocks to use ratio	Trade [d]	Export price [e]
	million ha	Mt	Mt	Mt	%	Mt	US$/t
1960-61	120	151	157	10	7	7	132
1961-62	116	147	149	9	6	6	147
1962-63	120	155	151	13	8	7	149
1963-64	122	169	165	16	10	8	140
1964-65	125	181	180	17	10	8	135
1965-66	124	173	172	18	11	8	149
1966-67	126	179	179	19	10	8	182
1967-68	127	189	186	21	11	7	220
1968-69	129	195	192	25	13	7	187
1969-70	131	201	199	26	13	8	161
1970-71	133	213	211	29	14	9	132
1971-72	135	216	217	28	13	9	134
1972-73	133	209	213	24	11	8	187 [f]
1973-74	136	228	223	29	13	8	594 [g]
1974-75	138	226	226	28	12	7	439
1975-76	143	243	232	39	17	8	303
1976-77	141	236	237	38	16	11	275
1977-78	143	251	244	44	18	10	361
1978-79	144	262	252	54	21	12	340
1979-80	141	257	257	54	21	13	410
1980-81	144	270	275	49	18	13	493
1981-82	144	278	283	43	15	11	380
1982-83	141	285	285	44	15	12	280
1983-84	145	307	303	48	16	12	278
1984-85	144	317	309	56	18	12	211
1985-86	145	318	319	54	17	12	191
1986-87	145	316	320	51	16	13	190
1987-88	142	315	321	45	14	12	273
1988-89	146	331	327	49	15	15	292
1989-90	147	344	338	55	16	12	292
1990-91	147	352	347	59	17	13	296
1991-92	147	355	357	57	16	15	287
1992-93	146	356	358	55	15	16	244
1993-94	145	355	358	52	15	17	294
1994-95	147	365	367	50	14	21	290
1995-96	148	371	371	50	14	21	362
1996-97	150	380	380	51	13	20	338
1997-98	151	386	383	54	14	28	302
1998-99 [p]	151	384	387	50	13	23	284

a Based on US Department of Agriculture data. **b** Milled. **c** Closing stocks data are based on an aggregate of different local marketing years and should not be taken as representing world stock levels at a particular point in time. Stocks data do not include some major stockholders – for example, China and Myanmar – for which official information is not available. **d** Calendar year basis, 1960-61 = 1961; includes intra EU trade. **e** Thai White Rice, 100 per cent, 2nd grade/Grade B, fob Bangkok (August–July basis). From 1960-61 to 1983-84 prices are quoted from Thailand Board of Trade. From 1984-85, prices are nominal quotes sourced form the US Department of Agriculture. **f** August– March average. **g** January–July average. **p** Preliminary.

Sources: US Department of Agriculture, *World Grain Situation and Outlook: Foreign Agriculture Circular,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *Rice Market News,* Arkansas; US Department of Agriculture, *Rice Outlook* [online] available URL:htp://usda.mannlib.cornell.edu/reports/erssor/field/rcs-bb/ ; ABARE.

199 World rice production, by country or region a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Australia	1.1	1.0	1.1	1.1	1.0	1.4	1.3	1.4
Bangladesh	27.4	27.5	27.1	25.3	26.5	28.3	28.3	28.7
Brazil	10.1	9.9	10.5	11.2	10.0	9.5	8.6	11.3
China	183.8	186.2	177.7	175.9	185.2	195.1	200.7	190.0
European Union b	2.3	2.2	2.0	2.0	2.1	2.6	2.7	2.6
India	112.0	109.3	120.5	121.8	119.4	122.0	123.5	127.1
Indonesia	48.2	48.2	46.6	49.7	51.1	49.4	48.5	50.8
Japan	12.0	13.2	9.8	15.0	13.4	12.9	12.5	11.2
Myanmar	12.8	13.4	15.1	16.0	17.0	15.5	15.3	16.0
Pakistan	4.9	4.7	6.0	5.2	6.0	6.5	6.5	7.0
Philippines	9.1	9.5	9.9	10.5	11.2	11.2	10.0	10.2
South Korea	7.4	7.3	6.4	6.9	6.4	7.2	7.4	6.9
Thailand	20.4	19.9	19.2	21.4	21.8	20.7	22.8	21.7
United States	7.2	8.1	7.1	9.0	7.9	7.8	8.3	8.5
Vietnam	22.2	22.2	24.3	24.6	26.8	27.3	28.9	29.3
World	525.3	526.8	527.0	540.3	551.2	563.8	572.4	570.4

a Crop year (paddy basis). **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. **p** Preliminary.
Sources: US Department of Agriculture, *Rice Situation and Outlook Yearbook,* Washington DC; US Department of Agriculture, *World Agricultural Production,* Washington DC; US Department of Agriculture, *World Grain Situation and Outlook,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ABARE.

200 World rice trade, by country a

	1991 Mt	1992 Mt	1993 Mt	1994 Mt	1995 Mt	1996 Mt	1997 Mt	1998 p Mt
Imports								
Bangladesh	0.02	0.03	0.00	0.16	1.57	0.67	0.04	2.50
Brazil	0.77	0.46	0.83	1.10	0.99	0.79	0.85	1.46
China	0.07	0.09	0.11	0.96	1.96	0.83	0.33	0.26
European Union b	1.28	1.20	1.34	1.86	1.63	1.69	1.83	1.63
India	0.01	0.04	0.13	0.00	0.00	0.00	0.00	0.01
Indonesia	0.19	0.54	0.02	1.12	3.01	1.03	0.81	6.08
Iran	0.60	1.12	1.16	0.58	1.58	1.34	0.97	0.50
Iraq	0.27	0.55	0.65	0.06	0.10	0.23	0.68	0.61
Japan	0.03	0.02	0.23	2.26	0.03	0.45	0.55	0.48
Malaysia	0.37	0.47	0.39	0.32	0.40	0.57	0.65	0.59
Nigeria	0.30	0.44	0.38	0.30	0.30	0.35	0.73	0.80
Philippines	0.09	0.01	0.22	0.00	0.28	0.77	0.81	2.19
Russia	0.10	0.50	0.13	0.05	0.13	0.41	0.28	0.20
Saudi Arabia	0.56	0.78	0.88	0.72	0.64	0.81	0.66	0.78
World c	12.91	15.14	15.76	17.23	21.39	20.67	19.89	28.39
Exports								
Australia	0.39	0.48	0.50	0.63	0.55	0.58	0.66	0.56
China	0.69	0.93	1.37	1.52	0.03	0.27	0.94	3.73
European Union b	1.15	1.17	1.03	1.15	0.82	1.31	1.47	1.32
India	0.71	0.60	0.61	0.62	4.18	3.55	1.95	4.49
Myanmar	0.18	0.19	0.22	0.59	0.65	0.27	0.02	0.09
Pakistan	1.30	1.36	0.94	1.40	1.59	1.68	1.98	1.80
Thailand	3.99	4.88	4.97	4.72	5.89	5.28	5.22	6.37
United States	2.20	2.11	2.64	2.79	3.07	2.62	2.29	3.17
Vietnam	1.05	1.91	1.59	2.22	2.32	3.04	3.33	3.78
World c	12.91	15.14	15.76	17.23	21.39	20.67	19.89	28.39

a Milled basis. Exports previously reported were in local marketing year basis. From this issue, exports will be in calendar year basis. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries, includes intra-EU trade. **c** Includes intra-EU trade. **p** Preliminary.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ABARE.

201 US rice supply and disposal a

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Area harvested	million ha	1.13	1.27	1.146	1.342	1.252	1.135	1.256	1.342
Yield	t/ha	6.42	6.43	6.18	6.69	6.30	6.86	6.61	6.36
Opening stocks b	Mt	0.80	0.88	1.25	0.87	1.05	0.81	0.87	0.90
Production b	Mt	5.10	5.70	5.24	6.65	5.63	5.46	5.98	6.14
Total supply c	Mt	6.07	6.78	6.74	7.73	6.95	6.57	7.14	7.34
Exports	Mt	2.12	2.45	2.53	3.32	2.69	2.50	2.78	2.78
Long grain	Mt	1.63	2.09	1.87	2.70	2.10	1.80	2.22	2.21
Medium–short grain	Mt	0.49	0.36	0.66	0.63	0.59	0.70	0.56	0.56
Domestic and residual use	Mt	3.07	3.08	3.32	3.37	3.42	3.23	3.45	3.58
Total use	Mt	5.19	5.52	5.85	6.70	6.11	5.72	6.23	6.35
Target price d	US$/t	236	236	236	236	236	na	na	na
Statutory loan rate	US$/t	143	143	143	143	143	143	143	143
Farm price	US$/t	167	130	176	149	202	220	213	209

a August–July marketing year. **b** Milled basis. **c** Including imports. **d** Eliminated under the 1996 Farm Act. **na** Not applicable. **p** Preliminary.
Sources: US Department of Agriculture, *Rice Situation and Outlook Yearbook,* Washington DC; US Department of Agriculture, *Rice Situation and Outlook Report,* Washington DC; US Department of Agriculture, *World Grain Situation and Outlook: Foreign Agriculture Circular,* Washington DC; ABARE.

202 Rice export price quotations, by country a

	Thailand b Nominal price quote–US	Thailand c Board of Trade	Arkansas d	California e
	US$/t	US$/t	US$/t	US$/t
1980-81	na	493	563	611
1981-82	na	380	445	462
1982-83	na	280	393	351
1983-84	na	278	411	340
1984-85	211	240	397	336
1985-86	191	225	356	345
1986-87	190	221	260	286
1987-88	273	294	441	371
1988-89	292	317	345	368
1989-90	292	323	355	358
1990-91	296	313	345	355
1991-92	287	308	368	396
1992-93	244	274	312	395
1993-94	294	391	442	486
1994-95	290	340	318	392
1995-96	362	389	420	465
1996-97	338	379	458	432
1997-98	302	na	420	413
1998-99 p	284	na	374	484
1998				
January	299	346	424	413
February	307	348	420	413
March	306	na	408	407
April	326	na	407	396
May	328	na	407	396
June	338	na	412	412
July	337	na	413	419
August	334	na	410	436
September	332	na	391	456
October	306	na	391	482
November	278	na	394	469
December	282	na	394	471
1999				
January	308	na	394	479
February	287	na	381	474
March	263	na	363	476
April	242	na	357	487
May	252	na	345	490
June	262	na	334	532
July	259	na	333	556
August	258	na	324	553

a Key prices from major markets (August–July years) that are used as world indicators. **b** US Department of Agriculture sourced nominal quote for Thai white rice, 100 per cent, Grade B, fob Bangkok. **c** Thai white rice, 100 per cent 2nd grade, fob Bangkok quoted from Thailand Board of Trade. **d** US no. 2 long grain milled. **e** US no.1 medium grain milled. **f** January–July average. **na** Not available. **p** Preliminary.
Sources: Giannini Foundation of Agricultural Economics, *The World Rice Market,* Information Series no. 85–2, University of California, Davis; US Department of Agriculture, *Rice Situation and Outlook Yearbook,* Washington DC; US Department of Agriculture, *Rice Situation and Outlook Report,* Washington DC; US Department of Agriculture, *Rice Market News,* Little Rock, Arkansas; US Department of Agriculture, *US Rice Industry,* Agricultural Economics Report no. 433, Washington DC; US Department of Agriculture, Rice Outlook [online] available URL : http://usda.mannlib.cornell.edu/reports/erssor/field/rcs-bb/; ABARE.

203 Rice supply and disposal in major exporting countries a

	Area harvested million ha	Yield t/ha	Production b Mt	Domestic use Mt	Exports c Mt	Closing stocks d Mt
China						
1993-94	30.36	5.85	177.70	128.00	1.52	25.43
1994-95	30.17	5.83	175.93	129.00	0.03	21.52
1995-96	30.75	6.02	185.21	130.00	0.27	21.73
1996-97	31.41	6.21	195.10	132.13	0.94	25.56
1997-98	31.77	6.32	200.70	135.85	3.73	26.72
1998-99 p	31.21	6.09	190.00	136.75	2.00	21.17
Vietnam						
1993-94	6.64	3.66	24.32	13.83	2.22	na
1994-95	6.80	3.62	24.62	13.94	2.32	na
1995-96	7.12	3.76	26.79	14.64	3.04	na
1996-97	7.04	3.87	27.28	14.68	3.33	na
1997-98	7.38	3.92	28.93	15.32	3.78	na
1998-99 p	7.44	3.94	29.29	15.48	3.85	na
Pakistan						
1993-94	2.19	2.74	5.99	2.30	1.40	1.32
1994-95	2.13	2.43	5.17	2.40	1.59	0.71
1995-96	2.16	2.75	5.95	2.53	1.68	0.52
1996-97	2.25	2.87	6.46	2.55	1.98	0.44
1997-98	2.32	2.81	6.50	2.55	1.80	0.12
1998-99 p	2.38	2.94	6.98	2.60	2.00	0.17
Thailand						
1993-94	8.68	2.21	19.20	8.50	4.72	0.26
1994-95	9.20	2.33	21.40	8.30	5.89	0.19
1995-96	9.03	2.41	21.80	8.44	5.28	0.85
1996-97	9.27	2.23	20.70	8.59	5.22	0.71
1997-98	9.60	2.38	22.80	8.60	6.37	0.79
1998-99 p	9.21	2.35	21.67	8.70	5.50	0.89
United States						
1993-94	1.15	6.18	7.08	3.32	2.79	0.87
1994-95	1.34	6.69	8.97	3.37	3.07	1.05
1995-96	1.25	6.30	7.89	3.42	2.62	0.81
1996-97	1.14	6.86	7.78	3.23	2.29	0.87
1997-98	1.26	6.61	8.30	3.45	3.17	0.90
1998-99 p	1.34	6.36	8.53	3.58	2.75	1.02
Total cd						
1993-94	145.01	3.63	526.98	358.14	17.23	52.32
1994-95	147.35	3.67	540.26	366.56	21.39	50.31
1995-96	148.05	3.72	551.16	371.40	20.67	50.25
1996-97	149.77	3.76	563.77	379.58	19.89	51.09
1997-98	150.84	3.79	572.37	383.32	28.39	53.60
1998-99 p	151.35	3.77	570.41	387.24	23.45	50.41

a Simple aggregation of different crop years. The marketing period in each country is: United States, August–July; Thailand, August–July; China, December–November; Pakistan, October–September; Vietnam, July–June. **b** Paddy. **c** On a calendar year basis:1995-96 =1996; includes intra-EU trade. **d** Closing stocks are based on an aggregate of different local marketing years and should not be taken as representing world stock levels at a particular point in time. **na** Not available. **p** Preliminary.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *World Grain Situation and Outlook: Foreign Agriculture Circular,* Washington DC; US Department of Agriculture, *World Agricultural Production,* Washington DC; ABARE.

204 Summary of Australian statistics for sugar

	Area harvested	Cane crushed	Sugar production a	No. 1 pool price	Exports (actual) b
	'000 ha	kt	kt	$/t	kt
1960-61	138	9 313	1 362	100	809
1961-62	157	9 730	1 362	99	857
1962-63	163	12 940	1 823	104	1 164
1963-64	169	12 313	1 699	121	1 134
1964-65	190	15 312	1 921	97	1 290
1965-66	204	14 382	1 924	86	1 273
1966-67	226	16 953	2 307	76	1 664
1967-68	224	17 025	2 300	83	1 622
1968-69	230	18 708	2 684	88	2 062
1969-70	213	15 784	2 146	100	1 386
1970-71	221	17 645	2 448	103	1 571
1971-72	234	19 391	2 708	112	2 008
1972-73	242	18 928	2 732	119	2 084
1973-74	226	19 278	2 449	130	1 781
1974-75	253	20 418	2 761	253	1 996
1975-76	257	21 959	2 769	232	2 000
1976-77	288	23 344	3 194	214	2 556
1977-78	295	23 493	3 240	196	2 478
1978-79	252	21 457	2 812	213	1 840
1979-80	267	21 151	2 871	282	2 201
1980-81	288	23 976	3 227	372	2 558
1981-82	316	25 094	3 329	279	2 498
1982-83	318	24 817	3 428	224	2 548
1983-84	307	24 190	3 073	263	2 357
1984-85	313	25 512	3 439	235	2 524
1985-86	304	24 414	3 275	223	2 799
1986-87	310	25 413	3 268	282	2 471
1987-88	317	25 669	3 334	289	2 776
1988-89	313	28 073	3 566	334	2 824
1989-90	332	27 622	3 681	363	2 799
1990-91	339	25 200	3 407	344	2 649
1991-92	341	21 367	3 016	303	2 276
1992-93	339	29 461	4 133	309	3 127
1993-94	340	32 008	4 234	353	3 456
1994-95	365	34 943	4 931	392	4 112
1995-96	383	37 436	4 837	379	3 980
1996-97	401	39 938	5 301	341	4 309
1997-98	420	41 064	5 567	343	4 489
1998-99 p	414	40 240	4 871	357	3 960

a Raw tonnes actual. **b** Quantity of sugar shipped out. **p** Preliminary. **na** Not available .

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Australian Sugar Milling Council, *Annual Review,* Brisbane; Queensland Sugar Corporation, *Annual Report,* Brisbane; Rural Press Ltd, *Australian Sugar Year Book,* Brisbane; ABARE.

205 Australian cane and sugar production

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Area harvested for crushing	'000 ha	339	340	365	383	401	420	414
Cane yield	t/ha harvested	86.9	94.2	95.7	97.8	99.5	97.9	97.1
Cane crushed	kt	29 461	32 008	34 943	37 436	39 938	41 064	40 240
Commercial cane sugar	%	14.13	13.32	14.26	13.12	13.51	13.76	12.15
Mill coefficient of work a		99.28	99.31	98.96	98.48	98.25	98.52	99.64
Sugar production b	kt	4 133	4 234	4 931	4 837	5 301	5 567	4 871
Sugar yield	t/ha harvested	12.2	12.5	13.5	13.0	13.7	14.0	11.9
Cane to sugar ratio		7.13	7.56	7.09	7.74	7.53	7.38	8.26

a Measure of the efficiency of operation of a sugar mill. It represents recovery of raw sugar (raw tonnes actual) per 100 tonnes of commercial cane sugar.
b Raw tonnes actual. **p** Preliminary.
Sources: Australian Sugar Milling Council, *Annual Review,* Brisbane; Rural Press Ltd, *Australian Sugar Year Book,* Brisbane; ABARE.

206 Australian raw sugar acquisition and payments to millers and growers a

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Acquired for b								
– domestic refining	kt	1 006 c	778 c	819 c	856	992	1 078	912
– export (inc. ISA special stocks) d	kt	3 127	3 456	4 112	3 981	4 309	4 489	3 960
Total acquisition	kt	4 133	4 234	4 931	4 837	5 301	5 567	4 871
Average gross returns to millers	$/t	310	351	1 036	408	371	343	327
Total gross returns to the sugar industry	$m	1 281	1 506	2 035	1 973	1 965	1 926	1 662
Gross value of sugarcane cut for crushing	$m	801	941	1 202	1 153	1 147	1 204	1 039

a Crushing season is generally between May and December. **b** Raw tonnes actual. The Queensland government acquires all Queensland produced raw sugar and, until 1 July 1989, also purchased raw sugar produced in New South Wales. **c** Includes sales by New South Wales mills for domestic consumption. **d** ISA: International Sugar Agreement. **p** Preliminary.
Sources: Queensland Sugar Corporation, *Annual Report,* Brisbane; Australian Sugar Milling Council, *Annual Review,* Brisbane; ABS, *Value of Principal Agricultural Commodities Produced, Australia,* cat. no. 7501.0, Canberra; ABARE.

207 Australian exports of sugar, by destination a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Raw sugar in bulk								
Canada	479.8	484.5	705.7	584.2	667.4	715.1	684.0	616.0
China	148.4	196.0	172.5	664.5	329.0	340.3	85.0	50.0
Chinese Taipei	25.0	47.5	61.5	91.5	91.5	155.7	156.0	154.0
Egypt	0.0	0.0	0.0	120.0	62.0	165.0	173.0	88.0
Japan	455.5	795.2	770.0	680.0	663.6	639.2	708.0	638.0
South Korea	335.0	583.3	656.8	673.1	570.2	680.3	798.0	696.0
Malaysia	438.1	592.3	588.7	535.1	583.0	611.5	694.0	642.0
New Zealand	93.7	114.0	174.1	155.9	187.0	131.5	182.0	203.0
Singapore	145.5	91.8	126.0	166.0	80.7	121.5	121.0	0.0
United States	132.9	85.5	84.0	105.0	140.0	200.0	140.0	108.0
Other countries	0.0 b	119.0	104.1 c	175.7	372.5 d	350.0 e	707.0 f	602.0
Total	2 254	3 109	3 443	3 951	3 747	4 110	4 448	3 797.0
Raw sugar in bags	0.5	0.6	2.3	3.1	23.5	16.9	9.6	8.5
Refined sugar	21.9	17.7	10.8	157.6	210.8	182.2	93.7	155.3
Total	2 276	3 127	3 456	4 112	3 980	4 309	4 551	3 960.8
(value, $m)	681	987	1 232	1 629	1 552	1 546	1 730	1 325.8

a Amount of sugar exported in July–June period, actual quantities. **b** Includes 299 000 tonnes exported to the former Soviet Union. **c** Includes 97 000 tonnes exported to Russia and 22 000 tonnes to Bulgaria. **d** Includes 50 000 tonnes exported to Bulgaria. **e** Includes 66 000 tonnes exported to Bulgaria, 61 000 tonnes to the United Arab Emirates, 67 000 tonnes to the Philippines and 55 000 tonnes to Latvia. **f** Includes 90 000 tonnes exported to Indonesia, 63 000 tonnes exported to Morocco, 60 000 tonnes exported to the Philippines and 55 000 tonnes exported to Saudi Arabia. **p** Preliminary. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Queensland Sugar Corporation, *Annual Report,* Brisbane; ABARE.

208 World sugar supplies, consumption, trade and prices a

	Production	Total supply	Consumption	Closing stocks b	Trade c	World price d: US terms	World price d: Australian terms
	Mt	Mt	Mt	Mt	Mt	USc/lb	A$/t e
1960-61	56.1	70.9	na	na (na)	na	na	59.1
1961-62	52.4	69.4	na	na (24.2)	na	na	48.6
1962-63	51.3	64.8	na	na (18.5)	na	na	120.8
1963-64	54.7	64.8	na	na (20.6)	na	na	156.8
1964-65	66.8	78.0	na	na (31.7)	na	na	49.6
1965-66	63.1	81.9	na	na (30.6)	na	na	37.5
1966-67	65.6	84.8	na	na (29.2)	na	na	33.4
1967-68	97.9	87.0	na	na (31.1)	na	na	36.9
1968-69	68.4	89.0	na	na (28.3)	na	na	57.9
1969-70	74.2	93.8	na	na (29.0)	na	na	69.3
1970-71	71.0	92.0	72.8	18.8 (25.8)	na	3.3	84.7
1971-72	72.2	91.0	74.3	16.9 (22.7)	na	6.2	115.7
1972-73	75.6	92.5	76.4	16.4 (21.5)	na	8.7	143.1
1973-74	78.5	94.9	78.3	16.2 (20.7)	na	18.5	274.6
1974-75	78.0	94.2	75.9	17.7 (23.3)	na	30.3	499.5
1975-76	81.1	98.8	78.5	20.6 (26.2)	na	13.6	239.7
1976-77	86.7	107.3	81.3	25.1 (30.9)	na	8.3	162.0
1977-78	91.2	116.3	85.2	30.5 (35.8)	na	7.5	146.1
1978-79	91.0	121.5	89.3	31.7 (35.5)	na	8.2	159.9
1979-80	85.1	116.8	90.1	25.9 (28.7)	na	21.0	412.5
1980-81	88.7	114.6	89.8	25.6 (28.5)	28.6	24.7	467.8
1981-82	100.9	126.5	92.2	33.3 (36.1)	31.6	10.4	211.0
1982-83	100.6	133.9	94.4	38.7 (41.0)	29.6	7.6	184.9
1983-84	98.0	136.7	96.3	39.5 (41.0)	29.6	6.7	164.7
1984-85	100.4	139.9	98.0	42.0 (42.9)	29.2	3.7	108.6
1985-86	98.6	140.6	100.0	39.0 (39.0)	28.8	6.0	192.4
1986-87	104.2	143.2	105.9	35.8 (33.8)	28.7	6.2	203.2
1987-88	104.7	140.5	107.2	33.4 (31.1)	27.9	9.0	265.5
1988-89	104.6	138.0	107.0	31.1 (29.0)	35.2	11.6	319.1
1989-90	109.1	140.2	109.5	30.6 (28.0)	34.7	13.9	397.0
1990-91	115.7	146.3	110.4	35.0 (31.8)	34.4	9.4	264.6
1991-92	116.9	151.9	111.0	40.0 (36.0)	32.2	9.1	266.4
1992-93	112.7	152.7	111.9	39.8 (35.6)	32.1	9.5	304.8
1993-94	111.4	151.3	112.2	37.6 (33.5)	33.4	11.0	346.4
1994-95	116.1	153.8	114.7	38.2 (33.3)	35.2	13.8	411.7
1995-96	125.5	163.7	117.6	45.9 (39.1)	38.8	12.5	360.1
1996-97	123.8	169.7	121.5	47.2 (38.9)	38.6	11.6	331.6
1997-98	126.0	173.2	123.4	49.8 (40.4)	37.2	10.8	374.1
1998-99 p	129.9	179.7	125.1	54.7 (43.7)	35.8	7.1	252.0

a Raw sugar equivalent; September–August years. **b** Figures in parentheses show closing stocks as a percentage of consumption. **c** Trade is defined as world gross exports including those exports made under special arrangements, such as between Comecon countries and through the Lomé Convention. Individual countries of the former Soviet Union are treated as separate trading entities from 1983-84. **d** Average of monthly averages of International Sugar Agreement (ISA) price; basis: fob and stowed Caribbean ports, in bulk. **e** Australian currency equivalents of ISA price. **p** Preliminary. **na** Not available.
Sources: International Sugar Organisation, *Statistical Bulletin,* London; F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances,* Ratzeburg, Germany; F.O. Licht, *International Sugar and Sweetener Report,* Ratzeburg, Germany; ABARE.

209 World sugar production, by region and country a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Beet sugar								
Europe	30.22	30.69	31.96	27.27	28.68	30.30	30.52	28.63
Eastern Europe	10.62	9.92	10.94	8.57	9.81	9.62	8.25	7.50
Poland	1.64	1.57	2.17	1.49	1.71	2.44	2.29	2.01
Russia	2.23	2.54	2.71	1.80	2.24	1.87	1.48	1.38
Ukraine	4.18	3.76	4.17	3.60	3.80	2.94	2.28	2.04
Western Europe	19.60	20.77	21.02	18.70	18.87	20.68	22.27	21.13
European Union b	15.70	17.12	17.40	16.53	16.97	17.99	19.05	17.55
France	4.41	4.72	4.73	4.36	4.56	4.59	5.13	4.64
Germany	4.25	4.40	4.74	3.99	4.16	4.57	4.39	4.38
Turkey	2.05	2.12	2.19	1.68	1.49	2.02	2.59	2.95
Other	1.85	1.53	1.43	0.49	0.41	0.67	0.63	0.63
United States	3.38	3.98	3.71	4.08	3.55	3.64	3.98	3.97
Other countries	4.64	4.36	3.81	3.84	4.22	3.81	4.03	4.10
Total	38.24	39.03	39.49	35.19	36.45	37.75	38.53	36.70
Cane sugar								
Africa	7.46	6.60	6.43	7.02	7.04	7.99	8.02	8.59
South Africa	2.52	1.65	1.27	1.79	1.79	2.44	2.41	2.65
Americas	31.98	30.60	30.19	32.96	36.04	37.16	38.36	42.09
Brazil	9.30	9.98	10.11	12.60	13.66	14.73	16.05	19.38
Colombia	1.81	1.83	1.96	2.06	2.15	2.14	2.13	2.17
Cuba	7.10	4.37	4.02	3.42	4.53	4.32	3.29	3.78
Guatemala	1.12	1.10	1.24	1.35	1.26	1.57	1.72	1.56
Mexico	3.58	4.43	4.01	4.65	4.75	4.86	5.49	4.97
United States	2.46	2.47	2.57	2.67	2.69	2.56	2.97	3.22
Asia	35.02	31.02	29.48	35.59	38.16	34.22	35.38	39.45
China	6.77	6.83	5.46	4.87	5.37	5.84	7.28	8.34
India	14.58	11.54	10.65	15.93	17.88	14.03	13.95	16.75
Indonesia	2.26	2.47	2.49	2.47	2.29	2.10	2.38	1.63
Pakistan	2.50	2.58	3.15	3.24	2.66	2.59	3.86	3.75
Philippines	2.06	2.13	1.87	1.71	1.85	1.91	1.87	1.63
Thailand	5.11	3.79	4.01	5.51	6.32	6.10	4.33	5.48
Oceania	3.64	4.85	5.00	5.79	5.64	6.13	6.30	5.48
Australia	3.20	4.37	4.49	5.21	5.13	5.62	5.90	5.16
Total	78.10	73.07	71.11	81.36	86.88	85.52	88.07	95.62
Total beet and cane sugar	116.34	112.10	110.59	116.55	123.33	123.27	126.60	132.32

a Raw sugar equivalent, national crop years. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. **p** Preliminary.
Source: F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances,* Ratzeburg, Germany.

210 Word sugar trade, by country a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Exports from major exporters								
Australia	2.66	2.32	3.59	4.05	4.25	4.53	4.03	4.24
Brazil	1.41	1.77	2.84	3.73	4.99	5.50	5.92	6.92
China	0.41	1.15	2.32	1.10	0.54	0.83	0.43	0.17
Colombia	0.29	0.43	0.68	0.62	0.91	0.72	0.85	0.93
Cuba	6.60	6.44	3.97	3.26	2.78	3.80	3.62	2.51
Dominican Republic	0.36	0.35	0.33	0.28	0.30	0.31	0.35	0.27
European Union b	7.16	6.30	6.75	7.35	7.86	6.52	7.38	7.77
Fiji	0.41	0.40	0.40	0.45	0.49	0.44	0.38	0.25
Guatemala	0.62	0.73	0.60	0.93	0.90	0.92	0.90	1.03
Guyana	0.12	0.22	0.23	0.26	0.24	0.22	0.27	0.24
India	0.19	0.58	0.45	0.03	0.03	0.85	0.71	0.35
Mauritius	0.64	0.59	0.60	0.55	0.55	0.60	0.64	0.59
Mexico	0.13	0.14	0.00	0.00	0.19	0.58	0.79	0.76
Poland	0.58	0.16	0.12	0.22	0.00	0.00	0.51	0.43
South Africa	0.83	0.64	0.07	0.16	0.39	0.70	0.89	1.10
South Korea	0.30	0.24	0.29	0.32	0.26	0.28	0.26	0.26
Swaziland	0.54	0.44	0.38	0.28	0.30	0.23	0.27	0.22
Thailand	3.20	3.27	2.46	3.04	3.73	4.85	3.81	2.61
Ukraine	3.59	1.80	1.78	1.55	1.67	1.95	1.20	0.65
United States	0.62	0.51	0.52	0.45	0.55	0.34	0.53	0.43
Other countries	3.75	3.72	3.72	4.75	4.28	4.61	4.87	5.47
Total c	34.40	32.20	32.10	33.40	35.20	38.77	38.61	37.20
Imports by major importers								
Algeria	0.89	0.83	0.88	0.91	0.88	0.91	0.91	0.93
Canada	1.01	1.00	1.11	1.15	1.09	1.10	1.05	1.20
China	1.08	1.19	0.56	1.33	2.91	1.94	1.10	0.55
Egypt	0.73	0.61	0.55	0.59	0.93	0.92	1.13	0.95
European Union b	3.50	3.63	3.38	3.11	4.45	4.13	4.03	4.12
Indonesia	0.27	0.42	0.38	0.20	0.51	1.22	1.50	1.28
Iran	0.93	0.79	0.79	0.72	1.08	0.94	1.32	1.01
Iraq	0.41	0.47	0.45	0.41	0.46	0.51	0.57	0.57
Israel	0.26	0.33	0.39	0.40	0.40	0.43	0.46	0.46
Japan	1.73	1.84	1.73	1.71	1.77	1.71	1.65	1.76
Malaysia	0.90	0.84	0.87	0.96	0.98	1.06	1.15	1.20
Morocco	0.31	0.34	0.38	0.42	0.46	0.48	0.62	0.49
Nigeria	0.50	0.55	0.60	0.44	0.43	0.60	0.63	0.64
Pakistan	0.37	0.17	0.06	0.05	0.01	0.39	0.74	0.11
Russia	4.10	3.90	4.35	3.35	2.08	3.93	3.12	4.25
Saudi Arabia	0.47	0.50	0.53	0.53	0.52	0.60	0.63	0.63
South Korea	1.16	1.18	1.20	1.28	1.32	1.35	1.43	1.36
Sri Lanka	0.38	0.41	0.48	0.48	0.40	0.38	0.61	0.52
Syria	0.48	0.48	0.48	0.47	0.48	0.51	0.57	0.52
Ukraine	0.90	0.33	0.57	0.07	0.10	0.31	0.14	0.36
United States	2.51	2.10	1.86	1.77	1.62	2.40	3.02	2.43
Other countries	11.04	9.83	10.08	12.32	11.67	12.09	11.82	11.34
Total c	33.93	31.74	31.67	32.65	34.54	37.89	38.20	36.68

a Includes both raw and white sugar measured in raw sugar equivalents, September–August years. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. **c** Totals for exports and imports may not be equal as a result of losses in transit, sugar being at sea at the end of each year and discrepancies in the official statistics of individual countries. **p** Preliminary.

Source: F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances,* Ratzeburg, Germany.

211 World raw sugar trade, by country a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Exports from major exporters								
Australia	2.30	3.57	4.01	4.07	4.25	3.84	4.07	4.23
Brazil	0.63	0.80	0.67	1.10	0.99	2.27	4.72	2.65
Colombia	0.22	0.33	0.25	0.57	0.39	0.46	0.38	0.29
Costa Rica	0.12	0.11	0.11	0.15	0.14	0.11	0.11	0.15
Cuba	6.20	3.89	3.26	2.78	3.80	3.62	2.51	2.42
Dominican Republic	0.35	0.33	0.28	0.30	0.31	0.28	0.21	0.13
European Union b	0.14	0.03	0.09	0.06	0.07	0.08	0.06	0.22
Fiji	0.40	0.40	0.45	0.49	0.44	0.38	0.26	0.20
Guatemala	0.63	0.47	0.58	0.57	0.74	0.62	0.78	0.80
Guyana	0.22	0.23	0.26	0.24	0.22	0.27	0.24	0.25
Jamaica	0.14	0.14	0.18	0.15	0.15	0.18	0.14	0.17
Mauritius	0.59	0.60	0.55	0.56	0.60	0.64	0.64	0.59
Mexico	0.01	0.00	0.00	0.03	0.48	0.59	0.79	0.69
Philippines	0.18	0.27	0.28	0.16	0.24	0.26	0.18	0.23
South Africa	0.47	0.04	0.12	0.31	0.44	0.83	0.85	0.95
Swaziland	0.41	0.35	0.26	0.28	0.22	0.26	0.24	0.23
Thailand	2.19	1.63	2.28	2.81	3.24	2.37	1.40	1.68
Other countries	1.35	1.27	1.47	1.37	1.70	1.25	1.73	1.83
Total c	16.54	14.47	15.10	16.00	18.42	18.31	19.31	17.71
Imports by major importers								
Algeria	0.25	0.26	0.27	0.26	0.27	0.27	0.28	0.28
Bulgaria	0.19	0.27	0.30	0.26	0.26	0.30	0.31	0.30
Canada	0.88	0.96	1.01	0.94	1.06	1.04	1.08	1.11
China	1.16	0.54	1.29	2.60	1.80	1.03	0.33	0.52
Egypt	0.17	0.13	0.31	0.40	0.46	0.90	0.96	0.85
European Union b	1.97	2.00	2.06	2.18	2.09	1.96	2.11	2.19
Japan	1.84	1.73	1.70	1.77	1.70	1.65	1.60	1.53
Malaysia	0.84	0.87	0.96	0.98	1.06	1.15	0.97	1.06
Morocco	0.32	0.38	0.42	0.46	0.48	0.62	0.53	0.49
New Zealand	0.15	0.15	0.20	0.18	0.15	0.18	0.14	0.19
Philippines	0.00	0.00	0.00	0.06	0.63	0.18	0.11	0.32
Russia	2.21	1.67	1.42	0.94	1.83	2.00	4.15	2.85
Saudi Arabia	0.10	0.11	0.11	0.10	0.12	0.20	0.42	0.51
Singapore	0.16	0.13	0.15	0.18	0.18	0.19	0.21	0.20
South Korea	1.18	1.20	1.28	1.32	1.35	1.44	1.36	1.38
Ukraine	0.26	0.46	0.05	0.08	0.25	0.11	0.12	0.12
United States	2.01	1.75	1.66	1.54	2.34	2.93	2.16	2.00
Other countries	3.55	3.21	3.23	3.15	3.33	4.45	4.39	3.95
Total c	17.24	15.82	16.41	17.41	19.36	20.60	21.23	19.85

a Raw sugar equivalent, September–August years. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. **c** Totals for exports and imports may not be equal as a result of losses in transit, sugar being at sea at the end of each year, and discrepancies in the official statistics of individual countries. **p** Preliminary.

Source: F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances,* Ratzeburg, Germany.

212 World white sugar trade, by country a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Exports from major exporters								
Brazil	1.14	2.04	3.06	3.88	4.51	3.65	3.33	4.73
China	1.11	2.25	1.06	0.52	0.80	0.42	0.26	0.59
Colombia	0.21	0.34	0.37	0.34	0.33	0.39	0.47	0.48
Egypt	0.00	0.00	0.00	0.28	0.33	0.42	0.31	0.25
European Union b	6.16	6.72	7.23	7.79	6.45	7.31	8.80	7.14
Guatemala	0.10	0.14	0.35	0.33	0.18	0.28	0.37	0.39
India	0.57	0.45	0.02	0.02	0.83	0.68	0.53	0.42
Pakistan	0.00	0.05	0.14	0.37	0.24	0.21	0.64	0.42
Poland	0.16	0.12	0.17	0.01	0.00	0.36	0.40	0.25
South Korea	0.24	0.28	0.32	0.26	0.28	0.25	0.36	0.28
Thailand	1.08	0.83	0.76	0.92	1.61	1.45	1.22	0.81
Ukraine	1.80	1.78	1.55	1.67	1.95	1.20	0.40	0.30
United States	0.50	0.50	0.41	0.52	0.32	0.52	0.23	0.17
Other countries	2.99	2.63	3.52	2.44	2.36	3.58	3.99	3.91
Total c	16.05	18.14	18.96	19.35	20.19	20.72	21.31	20.14
Imports by major importers								
Algeria	0.58	0.62	0.63	0.61	0.64	0.64	0.64	0.64
China	0.03	0.02	0.05	0.31	0.14	0.06	0.08	0.13
Egypt	0.44	0.43	0.27	0.53	0.46	0.23	0.24	0.21
European Union b	1.67	1.52	1.50	2.27	2.04	2.07	2.39	2.26
Hong Kong	0.18	0.18	0.18	0.22	0.22	0.28	0.33	0.28
India	0.00	0.00	1.38	0.99	0.29	0.05	0.87	0.63
Indonesia	0.42	0.38	0.20	0.51	1.22	1.28	0.45	1.07
Iran	0.71	0.71	0.65	0.97	0.84	1.05	0.86	0.65
Iraq	0.40	0.38	0.35	0.39	0.43	0.48	0.51	0.55
Israel	0.33	0.39	0.40	0.40	0.43	0.46	0.47	0.50
Kenya	0.16	0.11	0.22	0.27	0.20	0.12	0.20	0.13
Libya	0.20	0.21	0.21	0.21	0.22	0.23	0.29	0.22
Nigeria	0.55	0.60	0.44	0.43	0.60	0.63	0.90	0.71
Pakistan	0.13	0.06	0.05	0.00	0.39	0.71	0.11	0.00
Peru	0.28	0.36	0.19	0.20	0.31	0.26	0.46	0.29
Romania	0.17	0.35	0.29	0.28	0.33	0.22	0.35	0.34
Russia	1.69	2.68	1.93	1.13	2.10	1.12	0.89	1.00
Saudi Arabia	0.40	0.42	0.42	0.42	0.48	0.42	0.23	0.13
Sri Lanka	0.41	0.48	0.48	0.40	0.38	0.61	0.53	0.52
Syria	0.31	0.31	0.30	0.31	0.33	0.37	0.35	0.35
Tunisia	0.16	0.17	0.16	0.17	0.18	0.17	0.22	0.18
Turkey	0.02	0.02	0.00	0.20	0.68	0.15	0.00	0.00
Other countries	5.28	5.47	5.91	5.91	5.62	5.99	6.52	6.03
Total c	14.51	15.86	16.21	17.13	18.53	17.60	17.89	16.82

a Raw sugar equivalent, September–August years. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. **c** Totals for exports and imports may not be equal as a result of losses in transit, sugar being at sea at the end of each year, and discrepancies in the official statistics of individual countries. **p** Preliminary.

Source: F.O. Licht, *International Sugar and Swetener Report, World Sugar Balances,* Ratzeburg, Germany.

213 Summary of Australian statistics for wheat a

			Production		Exports b			
	Area c	Yield	Volume c	Unit value	Volume	Unit value d	Domestic use e	Closing stocks f
	'000 ha	t/ha	kt	$/t	kt	$/t	kt	kt
1960-61	5 439	1.37	7 449	53	6 299	49	2 146	669
1961-62	5 958	1.13	6 727	55	4 843	51	2 066	487
1962-63	6 665	1.25	8 353	54	6 222	52	1 980	638
1963-64	6 667	1.34	8 924	52	6 894	52	2 110	558
1964-65	7 251	1.38	10 037	52	7 268	52	2 662	665
1965-66	7 088	1.00	7 067	54	4 755	51	2 525	452
1966-67	8 427	1.51	12 699	54	8 526	55	2 437	2 188
1967-68	9 082	0.83	7 547	58	5 644	53	2 682	1 409
1968-69	10 845	1.37	14 804	49	6 585	53	2 370	7 258
1969-70	9 486	1.11	10 547	50	8 185	49	2 403	7 217
1970-71	6 478	1.22	7 890	51	9 049	48	2 654	3 404
1971-72	7 138	1.19	8 510	54	7 760	50	2 703	1 451
1972-73	7 603	0.87	6 590	54	4 137	51	3 426	478
1973-74	8 948	1.34	11 987	109	7 418	102	3 165	1 882
1974-75	8 308	1.37	11 357	111	8 550	132	3 031	1 658
1975-76	8 555	1.40	11 982	104	8 233	122	2 742	2 665
1976-77	8 956	1.30	11 667	90	9 763	109	2 432	2 137
1977-78	9 955	0.94	9 370	100	8 098	93	2 629	780
1978-79	10 249	1.77	18 090	127	11 693	116	2 531	4 646
1979-80	11 153	1.45	16 188	153	13 197	146	3 369	4 268
1980-81	11 283	0.96	10 856	155	9 614	164	3 466	2 044
1981-82	11 885	1.38	16 360	159	11 068	158	2 457	4 879
1982-83	11 520	0.77	8 876	176	7 280	168	4 190	2 285
1983-84	12 930	1.70	22 016	164	14 159	172	2 641	7 501
1984-85	12 079	1.55	18 665	172	14 659	183	3 081	8 426
1985-86	11 737	1.39	16 259	166	16 331	185	2 526	5 828
1986-87	11 261	1.45	16 308	151	15 596	147	2 825	3 715
1987-88	9 062	1.36	12 368	163	9 864	145	3 479	2 740
1988-89	8 903	1.58	14 061	212	11 404	215	2 888	2 509
1989-90	9 003	1.58	14 214	195	10 980	213	2 415	3 327
1990-91	9 218	1.63	15 066	132	11 990	137	3 239	3 164
1991-92	7 183	1.47	10 557	199	7 122	203	4 095	2 504
1992-93	9 101 s	1.78	16 184 s	179	10 345	207	4 186	4 157 s
1993-94	8 383 s	1.97	16 479 s	169	13 805	175	3 905	2 925 s
1994-95	8 003 s	1.11	8 903 s	239	6 342	234	3 905	1 581 s
1995-96	9 221 s	1.79	16 504 s	261	13 298	287	4 127	660 s
1996-97	11 337 s	2.09	23 702 s	206	19 189	227	3 512	1 661 s
1997-98	10 422 s	1.86	19 417 s	191	15 679	235	5 081	319 s
1998-99 p	11 583 s	1.91	22 108 s	182	16 387	212	5 062	978 s

a Crop years: up to and including 1980-81: 1 December to 30 November; 1981-82: 1 December to 30 September; 1982-83 and subsequent years: 1 October to 30 September. **b** For wheat including flour. **c** Details for establishments with estimated value of agricultural operations (EVAO) of $2500 or more until 1985-86; EVAO of $5000 or more from 1986-87 to 1988-89; EVAO of $20 000 or more from 1989-90 to 1990-91; EVAO of $22 500 or more from 1991-92 to 1992-93; and EVAO of $5000 or more from 1993-94. **d** Export unit value based on financial year exports until 1987-88 and crop year exports thereafter. **e** Calculated as production less exports plus net change in stocks. Includes wastage. **f** Includes Australian Wheat Board Pool and Trading Division closing stocks. **na** Not available **p** Preliminary. **s** ABARE estimate.

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, *Agricultural Commodities,Australia, Preliminary* , cat. no. 7121.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0 Canberra; Australian Wheat Board, *Annual Report,* Melbourne; ABARE.

214 Australian wheat area, yield and production, by state

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia a
Area b								
1985-86	'000 ha	3 663	1 508	973	4 148	1 443	2	11 737
1986-87	'000 ha	3 118	1 391	816	4 264	1 670	2	11 261
1987-88	'000 ha	2 480	1 036	659	3 316	1 570	1	9 062
1988-89	'000 ha	2 316	950	794	3 303	1 539	1	8 903
1989-90	'000 ha	2 123	952	894	3 476	1 557	1	9 003
1990-91	'000 ha	2 166	911	1 060	3 632	1 448	1	9 218
1991-92	'000 ha	1 499	664	492	3 230	1 297	1	7 183
1992-93 s	'000 ha	1 800	950	800	4 000	1 550	1	9 101
1993-94 s	'000 ha	1 978	780	555	3 852	1 216	2	8 383
1994-95 s	'000 ha	1 424	822	401	3 848	1 395	1	8 003
1995-96 s	'000 ha	2 328	853	627	3 892	1 519	1	9 221
1996-97 s	'000 ha	3 316	1 021	1 056	4 381	1 561	2	11 337
1997-98 s	'000 ha	3 025	895	1 000	4 100	1 400	2	10 422
1998-99 s	'000 ha	3 131	950	1 250	4 500	1 750	2	11 583
Yield								
1985-86	t/ha	1.62	1.55	1.74	1.05	1.35	2.00	1.39
1986-87	t/ha	1.57	2.05	1.05	1.26	1.39	2.50	1.45
1987-88	t/ha	1.62	1.83	1.11	1.17	1.16	4.00	1.36
1988-89	t/ha	1.78	1.82	2.02	1.59	0.90	2.00	1.58
1989-90	t/ha	1.61	2.06	1.59	1.38	1.67	3.00	1.58
1990-91	t/ha	1.91	1.64	1.86	1.50	1.40	2.00	1.63
1991-92	t/ha	1.46	1.73	0.70	1.47	1.65	3.00	1.47
1992-93 s	t/ha	2.33	2.53	0.88	1.55	1.73	4.00	1.78
1993-94 s	t/ha	2.57	2.59	1.00	1.74	1.74	3.00	1.97
1994-95 s	t/ha	0.61	1.15	0.56	1.41	1.07	2.19	1.11
1995-96 s	t/ha	1.94	2.25	0.83	1.75	1.79	3.86	1.79
1996-97 s	t/ha	2.62	2.34	2.00	1.75	1.82	3.50	2.09
1997-98 s	t/ha	1.95	1.74	1.49	1.90	1.92	4.50	1.86
1998-99 s	t/ha	2.14	1.79	1.76	1.80	1.94	4.00	1.91
Production b								
1985-86	kt	5 916	2 342	1 691	4 362	1 944	4	16 259
1986-87	kt	4 885	2 852	855	5 382	2 329	5	16 308
1987-88	kt	4 025	1 901	732	3 886	1 820	4	12 368
1988-89	kt	4 118	1 726	1 601	5 236	1 378	2	14 061
1989-90	kt	3 423	1 961	1 420	4 800	2 607	3	14 214
1990-91	kt	4 128	1 493	1 973	5 449	2 021	2	15 066
1991-92	kt	2 183	1 150	344	4 736	2 141	3	10 557
1992-93 s	kt	4 200	2 400	700	6 200	2 680	4	16 184
1993-94 s	kt	5 086	2 022	555	6 689	2 121	6	16 479
1994-95 s	kt	875	944	225	5 438	1 487	3	8 903
1995-96 s	kt	4 508	1 921	519	6 827	2 724	4	16 504
1996-97 s	kt	8 677	2 392	2 109	7 678	2 838	7	23 702
1997-98 s	kt	5 893	1 554	1 493	7 784	2 684	9	19 417
1998-99 s	kt	6 700	1 700	2 200	8 100	3 400	8	22 108

a Includes data for the Australian Capital Territory and the Northern Territory. State totals may not add to Australian totals as a result of rounding.
b 1982-83 to 1985-86 excludes establishments with an estimated value of agricultural operations (EVAO) less than $2500; 1986-87 to 1988-89 excludes establishments with EVAO less than $5000; 1989-90 to 1990-91 excludes establishments with EVAO less than $20 000; 1991-92 to 1992-93 excludes establishments with EVAO less than $22 500; from 1993-94 excludes establishments with EVAO less than $5000. **s** ABARE estimate.
Sources: ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *Cereal Grains: Estimates of Area Sown, Australia,* cat. no. 7312.0, Canberra; ABS, *Principal Agricultural Commodities, Australia,* cat. no. 7111.0, Canberra; ABS, *Agricultural Commodities,Australia, Preliminary* , cat. no. 7121.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABARE.

215 Australian exports of wheat and flour, by destination a

	1991-92 kt	1992-93 kt	1993-94 kt	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 p kt
Africa								
Egypt	1 641	1 320	1 358	0	739	1 665	735	1 497
Ethiopia	30	19	24	10	35	6	41	46
South Africa	68	32	0	0	412	349	161	196
Asia								
Bangladesh	111	61	96	73	174	231	254	366
China	105	583	1 338	584	2 229	156	204	167
India	0	1 050	0	0	0	1 632	2 189	586
Indonesia	850	974	1 187	1 162	1 959	2 369	2 424	1 440
Japan	1 033	1 114	1 179	1 254	1 148	1 256	1 108	1 155
Malaysia	412	647	687	588	798	631	671	838
Pakistan	344	217	43	72	233	1 308	1 039	1 290
Singapore	81	144	149	149	88	59	86	113
South Korea	497	975	1 246	629	703	687	768	1 138
Sri Lanka	5	9	61	5	326	263	80	189
Thailand	76	82	176	105	243	255	315	335
Former Soviet Union b	0	417	1 019	0	11	0	0	0
Middle East								
Bahrain	0	18	0	13	27	67	37	40
Iran	0	1 119	2 593	524	1 879	3 349	579	1 619
Iraq	879	105	335	102	50	815	1 388	1 229
Kuwait	0	0	0	0	144	202	177	229
Oman	113	151	187	153	193	287	282	187
Qatar	41	44	44	39	40	64	36	47
United Arab Emirates	0	229	232	188	226	457	289	519
Yemen	274	233	322	0	254	633	527	529
Oceania								
Fiji	55	58	89	71	55	67	66	78
New Zealand	95	194	221	173	158	146	84	108
Papua New Guinea	90	116	116	125	95	119	109	115
Other	na	na	na	na	na	na	na	2 041
Total	8 153	9 534	12 910	7 892	12 056	18 348	15 245	16 384
(value, $m)	1 528	2 004	2 304	1 632	3 389	4 346	3 687	3 467

a July–June year. Exports are of wheat (including spelt, groats, meal and pellets) and meslin (mixed grain, especially rye mixed with wheat), plus plain white flour, wholemeal flour and self-raising white flour in wheat equivalent. For selected export destinations for bulk wheat, for the period October–September. **b** From 1992-93 includes twelve republics and Estonia, Latvia and Lithuania. **p** Preliminary. **na** Not applicable.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Australian Wheat Board, *Annual Report,* Melbourne; Australian Wheat Board.

216 Australian wheat supply and disposal a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Opening stocks b	3 164	2 504	4 157	2 925	1 581	660	1 661	319
Production	10 557	16 184	16 479	8 903	16 504	23 702	19 417	22 108
Availability	13 721	18 688	20 636	11 828	18 085	24 362	21 078	22 427
Total domestic use	4 095	4 186	3 905	3 905	4 127	3 512	5 081	5 062
Food c	1 685	1 787	1 824	1 893	1 991	2 122	2 174	2 184
Feed d	2 000	2 022	1 721	1 575	1 626	904	2 385	2 341
Seed	410	377	360	437	510	486	521	538
Exports								
Wheat	7 065	10 284	13 751	6 293	13 227	19 069	15 088	16 367
Flour e	57	61	54	49	72	166	147	20
Total	7 122	10 345	13 805	6 342	13 298	19 189	15 679	16 387
China	105	583	1 338	584	2 229	156	204	167
Egypt	1 641	1 320	1 358	0	739	1 665	735	1 497
Indonesia	850	974	1 187	1 162	1 959	2 369	2 424	1 440
Iran	0	1 119	2 593	524	1 879	3 349	579	1 619
Iraq	879	105	335	102	50	815	1 388	1 229
Japan	1 033	1 114	1 179	1 254	1 148	1 256	1 108	1 155
Former Soviet Union f	0	417	1 019	0	11	0	0	0
Closing stocks b	2 504	4 157	2 925	1 581	660	1 661	319	978

a 1 October to 30 September. **b** Includes Australian Wheat Board Pool and Trading Division stocks. **c** Flour use data for human and industrial purposes based on information obtained from the Bread Research Institute. **d** Calculated as residual: production less exports less other domestic uses plus net change in stocks. **e** Wheat equivalent (conversion 1:1.29). **f** From 1992-93 includes twelve republics and Estonia, Latvia and Lithuania. **na** Not available **p** Preliminary.

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, *Agricultural Commodities,Australia, Preliminary* , cat. no. 7121.0, Canberra; Australian Wheat Board, *Annual Report,* Melbourne; Australian Wheat Board; ABARE.

217 Australian wheat prices a

	AWB export quote a		Guaranteed minimum price / cumulative post-harvest payments b	Stock feed wheat c
	US$/t	A$/t	A$/t	A$/t
1965-66	na	na	55.77	56.25
1966-67	na	na	56.95	57.50
1967-68	na	na	60.26	60.81
1968-69	na	na	52.28	62.83
1969-70	na	na	53.61	63.38
1970-71	na	51	54.20	63.93
1971-72	na	49	55.78	65.40
1972-73	90	70	57.61	67.63
1973-74	195	132	58.79	71.10
1974-75	167	122	73.49	83.40
1975-76	146	116	76.55	99.32
1976-77	114	99	76.29	105.40
1977-78	118	105	80.94	111.16
1978-79	143	126	91.96	116.61
1979-80	169	152	114.71	140.50
1980-81	180	155	131.92	151.37
1981-82	165	149	141.55	149.78
1982-83	164	175	141.32	184.11
1983-84	154	170	150.00	175.24
1984-85	150	194	145.35	204.36
1985-86	133	190	149.87	144.30
1986-87	110	166	139.83	113.00
1987-88	125	172	144.29	138.92
1988-89	172	212	153.37	157.42
1989-90	168	218	171.30	169.08 d
1990-91	127	161	109.75	132.33 d
1991-92	160	209	163.22	159.67 d
1992-93	156	223	171.00	143.50 d
1993-94	154	224	144.90	137.58 d
1994-95	175	237	168.75	232.75 d
1995-96	230	305	191.52	236.24 d
1996-97	207	265	173.70	188.38 d
1997-98	167	246	171.00	185.93 d
1998-99 p	147	235	162.00	155.38 d

a Average of daily asking prices for Australian standard white wheat fob eastern states for the relevant financial year. **b** The guaranteed minimum price replaced the stabilisation price in 1979-80. For the seasons 1984-85 to 1988-89, a preliminary guaranteed minimum price was set around September, and a final guaranteed minimum price was set in late February. From the 1989-90 season, the preliminary and final guaranteed minimum prices have been replaced by the Australian Wheat Board's cumulative post-harvest payments. **c** Administered pricing of domestic wheat ceased after the 1988-89 season. **d** Sydney cash price, ASW (July–June average). **na** Not available. **p** Preliminary.
Sources: Australian Wheat Board, *Annual Report,* Melbourne; ABARE.

218 Wheat receivals by the Australian Wheat Board, by state and category a

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
	kt	kt	kt	kt	kt	kt	kt	kt
New South Wales b								
Prime hard	154	94	267	436	35	1 357	946	620
Hard	393	214	402	432	61	1 239	1 732	943
APW c	na	na	na	na	na	421	2 322	701
ASW d	2 405	422	982	2 822	51	216	2 023	512
GP e	0	19	847	166	0	247	255	134
Total	2 952	749	2 498	3 856	147	3 479	7 278	2 910
(production)	4 128	2 183	4 200	5 086	875	4 508	8 677	5 893
Victoria								
Hard	231	156	33	204	207	264	253	80
APW c	na	na	na	na	na	562	577	483
ASW d	1 008	587	441	1 744	291	1 063	1 470	327
GP e	5	2	1 587	153	3	23	86	49
Total	1 244	745	2 061	2 101	501	1 912	2 386	938
(production)	1 493	1 150	2 400	2 022	944	1 921	2 392	1 554
Queensland								
Prime hard	191	83	444	387	92	496	907	471
Hard	693	16	208	61	7	26	848	398
APW c	na	na	na	na	na	3	305	73
ASW d	979	24	58	53	8	2	54	18
GP e	72	2	10	87	0	21	112	17
Total	1 935	125	720	588	107	547	2 226	976
(production)	1 973	344	700	555	225	519	2 109	1 493
Western Australia								
Hard	179	163	82	248	556	406	479	564
APW c	na	na	na	na	na	1 303	2 440	1 915
ASW d	4 646	3 900	5 275	5 663	4 076	4 255	3 181	3 296
GP e	454	353	498	628	419	583	1 162	1 453
Total	5 279	4 416	5 855	6 539	5 051	6 546	7 263	7 227
(production)	5 449	4 736	6 200	6 689	5 438	6 827	7 678	7 784
South Australia								
Hard	452	274	37	430	465	612	383	243
APW c	na	na	na	na	na	1 308	814	852
ASW d	1 445	1 699	385	1 405	718	665	1 251	768
GP e	75	67	2 028	204	19	74	248	471
Total	1 972	2 040	2 450	2 039	1 202	2 659	2 696	2 334
(production)	2 021	2 141	2 680	2 121	1 487	2 724	2 838	2 684
Australia e								
Prime hard	345	177	711	823	127	1 287	1 246	1 079
Hard	1 948	823	762	1 375	1 296	2 543	3 695	2 216
APW c	na	na	na	na	na	3 603	6 450	2 129
ASW c	10 483	6 632	7 141	11 687	5 144	6 236	7 981	4 920
GP e	606	443	4 970	1 238	441	938	1 880	4 028
Total	13 382	8 075	13 584	15 123	7 008	15 143	21 849	14 385
(production)	15 066	10 557	16 184	16 479	8 903	16 504	23 702	19 417

a Deliveries accepted by authorised receivers for the Australian Wheat Board. State totals include deliveries of wheat grown interstate. **b** Including the Australian Capital Territory. **c** Australian Premium White which includes a blend of hard grained white wheat varieties with a guaranteed minimum protein level of more than 10 per cent. **d** Australian standard white, which includes amounts of soft varieties, Australian durum and Australian premium white wheat. **e** Australian general purpose, which includes weather damaged, lightweight and feed wheat. **e** Includes data for Tasmania and the Northern Territory.

Sources: Australian Wheat Board, *Annual Report,* Melbourne; ABARE.

219 Payments to growers by the Australian Wheat Board [a]

	Initial payments [b] $/t	Amount distributed to growers [b] $/t	Average BHA charges [c] $/t	Average rail freight $/t	Wheat research tax [d] $/t	Average net return to grower [e] $/t
1970-71	40.42	46.82	3.97	6.57	na	34.38
1971-72	40.42	48.75	3.85	6.35	na	37.25
1972-73	40.40	49.54	5.79	6.03	na	36.35
1973-74	44.09	110.07	4.35	6.95	na	98.24
1974-75	44.09	108.40	5.02	8.10	na	95.28
1975-76	55.12	99.35	5.36	9.48	na	86.50
1976-77	66.00	82.80	7.81	10.20	na	69.25
1977-78	66.00	87.91	10.89	10.68	na	77.57
1978-79	75.00	128.35	10.56	11.44	0.20	107.35
1979-80	114.71	148.46	10.35	11.95	0.20	125.96
1980-81	131.92	147.42	10.92	11.62	0.20	124.68
1981-82	141.55	149.92	12.73	14.80	0.20	122.19
1982-83	141.32	178.23	12.77	13.83	0.25	151.38
1983-84	150.00	162.38	14.73	17.56	0.40	129.72
1984-85	131.08	165.70	15.29	17.39	0.40	132.62
1985-86	131.89	159.32	15.08	17.88	0.45	125.91
1986-87	117.56	139.83	16.90	16.97	0.50	105.46
1987-88	161.79	164.32	16.20	16.20	0.55	131.37
1988-89	194.37	205.96	17.03	17.28	0.75	170.27
1989-90	171.30	179.28	16.36	15.77	1.13	146.06
1990-91	109.75	127.00	17.64	17.11	0.87	86.95
1991-92	163.22	180.00	14.97	13.35	1.52	150.16
1992-93	171.00	192.55	18.20	16.02	1.58	156.75
1993-94	144.90	162.30	18.15	17.19	1.25	123.41
1994-95	168.75	200.00	15.85	16.73	1.59	158.33
1995-96	191.52	249.40	18.44	14.19	na	na
1996-97	173.70	198.45	20.43	17.06	na	na
1997-98	171.00	192.15	19.57	14.67	na	na
1998-99 [p]	162.00	183.00	20.37	14.57	na	na

a Australian standard white wheat pool payment is based on a season 1 December to 30 November until 1981-82 and 1 October to 30 September from 1982-83, and can also include shipments made after the season ends. **b** Initial payment and amount distributed to growers are subject to deduction of individual growers' freight, wheat research tax and, since 1978-79, state storage and handling charges. From 1984-85 to 1988-89, 90 per cent of the guaranteed minimum price was paid on delivery and the remaining 10 per cent was paid after 1 March. Commencing with the 1989-90 season, these payments have been replaced by the Australian Wheat Board's cumulative post-harvest payments and the total pool payment or estimated pool payment. **c** From 1986-87 includes charges specified separately from bulk handling authority charges, such as wharfage, two port loading, and carryover charges. **d** Before 1989-90, specified as a unit per tonne deduction, including Ceres House deductions. For 1989-90, calculated as 0.77 per cent of farmgate returns (average net return to growers less transport from farm to silo). From 1990-91, calculated as 1.0 per cent of farmgate returns. **e** Includes refunds of finance fund deductions from 1979-80 to 1983-84; excludes payments to the Wheat Industry Fund from 1989-90. **p** Preliminary. **na** Not available.

Sources: Australian Wheat Board, *Annual Report,* Melbourne; Australian Wheat Board; ABARE.

220 Summary of world statistics for wheat

	Area	Production	Use	Closing stocks a World	Closing stocks a Exporters b	Stocks to use ratio	Trade c	Use per person	Price d
	million ha	Mt	Mt	Mt	Mt	%	Mt	kg	US$/t
1960-61	202	241	232	82	63	35	43	77	62
1961-62	202	227	236	73	54	31	47	77	63
1962-63	206	258	248	83	55	33	43	80	64
1963-64	209	241	252	72	46	29	56	79	66
1964-65	217	276	262	86	46	33	51	81	64
1965-66	219	265	284	67	34	24	62	85	58
1966-67	219	311	286	92	35	32	56	84	66
1967-68	223	300	294	98	43	33	51	85	62
1968-69	227	332	308	122	62	40	46	87	63
1969-70	220	315	329	108	65	33	51	91	52
1970-71	210	319	342	85	51	25	54	93	60
1971-72	215	354	349	90	49	26	52	93	60
1972-73	213	348	367	71	28	19	68	96	91
1973-74	221	376	360	87	26	24	63	93	177
1974-75	223	364	368	83	30	23	63	93	164
1975-76	227	359	362	80	38	22	66	90	152
1976-77	234	425	384	121	56	32	62	93	113
1977-78	228	386	409	98	53	24	72	98	116
1978-79	230	451	429	120	56	28	72	101	141
1979-80	229	429	448	101	49	23	86	103	175
1980-81	237	445	449	97	47	22	94	101	183
1981-82	240	454	447	104	59	23	101	99	170
1982-83	239	482	465	121	70	26	96	101	160
1983-84	231	494	483	132	66	27	100	104	154
1984-85	232	518	503	147	73	29	103	105	148
1985-86	231	505	495	157	85	32	84	103	128
1986-87	229	531	529	176	83	33	90	108	111
1987-88	221	505	537	150	61	28	107	108	123
1988-89	220	500	538	116	39	22	98	106	166
1989-90	226	537	532	120	36	23	95	102	161
1990-91	231	588	562	145	55	26	101	106	118
1991-92	223	543	556	133	48	24	124	103	151
1992-93	223	562	550	145	54	26	124	101	141
1993-94	222	559	562	142	46	25	101	101	142
1994-95	215	524	547	118	34	22	101	97	156
1995-96	219	539	552	104	28	19	99	97	215
1996-97	231	584	576	114	35	20	101	99	179
1997-98	228	610	585	139	40	24	101	99	142
1998-99 p	225	588	590	137	55	23	100	100	119

a Sum of individual closing stocks at the end of respective national crop years. China not included before 1983-84. **b** United States, European Union, Canada, Australia and Argentina. **c** Excludes intra-EU trade. **d** For US hard red winter wheat, fob Gulf. **p** Preliminary.
Sources: International Grains Council, *Grain Market Report,* London; International Grains Council, *World Grain Statistics,* London; ABARE.

221 World wheat production, by country

	1991-92 Mt	1992-93 Mt	1993-94 Mt	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 p Mt
Africa								
Egypt	4.5	4.6	4.8	4.1	5.7	5.7	5.9	6.1
Morocco	4.9	1.6	1.6	5.5	1.1	5.9	2.3	4.4
South Africa	2.1	1.3	2.0	1.8	2.0	2.7	2.5	1.5
Americas								
Argentina	9.9	9.7	9.2	11.3	9.4	15.9	14.8	10.7
Brazil	3.1	2.7	2.1	2.1	1.5	3.2	2.4	2.2
Canada	31.9	29.9	27.2	23.2	25.0	29.8	24.3	24.4
Mexico	4.1	3.6	3.6	4.2	3.5	3.1	3.6	3.3
United States	53.9	67.1	65.2	63.2	59.4	62.0	67.5	69.4
Asia								
China	96.0	101.6	106.4	99.3	102.2	110.6	123.3	110.0
India	55.1	55.7	57.2	59.8	65.5	62.1	69.4	65.9
Pakistan	14.6	15.7	16.2	15.2	17.0	16.9	16.7	18.7
Europe								
Bulgaria	4.5	3.4	3.6	3.8	3.2	1.8	3.3	3.3
European Union **a**	90.6	84.9	80.9	85.5	87.7	100.0	94.7	104.1
France	34.6	32.8	29.3	30.5	30.9	35.9	33.8	40.2
Germany **b**	16.6	15.5	15.8	16.5	17.8	18.9	19.8	20.2
Italy	9.4	8.9	7.9	7.8	7.7	7.7	6.6	7.9
Spain	5.0	4.4	5.0	4.3	2.5	5.9	4.6	5.3
United Kingdom	14.4	14.0	12.9	13.3	14.3	16.1	15.0	15.5
Former Czechoslovakia	6.2	5.1	4.9	6.0	5.8	5.4	5.5	5.6
Former Yugoslavia	6.7	3.8	4.7	4.8	4.7	2.9	4.6	4.8
Hungary	6.0	3.4	3.0	4.9	4.6	3.9	5.3	4.9
Poland	9.3	7.4	8.2	7.7	8.7	8.6	8.2	9.5
Romania	5.5	3.0	5.3	6.2	7.7	3.2	7.2	5.2
Sweden	1.5	1.4	1.7	1.4	1.5	2.0	2.2	2.2
Former Soviet Union	72.0	89.8	83.5	60.4	60.4	64.4	81.9	57.5
Kazakhstan	**c**	18.3	11.7	9.1	6.5	7.7	9.0	4.7
Russia	**c**	46.2	43.5	32.1	30.1	34.9	44.2	26.9
Ukraine	**c**	19.5	21.8	13.9	16.3	13.6	18.4	14.9
Uzbekistan	**c**	1.0	0.8	1.4	2.4	2.7	3.1	3.6
Middle East								
Iran	8.9	10.2	10.7	10.9	11.3	11.0	10.0	12.0
Saudi Arabia	3.9	4.1	3.6	2.7	2.0	1.2	1.8	1.8
Syria	2.1	2.8	3.4	3.7	4.2	4.1	3.0	4.1
Turkey	16.5	15.5	16.5	14.7	15.5	16.0	16.0	18.5
Oceania								
Australia	10.6	16.2	16.5	8.9	16.5	23.7	19.4	22.1
Total **d**	542.9	562.4	558.8	524.0	538.5	583.6	609.9	587.8

a Regarded as twelve countries until 1 January 1995, then fifteen countries. **b** Unified Germany. **c** Included in former Soviet Union total. **d** Includes some unspecified countries. **p** Preliminary. **na** Not applicable.

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ABARE.

222 World wheat trade, by country a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Imports								
Africa								
Algeria	3.4	3.6	4.8	5.8	3.8	3.6	5.2	4.4
Egypt	5.8	6.0	5.9	5.9	5.9	6.9	7.2	7.3
Morocco	1.6	2.8	2.4	1.3	2.3	1.5	2.6	2.6
Nigeria	0.5	0.8	0.8	0.6	0.7	1.0	1.1	1.5
Tunisia	0.5	0.6	0.8	1.7	0.8	0.9	1.5	1.0
Americas								
Mexico	0.7	1.4	1.8	1.4	1.6	1.9	2.2	2.5
Brazil	4.2	5.8	5.7	6.6	5.5	5.6	6.2	6.3
Cuba	1.1	0.9	1.1	1.1	0.7	1.0	0.9	0.9
Peru	1.2	1.1	1.3	1.2	1.0	1.3	1.3	1.3
Venezuela	1.2	1.1	1.0	1.1	1.0	1.2	1.2	1.3
Asia								
Bangladesh	1.5	1.1	1.1	1.7	1.2	0.9	0.8	2.2
China	15.9	6.7	4.3	10.3	12.5	2.7	1.9	1.0
India	0.1	2.5	0.5	0.0	0.1	1.4	1.7	2.0
Indonesia	2.6	2.7	2.9	3.9	3.6	4.2	3.7	3.0
Japan	5.9	6.0	6.0	6.3	6.1	6.3	6.2	5.9
South Korea	4.4	4.0	5.6	4.3	2.6	3.5	3.9	4.7
Pakistan	2.2	2.9	1.6	2.1	1.9	3.0	4.1	3.2
Philippines	1.7	2.0	2.2	2.1	2.0	2.2	2.0	2.2
Taiwan	0.8	0.9	0.9	0.9	1.1	1.0	1.0	1.0
Europe								
European Union b	16.2	15.9	17.4	17.3	21.5	22.9	25.8	23.8
Poland	0.1	1.0	0.6	1.1	0.8	1.9	0.4	0.4
Russia	c	14.5	5.0	2.1	5.2	2.5	2.6	2.5
Ukraine	c	1.5	0.1	0.3	1.0	0.2	0.1	0.1
Middle East								
Iran	2.5	3.0	3.5	3.3	2.8	7.1	5.2	2.1
Iraq	2.3	0.4	0.7	0.7	0.5	1.1	2.7	2.5
Turkey	0.2	0.9	0.7	0.4	2.1	2.5	1.5	1.5
Yemen	1.8	1.6	1.8	2.1	2.0	2.3	2.4	2.1
Exports								
Americas								
Argentina	5.8	5.9	5.0	7.3	4.5	10.2	10.7	7.5
Canada	24.5	19.7	19.1	20.9	16.3	19.5	20.1	14.5
United States	34.9	36.8	33.4	32.3	33.8	27.3	28.3	28.4
Europe								
European Union b	21.3	22.7	19.1	16.1	12.2	17.0	13.1	14.5
Hungary	1.1	0.4	0.6	1.8	2.2	0.9	1.5	2.4
Russia	0.6	0.9	0.5	0.6	0.2	0.7	0.9	1.2
Middle East								
Saudi Arabia	2.3	2.5	2.0	1.7	0.2	0.0	0.0	0.0
Turkey	6.2	2.0	1.1	1.8	1.1	1.0	1.3	3.0
Oceania								
Australia	8.2	9.5	12.9	7.9	12.1	18.3	15.2	16.4
Total d	123.8	124.3	101.4	100.8	98.8	101.3	100.8	100.0

a Local marketing years; wheat equivalent; excludes intra-EU trade. **b** Regarded as twelve countries to 1 January 1995, then fifteen countries. Includes East Germany from 1990-91. **c** Included in former Soviet Union total. **d** Includes some unspecified countries. **p** Preliminary. **na** Not available or not applicable.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

223 US wheat supply and disposal a

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 b
Base area c	million ha	32.1	32.0	31.9	31.6	31.4	31.3	0.0	0.0
Participation rate	%	85.0	83.2	87.5	87.0	84.8	99.1	0.0	0.0
Area									
– idled d	million ha	6.4	3.0	2.3	2.1	2.5	0.0	0.0	0.0
– planted	million ha	28.3	29.2	29.2	28.4	27.9	30.4	28.5	26.7
– harvested	million ha	23.3	25.4	25.4	25.0	24.7	25.4	25.4	23.9
Yield	t/ha	2.31	2.64	2.57	2.53	2.41	2.44	2.66	2.91
Production	Mt	53.9	67.1	65.2	63.2	59.4	62.0	67.5	69.4
Opening stocks	Mt	23.4	12.7	14.2	15.2	13.5	10.0	11.8	19.4
Imports	Mt	1.1	1.9	3.0	2.5	1.9	2.5	2.6	2.6
Availability	Mt	78.4	81.7	82.4	80.9	74.8	74.5	81.9	91.4
Domestic use	Mt	30.8	30.7	33.7	35.0	31.0	35.4	34.2	38.0
– food	Mt	21.5	22.7	23.7	23.2	24.0	24.2	24.9	25.2
– feed	Mt	6.6	5.3	7.4	9.4	4.2	8.4	6.7	10.4
– seed	Mt	2.7	2.7	2.6	2.4	2.8	2.8	2.5	2.4
Exports	Mt	34.9	36.8	33.4	32.3	33.8	27.3	28.3	28.6
Closing stocks	Mt	12.7	14.2	15.2	13.5	10.0	11.8	19.4	24.8
– Farmer Owned Reserve	Mt	1.4	0.8	0.2	0.0	0.0	0.0	0.0	0.0
– Commodity Credit Corporation	Mt	4.1	4.1	4.1	3.9	3.2	2.5	2.6	3.0
– Free	Mt	7.2	9.4	11.0	9.7	6.8	9.2	16.8	21.8
Target price	US$/bus	4.00	4.00	4.00	4.00	4.00	0.00	0.00	0.00
Farm price	US$/bus	3.00	3.24	3.26	3.45	4.55	4.30	3.38	2.65
Loan rate	US$/bus	2.04	2.21	2.45	2.58	2.58	2.58	2.58	2.58
Export price e	US$/t	150.96	141.33	141.52	156.42	215.33	178.50	141.75	118.51

a June–May year. **b** US Department of Agriculture estimate. **c** Effective base area = National base acreage less Conservation Reserve Program. **d** Includes acreage reductions, diversions and set-asides. **e** US hard red winter wheat (ordinary), fob Gulf; July–June average; for 1995-96 ABARE estimate. **na** Not available

Sources: US Department of Agriculture, *World Agricultural Supply and Demand Estimates,* Washington DC; US Department of Agriculture, *Agricultural Outlook,* Washington DC; US Department of Agriculture, *Wheat Yearbook,* Washington DC; ABARE.

224 Wheat export price quotations, by country and category

	Australian prime hard 14% (eastern states) US$/t	No. 1 Canadian western red spring 13.5% (Vancouver) a US$/t	Australian standard white (eastern states) US$/t	US no. 2 hard red winter (Gulf) US$/t	Argentinean bread wheat US$/t	EU standard (Rouen) US$/t	US no. 2 soft red winter (Gulf) US$/t
1980-81	209	230	181	183	204	170	175
1981-82	185	201	165	170	178	150	148
1982-83	178	190	163	160	148	132	131
1983-84	178	193	154	154	137	146	142
1984-85	169	188	150	148	125	131	139
1985-86	159	180	133	128	102	111	125
1986-87	131	148	110	111	84	83	113
1987-88	145	164	125	123	101	84	120
1988-89	194	225	172	166	151	147	161
1989-90	184	194	168	161	139	142	153
1990-91	149	161	127	118	87	90	113
1991-92	202	188	160	151	118	119	147
1992-93	191	193	157	141	124	133	142
1993-94	241	222	153	142	118	96	134
1994-95	219	209	174	156	133	128	147
1995-96	272	255	232	215	216	177	180
1996-97	224	217	207	179	153	155	159
1997-98	203	197	167	142	134	134	131
1998-99 p	197	184	147	119	117	101	102
1998							
January	201	191	164	141	125	132	132
February	203	193	168	141	121	129	129
March	201	195	170	135	121	127	128
April	200	193	159	128	123	119	119
May	200	192	155	131	125	114	114
June	197	186	151	123	121	107	108
July	197	183	142	117	115	98	100
August	191	174	135	111	109	93	97
September	189	171	139	115	110	96	100
October	203	188	154	128	131	111	112
November	202	194	157	128	127	112	113
December	200	191	157	122	116	105	106
1999							
January	200	190	156	127	110	105	105
February	195	185	150	118	101	99	97
March	198	186	151	115	111	100	101
April	197	182	146	113	116	100	101
May	194	179	140	110	124	99	98
June	201	183	142	118	130	94	94
July	197	178	136	121	126	92	90
August	199	184	140	122	129	99	96

a From October 1994 export price quotation for no.1 Canadian western red spring wheat 12.5 per cent (Vancouver). **p** Preliminary.
Sources: International Grains Council, *World Grains Statistics,* London; International Grains Council, *Grain Market Report,* London; US Department of Agriculture, *Wheat Yearbook,* Washington DC; ABARE.

225 Wheat supply and disposal in major exporting countries a

	Area million ha	Yield t/ha	Production Mt	Domestic use Mt	Exports b Mt	Closing stocks Mt
United States (June–May)						
1993-94	25.4	2.57	65.2	33.7	33.4	15.2
1994-95	25.0	2.53	63.2	35.0	32.3	13.5
1995-96	24.7	2.41	59.4	31.0	33.8	10.0
1996-97	25.4	2.44	62.0	35.4	27.3	11.8
1997-98	25.4	2.66	67.5	34.2	28.3	19.4
1998-99 p	23.9	2.91	69.4	38.0	28.4	24.8
Canada (August–July)						
1993-94	12.4	2.19	27.2	9.1	19.3	11.1
1994-95	10.9	2.13	23.2	7.5	21.3	5.9
1995-96	11.3	2.21	25.0	7.2	16.9	5.9
1996-97	12.3	2.43	29.8	8.2	17.9	9.1
1997-98	11.4	2.13	24.3	7.3	20.0	6.1
1998-99 p	10.8	2.26	24.4	7.5	14.6	8.4
Argentina (December–November)						
1993-94	4.9	1.88	9.2	4.2	4.5	0.6
1994-95	5.2	2.17	11.3	4.9	7.9	0.1
1995-96	4.9	1.92	9.4	4.3	4.4	0.1
1996-97	7.1	2.24	15.9	5.0	10.0	0.5
1997-98	5.7	2.60	14.8	4.5	10.7	0.7
1998-99 p	4.8	2.23	10.7	4.3	6.9	0.5
Australia (October–September)						
1993-94	8.4	1.97	16.5	3.9	13.8	2.9
1994-95	8.0	1.11	8.9	3.9	6.3	1.6
1995-96	9.2	1.79	16.5	4.1	13.3	0.7
1996-97	11.3	2.09	23.7	3.5	19.2	1.7
1997-98	10.4	1.86	19.4	5.1	15.7	0.3
1998-99 p	11.6	1.91	22.1	5.1	16.4	1.0
European Union (July–June) c						
1993-94	15.0	5.39	80.9	66.1	19.1	16.0
1994-95	15.6	5.48	85.5	73.0	16.1	12.5
1995-96	16.6	5.28	87.7	72.9	12.2	9.4
1996-97	17.0	5.88	100.0	84.2	17.0	10.5
1997-98	17.2	5.51	94.7	82.9	13.1	13.7
1998-99 p	17.1	6.09	104.1	86.2	14.5	21.0
Total cd						
1993-94	66.1	3.01	199.0	117.0	90.1	45.8
1994-95	64.7	2.97	192.1	124.3	84.0	33.6
1995-96	66.7	2.97	198.0	119.6	80.6	28.4
1996-97	73.1	3.16	231.4	136.3	91.3	34.7
1997-98	70.1	3.15	220.8	134.0	87.8	40.2
1998-99 p	68.2	3.38	230.7	141.0	80.7	54.9

a The marketing period in each country is shown in parentheses. **b** Includes wheat equivalent of flour and other wheat products. **c** Regarded as twelve countries to 1 January 1995, then fifteen countries. Excludes intra-EU trade. EU stock figures include intervention stocks. **d** Simple aggregation of different crop years. **p** Preliminary.

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Summary of Crops,* cat. no. 7330.0, Canberra; ABS, *Principal Agricultural Commodities Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, *Agricultural Commodities, Australia, Preliminary* , cat. no. 7121.0, Canberra; International Grains Council, *World Grain Statistics,* London; US Department of Agriculture, *World Agricultural Supply and Demand Estimates,* Washington DC; US Department of Agriculture, *Agricultural Outlook,* Washington DC; US Department of Agriculture, *Wheat Yearbook,* Washington DC; International Grains Council, *Grain Market Report,* London; ABARE.

226 Summary of Australian statistics for wool

	Sheep numbers ab	Wool production (greasy) c		Clean yield ac	Closing stocks (at 30 June) d		Average price	
		Shorn	Total				Eastern market indicator (clean) e	Auction (greasy)
	million	kt	kt	%	'000 bales	kt	c/kg	c/kg
1965-66	157.6	682.0	754.2	58.63			na	110.4
1966-67	164.2	726.8	799.4	59.10			na	104.5
1967-68	166.9	728.0	802.6	58.3			na	92.0
1968-69	174.6	804.3	883.5	59.3			na	98.5
1969-70	174.3	837.4	925.8	58.9			na	82.8
1970-71	171.7	800.2	890.0	59.0	582.2	73.9	na	64.7
1971-72	155.4	778.6	881.7	59.1	185.4	26.0	na	75.3
1972-73	134.1	643.6	735.2	58.8	205.8	29.6	na	183.8
1973-74	139.5	644.3	700.9	60.3	176.5	26.0	361.2	181.2
1974-75	145.8	725.3	793.5	62.3	1 616.2	239.2	252.8	127.0
1975-76	144.1	681.4	754.3	62.5	1 326.7	197.4	271.8	143.3
1976-77	131.3	623.9	702.7	61.8	1 094.1	162.6	348.0	182.7
1977-78	127.5	605.5	677.0	62.3	896.6	137.7	354.7	187.1
1978-79	130.5	643.6	705.7	62.9	353.8	55.8	391.7	205.2
1979-80	132.7	642.4	708.5	62.9	208.5	33.2	462.0	243.6
1980-81	131.4	637.9	701.2	62.8	188.3	30.3	478.8	256.0
1981-82	135.0	661.0	717.2	63.0	509.3	81.5	501.9	264.7
1982-83	130.5	641.5	701.7	62.3	928.1	150.0	516.3	269.9
1983-84	135.1	672.6	729.0	63.2	1 233.9	207.0	540.3	293.8
1984-85	145.7	752.7	814.4	64.2	979.6	168.1	586.0	317.8
1985-86	150.4	762.1	829.5	64.3	924.3	159.1	594.9	342.1
1986-87	153.2	813.7	890.4	64.4	381.5	65.7	697.4	395.5
1987-88	156.5	843.0	915.4	64.9	9.2	1.5	1 117.4	632.7
1988-89	164.9	898.9	959.0	65.3	188.3	31.8	1 091.7	647.3
1989-90	173.4	1 030.9	1 102.0	65.8	3 064.7	542.0	969.2	555.3
1990-91	166.6	989.2	1 066.1	65.6	4 607.4	820.1	699.6	413.8
1991-92	151.0	801.0	873.5	65.1	4 068.8	724.3	592.6	358.8
1992-93	140.5	815.1	869.4	66.0	3 950.1	703.0	519.2	313.5
1993-94	132.6	775.8	828.0	65.8	3 667.0	653.0	547.0	330.1
1994-95	120.9	682.5	731.0	64.6	3 113.7	557.0	788.0	504.4
1995-96	121.1	654.9	697.0	64.9	2 373.9	423.0	658.1	386.7
1996-97	120.2	682.0	725.0	65.1	1 719.4	306.5	669.8	403.0
1997-98	117.5	655.1	700.0	65.1	1 182.0	210.4	733.2	444.3
1998-99 p	117.2	629.2	672.0	65.5	1 055.1	187.8	550.2	356.4

a Sheep and lambs. **b** Before 1982, includes livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of $1500 or more. Between 1982 and 1986, includes livestock holdings on establishments with an EVAO of $2500 or more. From 1987, the EVAO has been raised to $5000. **c** July–June years. **d** In farm bale equivalents. Australian wool held by the Australian Wool Board in 1970-71 and 1971-72, by the Australian Wool Corporation from 1972-73 to 1990-91, by the Australian Wool Realisation Commission from 1 July 1991 to December 1993 and by Wool International thereafter. Includes stocks of wool held under the Price Averaging Plan in 1970-71 to 1972-73. No official stocks held between 1951 52 and 1969-70. **e** Australian Wool Exchange eastern market indicator from 1995-96 onward. Wool International eastern market indicator from 1973-74 to 1994-95. (Original market indicators for the period 1991-92 to 1993-94 can be calculated by dividing by 1.064. For the years between 1983-84 to 1990-91, divide by 1.114. For 1982-83 and earlier years, divide by 1.136). **p** Preliminary.

Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat.no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Livestock, Australia,* cat. no. 7203.0, Canberra; ABS, *Livestock and Livestock Products, Australia,* cat. no. 7221.0, Canberra; National Council of Wool Selling Brokers of Australia, *Statistics,* Melbourne; Australian Wool Productlon Forecasting Committee; Australian Wool Exchange, Melbourne; ABARE.

227 Australian shorn wool production, by state

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia a
Number of sheep shorn (million)							
1988-89	69.10	40.07	16.59	42.75	22.12	5.66	196.41
1989-90	77.40	42.28	18.93	46.60	23.23	6.59	215.15
1990-91	81.00	38.37	21.36	43.17	23.10	5.82	212.94
1991-92	65.00	34.12	17.00	39.06	20.81	4.96	181.06
1992-93	61.69	33.26	14.62	43.49	21.12	4.66	178.95
1993-94	56.21	32.54	13.47	45.56	20.03	4.92	172.84
1994-95	51.41	29.50	12.64	40.53	17.29	4.85	156.32
1995-96	48.03	27.06	10.73	38.01	18.70	4.18	146.70
1996-97	55.73	30.92	10.43	37.75	17.49	4.40	156.91
1997-98	55.33	31.50	10.96	36.00	17.15	4.43	155.45
1998-99 p	53.10	29.50	12.01	31.09	15.66	4.27	145.72
Average cut per head (kg greasy)							
1988-89	4.60	4.33	4.44	4.69	5.06	3.65	4.58
1989-90	4.79	4.45	4.62	4.97	5.46	3.86	4.79
1990-91	4.66	4.21	4.74	4.97	4.85	3.78	4.65
1991-92	4.31	4.16	4.38	4.66	4.98	3.74	4.42
1992-93	4.44	4.44	4.21	4.63	5.31	3.89	4.55
1993-94	4.49	4.22	4.28	4.60	4.95	3.88	4.49
1994-95	4.41	4.18	4.44	4.31	4.79	3.77	4.37
1995-96	4.50	4.43	4.41	4.31	5.12	4.07	4.46
1996-97	4.37	4.18	4.91	4.07	4.86	4.35	4.35
1997-98	4.15	3.85	4.36	4.27	4.91	4.03	4.21
1998-99 p	4.19	4.03	4.56	4.45	4.93	4.01	4.32
Shorn wool production (kt greasy)							
1988-89	318.10	173.68	73.63	200.45	111.90	20.63	898.93
1989-90	370.60	188.20	87.46	231.73	126.92	25.45	1 030.94
1990-91	377.42	161.39	101.17	214.57	112.08	21.97	989.18
1991-92	280.06	141.91	74.39	182.03	103.61	18.55	801.00
1992-93	274.05	147.60	61.50	201.20	112.12	18.12	815.05
1993-94	252.61	137.42	57.64	209.36	99.19	19.12	775.77
1994-95	226.84	123.30	56.08	174.74	82.83	18.27	682.50
1995-96	216.02	119.93	47.35	163.79	95.69	17.02	654.90
1996-97	243.33	129.18	51.20	153.78	84.97	19.14	682.00
1997-98	229.62	121.34	47.78	153.90	84.16	17.86	655.10
1998-99 p	222.56	118.77	54.75	138.41	77.21	17.10	629.24
Clean yield (%)							
1988-89	65.88	68.10	61.47	62.88	62.92	71.40	65.32
1989-90	66.33	69.00	62.21	63.60	64.31	72.50	65.77
1990-91	66.96	68.08	63.73	63.29	62.11	71.50	65.61
1991-92	66.20	67.45	63.58	62.28	62.74	70.90	65.08
1992-93	66.26	68.38	63.31	64.03	64.81	71.53	65.97
1993-94	65.97	68.71	62.61	64.22	63.27	71.10	65.76
1994-95	64.97	68.33	61.74	61.89	61.90	70.69	64.64
1995-96	64.40	68.38	na	62.21	62.55	70.88	64.86
1996-97	65.30	68.36	na	61.69	62.10	71.82	65.07
1997-98	65.30	68.40	63.70	61.70	62.10	71.80	65.10
1998-99 p	66.30	67.30	64.00	63.80	63.30	70.60	65.50

a Includes the Northern Territory and the Australian Capital Territory. **p** Preliminary. **na** Not available.

Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat.no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Livestock and Livestock Products, Australia,* cat. no. 7221.0, Canberra; ABS, *Shearing and Wool Production Forecast, Australia,* cat. no. 7210.0, Canberra; Australian Wool Production Forecasting Committee.

228 Australian sheep disposal and wool production

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Sheep disposal a								
Opening number b	million	150.6	140.5	132.6	120.9	121.1	120.2	117.5
Lambs marked	million	41.9	41.5	37.9	39.2	40.4	40.1	41.0
Lambs slaughtered c	million	15.3	14.9	15.8	14.3	14.2	15.1	15.8
Sheep slaughtered c	million	17.3	18.3	18.0	14.7	14.3	16.4	14.4
Live sheep exports	million	4.9	4.9	6.0	5.8	5.7	4.9	4.9
Sheep deaths	million	14.4	11.4	9.9	4.2	7.2	6.6	6.2
Closing number d	million	140.5	132.6	120.9	121.1	120.2	117.5	117.2
Wool production e								
Number shorn	million	178.9	172.8	156.3	146.7	156.9	155.5	145.7
Cut per head	kg	4.55	4.49	4.37	4.46	4.35	4.21	4.32
Wool production (greasy)								
– shorn	kt	815.1	775.8	682.5	654.9	682.0	655.1	629.2
– on skins	kt	54.3	52.2	48.5	42.1	43.0	44.9	42.8
– total	kt	869.4	828.0	731.0	697.0	725.0	700.0	672.0
– clean yield	%	66.0	65.8	64.6	64.9	65.1	65.1	65.5

a April–March years. **b** Sheep and lambs at 1 April on enterprises with estimated value of agricultural operations (EVAO) of $5000 or more. **c** For human consumption only, but excludes slaughterings on farms. **d** Sheep and lambs at 31 March on enterprises with an EVAO of $5000 or more. **e** July–June years. **p** Preliminary.

Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat.no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Livestock and Livestock Products, Australia,* cat. no. 7221.0, Canberra; ABS, *Shearing and Wool Production Forecast, Australia,* cat. no. 7210.0, Canberra; Australian Wool Production Forecasting Committee; ABARE.

229 Average auction prices for greasy wool in principal exporting countries

	Australia a	New Zealand a	South Africa a	Argentina b
	c/kg	c/kg	c/kg	c/kg
1960-61	95.64	92.05	na	na
1961-62	99.45	89.44	na	na
1962-63	108.31	97.76	na	na
1963-64	128.04	125.71	na	na
1964-65	105.45	96.15	na	na
1965-66	110.41	95.03	na	na
1966-67	104.46	80.50	na	na
1967-68	92.04	54.55	na	na
1968-69	98.48	61.90	na	na
1969-70	82.78	56.50	na	na
1970-71	64.68	53.40	56.28	59.00
1971-72	75.25	66.50	58.72	55.50
1972-73	183.77	139.26	155.87	139.79
1973-74	181.16	134.62	160.89	151.40
1974-75	126.99	90.35	101.23	85.83
1975-76	143.25	131.57	129.61	89.56
1976-77	182.73	184.23	163.37	155.81
1977-78	187.14	168.94	168.30	147.76
1978-79	205.24	202.78	187.78	180.75
1979-80	243.57	233.98	226.13	216.81
1980-81	255.97	200.73	227.16	219.13
1981-82	264.69	186.10	240.48	212.00
1982-83	269.85	191.97	238.24	218.71
1983-84	293.84	214.40	263.20	240.98
1984-85	317.80	234.26	288.94	265.58
1985-86	342.06	268.17	289.35	268.05
1986-87	395.47	336.32	334.71	284.49
1987-88	632.69	404.01	559.52	437.69
1988-89	647.26	396.31	522.21	434.98
1989-90	555.30	359.80	438.45	411.13
1990-91	413.83	243.38	296.88	299.65
1991-92	358.82	237.39	316.65	296.08
1992-93	313.53	249.44	278.24	265.57
1993-94	330.08	256.07	254.58	274.68
1994-95	504.43	354.52	390.04	354.05
1995-96	386.73	371.50	318.08	372.20
1996-97	403.01	333.20	332.13	na
1997-98	444.30	321.46	349.29	na
1998-99 p	356.41	240.55	245.76	na

a Annual average prices for July–June years, converted to Australian cents using average exchange rates. **b** Average export unit value of greasy wool converted to Australian cents using average exchange rates. October–September years to 1993-94; July–June years from 1994-95. **p** Preliminary. **na** Not available.

Sources: Australian Wool Exchange, Melbourne; Federation Lanera Argentina, *Informe Mensual Estadistico,* Buenos Aires; New Zealand Wool Board, *Statistical Handbook,* Wellington; South African Wool Board, *Annual Report,* Pretoria; National Council of Wool Selling Brokers of Australia, *Statistics* , Melbourne; International Wool Textile Organisation, *Wool Statistics,* London.

230 Average world prices for synthetic fibres

	US polyester price a USc/lb	Chinese Taipei polyester price bc USc/lb	Chinese Taipei acrylic price bd USc/lb
1981-82	82	na	75
1982-83	73	na	77
1983-84	78	na	79
1984-85	72	na	80
1985-86	64	na	82
1986-87	62	na	83
1987-88	70	54	83
1988-89	79	72	77
1989-90	88	61	73
1990-91	77	52	71
1991-92	73	na	77
1992-93	73	48	75
1993-94	72	55	68
1994-95	82	79	93
1995-96	88	76	88
1996-97	72	52	78
1997-98	69	42	70
1998-99 p	53	32	54

a Reported average market price for 1.5 denier polyester staple for cotton blending, landed group B mill points fob producing plants. Simple averages of weekly prices. **b** Simple averages of monthly prices. **c** Chinese Taipei staple, 1.5 denier. **d** Chinese Taipei staple, 3 denier. **p** Preliminary. **na** Not available.
Sources: Osaka Senken Ltd, *JTN Weekly,* Osaka; US Department of Agriculture, *Cotton and Wool, Situation and Outlook Report,* Washington DC.

231 Australian wool exports, by destination, recorded trade basis

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Volume (kt greasy equivalent)								
China	114	175	206	176	161	197	174	170
Eastern Europe **a**	43	6	3	5	5	5	7	5
European Union **b**								
France	100	78	88	71	54	61	61	49
Germany	54	52	55	44	42	44	47	42
Italy	122	100	118	110	107	132	141	118
United Kingdom	21	26	24	21	21	26	22	12
Other	64	39	24	19	29	31	28	22
Total	361	295	309	265	253	293	300	243
Chinese Taipei	66	55	50	48	50	63	43	53
Former Soviet Union	32	0	0	0	0	0	0	0
Japan	149	117	107	88	62	63	44	36
South Korea	56	51	61	64	51	50	28	39
United States	43	43	48	37	36	27	34	17
Other	97	126	128	131	152	163	168	121
Total	929	867	912	814	772	860	799	683
Value ($m)								
China	430	689	693	822	697	804	842	603
Eastern Europe **a**	178	24	13	21	17	19	35	22
European Union **b**								
France	325	238	258	323	228	257	292	174
Germany	224	195	202	237	197	188	231	152
Italy	509	388	463	611	485	595	739	478
United Kingdom	86	98	77	92	95	109	99	44
Other	240	125	65	77	121	113	104	70
Total	1 384	1 044	1 065	1 339	1 126	1 261	1 465	918
Chinese Taipei	213	181	153	196	196	231	181	153
Former Soviet Union	138	0	0	0	0	0	0	0
Japan	726	518	503	542	323	330	263	158
South Korea	252	224	265	358	256	245	151	161
United States	169	162	168	171	164	118	168	82
Other	253	491	464	640	710	727	853	480
Total	3 744	3 333	3 323	4 089	3 489	3 735	3 959	2 578

a Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech and Slovak Federal Republics, Estonia, Hungary, Latvia, Lithuania, Macedonia, Poland, Romania, Slovenia and Serbia. **b** Regarded as twelve countries to 1 January 1995, then 15 countries. **p** Preliminary. **na** Not applicable.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

232 Australian exports of semiprocessed shorn wool

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
	kt	kt	kt	kt	kt	kt	kt	kt
Scoured								
China	11.3	10.8	11.6	10.1	10.3	9.7	6.7	4.9
Chinese Taipei	2.0	1.2	0.8	1.2	1.9	3.4	3.5	2.0
France	0.9	1.0	1.5	2.2	2.2	0.9	0.5	0.8
Italy	15.0	15.1	14.4	11.2	14.0	12.4	15.6	12.4
South Korea	9.5	7.5	7.2	6.0	6.9	5.2	3.8	5.4
Total	106.0	103.7	108.1	94.5	92.6	91.4	85.8	68.8
Carbonised								
China	7.4	5.2	4.7	4.6	5.1	7.5	6.0	3.9
Chinese Taipei	0.3	0.4	0.3	0.2	0.3	0.2	0.5	0.3
France	0.2	0.2	0.3	0.4	0.1	0.1	0.1	0.2
Italy	4.3	4.6	3.5	2.3	3.2	3.3	3.4	5.6
South Korea	8.3	7.7	10.2	11.0	7.4	6.0	3.7	7.3
Total	26.3	25.2	25.5	24.6	20.4	21.5	20.2	24.5
Tops and sliver								
China	6.4	9.3	14.4	13.4	17.2	17.4	17.9	15.1
Chinese Taipei	1.5	1.4	1.7	3.1	2.6	2.8	2.3	2.5
France	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Italy	0.5	1.7	1.7	3.8	4.5	6.0	8.8	8.5
South Korea	2.1	2.8	4.7	6.7	7.9	10.3	5.7	7.0
Total	21.6	27.5	38.3	42.9	51.1	57.6	54.7	53.4
Noils and waste								
China	0.0	0.1	0.0	0.2	0.3	0.3	0.0	0.1
Chinese Taipei	0.0	0.0	0.2	0.3	0.2	0.1	0.0	0.1
France	1.4	1.1	1.3	1.0	0.3	0.4	0.3	0.2
Italy	1.4	1.6	2.1	2.6	2.7	4.8	4.9	2.8
South Korea	0.0	0.0	0.1	0.5	0.2	0.0	0.0	0.2
Total	5.4	4.5	6.0	7.1	6.3	8.1	7.9	5.8

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

233 World wool production, by country and type

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	kt	kt	kt	kt	kt	kt	kt	kt
Greasy								
Country or region								
Argentina	121	114	98	90	81	78	68	70
Australia	874	869	828	731	697	725	700	672
China **a**	240	238	240	255	277	298	292	302
Eastern Europe **b**	88	73	58	53	47	46	45	46
Former Soviet Union	441	na	na	na	na	na	na	na
Central Asian Republics **c**	**d**	205	na	na	na	na	na	na
Russia	**d**	179	158	122	93	77	60	50
New Zealand	296	256	284	289	269	275	266	256
South Africa **e**	83	75	74	65	65	59	53	55
United Kingdom	70	70	67	67	66	64	65	69
United States	40	44	41	36	33	29	28	26
Uruguay	87	90	93	84	79	85	78	63
Other producers	488	710	899	873	835	792	na	747
World	3 033	2 923	2 840	2 665	2 542	2 528	2 441	2 392
Clean								
Wool type								
Merino	850	813	777	681	643	639	615	599
Crossbred	415	405	388	382	364	382	375	347
Other	517	503	512	494	479	463	450	476
World	1 782	1 721	1 677	1 557	1 486	1 484	1 440	1 422

a Includes Manchuria, Sinkiang and Tibet. **b** Albania, Bosnia and Herzegovina, Bulgaria, Czech and Slovak Federal Republics, Hungary, Serbia, Macedonia, Poland, Romania, Croatia and Slovenia. **c** Includes Kazakhstan, Kyrgyzstan, Tajikstan, Turkmenistan and Uzbekistan. **d** Included in former Soviet Union total. **e** Excluding Lesotho and Namibia. **p** Preliminary. **na** Not available or not applicable.

Sources: International Wool Textile Organisation, *Wool Statistics,* London; International Wool Textile Organisation, *International Wool Textile Overview,* London; Australian Wool Production Forecasting Committee; ABARE.

234 Stocks of wool and tops, by country

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Raw wool **a**								
Supply stocks								
Argentina	78	77	75	57	44	27	21	20 **b**
Australia **cd**	820.1	724.3	810	740	632	573	452.5	383.76
New Zealand								
Brokers' carryover **c**	6	4	6	7	8	9	10	7
Wool Board	72	53	46	24	4	0	0	0
South Africa								
Wool Board **e**	13	4	4	0	0	0	0	0
United Kingdom								
Wool Marketing Board	19	10	7	4	4	6	3	4
Uruguay	0	0	0	0	0	0	0	14
Total	1008.1	872.3	948	832	692	615	486.5	428.76
Commercial stocks **f**								
Australia **g**	43	40	34	33	31	34	na	na
Belgium	8	7	5	na	na	na	na	na
Italy **h**	17	20	16	24	na	na	na	na
Japan **h**	13	11	8	9	na	na	na	na
United States	29	22	17	24	na	na	na	na
Total **i**	110	100	80	90	na	na	na	na
Total raw wool stocks	1118.1	972.3	1028	922	na	na	na	na
Tops and carded sliver of wool and hair								
Commercial stocks **j**								
Belgium	2	4	3	na	na	na	na	na
France	6	15	14	na	na	na	na	na
Germany	10	9	9	10	na	na	na	na
Italy	15	18	18	20	na	na	na	na
Japan	9	11	10	11	na	na	na	na
South Korea	3	3	3	3	na	na	na	na
Total								
Actual weight	45	60	57	44	na	na	na	na
Clean equivalent	50	66	63	48	na	na	na	na

a Clean equivalent stocks at 30 June except Uruguay where stocks are at 30 September. **b** Exportable balance of clip. **c** Unsold wool. **d** Australian Wool Corporation up to 1991, Australian Wool Realisation Commission for 1992 and 1993, and Wool International thereafter. **e** Includes wool offered but remaining unsold, wool yet to be offered and stocks of processed wool. **f** Clean equivalent stocks at 31 December. **g** Wool sold but not shipped and held by brokers. **h** All held by manufacturers. **i** Includes other countries' stocks. **j** At 31 December. **na** Not available.

Sources: Commonwealth Secretariat, *Wool Quarterly,* London; International Wool Textile Organisation, *Wool Statistics,* London; International Wool Textile Organisation, *International Wool Textile Overview,* London; National Council of Wool Selling Brokers of Australia, *Statistics,* Melbourne.

235 Raw wool exports, by main producing countries a

	Australia	New Zealand	Argentina b	Uruguay c	South Africa	Total
	kt	kt	kt	kt	kt	kt
1980-81	na	na	na	na	na	na
1981-82	671	345	135	77	87	1 315
1982-83	653	378	108	81	78	1 298
1983-84	674	360	127	77	103	1 341
1984-85	750	374	115	59	100	1 398
1985-86	847	337	115	81	84	1 464
1986-87	935	364	138	101	81	1 619
1987-88	925	331	116	92	80	1 544
1988-89	872	329	85	85	83	1 454
1989-90	752	257	104	91	72	1 276
1990-91	715	254	94	100	86	1 249
1991-92	929	302	81	112	89	1 513
1992-93	867	240	81	109	66	1 363
1993-94	912	299	109	113	66	1 498
1994-95	814	291	95	68	63	1 332
1995-96	772	242	77	82	64	1 237
1996-97	860	250	83	104	20	1 316
1997-98	799	242	64	61	24	1 190
1998-99 p	683	211	na	47	na	939

a Greasy equivalent. Includes raw, semiprocessed and wool on skins. For New Zealand and South Africa, does not include wool exported on skins. **b** October–September years to 1993-94; July–June years from 1994-95. **c** October–September years. **p** Preliminary. **na** Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Commonwealth Secretariat, *Wool Quarterly,* London; Federation Lanera Argentina, *Informe Mensual Estadistico,* Buenos Aires; New Zealand Wool Board, *Statistical Handbook,* Wellington; International Wool Textile Organisation, *International Wool Textile Overview,* London; Secretario Uruguayo de la Lana based on Banco de la Republica Oriental del Uruguay data. Ministry of Agriculture, *Situation and Outlook for New Zealand Agriculture,* Wellington; South African Wool Board, *Statistical Review of the Wool season,* South Africa.

236 Market prices for Australian wool, by category a

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
	c/kg	c/kg	c/kg	c/kg	c/kg	c/kg	c/kg	c/kg
19 micron	801	621	853	1 295	814	885	984	896
20 micron	681	560	697	1 058	700	764	842	683
21 micron	630	534	603	895	672	694	739	556
22 micron	588	515	536	776	663	638	681	517
23 micron	544	490	469	679	608	547	600	495
24 micron	507	474	450	664	580	521	581	486
25 micron	478	457	438	648	559	507	567	470
26 micron	460	447	427	631	543	496	553	455
28 micron	438	440	423	601	525	482	521	438
30 micron	400	412	414	550	504	473	484	400
Merino cardings	415	393	372	480	403	435	426	na
Crossbred cardings	295	307	290	416	401	388	390	na
Eastern market indicator b	593	519	547	788	658	670	733	550

a Clean basis. Micron prices are averages of the Australian Wool Exchange northern and southern region indicators from 1998-99. **b** Australian Wool Exchange eastern market indicator from 1995-96 onward. Wool international eastern market indicator form 1973-74 to 1994-95. **na** Not available
Sources: Wool International, *Wool Market Weekly,* Annual Price Summary, Melbourne; Australian Wool Exchange, *Weekly Wool Market Review,* Melbourne.

237 Consumption of virgin wool by the wool textile industry, by country a

	1991	1992	1993	1994	1995	1996	1997
	kt	kt	kt	kt	kt	kt	kt
Australia	17	16	17	22	20	18	18
China	273	320	347	437	410	359	352
Chinese Taipei	30	21	25	21	22	26	25
European Union							
Belgium **b**	34	30	26	22	23	19	19
Denmark	3	4	2	4	4	4	4
France	24	24	18	23	17	11	11
Germany **c**	61	62	53	56	47	34	33
Greece	12	10	6	7	6	6	6
Ireland	8	13	12	15	17	15	15
Italy	155	164	156	175	170	157	154
Netherlands	5	4	4	1	3	2	2
Portugal	14	16	12	15	15	13	13
Spain	17	19	19	24	20	16	16
United Kingdom	71	80	77	74	72	70	69
Former Soviet Union **d**	271	209	190	51	8	76	74
India	49	50	53	53	55	55	54
Japan	117	113	85	90	71	66	65
New Zealand	17	19	20	22	21	22	22
Pakistan	23	18	18	19	19	17	17
South Korea	59	58	53	61	57	47	46
Turkey	63	64	71	53	68	70	69
United States	60	61	68	65	57	46	45
Total for above countries	1 383	1 375	1 332	1 310	1 202	1 149	1 125
Total **e**	1 692	1 671	1 671	1 603	1 580	1 464	1 434

a Clean basis at spinning stage. **b** Includes Luxembourg. **c** Unified Germany. **d** Commonwealth of Independent States only from 1992. **e** Total for 65 countries.

Sources: Commonwealth Secretariat, *Wool Statistics,* London; International Wool Textile Organisation, *Wool Statistics,* London.

1999

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AUSTRALIAN COMMODITY STATISTICS

MINERALS AND ENERGY COMMODITIES

238 Summary of Australian statistics for bauxite and alumina

	Production		Alumina exports a		
	Bauxite kt	Alumina kt	Volume kt	Value $m	Unit value b $/t
1960	71	30	na	na	na
1961	16	30	na	na	na
1962	30	34	na	na	na
1963	360	47	na	na	na
1964	797	161	na	na	na
1965	1 186	202	na	na	na
1966	1 827	307	na	7	na
1967	4 244	854	na	29	na
1968	4 955	1 310	na	60	na
1969	7 921	1 931	na	72	na
1970	9 256	2 152	na	97	na
1971	12 733	2 713	2 148	115	54
1972	14 437	3 068	2 646	135	51
1973	17 596	4 089	3 507	181	52
1974	19 994	4 900	4 705	251	53
1975	21 033	5 129	4 514	344	76
1976	24 084	6 206	5 826	527	90
1977	26 086	6 659	6 119	629	103
1978	24 293	6 776	6 250	671	107
1979	27 583	7 415	6 476	775	120
1980	27 179	7 246	6 994	1 021	146
1981	25 441	7 079	6 510	1 082	166
1982	23 625	6 631	5 953	1 103	185
1983	24 372	7 231	6 378	1 185	186
1984	31 537	8 781	6 905	1 579	229
1985	31 839	8 792	7 169	1 433	200
1986	32 384	9 423	7 688	1 427	186
1987	34 102	10 109	8 301	1 545	186
1988	36 370	10 518	8 519	1 836	216
1989	38 583	10 800	8 636	2 725	316
1990	41 391	11 231	8 708	2 940	338
1991	40 511	11 713	9 275	2 490	269
1992	39 746	11 783	9 604	2 253	235
1993	41 320	12 598	9 753	2 383	244
1994	42 159	12 819	10 570	2 193	207
1995	42 655	13 161	10 727	2 504	233
1996	43 063	13 348	10 754	2 612	243
1997	44 465	13 384	10 902	2 735	251
1998	44 553	13 853	10 804	3 055	283

a Alumina (hydrate and oxide) only. **b** Average export unit value. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; International Monetary Fund, *International Financial Statistics,* Washington DC; World Bureau of Metal Statistics, *World Metal Statistics,* London.

239 Summary of Australian statistics for aluminium

	Primary aluminium		Exports		
	Production kt	Consumption a kt	Volume b kt	Value $m	Unit value c $/t
1960	12	39	na	na	na
1961	13	30	na	na	na
1962	16	48	na	na	na
1963	42	49	5	2	400
1964	80	65	15	6	400
1965	88	67	22	9	409
1966	92	76	16	7	438
1967	93	82	11	5	455
1968	97	104	6	3	500
1969	126	107	21	10	476
1970	206	123	82	38	463
1971	224	138	85	35	412
1972	206	112	95	35	368
1973	207	151	57	24	421
1974	219	176	53	28	528
1975	214	138	77	46	597
1976	232	168	65	45	692
1977	248	170	78	70	897
1978	263	184	77	72	935
1979	270	198	76	86	1 132
1980	304	267	46	62	1 348
1981	379	254	79	97	1 228
1982	381	219	156	168	1 077
1983	478	245	235	333	1 417
1984	758	265	404	637	1 577
1985	851	288	564	862	1 528
1986	882	287	579	975	1 685
1987	1 004	319	711	1 423	2 001
1988	1 150	327	816	2 218	2 719
1989	1 244	324	922	2 347	2 546
1990	1 234	288	936	1 990	2 126
1991	1 235	298	954	1 771	1 857
1992	1 245	309	930	1 618	1 739
1993	1 388	338	1 056	1 822	1 725
1994	1 317	354	948	1 804	1 902
1995	1 297	343	957	2 431	2 541
1996	1 372	322	1 068	2 140	2 004
1997	1 495	352	1 156	2 527	2 186
1998	1 627	367	1 312	2 935	2 236

a Apparent primary consumption. **b** Aluminium ingot metal. **c** Average export unit value. **na** Not available.

Sources: Australian Aluminium Council, *Australian Aluminium Statistical Summary,* Canberra; ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; International Monetary Fund, *International Financial Statistics,* Washington DC; World Bureau of Metal Statistics, *World Metal Statistics,* London.

240 Australian supply, disposal and prices of alumina and aluminium

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Production									
Bauxite	kt	39 855	41 180	41 286	42 308	43 308	42 990	44 749	45 961
Alumina	kt	11 824	12 221	12 761	12 940	13 326	13 252	13 581	14 207
Aluminium	kt	1 234	1 306	1 384	1 285	1 331	1 395	1 589	1 686
Secondary metal **a**	kt	30	40	40	40	85	95	101	104
Exports									
Alumina **b**	kt	9 453	9 665	10 221	10 315	10 984	11 011	10 536	11 059
– value	$m	2 285	2 340	2 293	2 231	2 717	2 604	2 887	2 910
Aluminium **a**	kt	931	979	1 056	920	1 042	1 060	1 233	1 368
– value	$m	1 572	1 725	1 823	2 173	2 379	2 088	2 828	2 847
Imports									
Alumina	kt	6.3	1.2	1.3	1.2	1.2	1.3	1.0	0.7
– value	$m	6.9	1.6	1.7	1.7	1.9	1.4	1.2	1.3
Aluminium **a**	kt	4.6	5.2	2.8	5.7	12.5	6.7	5.1	5.3
– value	$m	10.3	12.2	7.7	15.3	37.0	17.6	18.9	14.2
Consumption c	kt	298.0	327.0	328.0	331.0	326.1	353.3	348.6	372.8
Export unit values									
Alumina	$/t	241.7	242.1	224.4	216.3	247.4	236.5	274.1	263.1
Aluminium	$/t	1 687.5	1 762.2	1 726.3	2 361.8	2 282.3	1 970.7	2 293.7	2 081.4

a Ingot metal. **b** Includes aluminium hydroxide. **c** Estimated apparent consumption (primary and secondary). **p** Preliminary.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Australian Aluminium Council, *Australian Statistical Summary,* Canberra; Bureau of Mineral Resources, Australian Mineral Industry, Quarterly Summary Statistics,Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

241 Australian exports of bauxite and aluminium, by destination [a]

	1990	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
Bauxite [b]									
Canada	273.0	297.7	245.8	na	na	na	na	na	na
France	25.8	20.5	7.9	na	na	na	na	na	na
Germany [c]	1 154.5	1 191.8	1 114.2	na	na	na	na	na	na
Italy	839.1	919.1	745.3	na	na	na	na	na	na
Japan	1 419.7	1 238.2	1 035.2	na	na	na	na	na	na
Spain	71.1	7.4	1.5	na	na	na	na	na	na
Sweden	18.1	35.1	26.9	na	na	na	na	na	na
United Kingdom	19.3	15.1	9.5	na	na	na	na	na	na
United States	1 624.7	861.6	78.4	na	na	na	na	na	na
Yugoslavia	135.5	na	na	na	na	na	na	na	na
Aluminium									
China	2.5	5.5	24.9	14.2	1.9	10.7	11.8	11.2	4.8
Chinese Taipei	108.6	145.9	139.9	152.4	125.9	116.9	152.5	167.3	192.5
Hong Kong	8.8	13.2	23.2	52.5	25.1	44.9	77.5	68.5	91.3
Indonesia	18.7	30.4	30.7	37.8	46.0	34.3	51.9	50.8	31.2
Japan	497.7	487.3	405.4	412.0	397.3	389.3	426.7	520.7	563.4
Malaysia	25.7	25.2	29.8	34.3	38.9	47.3	48.4	27.2	38.9
Philippines	7.4	8.7	11.3	8.1	13.5	11.6	11.9	13.7	12.6
Singapore	11.5	9.0	12.4	14.5	15.5	23.3	11.4	7.1	4.9
South Korea	168.3	153.8	160.2	223.5	175.0	157.1	154.2	193.9	182.3
Thailand	79.9	71.0	87.9	97.0	103.7	107.3	105.8	80.4	66.5
Other countries	7.3	3.5	4.3	9.4	5.5	14.0	15.9	15.3	123.8
Total	936.4	953.5	930.1	1 055.8	948.3	956.7	1 068.2	1 156.0	1 312.1

a Data are not available for alumina due to confidentiality. **b** Data no longer available due to confidentiality. **c** West Germany until 1991; unified Germany from 1992. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Metallgesellschaft AG, *Metallstatistik 1983–1993,* Frankfurt.

242 World production, consumption, stocks and prices for aluminium

	Production							
			Aluminium					
	Bauxite	Alumina a	Primary	Secondary	Total	Primary consumption	Stocks	Price b
	kt	kt	kt	kt	kt	kt	kt	US$/t
1960	27 620	na	na	755	na	na	na	511
1961	29 279	na	na	797	na	na	na	511
1962	31 220	na	3 618	948	4 566	3 237	na	498
1963	30 456	na	3 523	1 061	4 584	3 458	na	499
1964	33 185	na	3 865	1 178	5 043	3 893	na	526
1965	37 233	na	4 253	1 311	5 564	4 322	na	540
1966	41 070	11 510	4 800	1 657	6 457	4 809	na	540
1967	45 087	13 118	5 098	1 700	6 798	5 226	na	540
1968	46 571	13 983	5 592	1 946	7 538	6 137	na	553
1969	54 475	16 175	6 160	2 256	8 416	6 088	na	588
1970	59 490	20 003	6 583	2 181	8 764	7 035	na	614
1971	66 663	22 719	7 439	2 295	9 734	7 732	na	628
1972	69 215	24 539	8 056	2 451	10 507	7 935	1 687	590
1973	75 208	21 908	8 621	2 817	11 438	8 471	1 352	599
1974	84 176	22 878	9 205	2 887	12 092	9 450	2 012	765
1975	77 380	22 093	10 129	2 542	12 671	11 350	3 129	868
1976	80 662	22 663	12 863	2 781	15 644	14 077	2 321	890
1977	84 480	25 186	14 322	3 052	17 374	14 511	2 505	1 144
1978	83 927	25 146	14 776	3 240	18 016	15 329	2 052	1 325
1979	89 131	26 034	15 175	3 316	18 491	15 981	1 513	1 603
1980	93 061	28 106	16 035	3 318	19 353	15 298	2 078	1 775
1981	88 552	26 648	15 698	3 618	19 316	14 516	3 275	1 263
1982	77 896	22 230	13 990	3 583	17 573	14 161	3 185	992
1983	78 585	23 342	14 334	3 960	18 294	15 361	2 249	1 438
1984	92 299	27 055	15 941	3 950	19 891	15 574	2 775	1 252
1985	89 609	25 543	15 555	4 022	19 577	15 858	2 444	1 041
1986	92 842	26 114	15 619	4 196	19 815	16 071	1 964	1 150
1987	96 499	28 053	16 483	4 511	20 994	17 053	1 474	1 565
1988	102 588	29 155	18 575	4 943	23 518	18 867	1 619	2 547
1989	107 584	31 537	19 135	4 943	24 078	19 253	1 634	1 951
1990	114 835	40 500	19 362	5 062	24 424	19 252	1 847	1 639
1991	114 984	40 890	19 637	5 392	25 029	18 744	2 741	1 304
1992	109 468	40 783	19 459	5 476	24 935	18 530	3 244	1 255
1993	114 124	42 978	19 715	6 058	25 773	18 123	4 497	1 139
1994	112 230	41 953	19 112	6 429	25 541	19 680	3 733	1 478
1995	118 231	43 809	19 671	6 847	26 519	20 469	2 576	1 805
1996	122 763	46 329	20 840	6 872	27 712	20 704	2 642	1 506
1997	125 564	46 709	21 804	7 438	29 242	21 753	2 258	1 599
1998	124 665	48 543	22 711	7 150	29 861	21 750	2 324	1 357

a Western world production to 1989, total world production from 1990. **b** London Metal Exchange, 99.5 per cent purity, spot cash settlement until 1988; 99.7 per cent purity from 1989. Before 1979, UK producer price. **na** Not available.

Sources: International Monetary Fund, *International Financial Statistics,* Washington DC; Metallgesellschaft AG, *Metallstatistik,* Frankfurt; World Bureau of Metal Statistics, *World Metal Statistics,* London.

243 World primary aluminium production, by region and country

	1990	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
Africa									
Cameroon	88	86	83	87	81	79	82	91	82
Egypt	180	178	178	179	182	180	179	178	187
Ghana	174	175	180	175	141	135	137	152	56
Nigeria	0	0	0	0	0	0	0	3	26
South Africa	157	169	173	176	173	233	617	683	693
Total	598	608	613	617	576	628	1 016	1 106	1 043
Americas									
Argentina	166	169	156	173	175	186	184	187	187
Brazil	931	1 140	1 193	1 172	1 185	1 188	1 197	1 189	1 208
Canada	1 567	1 822	1 972	2 309	2 255	2 172	2 283	2 327	2 374
Mexico	68	67	0	0	0	10	62	66	62
Surinam	31	31	32	30	27	28	26	23	27
United States	4 048	4 121	4 042	3 695	3 299	3 375	3 577	3 603	3 713
Venezuela	590	601	607	568	585	627	635	641	584
Total	7 401	7 950	8 002	7 946	7 525	7 586	7 964	8 037	8 155
Asia									
India	433	504	496	466	472	537	531	547	542
Indonesia	192	173	189	202	222	228	223	219	133
Japan	34	32	19	18	17	18	17	17	16
Total	660	709	704	687	711	783	771	784	691
Europe									
Austria	90	80	33	0	0	0	0	0	0
France	326	286	418	426	384	365	380	399	424
Germany **a**	720	690	603	552	503	575	577	572	612
Greece	150	152	153	148	138	131	131	133	146
Iceland	88	89	90	94	99	100	103	123	173
Italy	232	218	161	156	176	178	184	188	187
Netherlands	270	264	235	232	219	216	227	232	264
Norway	867	858	838	888	857	847	862	919	996
Slovenia **b**	na	na	na	75	74	70	66	74	71
Spain	355	355	359	356	338	362	362	360	360
Sweden	96	97	77	82	84	95	98	98	96
Switzerland	72	66	53	36	24	21	27	27	32
United Kingdom	290	294	244	239	231	238	240	248	258
Yugoslavia **b**	366	314	152	36	11	26	51	81	77
Total	3 921	3 764	3 415	3 320	3 138	3 222	3 308	3 453	3 696
Middle East									
Bahrain	212	214	293	450	452	454	461	490	501
Iran	59	70	79	92	116	119	70	99	109
Turkey	61	56	59	59	60	62	62	62	62
United Arab Emirates	174	239	248	242	246	247	259	378	387
Total	507	579	678	843	874	882	852	1 029	1 059
Oceania									
Australia	1 234	1 235	1 245	1 388	1 317	1 297	1 372	1 495	1 627
New Zealand	260	259	243	277	269	273	285	310	318
Total	1 494	1 494	1 488	1 665	1 586	1 570	1 657	1 805	1 935
Western world total	14 592	15 096	14 891	15 065	14 404	14 667	15 565	16 209	16 587

Continued

243 World primary aluminium production, by region and country *(continued)*

	1990	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt	kt
China	854	962	1 096	1 242	1 462	1 676	1 771	2 035	2 285
Eastern Europe									
East Germany **c**	21	na	na	na	na	na	na	na	na
Hungary	75	63	27	28	30	35	34	34	34
Poland	46	46	44	47	50	56	52	54	53
Romania	180	168	110	112	120	144	145	164	174
Slovakia **d**	70	66	40	35	33	38	111	110	117
Total	392	343	220	222	232	273	341	361	377
Former Soviet Union	3 523	3 251	na	na	na	na	na	na	na
Azerbaijan	**e**	**e**	25	11	5	6	0	0	0
Russia	**e**	**e**	2 777	2 819	2 671	2 724	2 874	2 906	3 005
Tajikistan	**e**	**e**	345	252	237	230	198	189	196
Ukraine	**e**	**e**	105	104	102	95	91	101	107
Total	3 523	3 251	3 252	3 186	3 014	3 056	3 163	3 196	3 307
Eastern bloc total	4 769	4 556	4 568	4 650	4 708	5 004	5 275	5 592	5 969
Total	19 362	19 653	19 459	19 715	19 112	19 671	20 840	21 800	22 556

a West Germany until 1991; unified Germany from 1992. **b** Slovenia included in Yugoslavia total until 1992. **c** East Germany until 1991. **d** Slovakia includes Czechoslovakia until 1992. **e** Included in former Soviet Union total. **na** Not applicable.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

244 World primary aluminium consumption, by region and country

	1990 kt	1991 kt	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt
Africa									
Cameroon	20	22	22	19	17	21	19	25	25
Egypt	76	87	65	80	80	77	79	98	91
Ghana	10	10	10	15	16	16	16	16	16
South Africa	91	86	88	90	123	120	101	124	143
Other Africa	22	18	18	19	11	20	27	27	29
Total	219	222	202	223	246	254	242	290	304
Americas									
Argentina	68	104	108	95	106	84	86	95	105
Brazil	341	354	377	379	414	501	497	479	521
Canada	387	408	420	493	565	612	620	628	734
Mexico	92	94	83	97	79	40	93	83	87
United States	4 330	4 137	4 617	4 877	5 407	5 055	5 348	5 390	5 814
Venezuela	197	170	150	155	152	183	207	193	180
Other America	34	39	45	54	58	59	52	44	68
Total	5 449	5 307	5 801	6 149	6 781	6 533	6 903	6 913	7 508
Asia									
Chinese Taipei	198	263	265	299	355	363	310	374	301
Hong Kong	29	37	46	45	42	42	42	42	42
India	433	430	414	475	475	581	585	553	554
Indonesia	71	85	96	139	179	177	161	203	75
Japan	2 414	2 432	2 272	2 138	2 345	2 336	2 393	2 434	2 080
Malaysia	58	66	75	82	66	114	140	102	70
Philippines	15	18	26	23	30	31	26	34	24
Singapore	23	14	28	22	30	40	40	40	34
South Korea	369	384	397	525	604	675	674	666	506
Thailand	128	147	147	180	183	254	220	233	187
Other Asia	110	112	125	79	73	105	116	153	103
Total	3 848	3 985	3 891	4 007	4 382	4 718	4 708	4 836	3 975
Europe									
Austria	171	168	165	140	145	150	155	162	163
Belgium	318	323	292	275	329	336	331	345	396
Croatia **a**	na	na	na	14	25	24	21	22	24
Denmark	24	26	24	23	26	28	27	36	39
Finland	23	16	15	22	19	31	30	33	33
France	715	728	731	667	736	744	672	724	687
Germany **b**	1 295	1 361	1 457	1 151	1 373	1 491	1 355	1 558	1 518
Greece	111	123	130	105	143	163	156	204	213
Italy	652	670	660	554	660	665	585	654	675
Netherlands	107	120	123	140	145	150	145	155	155
Norway	138	157	175	202	212	157	169	200	154
Portugal	49	48	58	52	64	67	58	75	68
Slovenia **a**	na	na	na	48	54	53	50	61	84
Spain	288	297	309	310	352	350	360	410	435
Sweden	80	82	89	93	131	116	129	142	176
Switzerland	164	157	145	131	155	148	140	164	165
United Kingdom	454	412	550	540	570	620	600	619	668
Yugoslavia **a**	158	140	75	38	11	26	17	24	19
Total	4 746	4 828	4 999	4 505	5 150	5 319	5 001	5 588	5 673

Continued

244 World primary aluminium consumption, by region and country *(continued)*

	1990 kt	1991 kt	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt
Middle East									
Bahrain	104	106	125	115	133	135	137	137	137
Iran	120	119	116	110	105	105	120	120	120
Saudi Arabia	22	24	24	25	30	30	47	48	48
Turkey	152	114	129	160	115	144	136	144	181
Total	398	363	393	410	383	414	440	449	486
Oceania									
Australia	288	298	309	338	354	343	322	352	367
New Zealand	27	18	22	27	40	39	39	37	34
Total	315	316	331	366	394	382	361	389	401
Western world total	14 974	15 021	15 617	15 659	17 336	17 620	17 654	18 465	18 346
China **c**	861	938	1 254	1 340	1 500	1 942	2 135	2 260	2 376
Eastern Europe									
Czechoslovakia	151	83	62	na	na	na	na	na	na
Czech Republic **d**	na	na	na	39	40	59	53	63	79
East Germany **b**	83	na	na	na	na	na	na	na	na
Hungary	155	96	112	140	128	121	159	185	169
Poland	63	32	55	68	67	88	89	104	118
Romania	42	94	21	40	20	34	39	59	64
Slovakia **d**	na	na	na	24	25	25	25	25	22
Other Europe	9	7	6	9	7	5	5	11	12
Total	503	312	256	319	287	332	369	446	464
Former Soviet Union									
Russia	**e**	**e**	1 242	657	470	476	444	470	489
Ukraine	**e**	**e**	100	100	34	50	51	60	60
Other	**e**	**e**	10	10	10	10	10	10	10
Total	2 790	2 409	1 352	767	514	536	505	540	560
Rest of world	99	64	51	38	42	40	41	41	46
Eastern bloc total	4 252	3 723	2 913	2 464	2 343	2 850	3 051	3 288	3 445
Total	19 227	18 743	18 530	18 123	19 680	20 469	20 704	21 753	21 791

a Croatia and Slovenia included in Yugoslavia up to 1992. **b** West Germany and East Germany are seperate up to 1990, from 1991 combined as Germany. **c** Excludes Hong Kong. **d** Czech Republic and Slovakia included in Czechoslovakia up to 1992. **e** Included in former Soviet Union total up to 1992. **na** Not applicable.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

245 World aluminium trade, by country [a]

	1990 kt	1991 kt	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt
Exports									
Argentina	129.4	111.0	48.1	73.0	61.0	95.2	93.9	113.5	82.0
Australia	936.4	953.5	930.1	1 055.8	948.3	956.7	1 068.2	1 156.0	1 312.1
Austria	52.1	64.7	65.9	56.5	68.1	74.7	75.4	67.3	87.3
Bahrain	108.0	98.3	149.5	272.6	308.4	387.0	327.5	352.9	na
Belgium	32.9	53.7	74.6	87.9	107.3	120.8	62.3	75.2	111.1
Brazil	527.8	787.6	817.5	799.6	777.8	703.0	709.0	716.2	692.4
Cameroon	67.7	65.8	67.2	68.4	63.2	58.8	65.0	65.6	57.4
Canada	1 253.2	1 469.6	1 603.3	1 819.8	1 877.5	1 718.9	1 820.4	1 884.6	1 856.4
Chinese Taipei	47.7	52.7	70.5	96.5	104.3	82.3	126.0	137.8	148.9
Denmark	9.5	8.2	14.1	19.1	17.4	23.8	20.7	29.6	28.8
Egypt	107.6	89.7	125.7	30.0	80.7	81.9	108.2	89.4	86.1
Finland	23.3	20.4	24.5	33.1	27.8	29.5	29.9	33.6	37.1
Former Soviet Union	274.0	500.7	na	na	na	na	na	na	na
Russia	b	b	944.7	1 548.8	2 293.6	2 420.1	2 618.4	2 711.6	2 794.4
Tajikistan	b	b	48.6	270.8	204.5	202.0	193.7	182.9	178.5
France	135.8	127.5	219.4	237.6	212.0	204.6	230.7	166.6	139.8
Germany [c]	313.7	290.4	324.5	243.8	271.9	262.8	260.3	229.6	236.7
Ghana	127.5	129.7	154.2	112.1	153.9	111.3	120.9	119.0	na
Greece	61.2	61.6	69.8	72.8	54.2	50.2	44.5	47.0	58.5
Hong Kong	17.4	22.0	79.9	84.0	106.3	253.3	316.3	252.7	na
Hungary	122.0	na	na	na	na	48.6	20.4	19.2	21.7
Iceland	86.2	86.3	90.5	91.8	100.6	99.7	101.1	119.8	162.1
India	na	44.3	93.8	81.8	135.1	39.9	94.7	80.4	na
Indonesia	126.0	122.9	143.1	130.7	143.5	188.0	180.3	166.2	148.1
Ireland	2.0	1.6	1.1	1.9	3.9	5.9	0.0	0.3	0.3
Italy	28.3	17.5	26.4	34.4	24.8	36.6	39.4	37.3	35.7
Japan	4.8	4.6	5.2	8.6	11.7	12.8	12.0	10.3	7.1
Mexico	1.5	0.2	0.5	0.7	0.3	1.1	2.8	0.4	0.8
Netherlands	362.4	332.4	336.0	401.2	443.9	576.8	483.8	472.6	468.7
New Zealand	235.8	240.8	231.4	242.9	232.3	246.2	258.2	283.2	294.0
Norway	777.3	810.2	802.7	788.2	866.7	810.6	875.7	915.3	989.1
Singapore	21.9	43.2	57.4	77.7	90.1	120.0	139.4	92.0	58.4
South Africa	72.3	83.0	99.0	86.0	56.9	90.0	541.4	566.8	557.0
South Korea	6.3	1.8	15.9	20.3	59.4	90.8	43.0	97.3	70.4
Spain	106.4	119.0	127.6	194.3	146.1	114.5	137.3	130.7	107.7
Surinam	31.9	32.0	34.5	28.7	25.2	26.3	26.6	27.5	26.8
Sweden	64.1	57.8	54.1	53.0	55.2	56.9	70.7	70.1	47.6
Switzerland	30.6	32.9	14.0	5.7	7.6	7.5	8.5	8.9	8.4
United Arab Emirates	171.0	235.8	248.6	242.6	254.8	247.0	264.2	378.5	na
United Kingdom	156.6	130.3	135.2	128.9	220.1	313.9	205.3	372.9	225.8
United States	798.3	902.5	657.6	437.8	387.3	448.2	446.6	374.0	373.4
Venezuela	389.6	445.5	447.2	415.4	462.0	382.1	439.8	414.5	410.3
Yugoslavia	228.1	200.9	106.6	39.8	72.2	na	39.1	61.0	61.4
Total	7 748.2	8 349.7	9 564.4	10 483.5	11 536.4	11 799.0	12 720.8	13 129.4	12 499.1

Continued

245 World aluminium trade, by country a *(continued)*

	1990 kt	1991 kt	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt
Imports									
Argentina	0.0	0.0	0.0	0.8	0.7	1.3	1.2	na	na
Australia	1.6	2.4	5.0	4.7	3.6	6.9	13.1	4.2	5.9
Austria	149.9	150.2	200.6	178.8	299.0	159.6	195.5	243.1	253.2
Belgium	367.5	370.6	346.9	310.9	370.4	365.9	351.5	388.3	496.7
Brazil	2.6	2.2	1.3	6.5	7.3	15.6	8.6	5.7	5.8
Canada	31.2	27.9	85.7	108.6	146.1	133.9	139.5	153.9	201.9
China	71.8	43.7	229.6	165.7	168.9	390.3	367.1	288.9	307.0
Chinese Taipei	245.4	315.6	336.3	395.6	459.5	429.2	436.3	512.1	449.6
Denmark	29.8	29.2	27.9	21.2	29.5	35.4	33.6	41.0	45.6
Finland	27.9	19.4	20.8	25.5	38.8	22.9	33.0	33.5	37.8
France	541.1	551.5	518.4	372.2	444.8	469.3	438.9	419.2	403.3
Germany c	898.6	1 007.0	1 162.2	852.6	1 197.3	1 315.5	1 108.8	1 400.2	1 471.9
Greece	11.8	26.6	47.4	19.3	57.7	70.9	71.4	119.5	125.8
Hong Kong	46.2	58.7	125.8	129.1	147.9	362.1	465.6	479.5	401.3
Hungary	204.0	na	na	na	129.7	134.3	142.7	170.2	157.0
India	12.7	15.9	4.7	30.7	70.6	96.3	116.3	86.4	na
Ireland	7.7	7.7	7.6	10.3	10.1	5.4	4.0	11.1	13.5
Italy	538.6	512.2	529.2	435.8	577.6	574.5	484.9	575.1	608.0
Japan	2 652.2	2 830.4	2 532.3	2 604.4	2 639.1	2 802.7	2 762.0	3 027.5	2 551.8
Mexico	23.6	44.2	76.6	99.0	59.3	31.4	34.2	16.6	30.9
Netherlands	190.2	183.1	195.1	376.6	458.5	622.3	464.3	528.4	522.9
New Zealand	8.5	2.7	2.8	4.6	7.8	11.7	12.3	10.0	10.8
Norway	80.9	81.0	105.5	102.7	198.7	152.3	149.5	196.3	147.9
Portugal	49.5	50.0	59.9	54.9	67.8	73.0	67.7	79.8	109.2
Singapore	46.2	55.1	86.1	110.0	120.5	198.7	99.3	102.6	82.1
South Africa	0.3	na	0.6	0.1	2.1	0.7	1.7	3.8	7.3
South Korea	361.9	391.8	425.5	579.3	689.3	783.4	728.7	771.3	584.1
Spain	31.2	62.0	70.7	95.6	116.5	125.8	127.6	188.3	177.0
Sweden	46.7	49.0	50.5	64.1	157.4	89.4	105.5	125.3	138.5
Switzerland	104.7	93.4	95.1	91.0	137.5	130.8	117.4	143.6	141.2
Thailand	128.1	146.7	148.5	181.6	184.6	254.2	220.8	238.1	195.0
Turkey	101.1	63.0	78.4	42.4	67.5	84.6	99.3	138.9	143.2
United Kingdom	241.0	196.9	367.9	589.1	477.0	388.1	651.4	436.9	495.9
United States	976.2	1 038.8	1 172.2	1 860.7	2 495.9	1 979.8	1 951.0	2 097.2	2 484.6
Yugoslavia	16.4	21.0	2.4	4.2	6.1	0.0	1.3	4.1	3.9
Total	8 247.1	8 449.9	9 119.5	9 928.6	12 045.0	12 318.2	12 006.0	13 041.9	12 840.1

a Covers principal imports and exports of aluminium and aluminium alloys. **b** Included in former Soviet Union total. **c** West Germany until 1991; unified Germany from 1992. **na** Not available or not applicable.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

246 Australian production of clays

	Bentonite a	Kaolin b	Fireclay c	Brick clay and shale	Cement clay and shale c	Other clays c
	kt	kt	kt	kt	kt	kt
1960	1	49	139	4 619	204	957
1961	1	52	179	4 414	179	818
1962	1	37	176	4 453	304	367
1963	2	45	183	4 622	215	868
1964	1	46	176	5 248	254	967
1965	1	61	175	5 137	231	863
1966	1	51	191	5 200	219	655
1967	0	66	173	5 787	145	483
1968	0	60	194	6 525	237	784
1969	0	65	226	7 932	266	905
1970	0	90	187	6 927	278	644
1971	0	76	148	7 648	284	717
1972	0	66	105	8 065	276	595
1973	1	80	114	8 072	308	576
1974	1	98	137	8 727	375	612
1975	3	81	136	7 816	490	526
1976	12	69	115	9 431	394	425
1977	6	89	86	7 885	373	446
1978	5	89	90	8 563	408	509
1979	7	145	72	8 050	261	2 798
1980	11	219	88	8 871	263	1 876
1981	17	171	143	7 910	386	2 374
1982	29	152	71	8 210	413	1 641
1983	30	116	57	6 203	356	2 502
1984	39	219 c	33	5 242 c	385	1 847
1985	29	166 c	40	6 196 c	419	1 750
1986	40	186 c	31	6 918	460	1 746
1987	30	177 c	24	6 105 c	450	717
1988	36	159 c	24	5 773 c	500	1 738
1988-89	46	260	192	6 728 c	520	2 049
1989-90	48	363	287	6 280	521	367
1990-91	58	376	17	5 480 c	259	na
1991-92	60	na	na	na	na	na
1992-93	66	241	31 d	5 140	427	na

a Includes bentonitic clay. **b** Includes ball and china clay. **c** Excludes Western Australia. **d** Includes Western Australia. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Reources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

247 Australian exports of clays, by destination [a]

	Japan	New Zealand	United Kingdom	Other	Total Volume	Total Value
	t	t	t	t	t	$'000
1960	na	976	na	na	1 024	42
1961	na	759	na	na	840	36
1962	na	775	na	na	874	26
1963	na	634	na	na	801	36
1964	na	2 193	na	na	2 756	77
1965	na	552	na	na	2 560	56
1966	na	714	na	na	3 514	120
1967	na	650	na	na	4 890	223
1968	na	657	na	na	4 544	224
1969	na	614	na	na	6 145	182
1970	2 894	973	2 433	1 004	7 304	324
1971	2 271	681	2 827	598	6 377	299
1972	1 554	703	1 998	489	4 744	211
1973	2 038	1 011	3 249	332	6 630	286
1974	1 198	895	3 953	201	6 247	278
1975	1 732	175	4 816	126	6 849	294
1976	1 500	101	3 025	326	4 952	228
1977	2 115	462	5 400	1 950	9 927	679
1978	1 609	600	5 001	6 198	13 408	1 054
1979	1 939	1 175	2 597	381	6 092	525
1980	735	125	1 206	327	2 393	281
1981	1 539	313	596	577	3 025	364
1982	1 364	463	1 376	2 133	5 336	983
1983	927	365	1 601	5 025	7 918	1 041
1984	2 878	829	2 234	11 074	17 015	1 683
1985	1 549	719	1 877	4 259	8 404	1 021
1986	9 670	1 241	2 106	4 428	17 445	1 980
1987	14 990	3 908	1 059	11 401	31 358	4 743
1988	40 983	9 003	1 965	16 133	68 084	10 480
1988-89	71 466	10 044	1 808	27 281	110 599	16 315
1989-90	94 507	6 779	2 303	39 601	143 190	19 953
1990-91	119 979	7 528	1 175	32 203	160 885	24 557
1991-92	97 614	5 260	135	46 424	149 433	23 408
1992-93	115 735	5 009	100	43 774	164 618	28 090
1993-94	122 866	5 495	0	43 209	171 570	30 926
1994-95	85 853	4 987	844	60 509	152 193	24 656
1995-96	103 848	5 226	1 224	68 504	178 802	33 523
1996-97	52 775	5 671	43	47 208	105 697	20 801
1997-98	2 797	6 036	1 321	34 068	44 222	10 609
1998-99	4 886	6 237	2 320	30 059	43 502	10 570

a Excludes activated clays. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; ABARE.

248 Australian imports of clays

	Bentonite a		Kaolin b		Refractory clays c		Other clays d	
	t	$'000	t	$'000	t	$'000	t	$'000
1960	7 387	255	9 902	214	1 065	70	6 537	213
1961	7 006	239	15 789	278	298	23	5 684	232
1962	9 353	357	15 131	280	1 491	47	6 321	303
1963	10 938	492	24 589	448	1 649	65	5 960	250
1964	14 286	569	25 089	496	4 380	171	9 578	354
1965	16 312	644	26 128	517	3 524	182	14 793	271
1966	15 346	494	31 991	686	3 705	148	9 939	406
1967	21 263	615	37 908	878	2 391	101	14 270	519
1968	44 513	984	44 603	1 030	5 071	173	12 578	548
1969	54 597	1 134	43 606	1 075	4 825	112	13 177	590
1970	66 484	1 474	56 571	1 458	7 720	285	20 245	686
1971	88 803	1 887	42 579	1 268	10 565	267	12 178	726
1972	49 861	1 540	33 314	991	5 949	174	12 442	504
1973	57 965	1 390	38 344	1 130	2 154	70	16 920	665
1974	85 363	1 649	37 535	1 028	4 880	106	25 616	1 207
1975	54 736	1 142	5 572	387	16 139	561	26 654	1 286
1976	22 204	708	8 620	426	5 054	231	25 711	1 679
1977	13 191	558	7 488	521	6 665	367	29 342	2 051
1978	30 355	1 375	11 773	750	3 652	350	57 957	3 872
1979	57 241	2 028	6 751	537	2 610	198	45 635	3 842
1980	55 917	2 424	3 624	404	15 119	1 125	25 097	2 505
1981	43 034	1 828	11 737	1 113	16 564	1 431	36 658	2 720
1982	32 571	2 067	15 668	1 780	10 874	1 141	8 649	1 836
1983	17 767	1 611	9 829	1 663	3 327	461	9 261	1 373
1984	24 419	2 617	7 652	1 580	13 408	1 485	16 216	2 606
1985	30 531	3 474	2 586	870	904	209	29 166	5 412
1986	24 942	2 643	4 785	2 892	2 719	431	21 776	4 400
1987	8 654	1 822	12 641	6 002	17 367	2 079	14 021	3 773
1988	22 269	3 530	12 487	3 113	17 324	2 253	5 217	1 946
1988-89	21 344	2 553	17 174	3 927	30 795	3 793	9 441	4 410
1989-90	28 476	4 427	11 896	3 204	10 953	1 653	24 462	5 070
1990-91	28 348	3 858	11 331	3 172	4 979	813	18 574	4 146
1991-92	12 529	2 596	7 119	3 413	13 752	1 834	8 330	2 950
1992-93	21 004	4 078	11 965	6 104	1 442	371	10 569	3 806
1993-94	16 227	3 537	12 476	4 774	2 016	464	6 875	3 155
1994-95	29 151	3 290	17 686	7 450	6 038	1 717	26 312	5 524
1995-96	4 202	2 864	17 167	5 284	5 192	927	44 704	8 194
1996-97	9 633	2 481	19 535	6 919	1 910	473	23 648	5 340
1997-98	12 124	3 872	16 298	7 500	5 220	1 021	26 641	7 427
1998-99	7 035	3 179	13 525	8 510	1 539	443	19 873	6 553

a Includes bentonitic clay. **b** Includes ball and china clay. **c** Includes fireclay and chamotte. **d** Includes andalusite, mullite, kyanite, sillimanite and other clays.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABARE.

249 Summary of Australian statistics for black coal

	Production			Exports		
	Raw	Net a	Domestic consumption	Volume	Unit value	Closing stocks b
	Mt	Mt	Mt	Mt	$/t	Mt
1960-61	23.67	22.15	20.05	1.93	8.01	na
1961-62	25.37	23.48	20.14	3.51	7.77	na
1962-63	25.25	23.40	20.26	2.71	8.21	na
1963-64	27.86	25.49	21.32	3.86	8.39	na
1964-65	30.11	27.54	22.02	5.94	8.31	na
1965-66	34.23	31.22	22.85	8.87	8.12	na
1966-67	35.95	32.29	23.15	8.04	8.03	na
1967-68	39.06	34.71	24.04	10.48	8.21	na
1968-69	44.86	39.81	24.71	14.41	8.33	na
1969-70	50.41	44.30	25.57	17.97	9.32	na
1970-71	52.97	45.00	24.96	18.96	10.50	7.59
1971-72	58.86	49.02	25.49	21.85	10.89	9.27
1972-73	66.19	54.63	27.39	25.83	11.28	10.68
1973-74	66.58	54.74	27.68	28.39	12.50	9.35
1974-75	72.21	63.78	30.19	32.42	22.10	10.52
1975-76	77.13	62.33	29.45	30.43	34.96	12.97
1976-77	85.96	69.55	32.19	35.37	37.23	14.95
1977-78	87.79	71.01	32.56	37.91	39.14	15.50
1978-79	91.90	73.37	33.43	38.28	38.99	17.17
1979-80	90.20	73.59	35.62	43.16	39.35	11.97
1980-81	106.20	87.39	37.71	47.25	41.64	14.22
1981-82	110.20	91.08	36.79	46.12	49.64	21.34
1982-83	120.34	99.59	37.29	54.65	56.21	28.02
1983-84	129.44	105.55	38.64	64.33	51.77	27.98
1984-85	145.14	118.26	40.67	86.10	54.09	21.95
1985-86	163.62	134.31	42.56	90.30	57.49	23.93
1986-87	182.43	148.73	44.07	97.70	55.46	32.71
1987-88	167.69	136.35	46.01	102.10	46.61	20.59
1988-89	184.05	149.35	49.87	97.66	47.90	20.91
1989-90	196.85	160.41	50.68	104.58	55.69	27.37
1990-91	204.68	166.56	50.92	113.37	55.98	29.10
1991-92	218.25	176.67	52.81	123.30	55.34	29.61
1992-93	222.50	177.99	52.94	129.18	58.28	26.23
1993-94	221.50	177.98	54.18	129.06	55.49	21.81
1994-95	237.23	192.35	55.36	136.24	50.45	23.30
1995-96	243.02	194.53	57.41	138.55	55.99	21.29
1996-97	261.34	207.50	57.88	145.75	54.42	24.91
1997-98	278.64	222.37	61.26	162.61	58.62	25.77
1998-99 p	286.26	225.01	61.22	169.41	54.63	17.79

a Before 1980-81, net production referred to raw coal production less rejects removed at coal industry washeries plus/less unexplained stock adjustments at mines and ports. From 1980-81, net production refers to raw coal production less rejects removed at coal industry washeries plus/less unexplained stock adjustments at mines only. Thus, from 1980-81, net production is identical to salable production. **b** Calendar year basis before 1984-85.
p Preliminary. **na** Not available.
Sources: Joint Coal Board, *Black Coal in Australia 1987-88,* Sydney; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics,* Sydney.

250 Australian raw coal production, by state

	New South Wales	Victoria a	Queensland	Western Australia	South Australia	Tasmania
	Mt	Mt	Mt	Mt	Mt	Mt
1960-61	18.45	15.98	3.07	0.75	1.02	0.29
1961-62	19.39	17.00	3.47	0.95	1.25	0.26
1962-63	19.03	18.05	3.48	0.95	1.50	0.24
1963-64	20.56	18.98	4.50	0.93	1.63	0.18
1964-65	22.16	19.87	4.86	0.97	1.94	0.13
1965-66	25.41	21.90	5.56	1.08	2.04	0.10
1966-67	26.63	22.87	6.06	1.10	2.05	0.08
1967-68	28.57	23.43	7.19	1.08	2.02	0.09
1968-69	32.24	23.50	9.20	1.12	2.18	0.11
1969-70	35.32	24.31	11.65	1.17	2.15	0.12
1970-71	35.72	23.18	14.32	1.18	1.62	0.12
1971-72	36.96	23.63	19.01	1.21	1.56	0.12
1972-73	38.66	24.12	25.27	1.15	1.58	0.13
1973-74	36.63	26.44	27.15	1.20	1.49	0.12
1974-75	42.31	27.54	32.10	1.88	1.79	0.14
1975-76	40.59	29.21	32.40	2.14	1.82	0.18
1976-77	46.79	30.99	34.66	2.38	1.95	0.20
1977-78	49.25	30.47	34.14	2.42	1.78	0.19
1978-79	50.52	32.10	37.26	2.41	1.47	0.25
1979-80	48.71	32.90	36.53	3.03	1.72	0.21
1980-81	58.29	32.10	42.76	3.12	1.73	0.30
1981-82	59.82	37.57	45.14	3.42	1.44	0.39
1982-83	67.46	34.71	46.91	3.96	1.45	0.56
1983-84	66.53	33.26	57.20	3.93	1.33	0.45
1984-85	70.03	38.38	69.21	3.65	1.75	0.49
1985-86	77.19	36.08	80.01	3.75	2.17	0.50
1986-87	88.51	41.80	87.09	3.78	2.43	0.62
1987-88	76.27	43.40	84.61	3.69	2.52	0.60
1988-89	81.27	48.29	95.48	3.89	2.76	0.65
1989-90	93.89	45.99	95.30	4.13	2.94	0.60
1990-91	96.70	49.39	99.67	5.21	2.53	0.59
1991-92	101.17	50.72	108.32	5.48	2.74	0.54
1992-93	102.91	47.65	110.93	5.40	2.79	0.48
1993-94	101.95	49.98	111.12	5.15	2.69	0.57
1994-95	107.78	50.75	119.97	5.82	3.04	0.61
1995-96	113.09	53.71	120.93	5.97	2.45	0.58
1996-97	123.68	58.16	128.92	5.59	2.59	0.56
1997-98	134.01	65.60	135.56	5.80	2.70	0.58
1998-99 p	129.61	65.82	147.53	5.74	2.80	0.59

a Brown coal. Between 1960-61 and 1968-69, Victoria produced small quantities of black coal which are not included in this table. **p** Preliminary.
Sources: Joint Coal Board, *Black Coal in Australia 1987-88,* Sydney; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics,* Sydney; ABARE.

251 Australian consumption of coal, by major end use

	Black coal					Brown coal
	Electricity generation Mt	Iron and steel a Mt	Cement Industry Mt	Other consumers Mt	Total Mt	Electricity generation Mt
1979-80	23.67	8.26	0.91	2.78	35.62	29.23
1980-81	24.96	9.05	0.90	2.79	37.71	28.88
1981-82	24.48	8.42	1.11	2.78	36.79	34.61
1982-83	26.91	6.46	1.02	2.89	37.29	32.45
1983-84	28.06	6.22	0.92	3.44	38.64	30.99
1984-85	29.74	6.25	1.02	3.67	40.67	35.98
1985-86	31.48	6.20	0.93	3.95	42.56	33.64
1986-87	32.76	6.44	0.70	4.18	44.07	39.46
1987-88	33.91	7.22	0.69	4.20	46.01	41.09
1988-89	36.82	7.92	0.79	4.34	49.87	46.34
1989-90	38.17	7.43	0.85	4.23	50.68	44.14
1990-91	38.41	7.40	0.86	4.25	50.92	47.54
1991-92	39.88	7.35	0.85	4.72	52.81	48.66
1992-93	40.68	7.11	0.87	4.28	52.94	46.33
1993-94	41.83	7.09	0.90	4.37	54.18	48.46
1994-95	42.82	7.55	0.74	4.26	55.36	49.27
1995-96	45.60	6.39	0.82	4.60	57.41	52.36
1996-97	46.15	6.24	0.80	4.68	57.88	56.57
1997-98	48.16	7.55	0.86	4.69	61.26	64.03

a As received basis.

Sources: Joint Coal Board, *Black Coal in Australia 1987-88,* Sydney; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics,* Sydney; ABARE.

252 Australian exports of coal, by coal type

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Coking coal, high quality									
Volume	Mt	47.73	50.57	48.26	48.39	49.83	49.34	57.01	56.00
Value	$m	3 035	3 437	3 139	2 875	3 226	3 214	4 162	3 864
Unit value	$/t	63.58	67.96	65.03	59.42	64.74	65.13	73.00	68.99
Coking coal, excluding high quality									
Volume	Mt	17.34	18.96	21.63	24.95	27.59	29.35	27.07	29.25
Value	$m	970	1 109	1 192	1 223	1 519	1 600	1 580	1 604
Unit value	$/t	55.94	58.50	55.14	49.02	55.08	54.53	58.38	54.83
Total coking coal									
Volume	Mt	65.08	69.53	69.89	73.34	77.41	78.69	84.07	85.25
Value	$m	4 005	4 546	4 331	4 098	4 745	4 814	5 742	5 468
Unit value	$/t	61.55	65.38	61.97	55.88	61.30	61.18	68.30	64.13
Steaming coal									
Volume	Mt	58.23	59.65	59.17	62.90	61.14	67.06	78.54	84.15
Value	$m	2 823	2 983	2 831	2 775	3 014	3 118	3 790	3 766
Unit value	$/t	48.48	50.00	47.84	44.12	49.29	46.49	48.25	44.76

p Preliminary.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data supplied by the ABS.

253 Australian exports of steaming coal, by destination

	1991-92 Mt	1992-93 Mt	1993-94 Mt	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 p Mt
Asia								
ASEAN a	1.23	1.56	1.15	1.05	1.51	1.76	2.27	2.81
China b	0.00	0.07	0.04	1.08	1.43	1.48	1.53	1.65
Chinese Taipei	3.83	5.50	5.66	5.40	6.79	7.64	10.04	8.57
Japan	31.37	32.76	32.76	34.61	35.02	35.29	40.29	39.28
Hong Kong	4.04	3.83	3.42	2.69	1.58	1.90	1.87	2.06
South Korea	5.17	6.73	8.73	8.79	9.58	11.12	15.56	13.77
Total c	45.64	50.62	51.79	53.63	56.36	59.70	71.90	69.21
Europe								
European Union	11.40	7.63	6.06	6.84	2.81	4.55	3.89	10.63
Denmark	2.02	1.11	0.86	1.05	0.91	1.43	0.45	0.48
Germany	0.50	0.20	0.17	0.22	0.21	0.27	0.00	1.23
Netherlands	4.26	3.85	3.70	3.34	0.74	0.90	1.76	2.82
United Kingdom	1.03	0.59	0.14	0.00	0.00	0.42	0.44	1.86
Total c	11.75	7.67	6.06	7.06	2.81	4.55	4.02	10.72
Total all countries c	58.23	59.65	59.17	62.90	61.14	67.06	78.54	84.15

a Includes Brunei, Indonesia, Malaysia, the Philippines, Thailand and Vietnam. **b** Excludes Hong Kong. **c** Total may include exports to countries not listed separately. **p** Preliminary.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data provided by the ABS.

254 Australian exports of high quality coking coal, by destination

	1991-92 Mt	1992-93 Mt	1993-94 Mt	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 p Mt
Asia								
China a	0.31	0.55	0.52	0.22	0.14	0.32	0.28	1.26
Chinese Taipei	2.26	2.64	2.56	2.55	3.10	3.78	4.16	2.79
India	3.23	5.45	7.64	8.79	9.87	9.46	9.27	8.03
Japan	16.88	17.91	14.25	13.25	13.22	12.88	15.16	14.94
Pakistan	0.53	0.66	0.71	0.57	0.39	0.48	0.53	0.48
South Korea	3.97	5.73	4.58	5.00	5.29	5.47	5.64	5.23
Total b	27.27	33.04	30.27	30.39	32.06	32.38	35.04	32.74
Europe								
European Union	9.83	10.53	11.51	11.43	11.94	10.98	13.14	14.67
France	2.13	2.46	2.58	2.63	2.39	1.87	2.15	2.63
Germany c	0.18	0.32	0.21	0.18	0.46	0.67	1.01	1.38
Italy	1.34	1.39	2.18	1.93	2.13	1.77	2.19	2.26
United Kingdom	3.52	3.18	3.63	3.47	3.49	3.34	4.13	3.93
Total b	11.28	11.75	12.49	12.64	12.74	11.93	14.66	16.23
Total all countries b	47.73	50.57	48.26	48.39	49.83	49.34	57.01	56.00

a Excludes Hong Kong. **b** Total may include exports to countries not listed separately. **c** Unified Germany. **p** Preliminary.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data provided by the ABS.

255 Australian exports of coking coal other than high quality, by destination

	1991-92 Mt	1992-93 Mt	1993-94 Mt	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 p Mt
Asia								
Chinese Taipei	0.57	0.19	0.09	0.41	na c	na c	na c	na c
India	0.04	0.00	0.02	0.09	0.04	0.08	0.27	0.67
Japan	11.95	13.18	14.37	17.20	12.09	19.68	18.15	19.09
Pakistan	0.33	0.34	0.38	0.30	0.18	0.04	na c	na c
South Korea	2.86	3.04	3.19	3.55	2.69	1.13	na c	na c
Total a	15.74	16.76	18.05	21.60	15.05	20.99	18.48	19.76
Europe								
European Union b	0.73	0.48	0.94	1.12	0.30	1.37	1.07	0.86
Total a	0.73	0.48	1.02	1.12	0.30	1.45	1.07	0.86
Total all countries a	17.34	18.96	21.63	24.95	27.59	29.35	27.07	29.25

a Total may include exports to countries not listed separately. **b** Regarded as twelve countries for all years. **c** Confidential. **p** Preliminary.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data provided by the ABS.

256 World exports of coal, by coal type and major exporters

	1991 Mt	1992 Mt	1993 Mt	1994 Mt	1995 Mt	1996 Mt	1997 Mt	1998 Mt
Coking coal								
Australia	65.7	66.4	74.1	71.8	75.0	77.8	83.4	82.7
Canada	28.8	22.4	24.0	27.0	28.6	28.1	30.0	28.3
China a	4.2	3.7	4.7	4.3	4.6	4.6	4.6	4.9
Former Soviet Union	8.1	6.4	na	na	na	na	na	na
Russia	b	b	6.7	5.7	8.7	6.5	6.1	6.7
Poland	4.8	9.2	9.8	10.7	12.3	9.9	9.1	6.5
South Africa	3.7	5.1	4.5	5.8	6.3	6.1	7.2	6.9
United States	58.6	53.9	45.0	42.9	47.3	48.0	47.2	42.7
Total seaborne c	164.0	153.0	168.0	163.0	176.9	177.4	182.7	175.6
World c	178.8	166.7	179.7	179.5	194.5	193.4	198.0	189.4
Steaming coal								
Australia	54.5	58.3	57.6	61.1	61.1	62.6	73.9	83.6
Canada	5.3	5.0	4.3	4.6	5.4	6.3	6.4	5.8
China a	14.6	15.9	15.5	20.0	22.4	24.4	26.1	27.4
Colombia	15.0	15.4	16.9	17.6	17.5	24.3	25.3	29.1
Former Soviet Union	17.5	15.6	na	na	na	na	na	na
Russia	b	b	19.2	17.4	17.6	18.8	16.7	16.7
Poland	14.2	10.4	10.1	17.0	19.6	19.0	20.3	21.5
South Africa	43.6	47.0	47.5	49.1	53.4	54.1	57.0	60.2
United States	40.2	39.0	22.6	21.8	36.2	34.0	28.8	27.8
Total seaborne c	212.6	223.3	204.0	219.4	252.1	276.2	284.4	300.4
World c	225.8	237.6	214.0	236.6	272.6	295.3	309.1	334.1

a Excludes Hong Kong. **b** Included in former Soviet Union total. **c** Includes countries not listed separately. **na** Not applicable.
Sources: International Energy Agency, *Coal Information,* OECD, Paris; Joint Coal Board and Queensland Department of Mines and Energy, *Australian Black Coal Statistics,* Sydney; ABARE.

257 Japanese imports of coal, by source

	Total imports	Australia	Canada	Former Soviet Union a	South Africa	United States	Other
	Mt	%	%	%	%	%	%
Steaming coal							
1990	31.23	69.3	4.4	8.7	4.6	2.5	10.5
1991	33.94	69.9	3.9	6.7	4.5	3.5	11.5
1992	36.01	68.3	3.8	4.2	6.6	5.2	11.9
1993	37.50	69.1	4.3	3.1	6.5	5.9	11.1
1994	42.14	65.6	3.3	3.3	6.2	5.7	15.9
1995	49.39	62.4	3.5	4.1	6.0	6.2	17.9
1996	52.34	60.6	4.9	4.0	5.8	6.2	18.5
1997	54.20	64.2	4.0	3.5	5.5	4.3	18.6
1998	55.08	66.0	3.5	2.4	4.0	4.8	19.4
Coking coal							
1990	74.24	45.6	24.1	7.7	4.6	14.5	3.5
1991	75.63	46.4	23.1	4.9	4.6	14.3	6.7
1992	72.92	48.7	19.8	4.0	4.7	12.9	9.9
1993	74.05	50.2	20.1	3.7	4.0	11.8	10.2
1994	72.55	49.0	21.1	4.1	4.1	10.0	11.6
1995	74.00	46.2	21.6	4.2	4.3	11.1	12.6
1996	73.84	45.5	21.9	4.0	3.4	8.7	16.5
1997	75.91	48.3	21.8	3.6	2.7	7.0	16.6
1998	73.42	47.8	20.9	3.4	2.6	6.4	19.0

a Former Soviet Union to 1991, then Russia only.
Source: International Energy Agency, *Energy Prices and Taxes,* OECD, Paris.

258 European Union imports of coal, by source a

	Total imports	Australia	Former Soviet Union b	Poland	South Africa	United States	Other
	Mt	%	%	%	%	%	%
Steaming coal							
1990	70.68	12.8	1.6	8.4	26.1	27.7	23.4
1991	84.61	12.2	1.7	7.5	23.7	31.3	23.5
1992	88.88	12.6	3.0	7.5	27.7	25.6	23.5
1993	72.49	9.3	6.3	10.6	32.1	14.7	27.0
1994	81.99	9.4	3.3	12.2	30.7	12.3	32.1
1995	87.60	6.2	4.2	14.1	31.5	21.7	22.3
1996	94.96	3.3	2.7	13.7	29.7	18.6	32.1
1997	99.12	5.8	2.7	15.2	26.9	13.0	36.4
1998 s	96.00	6.5	1.7	14.8	29.1	8.0	39.9
Coking coal							
1990	38.96	21.5	0.0	4.4	0.5	65.3	8.3
1991	39.66	24.9	0.0	3.5	1.4	63.0	7.2
1992	40.28	25.7	0.1	4.1	1.7	61.0	7.6
1993	37.79	29.1	0.5	6.8	1.3	53.7	8.6
1994	38.54	32.1	0.4	5.9	1.6	48.8	11.3
1995	41.16	32.3	1.0	5.7	1.9	44.9	14.2
1996	39.76	29.3	0.3	5.8	2.9	45.7	16.0
1997	40.21	30.2	0.0	6.3	4.7	42.9	15.9
1998 s	42.78	29.6	0.2	6.8	6.9	42.4	14.1

a Imports from non-EU countries only. Regarded as twelve countries to 1 January 1995, then fifteen countries. **b** Former Soviet Union until 1991, then Russia only. **s** ABARE estimate.
Source: International Energy Agency, *Energy Prices and Taxes,* OECD, Paris.

259 Japanese and European Union coal import unit values, by country of origin [a]

	1990 US$/t	1991 US$/t	1992 US$/t	1993 US$/t	1994 US$/t	1995 US$/t	1996 US$/t	1997 US$/t	1998 US$/t
Japan									
Steaming coal imports from:									
Australia	52.23	51.68	49.29	46.31	44.92	48.87	50.24	45.59	40.80
Canada	48.26	46.76	46.30	45.76	42.88	44.20	45.91	42.01	38.25
South Africa	47.95	48.36	46.93	44.34	42.47	48.27	49.86	46.58	41.50
United States	53.17	52.36	51.22	51.05	49.92	52.65	54.32	49.86	47.52
All sources [b]	50.97	50.43	48.47	45.92	43.88	47.85	49.29	45.26	40.68
Coking coal imports from:									
Australia	55.27	56.64	53.55	51.49	47.89	51.15	54.07	52.73	49.47
Canada	71.27	71.85	70.98	67.12	64.66	64.49	64.44	64.84	59.73
South Africa	50.11	51.94	52.36	46.78	46.93	49.54	50.94	49.64	47.06
United States	66.90	66.16	63.68	60.76	59.35	61.37	61.05	61.24	59.53
All sources [b]	60.72	60.61	57.86	55.39	51.91	55.03	56.39	55.19	50.98
European Union									
Steaming coal imports from:									
Australia	51.85	48.89	50.11	38.89	40.71	45.07	48.34	46.39	39.70
Poland	60.52	58.10	53.98	36.44	41.42	46.42	46.52	44.67	38.14
South Africa	45.13	45.32	42.38	32.79	36.18	43.76	42.18	42.01	36.10
United States	54.52	51.67	50.70	47.01	46.02	49.75	47.99	48.47	47.06
All non-EU sources [c]	51.27	49.67	47.62	40.76	39.95	46.18	45.01	43.97	39.38
Coking coal imports from:									
Australia	67.03	61.22	60.70	55.72	55.52	57.05	59.73	57.97	55.01
Poland	64.47	58.65	59.37	54.14	53.51	59.28	61.08	61.01	52.51
South Africa	58.77	52.56	50.91	48.25	44.10	49.66	47.45	43.32	35.84
United States	63.14	61.61	61.20	57.19	58.18	61.19	62.02	59.99	58.94
All non-EU sources [c]	64.09	61.28	60.77	55.80	55.85	58.48	59.83	58.06	54.71

a Average unit value cif. **b** Average includes countries not listed separately. **c** Average includes non-EU countries not listed separately.
Source: International Energy Agency, *Energy Prices and Taxes,* OECD, Paris.

260 Selected Australian–Japanese contract prices for coking and steaming coal [a]

	1992	1993	1994	1995	1996	1997	1998	1999
Coking coal								
Hard [b]								
US$/t	51.30	49.30	45.45	51.10	53.50	53.50	50.90	41.90
A$/t	70.07	72.91	62.43	69.26	68.64	72.11	81.11	64.24
Real A$/t	79.97	81.73	68.68	72.82	70.34	73.71	82.21	64.24
Soft [cd]								
US$/t	45.85	43.85	40.35	na	na	na	na	na
A$/t	62.62	64.85	55.42	na	na	na	na	na
Real A$/t	71.48	72.70	60.98	na	na	na	na	na
Semisoft [de]								
US$/t	42.20	39.70	36.40	na	na	na	na	na
A$/t	57.64	58.71	50.00	na	na	na	na	na
Real A$/t	65.79	65.82	55.01	na	na	na	na	na
Other coking [f]								
US$/t	na	na	na	42.67	43.87	41.97	37.90	32.20
A$/t	na	na	na	57.83	56.29	56.57	60.40	49.37
Real A$/t	na	na	na	60.81	57.68	57.82	61.21	49.37
Steaming coal [g]								
US$/t	38.90	36.35	34.35	40.30	40.30	37.65	34.50	29.95
A$/t	53.13	53.75	47.18	54.62	51.71	50.75	54.98	45.92
Real A$/t	60.64	60.26	51.91	57.43	52.98	51.87	55.72	45.92

a Japanese fiscal year beginning 1 April. Prices are fob; real prices are in 1999 Australian dollar terms. **b** For example, Goonyella export coal. **c** For example, Big Ben coal. **d** Replaced by 'Other coking coal' category in 1995 Japanese fiscal year. **e** Newcastle joint purchases semisoft coals. **f** Non-hard coking coal price based on Australian/Japanese contract settlements. **g** For steaming coal with a calorific value of 6700 kcal/kg. **na** Not available.
Sources: International Energy Agency, *Coal Information,* OECD, Paris; ABARE.

261 Australian and US coal export unit values, by destination [a]

	1990 US$/t	1991 US$/t	1992 US$/t	1993 US$/t	1994 US$/t	1995 US$/t	1996 US$/t	1997 US$/t	1998 US$/t
Australia									
Steaming coal exports to:									
France	33.82	31.43	30.71	31.72	32.31	32.97	34.02	35.14	25.88
Italy	na	47.04	38.82	35.69	31.93	37.75	na	na	24.50
Japan	40.03	40.32	38.87	35.49	33.71	36.85	38.89	35.42	31.50
Netherlands	36.61	36.76	35.11	31.30	30.27	33.03	32.65	29.50	23.89
All destinations [b]	38.27	37.97	36.58	33.66	32.74	34.99	37.77	34.37	30.10
Coking coal exports to:									
France	47.00	47.60	45.71	44.11	41.77	43.07	47.24	46.74	42.37
Italy	46.76	46.74	44.95	43.77	40.08	42.06	48.57	48.44	44.48
Japan	48.22	47.24	46.46	43.87	40.24	43.37	46.11	45.55	42.47
Netherlands	50.32	51.12	47.29	43.97	41.02	44.75	46.36	47.98	44.03
All destinations [b]	48.29	47.85	46.83	44.27	41.39 [c]	44.23	47.56	47.40	43.97
United States									
Steaming coal exports to:									
France	40.87	37.40	37.09	35.08	41.94	38.72	39.83	38.40	39.88
Italy	44.93	45.98	45.55	44.38	42.21	45.97	45.41	43.31	41.39
Japan	41.76	39.73	39.66	39.08	37.13	38.61	40.02	38.55	37.35
Netherlands	43.17	43.64	43.25	44.32	39.63	40.53	36.31	35.86	32.78
All destinations [b]	39.99	40.63	39.53	39.78	38.22	38.94	36.94	34.84	33.04
Coking coal exports to:									
France	49.93	48.46	49.00	49.79	48.90	49.69	51.95	52.03	51.09
Italy	52.78	53.22	52.40	50.63	49.96	51.38	52.80	53.85	52.93
Japan	50.34	50.18	49.58	47.99	44.72	45.35	46.51	45.94	46.62
Netherlands	51.94	51.93	51.81	50.89	49.68	51.32	52.13	51.92	51.68
All destinations [b]	51.55	50.80	50.01	48.63	47.11	48.47	50.05	49.99	49.14

a Average unit value, fob. **b** Average for all countries. **c** In 1994 other destinations dominate the unit price average for the first time.
Source: International Energy Agency, *Energy Prices and Taxes,* OECD, Paris.

262 World hard coal production, by country [a]

	1991 Mt	1992 Mt	1993 Mt	1994 Mt	1995 Mt	1996 Mt	1997 Mt	1998 Mt
Australia	167.9	180.0	180.1	183.8	192.8	198.7	216.9	219.5
Brazil	5.2	4.7	4.6	5.1	5.2	4.8	5.6	5.6
Canada	39.9	32.3	35.3	36.6	38.6	40.0	41.3	38.3
China [b]	1 087.4	1 116.4	1 154.0	1 239.9	1 360.7	1 396.7	1 372.8	1 235.6
Colombia	23.6	21.9	21.2	22.5	26.0	30.1	30.7	33.8
Former Soviet Union [c]	500.0	462.3	412.9	368.8	340.6	314.4	305.5	289.5
Germany [d]	72.7	72.2	64.2	57.6	58.9	53.2	51.2	45.3
India	229.3	238.3	246.0	254.6	273.4	285.6	297.2	303.1
Poland	140.4	131.6	130.5	133.9	137.2	137.9	137.8	116.9
South Africa	178.2	174.4	182.3	195.8	206.2	206.4	220.1	222.8
United Kingdom	94.9	84.5	68.2	49.3	54.6	50.2	48.5	41.3
United States	825.1	823.3	776.4	845.4	858.6	885.2	910.4	936.0
World total [e]	3 521.4	3 495.9	3 432.1	3 553.3	3 705.4	3 761.8	3 796.3	3 655.8

a Hard coal includes anthracite and bituminous coal, and for the United States and New Zealand, sub-bituminous coal. **b** Excludes Hong Kong. **c** Former Soviet Union until 1992, then total of fifteen countries. **d** Unified Germany. **e** Includes countries not listed separately.
Sources: International Energy Agency, *Coal Information,* OECD, Paris; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics,* Sydney.

263 Summary of Australian statistics for dimension stone

	Production a	Exports		Imports
	Volume	Volume	Value	Value
	kt	t	$'000	$'000
1960	323	na	15	363
1961	541	na	9	405
1962	385	na	8	439
1963	639	na	24	481
1964	599	na	7	613
1965	474	na	12	562
1966	245	1 629	32	440
1967	290	280	16	408
1968	280	657	32	407
1969	269	792	44	427
1970	90	1 821	84	466
1971	81 b	1 209	57	569
1972	318 b	731	42	708
1973	144 b	1 621	105	395
1974	143 b	2 347	155	440
1975	255 b	379	na	606
1976	112	112	na	489
1977	84	757	180	832
1978	115	387	133	2 371
1979	122 c	1 086	83	2 224
1980	116 c	2 762	220	4 472
1981	125 c	205	46	5 450
1982	129 d	84	33	7 768
1983	97 d	1 224	367	6 619
1984	102 d	4 244	1 861	9 980
1985	190 e	2 537	782	14 025
1986	106 e	5 226	1 893	12 097
1987	99 f	2 974	1 119	15 231
1988	149 g	1 659	776	16 295
1988-89	92 f	2 913	1 441	19 732
1989-90	198	1 665	1 520	17 455
1990-91	na	3 393	4 417	11 237
1991-92	na	11 672	2 963	11 466
1992-93	553	8 721	4 501	11 173
1993-94	na	10 007	5 829	10 604
1994-95	na	14 605	5 531	9 811
1995-96	na	17 372	6 220	8 411
1996-97	na	15 364	5 519	7 828
1997-98	na	10 107	5 804	9 560
1998-99	na	16 766	6 509	12 327

a Data incomplete because coverage differs between states. **b** Excludes the Australian Capital Territory, the Northern Territory and Queensland. **c** Excludes the Australian Capital Territory and the Northern Territory. **d** Excludes the Australian Capital Territory. **e** Excludes the Australian Capital Territory and Queensland. **f** Excludes the Australian Capital Territory, Queensland and Western Australia. **g** Excludes the Australian Capital Territory, Queensland and Tasmania. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* BMR, Canberra; state mines departments and their equivalents; ABARE.

264 Australian production of dimension stone, by state [a]

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
	kt	kt	kt	kt	kt	kt	kt
1960	160	4	5	114	39	na	323
1961	360	7	2	132	40	na	541
1962	201	9	3	130	37	1	385
1963	377	10	2	214	25	2	639
1964	387	10	3	151	32	6	599
1965	225	15	4	189	32	1	474
1966	45	10	2	149	31	1	245
1967	45	11	2	129	47	2	290
1968	42	7	5	148	42	4	280
1969	31	9	3	167	49	2	269
1970	23	8	na	4	51	2	90
1971	13	10	na	7	50	1	81 [b]
1972	27	13	na	228	47	1	318 [c]
1973	14	15	na	67	46	2	144 [c]
1974	14	11	na	67	49	2	143 [c]
1975	12	12	na	187	40	2	255 [c]
1976	15	11	na	30	36	2	112 [c]
1977	13	8	4	22	27	3	84 [b]
1978	14	13	2	45	29	4	115 [b]
1979	16	7	8	56	28	6	122 [b]
1980	14	26	12	31	32	3	116 [d]
1981	24	29	24	20	27	1	125 [d]
1982	16	20	44	24	24	1	129 [e]
1983	21	35	na	11	29	1	97 [e]
1984	22	18	na	25	35	1	102 [e]
1985	22	28	na	101	34	4	190 [f]
1986	21	19	na	32	31	2	106 [f]
1987	21	46	na	na	31	1	99 [g]
1988	32	31	na	50	34	2	149 [h]
1988-89	34	17	na	na	40	1	92 [g]
1989-90	32	52	9	72	31	2	198
1990-91	40	6	na	na	42	2	na
1991-92	35	na	na	na	61	2	na
1992-93	33	12	31	414	61	2	553
1993-94	na	na	25	na	na	na	na
1994-95	na	na	na	na	na	na	na
1995-96	29	na	na	na	31	na	na
1996-97	25	na	20	1	28	na	na
1997-98	25	na	17	1	37	na	na

a Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately. **b** Includes the Australian Capital Territory, the Northern Territory and Queensland. **c** Excludes the Australian Capital Territory, the Northern Territory and Queensland. **d** Excludes the Australian Capital Territory and the Northern Territory. **e** Excludes the Australian Capital Territory. **f** Excludes the Australian Capital Territory and Queensland. **g** Excludes the Australian Capital Territory, Queensland and Western Australia. **h** Excludes the Australian Capital Territory, Queensland and Tasmania. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

265 Australian exports of dimension stone, by destination

	Italy	New Zealand	Other	Total Volume	Total Value
	t	t	t	t	$'000
1960	na	na	na	na	15
1961	na	na	na	na	9
1962	na	na	na	na	8
1963	na	na	na	na	24
1964	na	na	na	na	7
1965	na	na	na	na	12
1966	na	na	na	1 629	32
1967	na	na	na	280	16
1968	na	na	na	657	32
1969	na	na	na	792	44
1970	na	na	na	1 821	84
1971	na	na	na	1 209	57
1972	na	na	na	731	42
1973	na	na	na	1 621	105
1974	na	na	na	2 347	155
1975	na	na	na	379	na
1976	na	na	na	112	na
1977	na	na	na	757	180
1978	na	na	na	387	133
1979	na	na	na	1 086	83
1980	1 973	40	749	2 762	220
1981	0	4	201	205	46
1982	0	31	53	84	33
1983	1 178	6	40	1 224	367
1984	3 290	26	928	4 244	1 861
1985	2 364	133	40	2 537	782
1986	4 831	259	136	5 226	1 893
1987	1 903	324	747	2 974	1 119
1988	634	272	753	1 659	776
1988-89	530	290	2 092	2 913	1 441
1989-90	249	158	1 258	1 665	1 520
1990-91	910	110	2 373	3 393	4 417
1991-92	490	57	11 125	11 672	2 963
1992-93	1 324	54	7 343	8 721	4 501
1993-94	203	199	9 604	10 007	5 829
1994-95	136	178	14 292	14 605	5 531
1995-96	2 168	23	15 180	17 372	6 220
1996-97	2 546	148	12 670	15 364	5 519
1997-98	1 962	75	8 070	10 107	5 804
1998-99	220	186	16 359	16 766	6 509

na Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABARE.

266 Australian imports of dimension stone

	Slate		Marble a		Crystalline rock b		Quartzite c		Total
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Value
	'000 m^2	$'000	t	$'000	t	$'000	t	$'000	$'000
1970	na	na	1 910	246	1 591	77	na	na	466
1971	na	na	3 372	330	2 007	110	na	na	569
1972	na	na	2 711	407	1 468	85	na	na	708
1973	na	na	1 309	206	1 898	118	na	na	395
1974	na	na	1 376	204	1 267	73	na	na	440
1975	na	na	1 634	289	1 610	133	na	na	606
1976	na	na	1 183	218	2 791	177	na	na	489
1977	na	na	1 706	397	1 862	215	na	na	832
1978	na	na	1 578	457	1 658	160	na	na	2 371
1979	na	na	1 752	507	2 479	287	na	na	2 224
1980	na	2 109	2 707	995	2 026	391	na	na	4 472
1981	na	3 728	2 800	1 205	1 982	369	207	94	5 450
1982	na	5 510	3 631	1 516	3 277	572	659	170	7 768
1983	689	4 535	3 049	1 493	1 993	420	3 521	171	6 619
1984	988	6 521	3 569	1 964	3 517	1 170	5 703	325	9 980
1985	1 266	8 911	4 449	2 999	3 859	1 956	222	159	14 025
1986	1 062	7 717	3 001	2 354	2 685	1 698	357	328	12 097
1987	1 343	9 105	3 221	2 982	8 873	2 663	349	481	15 231
1988	1 674	11 414	2 300	1 903	17 122	2 552	580	426	16 295
1988-89	2 139	14 023	2 688	2 058	28 732	3 120	905	530	19 732
1989-90	1 687	11 584	1 975	2 087	15 232	3 348	744	436	17 455
1990-91	1 255	7 598	960	784	5 291	2 598	483	257	11 237
1991-92	1 659	8 330	694	663	3 688	2 110	463	363	11 466
1992-93	1 410	7 406	557	499	4 181	2 613	1 071	655	11 173
1993-94	1 200	6 401	702	618	4 824	3 241	659	343	10 604
1994-95	1 044	5 475	689	718	6 172	3 273	364	346	9 811
1995-96	608	3 098	700	750	7 350	4 211	217	352	8 411
1996-97	509	2 778	702	675	7 915	4 160	128	215	7 828
1997-98	401	2 316	1 330	1 238	10 435	5 743	200	264	9 560
1998-99	333	2 350	1 809	2 659	10 323	7 114	112	204	12 327

a Includes calcareous stone. **b** Includes sandstone. **c** Predominantly quartzite. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABARE.

267 Australian production of sand, by state [a]

	New South Wales	Victoria	Queensland	South Australia	Tasmania	Northern Territory	Australia
	kt	kt	kt	kt	kt	kt	kt
1960	3 023	1 132	na	1 843	21	na	6 030
1961	2 984	2 568	na	1 893	35	na	7 547
1962	3 005	2 842	na	1 540	99	na	7 656
1963	3 729	3 048	na	2 026	113	na	9 196
1964	5 209	3 352	na	1 884	163	na	10 929
1965	5 045	3 989	na	1 823	280	na	11 628
1966	4 246	4 356	na	1 611	232	na	10 838
1967	4 598	4 278	na	1 784	234	na	11 328
1968	6 718	5 075	na	2 110	281	na	14 637
1969	6 686	6 680	1 022	2 930	265	na	18 199
1970	6 174	5 242	2 282	2 627	271	na	16 973
1971	6 353	5 747	3 031	2 707	185	371	18 394 **b**
1972	7 603	5 619	3 619	2 387	185	471 **c**	19 884 **b**
1973	8 798	6 660	4 182	2 525	179	581 **c**	22 925 **b**
1974	8 797	7 788	4 733	2 476	252	474 **c**	24 520 **b**
1975	8 415	7 541	4 933	2 567	190	766 **c**	24 412 **b**
1976	7 793	7 766	5 172	2 575	391	568 **c**	24 264 **b**
1977	7 676	9 040	4 137	3 919	439	389 **c**	25 600 **b**
1978	7 077	8 951	3 768	2 808	349	310 **c**	23 264 **b**
1979	8 263	8 357	4 410	2 526	448	285 **c**	24 290 **b**
1980	9 553	8 400	4 800	2 287	361	293 **c**	25 694 **b**
1981	10 738	7 929	5 787	2 753	334	460 **c**	28 002 **b**
1982	10 767	7 449	6 337	2 564	332	1 268 **c**	28 718 **b**
1983	8 403	6 884	5 583	2 094	388	192	23 543 **d**
1984	8 401	6 951	5 876	2 542	450	455	24 675 **d**
1985	8 989	7 437	6 386	2 852	576	399	26 640 **d**
1986	10 239	6 653	5 949	4 145	510	396	27 892 **d**
1987	9 501	8 476	6 179	2 961	572	377	28 067 **d**
1988	10 176	7 339	7 596	3 435	713	75	29 334 **d**
1988-89	11 188	7 339	6 970	3 195	518	154	30 121 **e**
1989-90	11 605	6 633	7 561	3 646	498	146	33 856 **e**
1990-91	10 098	5 693	na	2 694	426	na	18 912 **f**
1991-92	10 035	na	na	2 745	448	na	na
1992-93	10 647	9 984	5 733	3 129	495	186	32 970
1993-94	na	na	na	3 185	na	na	na
1994-95	na	na	na	na	na	na	na
1995-96	8 902	na	na	2 225	na	na	na
1996-97	7 109	na	na	2 286	na	578	na
1997-98	8 769	na	na	2 389	na	na	na

a Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately. **b** Excludes Western Australia. **c** Includes the Australian Capital Territory. **d** Excludes the Australian Capital Territory and Western Australia. **e** Excludes the Australian Capital Territory. **f** Excludes the Australian Capital Territory, Queensland, Western Australia and the Northern Territory. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

268 Australian production of gravel, by state a

	New South Wales	Victoria	Queensland	South Australia	Tasmania	Northern Territory	Australia
	kt	kt	kt	kt	kt	kt	kt
1960	1 798	158	na	666	348	8	2 979
1961	1 473	3 089	na	926	622	5	6 115
1962	1 516	2 990	na	759	656	na	6 007
1963	1 883	3 743	na	1 066	929	na	7 747
1964	2 046	4 105	na	887	1 092	62	8 248
1965	2 292	3 662	na	555	1 260	59	7 884
1966	2 474	3 326	na	871	1 449	na	8 686
1967	2 329	3 683	na	935	1 468	na	9 193
1968	3 043	3 247	na	350	1 621	na	8 473
1969	3 118	2 834	1 155	918	1 531	na	10 501
1970	3 869	2 797	2 106	820	1 295	na	12 093
1971	4 021	3 599	2 392	847	915	1 074 **b**	12 849 **c**
1972	3 341	3 486	3 306	833	1 034	770 **b**	12 771 **c**
1973	3 652	3 634	4 447	694	1 093	922 **b**	14 441 **c**
1974	3 667	4 858	5 481	754	1 016	1 725 **b**	17 500 **c**
1975	3 530	4 732	4 874	458	1 063	1 524 **b**	16 181 **c**
1976	3 498	4 493	5 045	490	1 004	1 110 **b**	15 640 **c**
1977	3 224	4 743	4 126	1 098	1 219	1 073 **b**	15 483 **c**
1978	3 522	4 807	3 178	806	1 184	679 **b**	14 176 **c**
1979	4 354	4 918	3 377	394	1 176	1 786 **b**	16 005 **c**
1980	4 736	5 131	3 030	331	1 102	1 336 **b**	15 667 **c**
1981	4 612	4 740	3 525	125	1 077	561 **b**	14 639 **c**
1982	5 552	5 053	3 513	74	1 156	1 323 **b**	16 813 **c**
1983	4 080	4 478	3 205	74	1 238	857	13 931 **d**
1984	4 486	3 494	3 777	284	1 165	1 824	15 031 **d**
1985	4 666	5 206	3 297	2 258	1 171	1 793	18 393 **d**
1986	5 461	4 176	3 186	221	986	1 870	15 900 **d**
1987	4 992	4 334	2 797	207	832	2 203	15 365 **d**
1988	5 003	3 558	3 548	442	314	2 819	15 684 **d**
1988-89	5 464	3 753	4 247	213	107	2 243	16 050 **e**
1989-90	6 532	1 002	3 069	176	91	1 380	12 259 **e**
1990-91	6 091	1 131	na	415	35	na	7 672 **g**
1991-92	6 241	na	na	424	33	na	na
1992-93	5 823	1 780	2 788	555	47	1 090	12 141
1993-94	na	na	na	na	na	na	na
1994-95	na	na	na	na	na	na	na
1995-96	5 871	na	na	na	na	na	na
1996-97	7 925	na	na	na	na	2 764	na
1997-98	5 415	na	na	na	na	na	na

a Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately. **b** Includes the Australian Capital Territory. **c** Excludes Western Australia. **d** Excludes the Australian Capital Territory and Western Australia. **e** Excludes the Australian Capital Territory. **f** Victorian data after 1988-89 includes only establishments holding titles under the *Extractive Industries Act 1966.* Previous details represent estimates for all establishments. **g** Excludes the Australian Capital Territory, Queensland, Western Australia and the Northern Territory. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* BMR, Canberra; state mines departments and their equivalents; ABARE.

269 Australian production of crushed and broken stone, by state [a]

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Northern Territory	Australia
	kt	kt	kt	kt	kt	kt	kt	kt
1960	3 147	8 189	2 216	923	7 986	520	229	23 209
1961	3 855	11 478	1 900	964	8 747	580	216	27 741
1962	4 011	11 384	2 401	1 341	8 436	627	na	28 392
1963	3 870	12 583	2 574	1 562	8 496	937	na	30 246
1964	4 033	13 198	2 497	2 060	11 638	1 026	89	34 723
1965	6 802	15 784	2 817	2 510	10 948	1 361	na	40 810
1966	8 434	19 409	3 174	3 011	10 978	2 149	na	47 547
1967	8 590	18 301	4 762	3 107	10 709	1 176	na	47 011
1968	9 345	17 575	3 917	3 719	9 016	1 206	na	45 087
1969	9 217	15 865	4 030	4 517	12 418	1 377	na	47 830
1970	10 867	15 451	4 159	4 743	1 027	1 313	na	50 793 **b**
1971	10 020	17 505	4 665	5 234	10 817	1 365	670 **b**	50 275 **b**
1972	11 322	16 079	4 218	4 574	12 680	1 336	906 **b**	51 115
1973	11 452	15 805	6 933	4 451	10 084	1 558	999 **b**	51 281
1974	11 451	17 499	8 246	5 128	9 864	1 486	996 **b**	54 671
1975	13 196	18 382	9 454	5 166	9 242	1 495	1 278 **b**	58 213
1976	10 581	16 885	8 241	5 043	9 765	1 697	820 **b**	53 033
1977	9 728	17 884	9 411	5 031	9 618	1 621	1 104 **b**	54 398
1978	10 699	18 665	10 811	5 258	8 848	1 582	1 046 **b**	56 910
1979	12 081	19 115	12 588	5 801	4 146	1 707	1 090	56 498
1980	14 436	18 001	12 722	4 762	4 460	1 746	1 611 **b**	57 737
1981	14 543	14 073	15 784	7 397	3 759	1 562	992 **b**	58 110
1982	12 765	13 279	19 601	5 145	4 189	1 719	303	57 100 **c**
1983	10 185	13 527	16 592	4 272	2 435	1 609	495	49 115 **c**
1984	10 452	14 756	19 869	5 067	3 613	2 023	551	56 331 **c**
1985	12 641	20 539	20 692	6 596	4 066	1 981	959	67 474 **c**
1986	13 819	20 658	21 597	6 160	4 335	3 040	646	70 255 **c**
1987	13 135	19 526	20 433	5 743	3 600	2 488	353	65 278 **c**
1988	12 575	20 001	22 644	6 297	3 432	2 361	193	67 503 **c**
1988-89	14 861	22 763	22 724	na	3 567	2 525	270	66 710 **d**
1989-90	15 437	21 232	25 623	8 176	3 703	2 460	367	76 998 **d**
1990-91	15 488	14 854	na	na	3 571	2 065	na	35 977 **e**
1991-92	14 326	na	na	na	3 192	2 013	na	na
1992-93	14 725	28 517	20 189	3 839	4 402	2 533	451	74 656
1993-94	na	na	na	na	na	na	na	na
1994-95	na	na	na	na	na	na	na	na
1995-96	na	na	na	na	na	na	na	na
1996-97	16 292	na	na	na	na	na	516	na
1997-98	16 675	na	na	na	na	na	na	na
1998-99	17 914	na	na	na	na	na	na	na

a Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately. **b** Includes the Australian Captial Territory and the Northern Territory. **c** Excludes the Australian Capital Territory. **d** Excludes the Australian Capital Territory and Western Australia. **e** Excludes the Australian Capital Territory, Queensland, Western Australia and the Northern Territory. **na** Not available.

Sources: ABS, *Mineral Production, Australia* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* BMR, Canberra; state mines departments and their equivalents; ABARE.

270 Summary of Australian statistics for copper

	Production						Exports d		
			Refined						
	Mine a	Smelter b	Primary	Secondary	Total	Consumption c	Volume	Value	Price
	kt	kt	kt	kt	kt	kt	kt	$m	$/t
1960	111	72	71	5	76	72	51	27	640
1961	97	64	64	5	69	63	53	28	603
1962	109	91	79	5	84	77	39	28	600
1963	115	92	86	7	93	84	37	21	600
1964	106	83	80	8	88	99	33	21	645
1965	92	80	60	14	74	102	37	27	718
1966	111	97	90	10	100	108	30	36	944
1967	92	79	66	18	84	88	30	30	1 026
1968	109	103	84	17	101	105	38	40	1 099
1969	131	124	101	19	120	106	54	66	1 324
1970	158	120	104	21	125	114	70	86	1 317
1971	177	150	127	15	142	116	96	85	991
1972	186	150	139	17	156	112	109	91	942
1973	220	166	145	14	159	133	106	112	1 234
1974	251	200	162	12	174	120	133	177	1 298
1975	219	183	166	12	178	97	176	139	950
1976	218	170	161	15	176	119	139	157	1 143
1977	222	172	152	15	167	106	126	146	1 190
1978	222	167	152	14	166	127	102	114	1 190
1979	238	169	138	16	154	127	122	206	1 768
1980	242	182	145	20	165	128	120	250	1 957
1981	231	177	164	15	179	143	114	201	1 536
1982	245	180	160	11	171	131	110	156	1 474
1983	262	182	169	34	203	115	158	276	1 790
1984	236	188	171	26	197	118	126	226	1 592
1985	260	175	164	30	194	126	139	274	2 065
1986	248	179	164	21	185	117	125	248	2 111
1987	233	183	172	36	208	124	119	267	2 529
1988	238	193	196	27	223	128	157	510	3 391
1989	296	240	230	35	265	129	175	601	3 748
1990	330	235	247	24	271	118	230	765	3 519
1991	320	258	252	20	272	93	243	723	3 145
1992	378	315	300	32	316	116	258	770	3 233
1993	430	333	318	24	318	146	271	723	2 964
1994	418	325	340	24	340	141	305	816	3 222
1995	379	216	266	24	266	165	215	804	4 133
1996	548	261	311	24	311	160	363	993	3 150
1997	560	208	271	24	271	160	402	1 098	3 245
1998	607	231	285	24	309	155	488	1 305	2 823

a Total metallic content of minerals produced. **b** Includes both primary and secondary (scrap) production of blister copper. **c** Primary refined; producers' shipments to domestic consumers plus imports. **d** Quantities refer to total metallic content of all ores, concentrates, intermediate products or refined metal; value of metals contained in host mine and smelter products (for example, copper in lead concentrate or lead bullion) is not available separately and is included in the value of the mineral product or metal in which it is exported. **e** Mount Isa Mines, cathode, fot Townsville refinery.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; Metallgesellschaft AG, *Metallstatistik,* Frankfurt.

271 Australian supply, disposal and prices of copper

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Production									
Mine **a**	kt	338	427	430	376	483	560	580	645
Smelter	kt	284	342	365	244	260	243	230	246
Refined	kt	291	322	366	305	315	329	309	335
Primary	kt	276	312	351	281	291	305	284	310
Secondary	kt	15	28	24	24	24	24	24	24
Exports b									
Ores and concentrates **c**	kt	219	359	430	426	520	890	1 097	1 229
Value	$m	165	268	259	377	486	655	822	988
Refined **d**	kt	183	165	180	121	115	128	127	160
Value	$m	543	525	480	420	442	352	372	398
Consumption e	kt	111	131	144	150	180	185	185	185
Export unit value									
Ores and concentrates	A$/t	756	745	603	884	936	737	749	804
Refined	A$/t	2 963	3 180	2 673	3 482	3 825	2 747	2 942	2 480

a Total metallic content of minerals produced. **b** Value of metals contained in host mine and smelter products is not available separately and is included in the value of the mineral product or metal in which it is exported. **c** Gross weight of ores and concentrates. **d** Refinery shapes, unworked. **e** Refined copper domestic despatches and imports.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

272 Australian exports of copper, by destination

	1991 kt	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt
Ores and concentrates								
Canada	0.0	38.9	53.6	15.3	0.0	0.0	8.5	0.0
China	30.3	41.0	0.0	51.9	121.1	191.1	168.0	317.2
Germany **a**	3.9	3.8	15.5	0.8	15.2	53.2	63.0	71.2
India	0.0	0.0	0.0	0.0	0.0	5.5	49.9	171.8
Japan	165.2	162.3	244.7	334.4	214.3	404.7	505.3	392.2
Peru	0.0	0.0	11.0	23.6	0.0	0.0	0.0	0.0
South Korea	7.5	10.9	46.9	9.3	40.0	57.6	62.0	189.1
Other	5.4	14.5	24.8	0.0	0.0	75.9	123.4	92.6
Total	212.3	271.4	396.6	435.3	390.6	788.0	980.0	1 234.1
Total Cu content **s**	59.8	79.7	113.4	120.0	105.4	223.7	283.9	361.2
Refined								
Chinese Taipei	6.0	19.2	31.3	43.4	27.6	23.0	24.2	45.5
European Union **b**	44.6	50.6	42.3	45.9	38.8	32.6	25.7	14.4
Indonesia	7.0	9.2	11.2	10.9	8.8	26.6	18.2	5.3
Japan	60.1	35.7	27.7	31.6	16.0	2.3	1.2	3.8
Malaysia	2.3	6.1	8.6	0.8	1.1	19.1	28.7	33.4
South Korea	16.6	6.8	1.6	5.5	0.5	0.9	0.0	6.3
United Kingdom	36.6	41.1	27.9	18.0	0.6	0.0	0.0	0.0
Other	8.6	9.3	7.0	20.6	12.6	12.8	18.2	18.1
Total	181.9	178.1	157.6	176.7	106.0	117.3	116.1	126.8

a West Germany until 1991; unified Germany from 1992. **b** Excluding the United Kingdom. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

273 World production, consumption, stocks and prices of copper

	Production						Price	
			Refined					
	Mine	Smelter	Secondary a	Total b	Consumption	Stocks c	US producer d	LME e
	kt	kt	kt	kt	kt	kt	USc/lb	US$t
1960	4 242	4 287	2 148	4 998	3 926	na	32.1	678
1961	4 394	4 364	2 173	5 144	4 271	na	29.9	633
1962	4 555	4 574	2 237	5 300	4 343	na	30.6	644
1963	4 624	4 635	2 341	5 406	4 607	na	30.6	644
1964	4 848	4 903	2 645	5 825	4 984	na	32.0	966
1965	5 070	5 119	2 850	6 181	5 033	na	35.0	1 288
1966	5 220	5 103	3 081	6 366	5 224	na	36.2	1 529
1967	5 062	4 897	2 872	6 004	5 032	na	38.2	1 135
1968	5 459	5 510	3 176	6 653	6 548	na	41.8	1 236
1969	5 935	5 965	3 452	7 205	7 136	na	47.5	1 464
1970	6 382	6 308	3 298	7 583	7 294	582	57.7	1 414
1971	6 458	6 374	3 155	7 393	7 295	610	51.4	1 081
1972	7 044	7 007	3 272	8 084	7 948	657	50.6	1 069
1973	7 498	7 286	3 639	8 525	8 754	394	58.9	1 781
1974	7 576	7 565	3 502	8 759	8 310	832	76.6	2 053
1975	7 185	7 280	2 699	8 177	7 445	1 744	63.2	1 232
1976	7 661	7 616	3 163	8 624	8 539	1 828	69.0	1 405
1977	7 856	7 810	3 109	8 878	9 057	1 985	66.2	1 308
1978	7 678	7 686	3 313	9 020	9 527	1 564	65.8	1 363
1979	7 767	7 738	3 668	9 181	9 848	1 116	92.2	1 978
1980	7 704	7 681	3 738	9 297	9 396	1 035	101.3	2 189
1981	8 164	8 036	3 671	9 545	9 522	1 133	84.2	1 740
1982	8 078	7 850	3 518	9 378	9 003	1 640	72.8	1 478
1983	8 101	8 379	3 688	9 694	9 099	1 709	76.5	1 590
1984	8 258	8 684	3 848	9 512	9 914	1 220	66.9	1 371
1985	8 365	8 933	3 837	9 689	9 665	1 074	67.0	1 415
1986	8 393	9 165	3 905	9 862	10 075	893	64.7	1 415
1987	8 747	9 287	3 996	10 160	10 449	522	81.1	1 765
1988	8 698	9 372	4 307	10 485	10 531	585	119.1	2 597
1989	9 025	9 720	4 250	10 878	10 969	636	129.5	2 839
1990	8 957	9 132	4 325	10 809	10 789	716	121.8	2 669
1991	9 099	9 066	4 317	10 688	10 695	843	107.9	2 338
1992	9 418	9 699	4 362	11 170	10 806	833	106.0	2 282
1993	9 475	9 671	4 264	11 303	10 996	1 116	91.6	1 911
1994	9 575	9 730	4 934	11 166	11 665	768	111.0	2 307
1995	10 180	9 729	5 256	11 817	12 152	699	138.3	2 936
1996	11 103	10 396	5 337	12 732	12 401	493	109.2	2 294
1997	11 538	10 834	5 570	13 590	13 038	861	106.8	2 277
1998	12 283	11 103	5 278	14 163	13 260	1 172	78.6	1 654

a Includes direct use by manufacturers. **b** Excludes copper recovered from secondary materials by simple remelting. **c** Unwrought copper. **d** Average price for US producer cathodes. **e** LME average cash settlement price, grade A copper. Before December 1981, wirebars; from 1982 to 1986, higher grade copper. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; Metallgesellschaft AG, *Metallstatistik,* Frankfurt; World Bureau of Metal Statistics, *World Metal Statistics,* London.

274 World copper production, by region and country

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Mine production a								
Africa	982	854	744	673	640	635	618	654
South Africa	193	198	189	184	195	192	186	188
Zaire	292	144	46	30	35	40	38	41
Zambia	412	433	432	384	342	340	331	379
Americas	4 944	5 155	5 309	5 338	5 857	6 594	6 956	7 319
Brazil	38	40	44	40	49	44	40	34
Canada	811	769	733	617	726	688	660	705
Chile	1 814	1 933	2 055	2 220	2 489	3 116	3 392	3 687
Peru	375	368	375	366	405	484	503	483
Mexico	267	277	301	298	334	341	390	379
United States	1 634	1 765	1 801	1 796	1 849	1 918	1 940	1 860
Asia	870	959	973	1 051	1 217	1 232	1 285	1 526
China	304	334	346	396	445	439	496	476
India	50	49	49	46	47	48	48	48
Indonesia	220	292	310	334	462	526	548	809
Malaysia	26	29	25	25	21	20	19	14
Mongolia	91	103	114	119	120	125	125	125
Philippines	148	124	136	116	108	62	43	47
Europe	760	757	863	844	872	903	856	882
Bulgaria	47	47	60	76	76	85	76	76
Poland	320	332	431	424	431	473	465	452
Portugal	157	151	150	130	130	110	107	115
Sweden	82	89	89	79	84	72	87	74
Yugoslavia	113	105	68	74	75	70	74	87
Former Soviet Union	840	na	na	na	na	na	na	na
Armenia	b	1	1	1	2	2	2	2
Georgia	b	4	4	2	6	7	5	5
Kazakhstan	b	304	264	215	233	238	316	338
Russia	b	552	460	573	526	520	510	518
Uzbekistan	b	75	81	80	80	64	74	74
Middle East	126	144	126	158	145	160	182	193
Iran	84	105	87	118	102	108	117	118
Turkey	42	39	39	40	43	52	65	75
Oceania	524	571	633	627	591	735	672	759
Australia	320	378	430	418	379	548	560	607
Papua New Guinea	204	193	203	209	213	187	112	152
Other countries	53	42	17	12	12	12	12	12
Total	9 099	9 418	9 475	9 575	10 180	11 103	11 538	12 283

Continued

274 World copper production, by region and country *(continued)*

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Smelter production c								
Africa	764	717	594	501	474	489	509	476
South Africa	165	159	157	158	154	148	164	153
Zambia	301	380	338	265	238	262	264	255
Americas	3 797	4 017	4 179	4 278	4 305	4 404	4 613	4 612
Canada	532	552	562	560	613	613	627	625
Chile	1 174	1 202	1 219	1 260	1 294	1 601	1 390	1 403
Mexico	183	229	282	277	298	301	370	337
Peru	313	301	286	315	347	347	326	357
United States	1 450	1 574	1 680	1 715	1 601	1 638	1 720	1 710
Asia	1 998	2 134	2 173	2 185	2 306	2 440	2 588	2 755
China	385	418	444	482	538	645	657	667
Japan	1 085	1 175	1 185	1 122	1 169	1 233	1 350	1 304
Philippines	168	169	212	200	242	202	206	198
South Korea	205	174	142	135	151	157	161	295
Australia	258	315	333	325	216	261	208	231
Europe	1 311	1 339	1 405	1 551	1 522	1 872	1 891	1 937
Belgium	106	103	103	148	152	157	143	138
Germany d	256	235	201	292	305	385	349	330
Poland	360	370	411	402	353	415	442	487
Spain	149	150	173	188	160	271	313	330
Yugoslavia	136	128	57	87	87	125	119	119
Former Soviet Union	920	na	na	na	na	na	na	na
Kazakhstan	**b**	341	319	284	266	269	320	336
Russia	**b**	690	560.2	507	540	570	570	630
Uzbekistan	**b**	75	81	80	80	70	70	106
Other countries	71	186	28	20	20	20	20	20
Total	9 066	9 699	9 671	9 730	9 729	10 396	10 834	11 103
Refined copper production								
Africa	718	676	612	550	502	498	512	479
South Africa	127	120	128	130	132	116	127	123
Zambia	424	472	425	370	314	317	328	297
Americas	4 316	4 541	4 691	4 686	5 015	5 431	6 001	6 397
Canada	538	539	562	550	573	559	560	563
Chile	1 228	1 242	1 268	1 277	1 492	1 748	2 117	2 335
Peru	244	251	262	253	282	342	384	411
United States	1 995	2 144	2 253	2 220	2 280	2 347	2 450	2 460
Asia	2 169	2 441	2 542	2 478	2 911	3 035	3 180	3 392
China	560	659	733	736	1 080	1 119	1 179	1 211
Japan	1 076	1 161	1 189	1 119	1 188	1 251	1 279	1 277
Philippines	116	146	166	155	158	156	147	152
South Korea	198	210	220	222	233	244	263	369
Australia	272	316	318	340	266	311	271	309
Europe	2 005	2 099	2 184	2 161	2 199	2 479	2 537	2 480
Belgium	298	367	379	375	376	354	386	368
Germany d	522	582	632	592	616	671	674	696
Poland	379	387	404	405	407	425	441	447
Spain	190	179	179	188	164	284	292	304
Former Soviet Union	1 120	na	na	na	na	na	na	na
Kazakhstan	**b**	328	317.5	279	256	267	301	325
Russia	**b**	621	537	552	560	599	640	656
Uzbekistan	**b**	75	81	90	80	80	118	118
Total	10 688	11 170	11 303	11 166	11 817	12 732	13 590	14 163

a Metal content. **b** Included in former Soviet Union total. **c** Metal produced in the form of blister and anodes from ores, concentrates, other primary materials and secondary blister produced from scrap. **d** Unified Germany. **na** Not applicable.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

275 World copper exports, by country

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Concentrates (Cu content)								
Australia	60	80	113	120	105	224	284	361
Canada	320	327	293	218	256	391	498	414
Chile	505	632	655	692	831	1 123	1 107	1 194
Indonesia	150	242	231	269	353	507	429	504
Mexico	53	14	21	2	8	12	10	19
Papua New Guinea	194	171	203	206	228	191	95	182
Peru	29	22	16	31	47	50	74	63
Philippines	98	86	82	68	71	40	50	91
Portugal	176	175	167	139	130	123	116	112
United States	253	266	227	261	239	195	128	37
Other	134	148	126	94	81	82	69	47
World total	1 957	2 162	2 131	2 094	2 339	2 912	2 821	2 970
Blister and anode copper								
Australia	3	11	10	6	0	0	0	0
Belgium	0	25	29	19	30	18	3	2
Chile	93	127	140	198	178	227	158	157
Finland	25	38	33	27	14	35	39	33
Mexico	61	110	139	120	124	117	121	39
Namibia	34	34	30	26	25	18	21	na
Peru	101	89	93	98	89	83	57	45
South Africa	22	26	22	25	27	25	28	16
Spain	23	14	30	35	27	27	34	28
Zaire	118	60	0	0	0	0	0	0
Other	25	35	15	19	39	24	37	30
World total	505	569	541	573	553	576	498	349
Refined copper								
Australia	182	178	158	176	106	117	116	127
Belgium	181	162	208	152	172	129	146	145
Canada	375	386	405	389	409	385	381	356
Chile	1 130	1 178	1 189	1 193	1 401	1 604	2 032	2 230
Former Soviet Union	200	na	na	na	na	na	na	na
Kazakhstan	**a**	106	115	123	217	262	288	322
Russia	**a**	48	153	360	662	493	521	543
Germany	63	60	80	142	131	243	147	110
Japan	64	100	160	114	159	165	158	293
Peru	208	215	218	218	252	320	362	348
Philippines	94	96	137	137	120	126	90	102
Poland	158	262	261	255	194	199	209	182
Singapore	59	94	88	98	197	192	202	106
United States	271	177	217	158	217	170	93	87
Zambia	382	412	437	361	292	276	304	228
Other	213	244	197	424	465	614	728	909
World total	3 595	3 979	4 283	4 300	4 993	5 295	5 776	6 087

a Included in former Soviet Union total. **na** Not applicable or not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

276 World copper imports, by country

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Ores and concentrates								
Brazil	102	120	94	100	0	0	0	0
Canada	68	118	148	182	150	136	139	124
China **a**	78	60	46	27	147	214	201	226
Finland	76	80	81	73	73	127	116	136
Germany **b**	131	144	127	162	166	172	160	151
Japan	930	861	918	859	965	958	942	994
South Korea	107	61	143	107	117	110	130	243
Spain	116	111	115	130	117	184	222	234
United States	62	103	54	83	130	74	46	218
Other	29	32	35	24	24	79	72	53
Total	1 699	1 690	1 761	1 745	1 888	2 053	2 026	2 380
Blister and anode copper								
Belgium	162	171	165	148	131	123	101	94
China **a**	na	25	24	22	40	55	45	12
Germany **b**	60	56	68	82	50	81	63	45
Japan	33	30	39	48	21	6	5	2
South Korea	52	45	75	87	80	87	109	63
Spain	36	25	35	24	31	14	3	2
United States	94	115	143	120	159	103	157	181
Other	69	54	44	65	69	81	76	120
Total	506	521	593	595	580	550	558	519
Refined copper								
Belgium	236	194	152	173	111	76	102	101
Brazil	76	81	67	67	92	103	117	141
China	114	261	254	72	102	150	88	163
Chinese Taipei	398	418	481	549	567	546	590	585
France	437	445	437	463	494	456	528	586
Germany **b**	557	533	466	523	543	450	527	579
Hong Kong	na	56	55	23	51	89	138	268
Italy	407	436	403	394	406	438	450	565
Japan	624	367	364	355	390	360	354	273
Malaysia	na	na	na	107	114	144	161	133
Singapore	84	136	107	94	262	191	212	198
South Korea	146	159	183	263	312	351	396	487
United Kingdom	243	278	379	259	274	328	366	349
United States	295	290	349	467	429	620	647	725
Other	549	683	769	822	866	961	930	815
Total	4 166	4 336	4 466	4 631	5 011	5 261	5 606	5 968

a Imported from western world only. **b** Unified Germany.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

277 Summary of Australian statistics for gemstones

	Exports			Imports
	Diamonds	Opals	Sapphires	Gem diamonds
	$m	$m	$m	$m
1960	0.24	2.07	na	2.47
1961	0.44	2.81	na	2.38
1962	0.41	6.21	na	2.37
1963	0.37	5.39	na	2.62
1964	0.35	5.40	na	2.96
1965	0.42	5.33	na	3.69
1966	0.43	7.65	na	3.94
1967	0.33	8.62	na	4.23
1968	0.37	10.65	na	4.23
1969	0.39	12.21	3.09	5.25
1970	0.51	11.97	3.21	5.45
1971	0.77	11.20	3.32	6.57
1972	0.81	13.80	2.80	7.44
1973	1.63	17.68	2.91	11.74
1974	4.86	12.70	2.63	15.01
1975	4.61	14.60	3.01	15.45
1976	4.58	22.62	3.61	20.04
1977	5.28	19.21	4.03	24.05
1978	11.99	26.69	10.31	34.25
1979	13.25	24.98	17.17	33.36
1980	12.90	25.55	10.81	50.38
1981	11.16	23.69	14.57	38.25
1982	9.86	16.73	14.46	32.59
1983	36.54	22.69	13.48	31.48
1984	25.90	22.76	9.89	36.14
1985	29.83	17.67	7.78	48.16
1986	180.00	24.41	12.86	55.38
1987	285.00	45.99	19.95	66.62
1988	349.42	67.54	23.13	42.88
1989	410.19	77.19	31.60	108.16
1990	433.13	84.87	17.49	106.68
1991	453.80	83.67	11.27	110.99
1992	574.60	77.13	11.46	105.71
1993	482.30	78.07	22.46	90.24
1994	485.40	96.24	18.27	96.40
1995	480.24	99.79	13.65	103.60
1996	442.99	101.85	10.97	112.41
1997	421.19	75.64	8.52	154.85
1998	621.78	63.20	7.70	150.88

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Minerals and Energy Western Australia, *Statistics Digest;* Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra.

278 Australian supply and disposal of gemstones

	Unit	1991	1992	1993	1994	1995	1996	1997	1998
Diamonds									
Production	'000 ct	35 957	40 172	41 883	43 789	40 692	41 993	40 175	40 843
Exports									
Unsorted **s**	'000 ct	31 745	40 563	21 659	24 519	23 357	47 441	40 387	52 218
	$m	296	400	371	332	424	388	354	559
Sorted									
Gem	'000 ct	1 484	954	668	3 022	30	28	33	32
	$m	156	163	98	147	54	53	66	62
Industrial	'000 ct	126	198	168	175	65	60	2	1
	$m	2	12	13	6	2	2	1	1
Total exports	$m	454	575	482	485	480	443	421	622
Imports									
Gem diamonds	$m	111	106	90	96	104	112	155	151
Other gemstones									
Exports									
Opals	$m	84	77	78	96	100	102	76	63
Sapphires	$m	11	11	22	18	14	11	9	8
Others	$m	19	24	24	23	22	20	16	14

s ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Minerals and Energy Western Australia, *Statistics Digest,* Perth; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

279 World production of natural gem and cheap gem diamonds

	1991 million ct	1992 million ct	1993 million ct	1994 million ct	1995 million ct	1996 million ct	1997 million ct	1998 million ct
Angola	0.89	1.10	0.13	0.27	0.45	0.65	0.50	0.50
Australia	18.00	18.10	23.20	23.80	22.40	23.10	22.10	22.00
Botswana	6.00	6.20	5.00	5.00	5.30	5.00	5.00	5.00
Namibia	1.17	1.52	1.12	1.28	1.38	1.30	1.30	1.30
Russia	7.50	8.00	8.00	8.50	9.00	9.20	9.60	10.00
South Africa	4.60	5.20	6.10	5.80	5.40	6.00	5.80	6.00
Zaire	17.00	17.00	5.50	13.00	13.00	15.00	12.50	13.00
Other	0.74	0.98	0.95	1.05	0.77	1.35	0.90	1.20
Total	55.90	58.10	50.00	58.70	57.70	61.60	57.70	59.00

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; US Department of the Interior, US Geological Survey, *Mineral Commodity Summaries,* Washington DC; US Department of the Interior, US Geological Survey, *Industrial Diamonds,* Washington DC.

280 Summary of Australian statistics for gold

	Mine production	Exports		Price c	
		Volume a	Value b		
	t	t	$m	A$/oz	US$/oz
1960	34	82	79	31	35
1961	33	37	34	31	35
1962	33	12	10	31	35
1963	32	17	15	31	35
1964	30	15	13	31	35
1965	27	27	23	31	35
1966	29	29	23	31	35
1967	25	22	17	31	35
1968	24	16	13	35	39
1969	22	22	21	37	41
1970	19	12	6	32	36
1971	21	7	3	36	41
1972	23	14	13	49	58
1973	17	9	11	68	98
1974	16	12	23	111	160
1975	16	8	17	123	161
1976	16	15	40	102	125
1977	19	14	43	133	148
1978	20	8	42	169	193
1979	19	10	59	272	303
1980	17	7	90	537	613
1981	18	7	56	398	458
1982	27	13	136	372	376
1983	31	21	270	470	424
1984	40	32	418	410	360
1985	59	50	668	456	317
1986	75	56	972	554	368
1987	110	85	1 694	639	446
1988	157	139	2 642	557	433
1989	204	166	2 559	484	381
1990	244	238	3 424	494	384
1991	236	259	3 684	465	362
1992	244	298	4 458	468	344
1993	248	275	4 672	531	360
1994	255	277	4 664	528	384
1995	253	316	5 251	521	384
1996	289	325	5 223	498	388
1997	314	340	4 912	446	331
1998	310	504	7 621	469	294

a Quantities refer to total metallic content of all ores, concentrates, intermediate products or refined metal of which gold is the predominant constituent. **b** Value of metal contained in host mine and smelter products (for example, gold in copper concentrates or lead bullion) is not separately available; this is included in the value of the mineral product or metal product in which it is exported. **c** Average London AM fix.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

281 Australian gold production, imports and exports

	Unit	1991	1992	1993	1994	1995	1996	1997	1998
Production									
Mine	t	236.3	243.7	247.9	255.0	253.1	289.0	313.8	310.1
Refined primary									
Australian origin	t	224.1	231.2	236.3	245.8	249.7	290.2	303.4	264.0
Overseas origin	t	34.6	52.4	51.9	45.7	39.3	34.9	29.3	17.6
Refined secondary									
Australian origin	t	2.6	6.7	8.3	8.9	8.4	3.6	0.8	11.0
Overseas origin	t	0.4	0.2	0.3	2.3	0.3	0.5	8.2	115.6
Exports									
Refined and other									
Hong Kong	t	38.3	42.2	38.1	23.6	11.0	13.3	49.7	41.5
Japan	t	74.3	58.1	64.3	80.7	71.0	28.4	14.0	25.6
Malaysia	t	1.6	0.0	5.1	16.4	15.5	8.4	9.8	0.6
Singapore	t	84.0	137.8	78.4	82.8	92.8	49.6	99.8	61.8
South Korea	t	16.2	23.3	26.2	43.4	86.6	180.5	128.0	82.1
Switzerland	t	18.6	8.2	10.6	1.2	12.3	18.6	18.3	54.9
Thailand	t	0.8	10.3	14.2	14.3	15.0	13.3	9.4	8.5
United Kingdom	t	6.3	4.1	29.5	8.3	6.7	9.9	1.2	122.2
Australian origin	t	224.2	245.3	222.8	228.8	276.5	289.8	302.7	370.7
	$m	3 185.0	3 671.3	3 788.9	3 856.6	4 592.2	4 656.6	4 369.3	5 590.2
Overseas origin	t	35.0	52.6	52.2	47.9	39.6	35.4	37.5	133.2
	$m	498.8	786.6	883.4	807.6	658.9	566.5	542.5	2 030.7
Imports									
Refined and unrefined	$m	862.0	1 101.2	1 000.7	771.4	726.7	639.9	794.9	3 158.8
Price a	$/oz	465	468	531	528	521	498	446	469

a Average London AM fix price, expressed in Australian dollars.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

282 Australian gold production, by state

	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australia
	t	t	t	t	t	t	t	t
Mine production								
1976	0.50	0.06	1.44	na	7.48	1.50	4.62	15.60
1977	0.43	0.01	1.08	na	10.75	1.89	5.25	19.41
1978	0.42	0.01	0.61	na	13.33	1.89	3.88	20.14
1979	0.47	0.02	0.52	na	11.58	1.75	4.22	18.56
1980	0.57	0.04	0.68	na	11.23	1.31	3.19	17.02
1981	0.59	0.08	1.51	na	11.72	1.95	2.50	18.35
1982	0.61	0.10	0.58	na	20.60	1.74	3.32	26.95
1983	0.67	0.11	1.06	na	23.92	2.08	2.74	30.58
1984	1.11	0.41	1.75	na	32.11	1.93	2.99	40.30
1985	1.54	0.96	9.28	na	41.20	2.33	3.22	58.53
1986	0.96	1.15	11.12	na	53.88	2.67	5.30	75.10
1987	4.25	1.21	15.43	0.00	78.08	2.23	8.71	109.90
1988	5.63	1.77	24.78	0.01	110.75	2.03	11.97	156.95
1989	8.75	1.84	27.72	0.28	146.61	1.76	17.06	204.02
1990	8.05	3.93	29.73	0.89	180.79	1.68	19.04	244.10
1991	6.33	3.76	27.06	0.76	179.44	1.62	17.30	236.28
1992	5.65	3.35	32.61	1.05	181.29	1.15	18.64	243.74
1993	8.58	4.07	32.43	0.93	183.49	1.32	17.09	247.90
1994	8.13	3.83	30.67	1.10	192.48	1.39	17.42	255.01
1995	10.03	4.30	28.76	0.97	189.84	0.75	18.44	253.08
1996	11.31	4.52	28.65	1.25	220.19	1.74	21.89	289.03
1997	11.71	4.82	29.34	1.42	238.04	4.15	24.33	313.81
1998	14.76	4.89	32.38	1.52	231.99	4.14	20.39	310.07
Share of total								
1976	3.21	0.38	9.23	na	47.95	9.62	29.62	
1977	2.22	0.05	5.56	na	55.38	9.74	27.05	
1978	2.09	0.05	3.03	na	66.19	9.38	19.27	
1979	2.53	0.11	2.80	na	62.39	9.43	22.74	
1980	3.35	0.24	4.00	na	65.98	7.70	18.74	
1981	3.22	0.44	8.23	na	63.87	10.63	13.62	
1982	2.26	0.37	2.15	na	76.44	6.46	12.32	
1983	2.19	0.36	3.47	na	78.22	6.80	8.96	
1984	2.75	1.02	4.34	na	79.68	4.79	7.42	
1985	2.63	1.64	15.86	na	70.39	3.98	5.50	
1986	1.28	1.53	14.81	na	71.74	3.56	7.06	
1987	3.87	1.10	14.04	0.00	71.04	2.03	7.93	
1988	3.59	1.13	15.79	0.01	70.57	1.29	7.63	
1989	4.29	0.90	13.59	0.14	71.86	0.86	8.36	
1990	3.30	1.61	12.18	0.36	74.06	0.69	7.80	
1991	2.68	1.59	11.45	0.32	75.94	0.69	7.32	
1992	2.32	1.38	13.38	0.43	74.38	0.47	7.65	
1993	3.46	1.64	13.08	0.37	74.02	0.53	6.89	
1994	3.19	1.50	12.03	0.43	75.48	0.55	6.83	
1995	3.96	1.70	11.36	0.38	75.01	0.30	7.28	
1996	3.91	1.56	9.91	0.43	76.18	0.60	7.57	
1997	3.73	1.54	9.35	0.45	75.86	1.32	7.75	
1998	4.76	1.58	10.44	0.49	74.82	1.34	6.57	

na Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

283 World supply, demand and price of gold

	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998
Supply										
Mine production										
Australia	t	244	236	244	248	255	253	289	314	310
South Africa	t	605	601	614	620	584	522	495	493	464
United States	t	294	296	329	332	326	319	329	356	365
Canada	t	167	175	160	153	146	150	164	169	166
Russia	t	na	na	152	165	158	142	133	137	127
Former Soviet Union	t	270	252	na	na	na	na	na	na	na
China	t	96	104	112	119	121	133	145	157	161
Europe	t	35	32	25	25	27	29	30	33	34
Asia	t	108	139	169	172	176	188	208	216	267
Latin America	t	220	210	215	229	252	282	304	312	336
Other Africa	t	71	90	101	111	119	132	129	141	169
Other	t	22	24	112	114	115	123	132	154	147
Total mine production	t	2 133	2 159	2 234	2 287	2 278	2 273	2 357	2 480	2 545
Forward sales and option hedging	t	229	111	259	215	215	558	130	472	88
Net official sales	t	198	111	622	464	81	173	275	376	398
Net scrap sales	t	530	480	487	574	615	623	640	629	1 093
Net other sales	t	5	304	0	0	172	0	108	270	0
Total supply **a**	t	3 095	3 166	3 602	3 541	3 362	3 627	3 510	4 228	4 124
Demand										
Fabrication consumption										
Jewellery	t	2 188	2 358	2 760	2 553	2 615	2 780	2 837	3 342	3 156
Electronics	t	216	205	176	180	191	206	211	235	223
Dentistry	t	62	63	65	63	64	67	68	70	64
Official coins	t	123	143	93	117	80	84	63	99	122
Medals and unofficial coins	t	22	27	29	25	27	35	33	42	46
Other	t	73	73	84	98	104	108	111	117	108
Total fabrication	t	2 683	2 868	3 208	3 037	3 079	3 280	3 322	3 905	3 719
Net purchases of	t									
unfabricated products	t	411	297	394	503	283	347	187	323	405
Total demand **a**	t	3 095	3 166	3 602	3 541	3 362	3 627	3 510	4 228	4 124
Gold price **b**	US$/oz	384	362	344	360	384	384	388	331	294

a Total supply is defined as the flow of new mine output, and the net sale of above-ground stocks, while total demand is equal to net gold purchases. This classification of annual gold flows is symmetric, so that total annual supply equals total annual demand. **b** Average London AM fix price, expressed in US dollars. **na** Not applicable.

Sources: ABARE, *Australian Commodities,* Canberra; Gold Fields Mineral Services Ltd, *Gold,* London.

284 Summary of Australian statistics for gypsum

		Exports a		
	Production	Volume	Value	Unit value
	kt	kt	$'000	$/t
1960	590.2	87.0	479	5.51
1961	619.7	90.0	570	6.33
1962	641.0	141.6	747	5.27
1963	737.1	146.1	715	4.89
1964	807.8	208.8	1 008	4.83
1965	846.9	140.9	747	5.30
1966	814.4	235.2	1 100	4.68
1967	928.8	211.0	879	4.17
1968	857.3	251.9	1 135	4.51
1969	912.1	232.8	1 006	4.32
1970	845.4	218.4	1 051	4.81
1971	889.2	258.3	1 251	4.84
1972	959.1	282.3	1 444	5.12
1973	1 165.2	437.3	2 128	4.87
1974	1 068.9	303.2	1 778	5.86
1975	932.6	215.8	1 539	7.13
1976	941.9	187.7	1 527	8.13
1977	916.0	190.5	1 624	8.52
1978	939.9	181.0	1 640	9.06
1979	1 230.2	423.0	3 105	7.34
1980	1 309.3	389.3	3 814	9.80
1981	1 752.3	645.2	6 861	10.63
1982	1 863.7	604.5	7 982	13.20
1983	1 509.8	800.0	11 044	13.81
1984	1 931.2	726.0	9 653	13.30
1985	1 744.5	516.0	8 362	16.21
1986	1 671.0	423.2	7 702	18.20
1987	1 811.9	195.4	2 968	15.19
1988	1 655.9	116.2	1 391	11.97
1988-89	1 834.6	68.1	1 048	15.39
1989-90	1 885.0	na	na	na
1990-91	1 381.7	53.2	759	14.28
1991-92	1 595.9	160.7	1 775	11.04
1992-93	1 484.3	161.6	1 807	11.19
1993-94	1 514.8	151.7	2 036	13.42
1994-95	1 843.3	231.1	2 993	12.95
1995-96	1 717.7	85.6	1 476	17.24
1996-97	1 891.1	116.9	2 134	18.25
1997-98	2 564.2	570.9	12 070	21.14
1998-99	na	988.8	18 781	18.99

a Raw gypsum. Bulk only to 1978; bulk and bagged thereafter. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABARE.

285 Australian production of gypsum, by state

	New South Wales	Victoria	Queensland	South Australia	Western Australia	Australia
	kt	kt	kt	kt	kt	kt
1960	97.0	102.0	na	346.2	44.9	590.2
1961	98.8	81.5	na	393.5	45.9	619.7
1962	73.0	80.0	na	435.6	52.5	641.0
1963	63.2	116.3	na	505.9	51.6	737.1
1964	65.6	105.9	na	590.5	45.7	807.8
1965	59.3	171.3	na	568.9	47.4	846.9
1966	45.7	113.1	na	613.1	42.6	814.4
1967	43.2	227.7	na	617.2	40.7	928.8
1968	32.8	78.7	na	640.1	105.6	857.3
1969	32.1	85.7	na	728.8	65.4	912.1
1970	39.0	47.6	na	667.4	91.4	845.4
1971	36.4	46.3	na	652.7	153.9	889.2
1972	39.1	42.1	na	721.5	156.5	959.1
1973	32.8	43.7	na	921.9	166.8	1 165.2
1974	42.6	43.0	na	769.8	213.5	1 068.9
1975	34.2	54.1	na	759.3	85.1	932.6
1976	36.2	69.0	na	721.0	115.8	941.9
1977	33.6	84.8	na	694.0	103.7	916.0
1978	18.0	107.4	na	648.1	166.3	939.9
1979	26.8	201.2	na	782.3	219.9	1 230.2
1980	25.0	269.4	na	768.6	246.3	1 309.3
1981	20.2	282.8	na	1 017.2	432.0	1 752.3
1982	17.4	235.9	na	1 159.3	451.2	1 863.7
1983	14.7	79.3	na	924.0	491.9	1 509.8
1984	38.9	236.4	na	1 018.2	637.7	1 931.2
1985	51.0	239.8	na	1 001.9	451.8	1 744.5
1986	47.3	173.4	na	1 135.8	314.5	1 671.0
1987	34.5	412.0	na	1 229.4	136.0	1 811.9
1988	33.7	233.0	na	1 277.2	112.0	1 655.9
1988-89	27.8	241.4	na	1 399.4	166.0	1 834.6
1989-90	29.0	301.0	na	1 400.0	155.0	1 885.0
1990-91	27.5	49.2	na	1 222.5	82.5	1 381.7
1991-92	18.7	301.5	na	1 173.9	101.8	1 595.9
1992-93	24.0	75.0	na	1 260.5	124.8	1 484.3
1993-94	na	na	3.8	1 315.8	195.2	1 514.8
1994-95	69.0	40.9	24.9	1 478.9	229.6	1 843.3
1995-96	37.3	na	25.6	1 401.8	252.9	1 717.7
1996-97	43.2	na	40.6	1 555.3	251.9	1 891.1
1997-98	105.2	na	36.4	1 596.0	826.6	2 564.2

na Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABARE.

286 Australian exports of gypsum

	Raw a						Calcined	
					Total			
	Indonesia	New Zealand	Singapore	Other	Volume	Value	Volume	Value
	kt	kt	kt	kt	kt	$'000	t	$'000
1960	0.0	72.4	0.0	14.6	87.0	479	na	na
1961	0.0	70.3	0.0	19.7	90.0	570	na	na
1962	0.0	80.4	0.0	61.3	141.6	747	na	na
1963	0.0	78.2	0.0	67.9	146.1	715	na	na
1964	0.0	106.0	0.0	102.8	208.8	1 008	na	na
1965	5.1	102.2	0.0	33.6	140.9	747	na	na
1966	5.6	109.7	0.0	119.9	235.2	1 100	na	na
1967	14.0	87.7	0.0	109.3	211.0	879	na	na
1968	10.6	85.8	0.0	155.6	251.9	1 135	na	na
1969	21.1	101.5	17.0	93.2	232.8	1 006	na	na
1970	11.7	104.8	18.8	83.2	218.4	1 051	na	na
1971	15.9	100.3	12.1	129.9	258.3	1 251	na	na
1972	23.6	107.7	26.3	124.6	282.3	1 444	na	na
1973	26.2	147.5	42.1	221.4	437.3	2 128	na	na
1974	30.6	173.1	14.9	84.6	303.2	1 778	na	na
1975	15.6	151.7	27.3	21.2	215.8	1 539	na	na
1976	34.5	122.9	27.5	2.8	187.7	1 527	na	na
1977	37.9	113.0	15.9	23.8	190.5	1 624	na	na
1978	29.7	84.5	16.2	50.6	181.0	1 640	na	na
1979	148.1	63.7	49.7	161.5	423.0	3 105	1 696	223
1980	197.9	98.3	42.9	50.2	389.3	3 814	2 003	172
1981	183.0	104.6	67.1	290.5	645.2	6 861	1 771	188
1982	173.6	124.5	88.0	218.5	604.5	7 982	2 350	263
1983	174.4	98.2	110.4	416.9	800.0	11 044	3 187	416
1984	251.4	128.2	96.9	249.5	726.0	9 653	6 196	901
1985	192.6	143.0	57.0	123.5	516.0	8 362	4 751	728
1986	148.1	118.1	38.4	118.7	423.2	7 702	5 348	893
1987	15.5	122.7	0.0	57.2	195.4	2 968	4 866	848
1988	0.0	116.2	0.0	0.0	116.2	1 391	4 704	845
1988-89	0.1	68.0	0.0	0.0	68.1	1 048	3 940	752
1989-90	0.1	na	0.0	na	na	na	10 437	1 032
1990-91	0.0	15.5	0.0	37.6	53.2	759	5 702	1 100
1991-92	0.0	97.2	0.0	63.5	160.7	1 775	6 128	1 318
1992-93	0.0	111.5	12.0	38.1	161.6	1 807	8 610	1 958
1993-94	0.0	101.6	0.0	50.1	151.7	2 036	9 986	2 408
1994-95	0.0	155.2	12.4	63.5	231.1	2 993	8 836	2 338
1995-96	0.2	32.3	0.0	53.1	85.6	1 476	11 477	3 212
1996-97	1.3	0.4	0.1	115.0	116.9	2 134	12 012	3 487
1997-98	48.2	0.8	0.2	521.7	570.9	12 070	17 538	5 656
1998-99	38.5	0.1	0.0	950.2	988.8	18 781	6 926	2 046

a Bulk only to 1978; bulk and bagged thereafter. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

287 World mine production of gypsum, by country

	Australia	Canada	China a	France	Japan	Spain	United States	Other	Total
	kt	kt	kt	kt	kt	kt	kt	kt	kt
1960	590	4 620	na	3 777	735	2 487	8 913	19 520	40 642
1961	620	4 591	na	3 836	724	3 052	8 618	20 217	41 658
1962	641	4 837	na	3 997	800	3 557	8 221	22 653	44 706
1963	737	5 381	na	4 208	782	4 598	9 424	21 608	46 738
1964	808	5 770	na	4 913	751	2 854	9 692	21 951	46 738
1965	847	5 720	na	5 013	649	2 855	9 104	20 518	44 706
1966	814	5 427	na	5 272	597	2 947	8 751	20 898	44 706
1967	929	4 471	na	5 190	584	2 947	8 522	22 064	44 706
1968	857	5 664	na	5 162	572	3 963	9 235	23 064	48 516
1969	912	6 334	na	6 055	569	4 064	9 108	23 557	50 599
1970	845	5 844	na	6 088	581	4 288	8 584	24 570	50 800
1971	889	6 169	na	5 111	536	4 200	9 451	26 644	53 000
1972	959	7 200	na	5 850	465	4 100	11 840	27 236	57 650
1973	1 165	7 540	na	6 160	460	4 100	12 330	29 105	60 860
1974	1 069	7 470	na	6 220	na	4 400	10 890	31 941	61 990
1975	933	5 700	na	5 800	na	4 200	8 800	31 567	57 000
1976	942	6 002	na	5 900	na	4 200	10 868	34 858	62 770
1977	916	7 234	na	6 032	na	5 482	12 147	39 894	71 705
1978	940	8 075	1 500	6 036	na	5 369	13 509	40 280	75 709
1979	1 230	8 098	3 630	6 240	na	5 275	13 272	43 615	81 360
1980	1 309	7 209	3 360	5 889	na	5 223	11 227	43 150	77 367
1981	1 752	7 025	3 450	6 147	na	5 223	10 430	42 129	76 156
1982	1 864	5 987	3 540	6 039	6 363	5 048	9 560	33 913	72 314
1983	1 510	7 507	4 260	5 544	5 845	5 620	11 688	36 695	78 669
1984	1 931	7 756	4 810	5 400	6 100	5 365	12 990	36 378	80 730
1985	1 744	8 400	5 700	5 400	6 300	5 500	13 360	38 706	85 110
1986	1 671	8 500	6 500	5 500	6 300	5 500	14 300	39 309	87 580
1987	1 812	8 600	6 800	5 400	6 300	5 500	14 300	39 680	88 160
1988	1 656	8 500	8 100	5 400	6 300	5 500	14 870	49 534	99 860
1989	1 835	8 700	8 100	5 700	6 300	5 500	16 000	46 385	98 520
1990	1 885	8 200	8 000	5 620	6 350	5 000	14 550	48 055	97 660
1991	1 382	8 000	8 100	5 600	6 350	5 000	14 022	45 481	93 935
1992	1 596	7 054	10 977	5 715	5 443	4 990	14 759	47 257	97 791
1993	1 484	7 345	9 616	4 536	4 990	6 804	14 344	44 504	93 623
1994	1 515	8 500	10 500	5 000	5 300	7 250	17 200	45 735	101 000
1995	1 843	7 960	11 000	5 000	3 900	7 500	16 600	44 297	98 100
1996	1 718	8 330	8 000	5 000	5 350	8 000	17 500	45 802	99 700
1997	1 891	8 500	7 800	5 000	5 500	7 400	18 600	49 309	104 000
1998 p	2 564	8 500	8 000	5 000	5 500	7 400	19 000	49 036	105 000

a Excludes Hong Kong. **p** Preliminary. **na** Not available.

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; US Department of the Interior, US Geological Survey, *Mineral Commodity Summaries,* Washington DC; ABARE.

288 Summary of Australian statistics for iron ore and steel a

	Production					Exports		
	Iron ore							
	Pellets kt	Total kt	Pig iron kt	Crude steel kt	Iron ore consumption kt	Iron ore and pellets kt	Pig iron kt	Crude steel b kt
1960	na	4 455	2 929	3 747	4 700	na	101	10
1961	0	5 463	3 211	3 844	5 700	0	301	88
1962	0	5 048	3 490	4 235	5 100	0	160	100
1963	0	5 689	3 683	4 652	5 600	0	135	32
1964	0	5 846	4 049	5 099	5 500	13	57	9
1965	0	6 805	4 252	5 464	6 500	152	46	10
1966	0	11 071	4 743	5 891	7 500	2 045	97	255
1967	0	17 314	5 058	6 268	7 900	9 164	152	344
1968	3 000	26 632	5 573	6 503	8 600	16 398	246	356
1969	5 871	38 576	6 107	7 016	9 300	26 858	375	545
1970	5 957	51 188	6 148	6 822	9 400	41 112	310	226
1971	6 800	62 063	6 128	6 737	9 600	52 796	519	122
1972	6 424	64 401	6 491	6 743	9 600	54 079	582	597
1973	10 153	84 828	7 658	7 682	11 300	74 181	853	771
1974	10 066	96 950	7 250	7 755	10 700	83 654	753	775
1975	9 469	97 651	7 475	7 843	11 000	80 363	520	1 636
1976	9 594	93 255	7 417	7 774	10 900	81 231	698	1 534
1977	10 226	95 932	6 753	7 313	9 900	78 908	647	1 280
1978	9 471	83 134	7 337	7 589	10 800	75 264	711	1 008
1979	9 303	91 717	7 811	8 125	11 500	78 447	643	611
1980	5 329	95 534	6 959	7 594	11 585	80 375	515	306
1981	3 887	84 661	6 830	7 635	11 810	71 729	158	378
1982	3 321	87 694	5 956	6 371	10 853	72 567	101	218
1983	3 043	71 040	5 045	5 657	8 923	74 088	469	384
1984	3 497	94 406	5 329	6 303	9 380	85 477	71	294
1985	3 725	92 900	5 607	6 578	8 673	84 746	26	583
1986	3 338	94 015	5 889	6 703	9 680	79 523	26	496
1987	3 309	101 748	5 569	6 125	9 319	77 829	165	523
1988	3 400	96 064	5 730	6 399	9 570	94 855	25	843
1989	3 600	105 810	6 094	6 735	8 836 s	101 681	24	948
1990	4 537	110 509	6 125	6 666	8 881 s	95 928	1	1 740
1991	3 475	117 673	5 647	6 017	8 188 s	111 557	0	1 934
1992	1 437	112 115	6 388	6 990	9 263 s	103 487	0	2 315
1993	1 512	120 534	7 284	7 837	10 926 s	111 527	0	2 621
1994	1 507	128 493	7 855	8 455	11 783 s	119 093	0	3 069
1995	1 596	142 936	7 861	8 447	11 791 s	130 369	0	2 950
1996	1 608	152 138	7 381	8 400	11 662 s	128 274	0	3 130
1997	168	156 286	7 884	8 769	12 131 s	146 757	0	3 188
1998	3 618	160 731	7 724	7 724	11 515 s	136 418	0	3 364

a Iron ore figures expressed in dry weight. **b** Series up to and including 1987 do not include flat rolled products, bars and rods, and wire and steel sections. Subsequent series include all items in ABS, *Australian Harmonized Export Commodity Classification,* chapter 72, 'Iron and steel', excluding ferrous waste, scrap and ferroalloys. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

289 Australian exports of steel, by destination [a]

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	2	4	2	1	1	2	4	18
Americas								
North	380	442	437	530	310	636	456	1 123
Other	10	0	16	11	21	16	53	129
Total	390	442	453	541	330	652	509	1 252
Asia								
China	10	17	74	38	57	155	58	56
Chinese Taipei	316	523	654	711	624	576	445	287
Hong Kong	21	22	42	56	109	133	195	154
India	8	16	1	76	82	11	4	154
Indonesia	146	96	246	234	213	211	296	51
Japan	117	214	177	187	210	204	127	76
Malaysia	57	56	176	178	223	248	270	87
Philippines	169	181	137	107	149	84	232	88
Singapore	80	83	105	99	93	89	116	57
South Korea	213	256	262	548	373	363	474	302
Thailand	63	71	86	88	188	152	181	154
Other	12	14	23	23	35	29	14	11
Total	1 211	1 550	1 982	2 344	2 355	2 256	2 413	1 476
Europe	36	72	33	3	24	50	59	464
Middle East	198	139	22	27	30	19	38	41
New Zealand	62	71	82	108	95	103	111	90
Other	35	38	45	44	113	49	53	23
Total	1 934	2 315	2 621	3 069	2 950	3 130	3 188	3 365

a Includes all items in ABS, *Australian Harmonized Export Commodity Classification,* chapter 72, 'Iron and steel', excluding ferrous waste, scrap and ferroalloys.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

290 Australian supply and disposal of iron ore and steel

	Unit	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Production								
Iron ore and concentrate	kt	115 976	124 306	136 992	147 861	153 345	161 146	153 426
Pig iron	kt	6 445	7 209	7 449	7 554	7 545	7 928	7 513
Raw steel	kt	7 310	8 208	8 428	8 471	8 427	9 093	8 489
Exports								
Iron ore and pellets	kt	107 600	114 365	128 814	126 185	137 557	142 208	135 204
	$m	2 895.3	2 777.2	2 773.5	2 864.7	3 155.2	3 791.0	3 845.2
Iron and steel	kt	2 362.6	2 913.7	2 860.9	3 130.4	3 212.2	3 347.0	3 332.5
	$m	1 085.1	1 306.7	1 378.6	1 510.3	1 384.6	1 608.1	1 315.8
Ferroalloys	kt	121.9	163.8	148.1	155.7	161.3	145.1	153.1
	$m	64.5	90.9	84.2	104.5	80.6	75.6	92.0
Scrap	kt	930.9	543.6	300.5	605.2	668.1	646.7	697.2
	$m	145.5	112.8	101.3	172.3	128.7	149.1	125.2
Export unit value								
Iron ore and pellets	$/t	26.91	24.28	21.53	22.70	22.94	26.66	28.44

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

291 Australian iron ore exports, by destination [a]

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Asia								
China	13 719	13 839	17 041	17 160	22 922	23 231	31 510	26 840
Chinese Taipei	4 797	4 427	5 244	5 237	4 906	5 418	7 788	7 306
Japan [b]	56 943	50 382	52 155	54 905	57 575	57 843	64 215	60 633
South Korea	12 006	14 034	16 933	16 623	17 515	16 732	16 867	17 793
Other	1 597	886	1 411	1 442	1 088	1 193	1 137	725
United States	111	231	403	695	635	483	628	1 038
Western Europe	12 438	12 848	12 108	21 604	24 060	22 551	23 788	21 333
Other [c]	9 945	6 842	6 232	1 427	1 668	822	825	750
Total	111 557	103 487	111 527	119 093	130 369	128 274	146 757	136 418

a Dry weight. **b** Includes exports to the Philippines which were subsequently re-exported to Japan. **c** Includes data for which details of export destinations are not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

292 Summary of world statistics for iron ore and steel

	Production				
	Iron ore a				
	Pellets	Total	Pig iron	Crude steel	Iron ore exports a
	Mt	Mt	Mt	Mt	Mt
1960	16.1	522.0	241.5	347.1	151.9
1961	17.9	503.8	251.1	347.2	149.2
1962	22.0	523.4	257.2	353.6	157.9
1963	29.6	516.2	272.4	379.2	164.7
1964	40.5	568.9	307.9	429.9	198.7
1965	46.5	624.3	326.3	452.4	211.7
1966	58.0	625.9	335.8	471.3	214.9
1967	71.5	629.2	352.4	493.3	223.7
1968	94.5	687.7	378.4	523.9	256.7
1969	104.3	720.3	408.4	570.9	278.8
1970	117.9	773.9	426.5	595.3	323.1
1971	122.2	780.5	423.1	582.3	318.0
1972	127.5	781.7	447.1	630.2	311.4
1973	150.7	845.6	493.5	696.4	377.0
1974	153.6	896.3	503.4	703.5	411.8
1975	161.5	888.8	469.9	643.5	381.0
1976	174.5	922.9	489.4	675.1	379.8
1977	163.3	880.8	485.8	675.3	358.0
1978	182.6	891.3	506.7	716.5	350.6
1979	205.4	947.6	528.3	746.7	398.1
1980	186.3	917.9	508.1	716.3	384.6
1981	195.2	894.6	497.2	707.1	372.9
1982	155.1	818.2	452.6	644.9	329.3
1983	171.0	782.1	458.1	663.4	315.1
1984	192.8	882.2	490.7	710.3	372.4
1985	201.9	909.6	499.6	718.9	375.8
1986	196.5	920.7	496.3	714.0	370.0
1987	211.5	930.3	509.0	735.5	367.8
1988	230.2	964.4	538.4	780.1	400.9
1989	237.1	993.9	544.8	785.9	424.3
1990	225.3	973.3	531.6	770.1	397.3
1991	211.5	943.8	504.0	733.6	398.9
1992	205.9	914.5	498.7	719.7	365.9
1993	205.3	939.4	501.2	727.5	396.5
1994	218.7	964.3	508.5	725.2	421.9
1995	245.3	1 016.6	524.2	752.4	445.8
1996	238.9	1 012.0	517.4	750.5	432.8
1997	248.2	1 049.5	545.0	799.0	470.2
1998	245.5	1 043.1	541.8	775.3	458.3

a Natural weight.

Sources: Association of Iron Ore Exporting Countries, *Iron Ore Statistics,* Geneva; United Nations Conference on Trade and Development, Trust Fund on Iron Ore, *Iron Ore Statistics,* Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics, Iron Ore Statistics,* Geneva; United Nations Conference on Trade and Development, *Statistical Issues: Statistics on Iron Ore,* Geneva.

293 World iron ore production, by country [a]

	1991 Mt	1992 Mt	1993 Mt	1994 Mt	1995 Mt	1996 Mt	1997 Mt	1998 Mt
Australia	121.8	117.2	127.0	134.6	146.2	154.6	165.7	161.1
Brazil [b]	150.7	145.8	150.0	167.8	178.4	179.9	188.0	183.1
Canada	37.1	34.5	32.3	37.8	38.9	35.7	37.3	38.9
China [c]	175.3	195.9	234.7	239.0	250.4	250.5	260.0	260.5
Former Soviet Union [d]	198.9	175.2	154.1	133.2	135.1	125.7	128.4	129.7
France	7.5	5.7	3.5	2.4	1.5	1.5	0.5	0.0
India	56.9	54.9	55.8	58.4	66.8	67.3	69.4	75.0
Liberia	1.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0
South Africa	29.0	28.2	29.4	30.5	32.0	30.8	33.2	33.0
Sweden	19.3	19.3	18.7	19.9	21.7	21.3	21.9	20.9
United States	56.8	55.6	55.7	58.4	62.5	62.1	63.0	62.9
Venezuela	20.0	18.1	16.4	16.1	19.0	18.7	18.7	17.2
Other	69.4	62.5	61.6	66.2	64.3	63.9	63.5	60.8
Total	943.8	914.5	939.4	964.3	1 016.6	1 012.0	1 049.5	1 043.1

a Natural weight. **b** Pellets not included. **c** Low Fe content. **d** Commonwealth of Independent States (CIS) from 1992. Members of the former Soviet Union that are not part of the CIS are Lithuania, Latvia, Estonia and Georgia.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; United Nations Conference on Trade and Development, Trust Fund on Iron Ore, *Iron Ore Statistics,* Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics, Iron Ore Statistics,* Geneva.

294 World iron ore exports, by country [a]

	1991 Mt	1992 Mt	1993 Mt	1994 Mt	1995 Mt	1996 Mt	1997 Mt	1998 Mt
Australia	115.9	106.6	116.8	125.0	137.1	135.5	155.6	144.6
Brazil	114.7	106.0	111.9	125.0	131.4	129.7	140.4	143.2
Canada	29.7	25.1	26.2	30.0	28.7	27.9	32.3	30.2
Former Soviet Union [b]	27.4	26.5	29.0	28.4	30.0	28.3	30.3	29.8
India	31.5	27.6	31.0	30.6	32.3	31.7	31.1	32.2
Liberia	1.1	1.5	0.3	0.0	0.1	0.0	0.1	0.1
Mauritania	10.5	8.1	9.7	10.3	11.5	11.2	11.7	11.4
South Africa	15.5	14.9	19.0	19.6	21.8	19.3	20.7	22.1
Sweden	15.5	15.5	16.4	15.4	17.1	16.1	18.3	16.0
Venezuela	13.4	10.2	10.4	10.7	10.6	9.6	9.3	8.6
Other	23.8	23.9	25.8	26.8	25.2	23.5	20.4	20.1
Total	398.9	365.9	396.5	421.9	445.8	432.8	470.2	458.3

a Natural weight. **b** Commonwealth of Independent States (CIS) from 1992. Members of the former Soviet Union that are not part of the CIS are Lithuania, Latvia, Estonia and Georgia.

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; United Nations Conference on Trade and Development, Trust Fund on Iron Ore, *Iron Ore Statistics,* Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics, Iron Ore Statistics,* Geneva.

295 World iron ore imports, by region and country a

	1990 Mt	1991 Mt	1992 Mt	1993 Mt	1994 Mt	1995 Mt	1996 Mt	1997 Mt	1998 Mt
Africa and Middle East									
Qatar	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Saudi Arabia	1.6	1.8	2.3	2.5	2.7	2.7	3.2	2.7	3.3
Other	4.2	5.4	5.4	7.4	8.5	9.0	8.3	9.3	7.9
Total	6.4	7.8	8.2	10.5	11.8	12.3	12.1	12.6	11.8
Americas									
Argentina	3.2	2.9	2.6	3.1	3.8	4.4	4.9	5.3	5.4
Canada	4.1	5.0	5.3	5.4	5.3	6.0	6.9	7.1	7.2
Mexico	0.4	0.2	0.4	0.7	0.7	1.7	2.2	2.8	4.0
United States	18.1	13.3	12.5	14.1	17.5	17.5	18.4	18.6	17.0
Other	1.0	1.0	0.8	1.2	1.6	1.5	1.9	1.8	2.0
Total	26.8	22.4	21.6	24.5	28.9	31.1	34.3	35.6	35.6
Asia and Oceania									
China	14.3	18.5	25.2	33.0	37.3	41.2	43.9	55.1	51.8
Chinese Taipei	7.8	8.4	7.3	9.0	8.3	9.2	10.1	14.0	14.2
Indonesia	2.0	1.8	2.0	2.3	2.0	2.8	2.4	2.5	1.9
Japan	125.3	127.2	113.7	114.5	116.1	120.4	119.2	126.6	120.8
Malaysia	1.2	1.2	1.0	1.5	1.4	1.8	1.8	2.1	0.8
Pakistan	1.5	1.6	1.3	2.0	1.9	1.7	1.5	1.7	1.3
South Korea	22.6	28.9	31.8	35.5	34.3	35.1	34.8	38.6	33.6
Other	0.7	0.7	0.2	0.4	1.0	1.4	1.5	1.3	2.0
Total	175.4	188.3	182.5	198.2	202.3	213.6	215.2	241.9	226.4
Europe									
Austria	3.9	4.0	3.9	3.6	3.9	4.3	4.5	5.0	5.3
Belgium–Luxembourg	20.3	19.4	18.0	15.5	17.4	15.8	13.0	11.2	13.3
Bulgaria	2.0	1.3	1.2	1.6	1.8	2.3	2.1	2.2	2.1
East Germany	3.5	na	na	na	na	na	na	na	na
Finland	3.2	3.1	3.4	3.4	3.5	3.0	3.3	3.7	3.9
Former Czechoslovakia	14.2	12.4	11.8	12.8	11.6	14.0	12.3	11.9	12.0
Former Yugoslavia	2.0	0.6	0.8	0.0	0.0	0.0	1.0	1.5	1.4
France	18.8	18.2	17.4	16.6	20.1	20.2	18.4	20.2	20.6
Germany b	43.7	43.3	41.3	35.3	42.7	43.3	39.4	41.8	45.0
Hungary	2.5	1.5	1.8	2.3	2.2	2.1	2.3	1.8	1.8
Italy	17.2	17.9	15.1	16.7	16.4	18.3	16.0	16.7	16.4
Netherlands	8.3	7.9	7.5	8.6	8.6	8.7	8.4	8.6	8.8
Norway	0.0	0.0	0.1	0.6	0.0	0.2	0.5	0.5	0.4
Poland	12.0	8.7	8.1	8.8	8.4	10.5	9.5	10.1	8.5
Portugal	0.4	0.5	0.6	0.6	0.6	0.7	0.6	0.6	0.6
Romania	11.3	6.9	2.3	3.6	5.5	6.3	5.8	6.6	7.0
Spain	6.7	7.6	7.1	6.7	7.6	7.3	6.1	5.9	6.6
Turkey	2.0	2.7	1.9	2.0	2.0	3.2	3.3	3.0	3.5
United Kingdom	17.6	18.5	15.8	15.9	19.5	20.8	20.4	21.0	20.8
Other	0.6	0.5	0.5	0.6	0.5	0.2	0.1	0.0	0.1
Total	190.1	175.0	158.6	155.2	172.2	181.3	167.0	172.3	178.1
Total	398.7	393.5	370.9	388.4	415.2	438.3	428.6	462.4	451.9

a Natural weight. **b** West Germany until 1990; unified Germany from 1991. **na** Not available.

Sources: United Nations Conference on Trade and Development, Trust Fund on Iron Ore, *Iron Ore Statistics,* Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics,* Geneva.

296 Iron ore prices [a]

	Australian export unit value [b]		Spot [c]		Negotiated [e]	
			Nominal	Real [d]	Fines	Lump
	A$/t	US$/t	US$/t	US$/t	USc/dltu	USc/dltu
1960	na	na	17.08	80.93	na	na
1961	na	na	17.79	83.37	na	na
1962	na	na	16.75	77.65	na	na
1963	na	na	15.69	71.73	na	na
1964	6.09	6.82	15.69	70.95	na	na
1965	8.26	9.25	15.69	69.76	na	na
1966	8.38	9.39	15.25	65.77	12.00	15.50
1967	8.36	9.36	13.50	56.85	12.00	15.50
1968	8.67	9.71	12.62	50.95	12.00	15.50
1969	8.69	9.73	11.68	44.63	12.00	15.10
1970	8.04	9.00	15.22	55.03	11.90	15.00
1971	7.69	8.72	13.40	46.42	11.80	14.90
1972	7.29	8.69	12.79	42.92	11.70	14.80
1973	6.19	8.81	17.13	54.10	13.30	17.30
1974	7.04	10.13	19.00	53.98	15.40	19.30
1975	9.32	12.21	22.81	59.45	17.40	21.20
1976	10.23	12.53	22.72	55.96	17.70	21.70
1977	12.06	13.39	21.59	49.97	20.20	24.70
1978	12.06	13.81	19.39	41.73	21.20	24.30
1979	12.87	14.39	23.44	45.29	23.10	26.10
1980	14.59	16.63	28.09	47.82	27.60	31.20
1981	15.79	18.15	28.09	43.35	29.70	34.20
1982	19.88	20.23	32.50	47.26	34.80	40.00
1983	21.23	19.16	29.00	40.85	30.45	34.85
1984	18.87	16.60	26.15	35.31	26.67	30.87
1985	22.98	16.10	26.56	34.64	27.05	31.55
1986	24.33	16.32	26.26	33.61	25.97	30.29
1987	21.54	15.10	24.50	30.25	24.67	28.78
1988	18.45	14.60	23.50	27.88	23.68	28.78
1989	20.32	16.21	26.50	29.99	26.76	33.76
1990	23.31	18.34	30.80	33.07	31.03	39.15
1991	25.83	20.12	33.25	34.25	33.49	41.48
1992	27.14	19.90	31.60	31.60	31.85	38.84
1993	25.92	17.53	28.11	27.30	28.35	35.34
1994	21.71	15.83	25.47	24.11	25.66	33.26
1995	22.43	16.59	27.00	24.86	27.15	35.89
1996	22.62	17.68	28.60	25.59	28.78	37.68
1997	24.27	18.02	28.71	25.10	29.10	37.68
1998	29.10	18.33	29.69	25.55	29.92	38.79

a Nominal values, except where indicated. **b** Australia commenced commercial exports of iron ore in 1964. **c** Before 1965, Liberia Nimba, 27 per cent fines, cif North Sea ports; after 1965, Brazilian Itabira standard sinterfeed, 61.5 per cent iron, cif German ports. **d** In 1992 dollar terms. **e** Negotiated Japanese fiscal year hematite ores, fob. **na** Not available.

Sources: ABARE, *Australian Mineral Staistics,* Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; International Monetary Fund, *International Financial Statistics,* Washington DC; TEX Report Co. Ltd, *Iron Ore Manual,* Tokyo.

297 Summary of Australian statistics for lead

	Production				Exports d		
	Mine a	Bullion b	Refined c	Consumption	Volume	Value	Price e
	kt	kt	kt	kt	kt	$m	$/t
1960	313	54	190	54	253	41	196.79
1961	274	49	162	52	282	41	195.51
1962	376	74	190	50	388	50	161.62
1963	416	82	225	64	380	53	166.46
1964	381	80	203	63	350	73	235.49
1965	368	68	193	64	340	86	276.62
1966	371	75	193	65	354	79	248.83
1967	382	103	191	66	335	80	217.50
1968	389	118	175	66	334	87	218.55
1969	453	156	186	71	342	97	259.18
1970	457	171	180	62	401	123	282.14
1971	404	162	163	63	338	87	242.87
1972	396	139	180	63	320	87	245.24
1973	403	150	190	74	329	107	275.13
1974	375	144	193	72	315	155	389.28
1975	408	152	158	72	298	126	324.04
1976	397	161	182	75	359	157	358.52
1977	432	156	182	77	339	226	531.58
1978	400	152	204	74	369	236	563.19
1979	422	169	215	72	351	437	1 031.21
1980	398	160	200	79	344	570	843.27
1981	388	163	208	66	329	315	662.53
1982	455	182	219	56	397	334	621.85
1983	481	183	196	56	409	383	592.20
1984	441	179	199	59	427	358	515.80
1985	498	183	200	59	430	358	569.17
1986	445	188	156	60	412	361	605.14
1987	489	197	202	62	388	512	869.69
1988	462	191	193	60	420	490	884.25
1989	495	183	212	61	338	382	893.00
1990	565	195	212	58	398	464	1 124.25
1991	579	182	220	56	425	331	802.75
1992	580	231	232	59	542	460	813.50
1993	510	221	221	67	496	334	670.75
1994	505	197	212	78	465	368	810.75
1995	455	164	215	77	479	429	912.75
1996	527	191	204	67	488	496	1 074.75
1997	531	178	204	63	517	442	919.25
1998	619	164	171	55	578	534	914.50

a Total metallic content of minerals produced. **b** Metal content. **c** Primary lead production (excludes scrap). **d** Quantities refer to the total metallic content of all ores and concentrates, intermediate products and refined metal; the value of lead contained in other mine and smelter products (for example, in zinc concentrates) is included in the value of the metal in which it is exported. **e** BHAS, 99.97–99.99 per cent, fob/for Port Pirie.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

298 Australian supply and disposal of lead

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Production									
Mine a	kt	569	554	540	463	516	516	571	662
Bullion b	kt	202	234	208	177	181	191	171	157
Refined									
Primary	kt	216	220	217	205	224	202	185	196
Secondary	kt	20	23	26	25	24	25	26	30
Exports									
Ores and concentrates	kt	159	206	162	168	139	178	253	397
	$m	48.3	64.4	47.0	57.8	50.3	54.3	140.2	213.0
Bullion	kt	221	229	196	168	169	164	167	140
	$m	166.7	202.0	172.0	170.0	196.6	204.4	179.5	140.1
Refined metal	kt	181	180	171	188	193	177	177	201
	$m	147.0	139.3	121.0	181.0	209.1	200.7	172.9	180.0
Consumption c	kt	59	59	78	66	68	63	64	61
Export unit value									
Ores and concentrates	A$/t	304.2	312.7	289.5	343.3	362.4	305.3	554.8	536.2
Bullion	A$/t	753.7	882.2	879.0	1 010.4	1 166.1	1 250.1	1 078.1	999.5
Refined	A$/t	812.4	775.3	708.0	964.5	1 083.5	1 136.4	978.9	894.0

a Total metallic content of minerals produced. **b** Metal content. **c** Refined metal only. **p** Preliminary.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade:* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, Australian Mineral Industry, *Quarterly Summary Statistics,* Canberra.

299 Australian exports of lead, by destination [a]

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Ores and concentrates [b]								
Belgium	6	17	3	2	2	4	0	52
China	0	0	0	0	2	19	29	26
Japan	49	63	69	47	38	34	42	46
Germany	6	9	7	4	2	3	3	8
South Korea	1	0	12	26	30	10	8	64
United Kingdom	10	0	3	3	0	4	3	0
United States	0	0	0	0	3	0	6	14
Other	14	17	24	6	5	10	12	21
Total	86	106	118	88	82	84	103	231
Bullion								
Japan	3	1	3	0	0	0	0	0
South Korea	34	33	13	16	24	17	15	0
United Kingdom	154	207	179	162	137	151	156	134
Other	0	1	8	0	6	0	0	0
Total [c]	191	242	203	178	167	168	171	134
Refined metal								
Chinese Taipei	34	41	30	29	36	25	32	25
India	15	10	16	20	15	14	17	14
Indonesia	17	20	19	18	28	28	23	16
Iran	0	11	0	0	0	0	0	0
Japan	20	15	12	12	12	7	3	3
Malaysia	9	9	9	8	14	9	14	12
South Africa	0	1	2	6	10	7	13	12
South Korea	20	25	26	35	36	37	32	23
Thailand	16	17	17	14	13	22	8	5
United States	8	10	0	3	0	0	0	0
Other	37	28	36	32	25	20	27	25
Total	176	187	167	177	189	169	169	135

a Excludes slags and residues and scrap. **b** Lead content of lead ores and concentrates only. **c** Includes a substantial amount of contained silver, for which separate details are not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

300 World production, consumption, stocks and prices of lead

	Production						
		Refined metal					
	Mine a	Primary	Secondary b	Total	Consumption	Stocks b	Price c
	kt	kt	kt	kt	kt	kt	US$/t
1960	2 372	2 479	748	3 227	3 080	457	195.7
1961	2 392	2 573	726	3 299	3 153	551	174.4
1962	2 531	2 568	728	3 296	3 275	478	153.0
1963	2 543	2 664	796	3 460	3 429	411	172.2
1964	2 604	2 695	910	3 605	3 633	370	275.0
1965	2 784	2 756	958	3 714	3 670	365	312.5
1966	2 937	2 885	940	3 825	3 847	368	258.5
1967	2 961	2 925	959	3 884	3 861	459	224.7
1968	3 034	3 094	1 044	4 138	4 200	338	236.9
1969	3 295	3 894	1 148	4 542	4 431	414	285.6
1970	3 443	3 616	1 287	4 688	4 502	500	303.8
1971	3 476	3 388	1 261	4 614	4 671	479	252.9
1972	3 585	3 491	1 324	4 803	4 863	470	303.8
1973	3 673	3 580	1 426	4 991	5 218	375	428.2
1974	3 642	3 593	1 462	5 042	5 173	523	591.5
1975	3 570	3 442	1 410	4 828	4 742	576	412.4
1976	3 464	3 539	1 487	5 049	5 146	482	452.8
1977	3 646	3 662	1 707	5 372	5 449	466	618.1
1978	3 622	3 697	1 738	5 459	5 546	396	658.0
1979	3 589	3 716	1 903	5 622	5 609	458	1 204.4
1980	3 495	3 600	1 815	5 417	5 392	525	910.3
1981	3 342	3 560	1 798	5 309	5 308	518	736.9
1982	3 366	3 641	1 649	5 210	5 142	560	543.9
1983	3 265	3 637	1 561	5 198	5 152	560	425.1
1984	3 126	3 470	1 829	5 299	5 275	535	444.3
1985	3 248	3 539	1 835	5 374	5 278	427	394.2
1986	3 082	3 345	1 891	5 236	5 343	480	406.9
1987	3 152	3 386	2 047	5 433	5 427	400	596.1
1988	3 151	3 475	2 102	5 577	5 482	443	656.3
1989	3 110	3 362	2 348	5 710	5 599	356	677.4
1990	3 110	3 087	2 369	5 456	5 432	402	820.0
1991	3 134	3 071	2 262	5 340	5 226	442	559.0
1992	3 037	3 238	2 268	5 437	5 194	592	541.0
1993	2 700	3 176	2 303	5 479	5 229	659	406.0
1994	2 704	2 979	2 483	5 462	5 488	626	549.0
1995	2 750	3 086	2 652	5 738	5 849	455	631.0
1996	3 008	3 047	2 771	5 818	5 987	437	774.0
1997	3 035	3 087	2 916	6 003	6 021	439	624.0
1998	3 106	3 105	2 864	5 969	6 006	414	528.6

a Metal content. **b** Western world refined metal. **c** Average London Metal Exchange cash price, midday, standard grade, minimum 99.97 per cent.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Reources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

301 World lead production, by region and country [a]

	1991 kt	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt
Mine								
Africa	181	177	206	192	185	189	180	178
Morocco	71	72	79	70	68	74	77	79
South Africa	76	77	100	96	88	89	83	80
Americas	1 198	1 185	950	979	1 047	1 157	1 125	1 140
Canada	276	344	183	171	210	257	186	189
Mexico	165	170	141	170	164	174	174	170
Peru	218	214	225	233	238	249	258	258
United States	477	407	362	370	394	436	459	480
Asia	714	666	632	654	714	819	859	855
China	352	330	338	462	520	643	712	710
India	25	30	30	30	34	35	33	38
Kazakhstan	144	130	104	38	40	28	29	26
North Korea	80	70	70	55	50	40	35	30
Other	113	106	90	69	70	73	50	51
Australia	579	575	521	486	424	475	486	583
Europe	462	444	391	394	380	368	385	350
Bulgaria	41	38	34	32	33	28	32	22
Ireland	40	43	45	54	46	45	45	36
Poland	47	51	49	53	55	59	55	55
Sweden	87	106	104	113	100	99	109	112
Other	247	206	159	142	146	137	144	125
Total	3 134	3 037	2 700	2 704	2 750	3 008	3 035	3 106
Refined [b]								
Africa	156	146	154	135	141	131	126	132
Americas	1 828	1 920	1 870	1 917	2 082	2 122	2 167	2 169
Canada	212	253	217	252	281	311	271	265
Mexico	236	288	256	220	238	232	259	263
United States	1 195	1 182	1 196	1 249	1 358	1 372	1 417	1 422
Other	185	197	201	196	205	207	220	219
Asia	1 263	1 361	1 411	1 331	1 476	1 535	1 584	1 588
China	296	366	412	468	608	706	708	707
Japan	332	330	309	292	288	287	297	302
Kazakhstan	300	284	245	145	93	69	82	92
North Korea	65	65	65	50	45	40	30	25
South Korea	59	90	128	130	181	141	182	180
Other	211	226	252	246	261	292	285	282
Australia	237	232	236	236	237	228	229	200
Europe	1 859	1 773	1 806	1 837	1 796	1 796	1 891	1 874
France	283	284	259	260	297	301	283	289
Germany	363	354	334	332	314	238	329	353
Italy	208	186	198	223	189	210	212	202
United Kingdom	311	347	416	416	366	381	399	370
Other	694	602	599	606	630	666	668	660
Other countries	5	5	5	6	6	6	6	6
Total	5 340	5 437	5 479	5 462	5 738	5 818	6 003	5 969

a Lead content by analysis of lead ores and concentrates plus the lead content of other ores and concentrates known to be intended for lead recovery. **b** Includes primary and secondary lead.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

302 World lead trade, by major countries

	1991 kt	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt
Exports								
Ores and concentrates a								
Australia	86	106	118	88	82	84	103	231
Canada	164	178	61	35	71	114	74	37
Ireland	39	44	41	53	46	48	43	41
Morocco	10	11	20	20	na	28	28	na
Peru	160	140	135	129	137	138	142	na
South Africa	84	85	88	92	86	90	86	na
Sweden	35	41	75	62	43	45	51	79
United States	88	72	42	38	65	60	42	72
Refined lead								
Australia	176	187	167	177	189	169	169	135
Belgium	49	50	57	87	76	91	na	na
Bulgaria	21	30	32	48	57	59	65	na
Canada	96	139	134	142	151	167	159	157
China	8	74	85	174	163	246	185	236
France	55	77	63	78	84	92	74	86
Germany	63	49	65	80	59	51	74	86
Mexico	89	93	na	55	95	78	87	na
Morocco	61	62	75	58	53	54	52	na
Peru	58	47	70	75	81	na	na	na
Sweden	55	67	62	54	48	51	56	57
United Kingdom	75	79	94	86	79	67	79	na
United States	94	64	52	48	46	44	37	24
Imports								
Ores and concentrates a								
Belgium	37	38	44	52	39	45	na	na
Canada	5	16	14	21	43	69	36	23
China	1	5	4	5	19	42	71	139
France	119	112	96	89	118	123	123	120
Germany	109	118	115	57	62	50	37	76
Italy	76	68	44	39	40	63	55	na
Japan	193	186	186	166	119	113	116	118
South Korea	5	37	37	73	84	75	52	na
United Kingdom	36	42	40	32	47	47	37	33
Refined lead								
Austria	42	40	36	42	46	37	44	na
Belgium	23	13	17	16	25	16	na	na
Chinese Taipei	74	90	86	88	104	98	114	101
France	36	39	29	52	47	51	50	47
Germany	117	107	76	88	123	107	87	94
Japan	70	51	42	52	75	30	28	22
Netherlands	39	38	31	39	48	39	46	34
South Korea	102	98	86	116	119	159	140	90
Spain	22	46	39	38	54	63	81	96
Thailand	na	28	31	43	45	62	39	15
United Kingdom	37	28	32	23	47	33	17	29
United States	116	191	196	230	262	268	265	267

a Metal content. **na** Not available.

Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

303 Summary of Australian statistics for limestone

		Exports		Imports	
	Production	Volume	Value	Volume	Value
	kt	t	$'000	kt	$'000
1970	9 996	na	na	511	708
1971	10 335	na	na	713	1 018
1972	10 494	na	na	605	1 001
1973	11 224	na	na	1 130	1 890
1974	11 046	na	na	1 432	2 572
1975	10 854	na	na	1 490	3 775
1976	10 583	na	na	1 527	4 475
1977	10 552	na	na	1 100	4 433
1978	10 924	na	na	1 380	7 085
1979	11 450	na	na	1 317	6 522
1980	11 730	na	na	1 077	4 928
1981	11 983	0	0	1 323	6 345
1982	12 698	15	1	977	4 344
1983	10 131	80	6	833	4 393
1984	9 608 **a**	35	8	940	5 381
1985	8 570 **b**	76	8	1 022	7 292
1986	10 747 **a**	21	10	996	10 794
1987	10 803 **a**	63	7	859	10 065
1988	10 614 **a**	30	6	1 004	11 480
1988-89	12 915	24	8	1 038	10 656
1989-90	13 283	15	17	na	9 382
1990-91	12 566	65	16	971	10 194
1991-92	na	258	49	1 161	12 412
1992-93	15 895	1 729	165	819	11 859
1993-94	na	18 893	1 145	1 011	17 156
1994-95	na	463	206	1 038	14 618
1995-96	na	133 080	1 889	991	14 777
1996-97	na	178 758	2 241	1 027	12 712
1997-98	na	226 529	2 724	1 576	15 391
1998-99	na	170 795	2 500	1 066	15 881

a Excludes Western Australia. **b** Excludes Queensland and Western Australia. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABARE.

304 Australian production of limestone, by state

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
	kt	kt	kt	kt	kt	kt	kt
1960	2 439	1 176	531	315	1 081	218	5 760
1961	2 617	1 263	645	390	1 123	206	6 245
1962	2 471	1 233	706	361	1 422	324	6 518
1963	2 565	1 248	711	356	1 599	351	6 829
1964	2 743	1 415	803	462	1 567	358	7 348
1965	2 850	1 483	818	555	1 587	343	7 637
1966	2 738	1 831	886	571	1 478	350	7 854
1967	2 749	2 024	1 038	710	1 617	351	8 489
1968	2 729	1 849	1 198	745	1 583	504	8 608
1969	2 955	2 058	1 240	996	1 801	559	9 608
1970	3 155	2 022	1 242	1 201	1 853	523	9 996
1971	3 224	2 200	1 470	1 175	1 782	486	10 335
1972	3 403	2 127	1 590	1 301	1 484	581	10 494
1973	3 656	2 248	1 740	1 227	1 719	634	11 224
1974	3 779	2 192	1 758	1 157	1 562	599	11 046
1975	3 295	2 255	1 872	1 378	1 508	545	10 854
1976	3 096	2 068	1 959	1 104	1 720	635	10 583
1977	2 787	2 105	1 952	1 221	1 827	659	10 552
1978	2 903	2 245	1 802	1 365	1 890	718	10 924
1979	3 315	1 653	2 224	1 369	2 136	754	11 450
1980	3 496	2 211	1 951	1 232	1 120	720	11 730
1981	3 620	2 249	1 842	1 382	2 119	771	11 983
1982	3 417	2 303	2 235	1 762	2 061	910	12 698 **a**
1983	2 881	2 143	1 478	1 203	1 826	581	10 131 **b**
1984	3 234	2 507	1 634	na	1 469	763	9 608 **c**
1985	3 222	2 749	na	na	1 798	800	8 570 **d**
1986	3 420	2 776	1 687	na	2 012	852	10 747 **c**
1987	3 429	2 463	2 160	na	1 942	809	10 803 **c**
1988	3 411	2 580	1 880	na	1 918	826	10 614 **c**
1988-89	3 667	2 684	1 987	1 739	1 918	920	12 915
1989-90	3 972	2 639	2 121	1 699	1 889	963	13 283
1990-91	3 318	2 346	2 309	1 738	1 903	951	12 566
1991-92	3 410	na	2 369	2 054	2 014	na	na
1992-93	3 529	4 566	2 432	2 104	2 429	835	15 895
1993-94	na	na	2 485	2 147	2 666	na	na
1994-95	na	na	2 596	2 195	2 456	na	na
1995-96	3 746	na	na	2 612	1 729	na	na
1996-97	3 953	na	2 127	2 353	2 760	na	na
1997-98	3 887	na	1 994	2 375	2 476	na	na

a Includes 10 000 tonnes for the Northern Territory. **b** Includes 18 000 tonnes for the Northern Territory. **c** Excludes Western Australia. **d** Excludes Queensland and Western Australia. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABARE.

305 Australian imports of limestone and lime

	Limestone				Lime	
			Total			
	Japan	Other	Volume	Value	Volume	Value
	kt	kt	kt	$'000	t	$'000
1968	423.3	0.0	423.3	581	na	na
1969	519.2	0.0	519.2	713	na	na
1970	511.1	0.0	511.1	708	na	na
1971	712.7	0.0	712.7	1 018	na	na
1972	605.4	0.0	605.4	1 001	na	na
1973	1 129.8	0.0	1 129.8	1 890	na	na
1974	1 432.5	0.0	1 432.5	2 572	na	na
1975	1 449.2	40.5	1 489.7	3 775	na	na
1976	1 526.5	0.0	1 526.5	4 475	na	na
1977	1 099.3	0.3	1 099.7	4 433	na	na
1978	1 332.2	47.7	1 380.0	7 085	na	na
1979	1 269.3	47.9	1 317.2	6 522	na	na
1980	977.9	99.0	1 077.0	4 928	na	na
1981	1 275.0	48.4	1 323.4	6 345	3 445	355
1982	946.1	30.8	976.9	4 344	8 158	1 050
1983	833.2	0.0	833.2	4 393	1 999	273
1984	940.3	0.1	940.3	5 381	28 026	2 145
1985	1 021.7	0.0	1 021.7	7 292	16 927	1 556
1986	995.6	0.1	995.7	10 794	230	103
1987	859.0	0.1	859.1	10 065	511	322
1988	1 003.8	0.0	1 003.8	11 480	470	211
1988-89	1 038.1	0.1	1 038.2	10 656	467	275
1989-90	na	na	na	9 382	478	372
1990-91	968.7	2.6	971.3	10 194	189	105
1991-92	1 120.0	41.2	1 161.3	12 412	369	114
1992-93	776.5	42.2	818.7	11 859	449	182
1993-94	947.9	63.3	1 011.2	17 156	334	125
1994-95	915.8	121.7	1 037.5	14 618	1 659	374
1995-96	986.2	4.7	990.9	14 777	342	103
1996-97	1 010.0	16.5	1 026.6	12 712	3 444	431
1997-98	1 497.7	77.8	1 575.5	15 391	309	82
1998-99	943.1	123.0	1 066.1	15 881	426	102

na Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

306 Summary of Australian statistics for manganese

	Mine production (ore)	Exports		Prices a
		Ore	Ferromanganese	
	kt	kt	kt	US$/t
1960	62	46	0	28.00
1961	89	53	0	26.00
1962	73	64	0	31.00
1963	37	17	0	29.00
1964	62	54	0	24.00
1965	102	67	0	23.00
1966	318	144	0	23.00
1967	558	320	0	22.00
1968	744	565	0	19.00
1969	903	664	0	18.12
1970	751	631	0	18.85
1971	1 051	794	0	17.82
1972	1 165	na	0	25.00
1973	1 522	1 513	na	30.20
1974	1 522	1 203	1	39.00
1975	1 555	1 132	na	58.00
1976	2 154	1 711	1	64.00
1977	1 389	811	13	65.00
1978	1 257	936	19	59.00
1979	1 724	1 157	32	57.00
1980	2 020	1 328	23	65.00
1981	1 449	900	16	67.00
1982	1 127	906	17	63.00
1983	1 370	1 004	29	54.00
1984	1 849	1 460	19	56.00
1985	2 003	1 403	20	57.00
1986	1 649	1 145	44	55.00
1987	1 854	1 306	47	50.00
1988	1 986	1 553 **s**	41	68.64
1989	2 119	1 620 **s**	27	108.00
1990	1 950	1 600 **s**	43	160.80
1991	1 390	1 075 **s**	20	160.80
1992	1 239	902 **s**	46	141.60
1993	1 887	1 720 **s**	59	108.00
1994	1 986	1 550 **s**	76	99.96
1995	2 176	1 704 **s**	73	97.92
1996	2 109	1 740 **s**	59	105.12
1997	2 136	1 541 **s**	41	99.86
1998	1 500	1 067 **s**	57	97.92

a Before 1970, average unit export value in A$/t; subsequently, high grade ore (48 per cent Mn) to Japan in US$/t for Japanese fiscal year commencing 1 April. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

307 Australian supply and disposal of manganese

		1991	1992	1993	1994	1995	1996	1997	1998
Production									
Manganese ore	kt	1 390	1 239	1 887	1 986	2 176	2 109	2 136	1 500
Exports									
Manganese ore	kt	1 075 **s**	902 **s**	1 720 **s**	1 550 **s**	1 704 **s**	1 740 **s**	1 541 **s**	1 067 **s**
Ferromanganese	kt	20	46	59	76	73	59	41	57
	$m	12	21	32	38	38	31	18	37
Imports									
Ferromanganese	kt	6.2	9.7	14.3	10.5	10.6	14.8	7.8	11.7
	$m	6.9	9.5	15.0	10.6	10.1	16.4	7.8	12.2
Ferrosilicon and silicomanganese	kt	17.1	16.3	31.6	34.7	37.9	50.3	36.1	34.2
	$m	12.7	14.5	28.1	29.0	35.0	36.8	40.1	37.4
Prices									
Japanese negotiated **a**	US$/t	161	142	108	100	98	105	100	98

a High grade ore (48 per cent Mn) to Japan for Japanese fiscal year commencing 1 April. **s** ABARE estimate.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

308 World production of manganese ore

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Australia	1 390	1 239	1 887	1 986	2 176	2 109	2 136	1 500
Brazil	1 950	1 993	1 837	2 321	2 398	2 400	2 400	2 184
China	3 400	3 500	4 700	4 700	4 700	4 700	4 700	4 700
Former Soviet Union **a**	8 000	7 000	6 200	6 200	6 192	6 173	6 126	6 261
Gabon	1 620	1 556	1 290	1 435	1 930	2 092	1 904	1 983
Ghana	312	276	295	238	187	266	332	384
India	1 420	1 810	1 740	1 661	1 797	1 782	1 751	1 583
Mexico	79	138	116	91	141	173	193	203
South Africa	3 148	2 452	2 502	2 851	3 225	3 264	3 112	3 051
Others	442	227	203	323	333	294	293	277
Total	21 760	20 191	20 769	21 807	23 079	23 254	22 947	22 125

a Commonwealth of Independent States (CIS) from 1992. Members of the former Soviet Union which are not part of the CIS are Lithuania, Latvia, Estonia and Georgia.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; World Bureau of Metal Statistics, *World Metal Statistics Yearbook,* London.

309 Summary of Australian statistics for nickel

	Production a							
		Smelter and refinery b						
	Mine	Intermediate products c	Refined nickel class 2 d	Refined nickel class 1 e	Consumption	Exports f	Imports g	Price h
	kt	kt	kt	kt	kt	$m	$m	A$/t
1967	2.6	0.0	0.0	0.0	4.0	na	10.8	1 729
1968	4.6	0.0	0.0	0.0	3.0	na	9.9	1 853
1969	11.2	0.0	0.0	0.0	2.9	na	9.8	2 110
1970	29.8	0.0	0.0	9.0	4.1	na	23.3	2 541
1971	35.5	0.0	0.0	15.0	3.9	na	11.9	2 585
1972	35.5	0.0	0.0	16.5	3.6	na	8.3	2 583
1973	40.1	5.8	0.0	19.8	5.0	na	13.3	2 375
1974	45.9	14.6	0.0	20.5	4.8	96.0	12.8	2 665
1975	75.8	32.2	10.3	22.6	2.0	172.6	12.1	3 491
1976	82.5	32.0	18.0	21.8	4.0	260.9	18.5	4 069
1977	85.9	33.2	17.4	16.7	3.9	252.5	21.0	4 692
1978	82.4	32.7	18.7	18.6	4.2	222.1	25.1	4 027
1979	69.7	38.7	17.4	21.9	4.0	327.2	21.6	5 355
1980	74.3	32.5	17.9	17.4	4.3	427.0	30.4	5 731
1981	74.3	32.9	19.3	23.2	3.5	388.1	21.4	5 197
1982	87.6	49.4	20.6	25.3	2.8	393.7	19.7	4 766
1983	76.6	49.8	12.3	29.5	2.5	321.6	7.2	5 200
1984	76.9	51.1	13.1	25.6	2.9	386.0	15.2	5 420
1985	85.8	51.6	17.9	23.0	4.0	498.6	17.5	7 024
1986	76.7	49.1	20.4	21.6	2.8	440.3	22.3	5 809
1987	74.6	47.8	19.9	24.6	3.1	390.0	24.1	6 977
1988	58.0	40.0	21.1	20.3	3.0	633.5	7.4	18 155
1989	63.1	41.6	21.9	18.3	2.4	851.7	20.2	16 886
1990	67.8	49.2	22.3	25.2	1.5	666.5	30.2	11 423
1991	67.6	54.8	24.9	27.8	1.4	682.5	37.6	10 511
1992	57.9	47.8	25.9	29.5	1.4	768.7	48.5	9 567
1993	65.4	43.9	26.0	35.4	1.4	574.3	49.4	7 893
1994	75.9	68.4	23.0	43.5	1.4	765.0	57.3	8 711
1995	102.7	75.9	18.6	58.3	1.5	1 188.6	71.8	11 153
1996	113.0	76.8	12.6	61.4	1.6	1 081.0	70.0	9 630
1997	123.4	85.8	14.8	58.9	1.6	1 094.4	66.0	9 336
1998	143.9	100.1	15.3	64.7	1.6	985.7	66.0	7 380

a Total metallic content of minerals produced. **b** Includes imported ores for processing at the Yabulu refinery in Queensland. **c** Includes matte and speiss for further refining. **d** Product with a nickel content of less than 99 per cent. Includes ferronickel, oxides and oxide sinter. Excludes nickel–cobalt sulphides. **e** Products with a nickel content of 99 per cent or more. **f** Fob. **g** Cif. **h** London Metal Exchange average cash settlement price for refined nickel, melting grade, in Australian dollar equivalent. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* AGPS, Canberra; International Nickel Study Group, *World Nickel Statistics,* The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics,* London.

310 World production, consumption and prices of nickel

	Production				
	Mine s	Smelter/refinery s	Stocks a	Consumption s	Price b
	kt	kt	kt	kt	US$/t
1960	361	345	na	321	1 631
1961	404	384	na	357	1 711
1962	398	395	na	358	1 761
1963	393	374	na	384	1 742
1964	422	411	na	441	1 742
1965	462	440	na	473	1 735
1966	443	429	na	512	1 739
1967	508	493	na	524	1 936
1968	580	524	na	537	2 075
1969	547	517	na	549	2 363
1970	702	645	na	625	2 846
1971	718	655	na	577	2 932
1972	662	624	na	618	3 080
1973	719	703	na	696	3 373
1974	792	765	na	751	3 825
1975	794	741	171	622	4 570
1976	814	790	179	713	4 973
1977	830	767	247	689	5 203
1978	684	651	149	750	4 609
1979	721	720	87	798	5 986
1980	786	788	204	756	6 530
1981	765	762	218	710	5 973
1982	687	695	202	702	4 849
1983	718	745	183	753	4 692
1984	815	822	126	840	4 762
1985	879	850	111	824	4 910
1986	844	829	110	828	3 883
1987	889	875	79	875	4 871
1988	928	917	85	895	14 192
1989	970	935	97	901	13 335
1990	983	931	88	909	8 895
1991	946	921	113	870	8 158
1992	897	886	176	789	7 004
1993	908	802	226	782	5 338
1994	877	825	236	868	6 342
1995	1 009	919	148	978	8 229
1996	1 051	953	144	933	7 506
1997	1 073	1 012	156	1 015	6 926
1998	1 106	1 035	157	1 008	4 631

a Commercial stocks excluding those held by the former Soviet Union. **b** London Metal Exchange cash settlement price for refined nickel, melting grade. Prior to 1980, US producer price for electrolytic cathodes. **s** ABARE estimates prior to 1989. **na** Not available.

Sources: International Nickel Study Group, *World Nickel Statistics,* The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics,* London; ABARE.

311 World nickel smelter/refinery production, by region and country [a]

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	45.1	43.8	47.2	48.6	45.3	50.1	52.4	53.8
South Africa [b]	26.9	27.6	29.9	30.1	29.8	33.9	34.8	36.4
Zimbabwe	18.2	16.2	17.3	18.5	15.5	16.2	17.6	17.4
Americas	220.5	223.5	203.5	187.3	226.4	241.9	257.5	264.1
Brazil	13.8	14.7	15.2	16.5	15.7	16.4	18.2	21.1
Canada	131.5	135.2	123.1	105.1	125.3	130.1	131.6	146.7
Colombia	20.2	20.2	20.2	20.8	24.6	22.9	25.2	28.1
Cuba	18.8	16.9	16.2	14.1	21.6	27.0	34.0	38.7
Dominican Republic	29.1	27.5	23.9	30.8	30.9	30.4	32.5	25.2
United States	7.1	9.0	4.9	0.0	8.3	15.1	16.0	4.3
Asia	149.7	145.7	141.1	149.7	183.8	184.1	178.3	175.5
China	27.9	30.8	30.5	31.3	38.1	44.2	39.9	40.5
Indonesia	5.3	5.5	5.3	5.8	10.7	9.4	10.0	8.5
Japan	116.5	109.4	105.3	112.6	135.0	130.5	128.4	126.5
Europe	134.8	384.3	313.8	332.9	344.2	361.0	406.0	417.4
Albania	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Austria	3.5	3.9	3.2	2.1	2.0	2.0	2.0	1.8
Czechoslovakia	2.4	na	0.0	0.0	0.0	0.0	0.0	0.0
Slovakia	c	1.5	0.0	0.0	0.0	0.0	0.0	0.0
Finland	16.0	17.7	17.9	20.1	21.2	33.3	39.2	46.0
France	8.7	8.1	10.4	10.0	10.3	11.2	10.7	11.8
Germany	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	16.0	15.4	10.9	16.2	17.2	17.8	17.6	15.0
Norway	58.7	55.7	56.8	68.0	53.2	61.6	62.7	70.2
United Kingdom	28.6	28.0	27.1	28.4	35.2	38.6	36.1	39.1
Yugoslavia	0.1	na	na	na	na	na	na	na
FYR Macedonia [d]	e	2.7	4.5	4.1	2.0	3.0	5.3	5.3
Serbia	na	1.9	0.4	0.6	0.9	2.6	2.4	0.7
Former Soviet Union	284.0	na	na	na	na	na	na	na
Russia	f	245	184.0	180.9	200.0	190.0	230.0	227.0
Ukraine	f	4.5	3.5	2.5	2.2	0.9	0.0	0.0
Oceania	87.1	87.3	98.3	106.1	119.1	116.2	117.9	124.5
Australia	52.7	55.4	61.4	66.6	76.9	74.0	73.6	80.0
New Caledonia (Fr)	34.4	31.9	36.9	39.5	42.2	42.2	44.3	44.5
World total	921.2	885.7	802.2	824.6	918.8	953.3	1 012.1	1 035.3

a Includes the metal content of smelter/refinery production of electrolytic nickel, nickel pellets, briquettes, steelmaking powder, nickel salts, chemical grade nickel oxide, ferronickel, nickel oxide sinter and utility nickel. **b** Includes Bophuthatswana production. **c** Included in Czechoslovakia total. **d** Former Yugoslavian Republic of Macedonia. **e** Included in Yugoslavia total. **f** Included in former Soviet Union total. **na** Not applicable.

Sources: International Nickel Study Group, *World Nickel Statistics,* The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics,* London; ABARE.

312 World nickel mine production, by region and country [a]

	1991 kt	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt
Africa	60.5	60.8	64.2	64.5	62.6	69.7	68.9	72.5
Botswana	20.4	20.8	21.5	20.6	21.1	24.2	22.9	24.8
South Africa [b]	27.7	27.6	29.9	30.1	29.8	33.9	34.8	36.1
Zimbabwe	12.4	12.4	12.8	13.8	11.7	11.6	11.2	11.6
Americas	303.7	298.1	290.2	253.8	300.4	326.1	336.2	359.1
Brazil [c]	20.5	22.0	22.7	20.1	19.2	20.5	20.5	28.4
Canada	192.3	186.4	188.1	149.9	181.8	192.6	190.5	208.9
Colombia	23.0	23.3	22.8	26.1	24.2	27.7	31.2	28.8
Cuba	33.3	32.2	30.2	26.9	42.7	53.6	61.5	67.8
Dominican Republic [c]	29.1	27.5	23.9	30.8	30.9	30.4	32.5	25.2
United States	5.5	6.7	2.5	0.0	1.6	1.3	0.0	0.0
Asia	114.9	124.0	104.3	128.0	143.1	146.2	135.9	134.7
China	30.4	32.8	30.7	36.9	41.8	43.8	46.7	45.0
Indonesia	70.6	78.1	65.8	81.2	86.6	87.9	71.1	72.1
Myanmar	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Philippines	13.8	13.0	7.7	9.8	14.7	14.5	18.1	17.6
Europe	37.5	35.8	30.0	33.9	30.6	34.2	32.2	29.9
Albania	5.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Finland	9.1	9.2	8.3	7.2	4.4	3.9	3.3	2.0
Germany	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece [c]	19.3	17.0	12.9	18.8	19.9	21.6	18.4	17.1
Norway	2.2	3.4	3.5	3.3	3.4	3.1	2.5	2.8
Yugoslavia	1.9	na	na	na	na	na	na	na
FYR Macedonia [d]	[e]	5.5	5.3	4.6	2.0	3.0	5.3	7.2
Serbia	[e]	0.0	0.6	0.8	0.9	2.6	2.7	0.8
Former Soviet Union	260.0	na	na	na	na	na	na	na
Russia	[f]	214.1	244.0	212.0	251.0	230.0	250.0	240.0
Ukraine	[f]	5.9	3.5	2.5	2.2	1.7	0.0	0.0
Kazakhstan	[f]	0.0	8.8	8.5	9.9	3.5	4.0	3.6
Oceania	167.2	158.4	162.5	173.2	223.4	237.8	260.5	268.9
Australia	67.6	57.9	65.4	75.9	102.7	113.0	123.4	143.9
New Caledonia (Fr)	99.6	100.5	97.1	97.3	120.7	124.8	137.1	125.0
World total	943.9	897.2	907.6	877.3	1 008.5	1 051.2	1 072.7	1 105.6

a Nickel content of all ores and concentrates. **b** Includes Bophuthatswana production. **c** Figures refer to nickel content of ferronickel. **d** Former Yugoslavian Republic of Macedonia. **e** Included in Yugoslavian total. **f** Included in former Soviet Union total. **na** Not applicable.
Sources: International Nickel Study Group, *World Nickel Statistics,* The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics,* London; ABARE.

313 World primary refined nickel consumption, by region and country [a]

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	9.2	9.9	11.6	14.9	20.6	24.8	31.0	31.2
South Africa	8.4	9.3	11.0	14.3	20.0	24.0	30.0	30.0
Other	0.8	0.6	0.6	0.6	0.6	0.8	1.0	1.2
Americas	150.9	150.5	153.9	170.4	190.6	189.8	189.9	184.1
Argentina	0.3	0.6	0.3	0.4	0.2	0.4	0.4	0.4
Brazil	11.1	12.1	11.7	14.2	15.3	14.8	14.4	14.9
Canada	10.3	12.5	13.9	16.7	16.9	18.2	15.0	13.0
Mexico	3.0	1.7	1.6	1.6	1.2	1.5	2.0	2.8
United States	125.2	122.4	125.3	136.3	155.2	153.1	155.6	150.0
Other	1.0	1.2	1.1	1.2	1.8	1.8	2.5	3.0
Asia	280.9	250.4	272.9	313.1	367.2	362.1	408.6	376.3
China	40.0	35.0	38.0	40.0	40.2	42.0	43.0	42.0
Chinese Taipei	19.0	20.0	21.0	26.0	48.0	50.0	68.0	70.0
Hong Kong	1.1	0.8	1.0	1.0	1.2	1.5	1.8	1.8
India	13.1	15.0	15.0	18.2	20.0	18.5	16.0	16.0
Japan	180.1	148.2	157.2	181.1	205.1	190.2	202.4	169.2
South Korea	23.2	26.0	33.2	39.0	44.0	50.0	66.0	67.8
Thailand	0.8	1.3	2.2	1.7	2.5	2.4	2.0	1.6
Turkey	0.9	0.8	1.1	1.0	0.9	1.5	1.8	2.4
Other	3.6	4.1	5.3	6.1	6.2	7.5	9.4	7.9
Europe	267.6	255.7	276.3	329.4	358.7	324.2	358.6	389.4
Austria	6.0	4.6	4.0	3.5	3.5	3.0	3.0	3.3
Belgium–Luxembourg	19.6	21.4	22.0	25.0	28.0	25.4	28.0	30.0
Czechoslovakia	5.2	na	na	na	na	na	na	na
Czech Republic	**b**	2.8	1	1.1	2.0	1.2	1.2	1.8
Finland	18.2	23.5	26.8	30.4	31.9	30.1	36.0	37.1
France	36.8	35.0	36.5	45.6	48.5	45.9	49.8	55.0
Germany	77.0	69.0	73.1	87.8	93.1	74.9	91.0	97.4
Italy	31.5	29.6	38.5	44.0	49.0	44.0	49.5	54.6
Norway	0.4	0.3	0.4	0.4	0.5	0.4	0.6	0.8
Poland	0.5	0.2	0.2	0.9	1.8	1.6	2.4	2.5
Romania	0.5	0.3	0.5	0.6	1.0	2.6	0.5	0.6
Spain	17.8	16.0	18.0	25.0	27.2	28.5	30.0	31.0
Sweden	16.3	18.0	22.8	24.8	28.3	24.5	29.8	33.9
Switzerland	1.1	1.1	0.7	0.3	0.6	0.8	1.0	1.5
United Kingdom	29.5	28.5	29.8	38.0	40.9	38.7	33.0	31.5
Other Europe	7.2	5.4	2.0	2.0	2.4	2.6	2.8	8.4
Former Soviet Union	150.0	na	na	na	na	na	na	na
Russia	**c**	123	62	35.0	36.2	35.0	20.0	18.0
Ukraine	**c**	3	2	1.5	1.1	1.0	1.2	2.7
Other	8.1	4.3	2.1	2.7	3.0	4.4	3.8	4.0
Oceania	1.8	1.7	1.7	1.7	1.8	1.9	1.9	2.1
Australia	1.4	1.4	1.4	1.4	1.5	1.6	1.6	1.6
New Zealand	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
World total	870.1	799.4	783.0	868.7	979.2	943.2	1 015.0	1 007.8

a Metal content. The consumption of primary unwrought nickel including refined nickel and nickel contained in other smelter/refinery products. **b** Included in Czechoslovakia. **c** Included in former Soviet Union total. **na** Not applicable.

Sources: International Nickel Study Group, *World Nickel Statistics*, The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics*, London; ABARE.

314 Summary of Australian statistics for primary petroleum a

	Production of crude oil condensate and LPG	Exports of crude oil and other refinery feedstocks b	Exports of liquefied petroleum gas	Imports of crude oil and other refinery feedstocks	Production of natural gas and ethane c	Exports of liquefied natural gas ds
	ML	ML	ML	ML	Gm^3	Mt
1960-61	na	na	na	14 127	na	0
1961-62	na	na	na	14 895	0.00	0
1962-63	na	na	na	16 766	0.00	0
1963-64	80	na	na	17 561	0.00	0
1964-65	347	na	na	18 665	0.00	0
1965-66	504	na	na	19 965	0.00	0
1966-67	645	na	na	22 543	0.00	0
1967-68	1 902	na	na	23 013	0.01	0
1968-69	2 236	na	na	23 897	0.06	0
1969-70	4 919	na	na	23 176	0.78	0
1970-71	15 688	241	661	13 913	1.96	0
1971-72	20 266	1 090	1 193	11 174	2.63	0
1972-73	22 464	330	1 672	10 004	3.74	0
1973-74	25 223	305	1 984	10 469	4.45	0
1974-75	25 306	234	2 000	10 171	4.88	0
1975-76	26 059	243	1 950	9 702	5.45	0
1976-77	27 128	206	2 253	10 116	6.50	0
1977-78	28 287	221	2 855	11 214	7.18	0
1978-79	28 067	371	3 031	10 407	8.01	0
1979-80	26 823	127	2 764	11 263	9.24	0
1980-81	26 077	86	2 569	11 450	10.66	0
1981-82	25 419	44	2 622	12 460	11.80	0
1982-83	24 978	61	2 334	11 780	11.92	0
1983-84	29 960	1 056	2 851	8 553	12.49	0
1984-85	34 820	5 819	2 620	7 294	13.37	0
1985-86	35 750	5 051	2 977	6 186	14.69	0
1986-87	35 431	5 702	2 675	7 724	15.08	0
1987-88	35 187	6 453	2 402	9 577	15.68	0
1988-89	32 018	4 789	2 177	12 058	16.15	0
1989-90	35 779	7 202	1 983	11 603	20.45	2.010
1990-91	35 502	8 830	1 507	13 389	21.60	3.400
1991-92	34 898	8 967	1 568	15 332	23.07	4.660
1992-93	34 480	10 098	1 483	19 421	24.75	4.984
1993-94	32 646	9 538	1 290	20 296	26.59	6.032
1994-95	34 798	11 445	1 189	20 639	29.51	7.018
1995-96	33 901	10 899	1 469	23 703	30.50	7.482
1996-97	34 838	12 401	2 421	24 768	30.22	7.486
1997-98	38 398	14 785	2 824	25 017	31.59	7.650
1998-99 p	31 802	14 291	2 486	29 729	32.76	7.819

a Export volumes for primary petroleum up to June 1977 are direct from ABS overseas trade reports. As a result of changes in ABS classifications from July 1977, other statistics are taken from Department of Resources and Energy and ABARE publications. **b** Before 1983 exports were principally semiprocessed and re-export feedstocks. **c** Includes ethane, methane and non-commercial natural gas. **d** 1 million tonnes (Mt) of LNG is approximately equal to 1.31 billion cubic metres (Gm^3) of gas; production began in 1989-90. **na** Not available. **p** Preliminary. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *Overseas Trade, Part 1 – Exports and Imports,* cat. no. 5409.0, Canberra; Department of Industry, Science and Resources, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra; Department of Resources and Energy, *Australian Energy Statistics,* AGPS, Canberra.

315 Summary of Australian statistics for refined petroleum products a

	Production	Domestic consumption b	Imports		Exports c		Bunkers d
			Volume	Value	Volume	Value	
	ML	ML	ML	$m	ML	$m	$m
1960-61	14 082	13 614	2 005	na	2 106	na	na
1961-62	14 931	14 320	1 869	na	2 420	na	na
1962-63	16 522	15 490	2 148	na	2 809	na	na
1963-64	17 514	17 479	2 066	na	2 285	na	na
1964-65	18 821	19 268	2 013	na	1 459	na	na
1965-66	20 353	20 953	1 899	na	1 099	na	na
1966-67	23 110	22 734	1 227	na	1 365	na	na
1967-68	25 229	24 837	1 123	na	1 374	na	na
1968-69	26 651	27 423	1 741	na	970	na	na
1969-70	27 884	29 317	2 860	na	1 440	na	na
1970-71	28 846	30 355	3 256	63	1 740	23	43
1971-72	29 524	31 754	3 978	78	2 321	46	44
1972-73	30 575	32 518	4 126	75	1 846	42	42
1973-74	33 853	36 165	4 422	133	2 488	96	70
1974-75	34 066	36 241	4 083	247	1 954	146	136
1975-76	34 106	36 601	4 009	290	2 192	144	137
1976-77	35 744	38 642	4 193	347	1 904	190	190
1977-78	36 992	39 397	4 104	360	1 956	224	na
1978-79	36 671	39 523	4 215	450	2 344	306	na
1979-80	36 654	38 910	4 540	710	1 882	427	na
1980-81	35 292	37 532	3 748	770	1 990	577	na
1981-82	35 877	37 330	2 939	629	1 955	539	na
1982-83	34 692	35 155	2 666	608	2 427	707	438
1983-84	35 586	36 504	2 526	559	2 925	803	394
1984-85	35 924	36 761	2 823	683	2 207	641	460
1985-86	35 171	36 806	2 761	712	2 383	673	437
1986-87	34 826	37 256	4 078	732	2 270	459	338
1987-88	37 579	38 907	3 319	629	2 738	563	406
1988-89	38 210	40 723	4 863	664	2 769	520	371
1989-90	39 184	41 201	5 855	930	2 422	520	416
1990-91	40 207	40 958	3 821	727	2 952	787	631
1991-92	40 901	41 219	3 131	455	3 819	769	522
1992-93	42 652	42 692	3 940	634	3 711	830	568
1993-94	43 384	43 951	3 057	606	3 507	747	512
1994-95	44 721	46 080	3 479	676	3 289	719	511
1995-96	46 343	47 791	3 522	765	4 101	933	586
1996-97	46 872	47 520	4 286	955	5 041	1 147	547
1997-98	47 230	47 992	3 263	766	4 941	1 097	505
1998-99 p	47 815	48 433	4 129	868	4 236	866	398

a Export and import values up to June 1977 are direct from ABS overseas trade reports. As a result of changes in ABS classifications from July 1977, other statistics are taken from Department of Resources and Energy and ABARE publications, with ABARE estimates of import values used from 1977-78 to 1980-81. **b** Includes fuels not marketed commercially and domestic sales of all ships and aircraft stores. **c** Excludes LPG. **d** Ships and aircraft stores. **p** Preliminary. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *Overseas Trade, Part 1 – Exports and Imports,* cat. no. 5409.0, Canberra; Department of Industry, Science and Resources, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Department of Resources and Energy, *Australian Energy Statistics,* AGPS, Canberra.

316 Australian production of primary petroleum

	Crude oil	Condensate b	Crude oil and condensate	Liquefied petroleum gas	Natural gas c	Ethane
	ML a	ML	ML	ML	Gm^3	Gm^3
1965-66	504	na	504	na	0.004	0.000
1966-67	645	na	645	na	0.004	0.000
1967-68	1 902	na	1 902	na	0.005	0.000
1968-69	2 236	na	2 236	na	0.058	0.000
1969-70	4 882	na	4 882	37	0.781	0.000
1970-71	14 936	na	14 936	752	1.960	0.000
1971-72	19 038	na	19 038	1 228	2.630	0.000
1972-73	20 668	na	20 668	1 796	3.710	0.026
1973-74	23 193	na	23 193	2 030	4.400	0.046
1974-75	23 134	na	23 134	2 172	4.820	0.064
1975-76	23 827	na	23 827	2 232	5.380	0.073
1976-77	24 598	na	24 598	2 530	6.400	0.103
1977-78	25 369	na	25 369	2 918	7.053	0.129
1978-79	24 896	na	24 896	3 171	7.864	0.144
1979-80	23 711	na	23 711	3 112	9.094	0.147
1980-81	23 093	na	23 093	2 984	10.519	0.139
1981-82	22 386	na	22 386	3 033	11.648	0.150
1982-83	21 085	984	22 069	2 909	11.754	0.168
1983-84	25 732	1 096	26 828	3 132	12.312	0.175
1984-85	29 241	1 715	30 956	3 864	13.167	0.200
1985-86	29 782	1 952	31 734	4 016	14.495	0.195
1986-87	29 457	2 047	31 504	3 927	14.895	0.180
1987-88	28 551	2 713	31 264	3 923	15.483	0.196
1988-89	25 574	2 681	28 255	3 763	15.964	0.189
1989-90	28 744	3 250	31 994	3 785	20.255	0.191
1990-91	28 661	3 294	31 955	3 547	21.423	0.180
1991-92	27 780	3 529	31 309	3 589	22.888	0.182
1992-93	27 037	3 666	30 703	3 778	24.554	0.194
1993-94	25 216	3 730	28 945	3 701	26.404	0.188
1994-95	26 795	4 395	31 190	3 609	29.305	0.203
1995-96	24 058	6 193	30 251	3 649	30.296	0.202
1996-97	24 164	6 885	31 049	3 789	29.781	0.435
1997-98	25 779	8 183	33 961	4 437	31.025	0.566
1998-99 p	19 938	7 960	27 898	3 904	32.200	0.562

a 58 030 million litres equals 1 million barrels a day. **b** Before 1982-83, condensate production is included in crude oil. **c** Includes non-commercial natural gas and methane from other than natural gas fields. **p** Preliminary. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Resource Economics, *Australian Energy Projections, Australia: 1961-62 to 1998-99,* AGPS, Canberra; Department of Industry, Science and Resources, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

317 Australian production of refined petroleum products

	1990-91 ML	1991-92 ML	1992-93 ML	1993-94 ML	1994-95 ML	1995-96 ML	1996-97 ML	1997-98 ML	1998-99 ML
Automotive gasoline	16 454	17 193	17 728	17 724	17 911	18 358	18 084	18 588	18 705
Automotive diesel oil	10 284	10 279	10 603	11 063	11 365	12 202	12 968	13 183	12 968
Aviation turbine fuel	3 464	3 839	4 178	4 319	4 410	4 882	5 284	5 423	5 218
Fuel oil	2 623	2 571	2 498	2 263	2 431	1 998	1 795	1 662	1 634
Liquefied petroleum gas **a**	1 125	1 225	1 473	1 590	1 779	1 864	1 921	1 664	1 762 **p**
Industrial and marine diesel fuel	172	111	87	95	129	78	45	48	32
Bitumen	577	546	620	661	621	635	638	689	695
Lubricants	703	686	682	708	776	811	788	771	680
Aviation gasoline	178	142	176	153	156	169	137	152	174
Heating oil	206	223	210	203	190	219	243	216	167
Other **a**	4 421	4 086	4 397	4 605	4 954	5 128	4 969	4 832	5 780 **p**
Total products	40 207	40 901	42 652	43 384	44 721	46 343	46 872	47 230	47 815 **p**

a Includes byproducts of petrochemical and downstream processing. **p** Preliminary.
Sources: ABARE, *Australian Energy Projections 1961-62 to 1998-99,* Canberra; Department of Industry, Science and Resources, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

318 Australian consumption of petroleum

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 **p**
Crude oil and other refinery feedstock									
Stock	days **a**	24	23	22	22	23	24	23	22
Refinery input	ML	38 550	40 090	40 440	41 128	43 203	44 444	45 591	44 401
Refined products									
Automotive gasoline	ML	16 963	17 196	17 504	17 751	17 884	17 905	17 950	18 230
Automotive diesel oil	ML	9 991	10 328	10 728	11 182	11 939	12 321	12 564	12 818
Aviation turbine fuel	ML	3 459	3 685	3 823	4 302	4 665	4 848	4 863	4 794
Fuel oil	ML	1 931	1 837	1 822	2 152	2 131	2 016	1 774	1 861
Liquefied petroleum gas	ML	3 429	3 821	4 110	4 477	4 448	4 160	4 386	4 400
Industrial and marine diesel fuel	ML	131	129	91	81	56	72	62	14
Bitumen	ML	599	662	716	698	700	733	714	716
Lubricants	ML	477	493	502	497	517	517	517	502
Aviation gasoline	ML	99	101	103	104	102	103	104	106
Heating oil	ML	149	163	125	112	113	118	106	77
Other **b**	ML	3 991	4 277	4 427	4 725	5 237	4 728	4 952	4 620
Total products	ML	41 219	42 692	43 951	46 080	47 791	47 520	47 992	48 139

a Days of forward consumption. **b** Includes petrochemical and noncommercial use of all products plus refinery fuel, but petroleum products produced from the conversion of other petroleum products have been netted off. **p** Preliminary.
Sources: ABARE, *Australian Energy Projections 1961-62 to 1998-99,* Canberra; Department of Industry, Science and Resources, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

319 Australian production of primary petroleum, by basin

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	ML	ML	ML	ML	ML	ML	ML	ML
Crude oil								
Adavale	0	0	0	0	0	0	0	0
Amadeus	93	117	151	146	169	159	131	107
Bonaparte	3 796	3 303	1 969	1 588	1 377	981	804	663
Bowen–Surat	84	73	60	55	53	68	80	64
Canning	19	17	19	15	17	10	8	8
Carnarvon								
Barrow Island	828	813	845	803	757	776	744	711
North West Shelf	0	0	0	0	2 039	4 154	3 566	1 883
Other	4 481	3 666	4 446	9 009	6 840	5 502	6 439	6 261
Cooper–Eromanga								
Queensland	1 085	990	878	822	723	695	595	585
South Australia	1 340	1 062	964	809	696	673	629	559
Gippsland	16 021	16 956	15 846	13 519	11 365	11 129	12 769	9 088
Otway	0	0	0	0	0	0	0	0
Perth	33	40	38	29	23	17	13	9
Total	27 780	27 037	25 216	26 795	24 058	24 164	25 779	19 938
Condensate								
Adavale	0	0	0	0	0	0	0	0
Amadeus	4	5	1	0	0	0	0	0
Bonaparte	0	0	0	0	0	0	0	0
Bowen–Surat	59	58	69	73	76	45	28	18
Canning	0	0	0	0	0	0	0	0
Carnarvon								
Barrow Island	0	0	0	0	0	81	185	202
North West Shelf	1 988	2 121	2 252	2 761	4 568	5 349	6 545	6 346
Other	0	30	35	58	75	83	72	71
Cooper–Eromanga								
Queensland	0	0	77	159	164	139	142	181
South Australia	625	599	533	468	421	386	412	490
Gippsland	851	849	756	867	882	795	789	644
Otway	1	2	3	4	4	4	6	7
Perth	2	4	4	4	3	3	2	1
Total	3 529	3 666	3 730	4 395	6 193	6 885	8 183	7 960
Liquefied petroleum gas								
Adavale	0	0	0	0	0	0	0	0
Amadeus	0	0	0	0	0	0	0	0
Bonaparte	0	0	0	0	0	0	0	0
Bowen–Surat	100	99	108	115	119	81	55	25
Canning	0	0	0	0	0	0	0	0
Carnarvon								
Barrow Island	0	0	0	0	0	0	0	0
North West Shelf	0	0	0	0	386	780	1 131	1 355
Other	0	0	0	0	0	0	0	0
Cooper–Eromanga								
Queensland	0	0	0	0	0	0	0	0
South Australia	930	935	931	936	897	803	810	890
Gippsland	2 558	2 744	2 661	2 558	2 247	2 125	2 292	1 634
Otway	0	0	0	0	0	0	0	0
Perth	0	0	0	0	0	0	0	0
Total	3 589	3 778	3 701	3 609	3 649	3 789	4 437	3 904

Continued

319 Australian production of primary petroleum, by basin *(continued)*

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	GL	GL	GL	GL	GL	GL	GL	GL
Naturally occurring ethane and natural gas a								
Adavale	0	0	0	0	53	54	43	28
Amadeus	334	334	339	362	399	443	461	459
Bonaparte	0	0	0	0	0	0	0	0
Bowen–Surat	1 013	1 005	1 151	1 182	1 185	948	724	682
Canning	0	0	0	0	0	0	0	0
Carnarvon								
Barrow Island	18	15	13	36	35	214	500	606
North West Shelf	10 143	11 133	12 857	14 559	15 334	14 861	16 134	16 343
Other	158	443	403	872	1 045	1 221	1 031	1 171
Cooper–Eromanga								
Queensland	0	0	0	0	0	0	0	0
South Australia	5 004	5 148	5 328	5 317	5 124	5 540	5 829	6 274
Gippsland	5 790	5 690	5 733	6 598	6 526	5 916	5 971	5 308
Otway	38	52	95	125	135	139	155	157
Perth	178	332	385	358	352	416	339	215
Total	22 753	24 153	26 304	29 298	30 187	29 752	30 889	31 243

a Does not include methane or ethane produced from other than natural gas fields. **p** Preliminary.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Department of Industry, Science and Resources, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

320 Volume of Australian trade in petroleum

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	ML	ML	ML	ML	ML	ML	ML	ML
Exports								
Automotive gasoline	700	678	891	648	1 127	1 293	1 521	1 533
Automotive diesel oil	773	585	752	594	1 109	1 306	1 266	1 218
Aviation turbine fuel	248	390	400	284	552	708	658	547
Fuel oil	1 043	1 053	713	853	629	928	633	253
Industrial and marine diesel fuel	56	72	57	79	92	56	39	12
Aviation gasoline	158	69	59	42	69	43	56	74
Kerosene	135	74	53	143	18	31	33	31
Lubricants	418	402	399	447	351	363	401	319
Other	287	388	183	199	154	312	335	249
Total refined products	3 819	3 711	3 507	3 289	4 101	5 041	4 941	4 236
Liquefied petroleum gas **a**	1 568	1 483	1 290	1 189	1 469	2 421	2 824	2 486
Bunkers **b**	1 903	1 918	2 011	2 245	2 565	2 294	2 203	2 306
Crude oil and other refinery feedstock	8 967	10 098	9 538	11 445	10 899	12 401	14 785	14 291
Liquefied natural gas **cs**	4.660	4.984	6.032	7.018	7.482	7.486	7.650	7.819
Imports								
Automotive gasoline	204	387	405	604	421	1 074	483	890
Diesel fuel	390	702	764	767	1 110	952	770	1 435
Automotive diesel oil	382	671	737	735	1 027	927	na	na
Industrial and marine diesel fuel	8	31	26	31	83	25	na	na
Aviation turbine fuel	103	36	189	231	301	306	111	140
Fuel oil	905	1 124	944	948	720	809	795	596
Lubricants	33	29	44	56	30	21	39	57
Liquefied petroleum gas	49	115	164	266	415	588	511	496
Other	1 446	1 546	547	608	525	537	555	514
Total refined products	3 131	3 940	3 057	3 479	3 522	4 286	3 263	4 129
Crude oil and other refinery feedstock	15 332	19 421	20 296	20 639	23 703	24 768	25 017	29 729

a Mostly naturally occurring. **b** Ships and aircraft stores. **c** 1 tonne of LNG is approximately equal to 2174 litres of LNG; production began in 1989-90. **p** Preliminary. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Department of Industry, Science and Resources, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

321 Value of Australian trade in petroleum

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
	$m	$m	$m	$m	$m	$m	$m	$m
Exports								
Automotive gasoline	144	157	172	121	217	264	304	262
Automotive diesel oil	163	141	154	108	224	295	242	193
Aviation turbine fuel	55	96	87	55	123	167	135	93
Fuel oil	107	127	70	110	79	129	86	28
Industrial and marine diesel fuel	14	22	16	19	28	18	14	5
Aviation gasoline	34	25	20	13	19	14	20	24
Kerosene	31	19	12	27	5	8	6	5
Lubricants	159	164	174	211	192	181	214	196
Other products	62	79	41	54	46	71	76	60
Total refined products	769	830	747	719	933	1 147	1 097	866
Liquefied petroleum gas	172	185	138	154	189	356	367	297
Bunkers a	522	568	512	511	586	547	505	398
Crude oil and other refinery feedstock	1 621	1 850	1 424	1 726	1 675	2 119	2 251	1 881
Liquefied natural gas b	843	1 051	1 047	1 201	1 372	1 537	1 599	1 425
Imports								
Automotive gasoline	44	90	75	112	85	225	93	134
Diesel fuel	85	163	153	141	219	208	149	225
Automotive diesel oil	83	155	147	135	202	201	94	0
Industrial and marine diesel fuel	3	7	6	6	17	7	4	0
Aviation turbine fuel	22	8	37	43	62	66	22	24
Fuel oil	75	125	91	116	89	104	96	59
Lubricants	45	47	61	64 s	56	52	81	107
Liquefied petroleum gas	8	16	19	36	55	87	68	64
Other products	176	185	170	164	199	213	257	255
Total refined products	455	634	606	676	765	955	766	868
Crude oil and other refinery feedstock	2 302	3 243	2 839	3 002	3 562	4 233	3 707	3 794

a Ships and aircraft stores. **b** Production began in 1989-90. **p** Preliminary. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Department of Industry, Science and Resources, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

322 Australian exports of petroleum, by destination [a]

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity									
Crude oil and other refinery feedstock									
Chinese Taipei	ML	103	381	457	1 344	2 336	2 163	2 066	2 200
Indonesia	ML	1 862	1 248	1 601	1 398	1 457	1 239	1 344	688
Japan	ML	3 455	3 905	3 366	3 480	2 490	2 451	2 832	2 954
New Zealand	ML	334	236	403	584	639	1 145	880	779
Singapore	ML	1 158	1 558	2 168	1 434	1 342	949	1 613	1 691
South Korea	ML	266	122	242	691	702	1 214	1 564	2 005
Thailand	ML	379	759	95	195	451	516	343	66
United States	ML	852	984	1 105	1 693	938	2 231	3 558	2 768
Other	ML	558	907	100	625	544	492	586	1 139
Liquefied petroleum gas									
China	ML	na	na	0	0	124	450	307	342
Japan	ML	na	na	383	465	1 058	580	668	503
Philippines	ML	na	na	0	0	193	131	109	12
Other	ML	na	na	907	725	93	1 260	1 740	1 629
Total [b]	ML	1 568	1 483	1 290	1 189	1 469	2 421	2 824	2 486
Refined products									
Fiji	ML	363	328	300	435	565	613	633	576
French Polynesia	ML	186	199	76	245	117	215	333	275
New Caledonia	ML	233	274	258	246	289	359	259	242
New Zealand	ML	389	650	592	389	1 079	1 165	1 206	1 305
Papua New Guinea	ML	596	511	592	542	657	575	635	564
Singapore	ML	1 229	1 047	1 098	860	710	1 059	906	319
Other	ML	825	703	591	571	684	1 056	969	956
Value [c]									
Crude oil and other refinery feedstock									
Chinese Taipei	$m	16	71	68	198	344	354	304	287
Indonesia	$m	334	231	248	228	234	216	214	90
Japan	$m	635	727	499	529	370	420	443	400
New Zealand	$m	59	43	63	92	109	212	155	115
Singapore	$m	216	273	303	208	204	148	243	211
South Korea	$m	44	18	50	97	106	224	226	253
Thailand	$m	66	143	18	29	75	92	56	7
United States	$m	145	179	159	250	146	370	517	367
Other	$m	107	166	17	94	87	83	94	150
Liquefied petroleum gas									
China	$m	na	na	0	0	13	62	30	38
Japan	$m	na	na	37	54	139	76	82	55
Philippines	$m	na	na	0	0	25	18	14	1
Other	$m	na	na	101	100	13	199	242	202
Total [b]	$m	172	185	138	154	189	356	367	297
Refined products									
Fiji	$m	79	84	64	83	118	140	128	99
French Polynesia	$m	40	52	16	46	26	50	68	48
New Caledonia	$m	43	51	54	53	61	76	54	44
New Zealand	$m	98	149	134	93	241	280	273	262
Papua New Guinea	$m	135	127	136	111	149	148	140	108
Singapore	$m	159	160	163	144	133	174	165	58
Other	$m	215	207	180	188	206	278	269	248

a Does not include LNG exports or ships and aircraft stores. **b** Includes confidential exports. **c** Actual values are used and aggregated for each category.
p Preliminary. **na** Not available.
Sources: Department of Industry, Science and Resources, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra; ABS; ABARE.

323 Australian imports of petroleum, by source

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Quantity									
Crude oil and other refinery feedstock									
Indonesia	ML	3 698	3 477	2 805	2 560	4 713	5 435	7 131	9 648
Malaysia	ML	1 174	481	197	291	839	314	888	1 576
New Zealand	ML	1 080	928	1 152	1 180	1 093	2 069	1 544	1 792
Other Middle East	ML	445	198	457	306	340	711	432	1 751
Papua New Guinea	ML	0	2 263	3 692	4 144	4 667	3 951	2 987	3 228
Qatar	ML	0	116	1 062	1 293	1 273	614	854	211
Saudi Arabia	ML	4 170	4 739	4 026	4 304	4 469	3 681	3 706	2 828
Singapore	ML	589	1 003	730	702	983	529	622	257
United Arab Emirates	ML	2 941	4 296	4 360	4 223	3 153	4 595	3 081	1 197
Vietnam	ML	425	1 096	1 576	1 341	1 451	1 901	3 259	6 086
Other	ML	810	825	239	295	723	968	512	1 156
Refined products									
Indonesia	ML	75 s	95 s	83 s	115 s	125	63	84	56
Malaysia	ML	23 s	43 s	81 s	59 s	77	36	64	42
Middle East	ML	116 s	153 s	380 s	323 s	569	913	375	666
New Zealand	ML	89	169	37	23	50	72	115	51
Singapore	ML	553	416	821	1 089	1 387	1 460	943	1 726
South Korea	ML	3	57	16	68	50	35	47	139
United States	ML	411 s	627 s	985 s	798 s	871	409	430	365
Other a	ML	956	1 352	878	1 004	394	1 299	1 206	1 084
Value									
Crude oil and other refinery feedstock									
Indonesia	$m	591	640	432	374	723	951	1 109	1 266
Malaysia	$m	204	87	29	47	133	61	134	214
New Zealand	$m	181	171	171	172	168	364	231	234
Other Middle East	$m	64	31	59 s	42 s	47 s	116	59	214
Papua New Guinea	$m	0	399	526	618	736	730	463	435
Qatar	$m	0	18	130	181	167	92	116	27
Saudi Arabia	$m	518	684	503	590	617	563	493	317
Singapore	$m	78	166	92	103	160	86	96	32
United Arab Emirates	$m	445	683	608	607	447	766	442	146
Vietnam	$m	64	200	233	202	225	312	477	765
Other	$m	156	163	57	66	139	192	86	143
Refined products									
Indonesia	$m	10	13	11	14	18	26	13	11
Malaysia	$m	4	7	13	9	13	12	12	11
Middle East	$m	53	69	45 s	58	91	170	64	91
New Zealand	$m	22	38	10	3	8	10	19	7
Singapore	$m	153	141	194	208	277	315	194	281
South Korea	$m	6	19	4	14	13	9	18	23
United States	$m	142	210	193	145	189	200	256	251
Other a	$m	64	136	169	226	156	211	190	194

a Includes confidential imports of refined products. **p** Preliminary. **s** ABARE estimate.

Sources: Department of Industry, Science and Resources, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra; ABS; ABARE.

324 World crude oil supply and demand a

	Unit	1991	1992	1993	1994	1995	1996	1997	1998 p
Supply									
OPEC b	mbd	25.3	26.5	26.9	27.4	27.7	28.4	29.9	30.7
Non-OPEC									
North America	mbd	11.1	11.1	11.0	10.9	11.0	11.1	11.2	11.0
Mexico	mbd	3.1	3.1	3.1	3.1	3.1	3.3	3.4	3.5
South America	mbd	2.2	2.2	2.6	2.8	3.0	3.3	3.4	3.7
Russia	mbd	9.3	7.9	6.9	6.3	6.2	6.0	6.1	6.1
Europe	mbd	5.9	6.2	6.4	7.2	7.6	8.0	8.0	8.0
Middle East Africa	mbd	3.4	3.5	3.7	3.9	4.4	4.6	4.6	4.6
China	mbd	2.8	2.8	2.9	2.8	3.0	3.1	3.2	3.2
Asia Pacific	mbd	2.4	2.5	2.4	2.7	2.8	2.8	2.8	2.9
Total c	mbd	66.8	67.2	67.4	68.6	70.1	72.0	74.4	75.4
Demand									
North America	mbd	18.6	19.0	19.2	19.7	19.8	20.3	20.9	21.2
Latin America	mbd	5.4	5.5	5.7	5.9	5.9	6.4	6.5	6.9
Western Europe 4 d	mbd	8.4	8.5	8.5	8.5	8.6	8.6	8.6	8.7
Russia	mbd	5.2	4.4	3.8	3.2	3.0	2.6	2.7	2.7
Other Europe	mbd	9.3	9.1	8.5	8.2	8.5	8.7	8.7	8.8
Japan and South Korea	mbd	6.6	7.0	7.1	7.5	7.7	7.9	8.0	7.5
China	mbd	2.5	2.7	3.1	3.1	3.3	3.7	4.1	4.2
Other Asia Pacific	mbd	5.4	5.7	6.1	6.4	6.9	7.3	7.7	7.8
Middle East	mbd	3.3	3.5	3.9	4.0	3.9	4.0	4.2	4.3
Africa	mbd	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.4
Total	mbd	66.8	67.4	67.8	68.6	69.9	71.8	73.7	74.3
OECD stocks e	days	60	58	58	58	54	54	56	56

a Includes crude oil, marine bunkers, refinery fuel, non-conventional oil and natural gas liquids. **b** Includes natural gas liquids produced by OPEC (around 3 million barrels a day). **c** Includes up to 1.5 million barrels a day net gain in the processing of primary fuels other than crude oil. **d** France, Germany, Italy and UK. **e** Industry stocks measured in days of forward consumption at 31 December. **p** Preliminary.

Sources: BP Statistical Review of World Energy ; International Energy Agency, *Monthly Oil Market Report,* OECD, Paris; Energy Information Administration, US Department of Energy, Washington DC.

325 Prices for crude oil, by origin [a]

	Arab light [b] US$/bbl	Dubai [c] US$/bbl	Brent [d] US$/bbl	WTI [e] US$/bbl	Gippsland [f] US$/bbl	
1978-79	13.71	14.01			12.45	(Australian import
1979-80	28.48	26.56	29.09		21.72	parity price)
New predominance of spot price markets						
1980-81	35.88	34.76	37.40		28.86	(Australian IPP)
1981-82	31.77	31.61	34.31	34.15	31.52	(Australian IPP)
1982-83	28.35	29.71	31.46	31.66	33.24	(Australian IPP)
1983-84	27.78	27.90	29.80	30.50	29.70	(Australian IPP)
	World trade weighted [g] US$/bbl	**Dubai [c]** US$/bbl	**Brent [d]** US$/bbl	**WTI [e]** US$/bbl	**Gippsland [f]** US$/bbl	
1984 quarter						
September	28.67	27.36	28.12	28.97	29.70	(Australian IPP)
December	28.43	27.06	27.38	27.82	29.70	
1985 quarter						
March	28.16	27.20	27.00	26.00	27.59	(Australian IPP)
June	27.60	25.97	27.35	27.22	30.13	(Australian IPP)
September	27.20	26.13	27.18	27.48	30.63	(Australian IPP)
December	27.41	26.69	28.42	28.97	29.15	(Australian IPP)
1986 quarter						
March	21.88	16.25	17.54	17.03	26.72	(Australian IPP)
June	12.57	10.58	12.78	13.93	14.19	(Australian IPP)
Start of non-transparent price calculations						
September	11.86	11.06	12.56	13.98	19.76	(Australian IPP)
December	13.58	13.91	14.88	15.65	25.94	(Australian IPP)
1987 quarter						
March	17.28	16.91	18.46	17.28	28.59	(Australian IPP)
June	17.57	17.07	18.53	19.30	28.34	(Australian IPP)
September	17.73	17.40	19.11	20.47	28.63	(Australian IPP)
December	17.12	16.34	17.97	18.65	27.44	(Australian IPP)
1988 quarter						
March	15.20	14.66	15.53	16.68	16.47	
June	15.00	14.55	15.90	17.52	16.23	
September	13.34	12.09	13.78	14.54	14.36	
December	11.72	11.09	13.45	14.70	13.18	
1989 quarter						
March	15.49	15.00	17.39	18.46	17.80	
June	17.33	15.72	18.20	20.25	19.17	
September	16.26	15.32	17.54	19.85	17.75	
December	17.42	16.18	19.04	20.02	18.86	
1990 quarter						
March	18.14	16.63	19.76	21.75	19.97	
June	14.43	14.01	16.35	17.84	16.50	
September	24.12	25.58	26.64	26.57	24.29	
December	29.15	27.53	32.27	31.88	34.08	

Continued

325 Prices for crude oil, by origin a *(continued)*

	World trade weighted g	Dubai c	Brent d	WTI e	Gippsland f
	US$/bbl	US$/bbl	US$/bbl	US$/bbl	US$/bbl
1991 quarter					
March	17.98	15.85	20.37	21.12	21.50
June	16.56	15.57	18.93	20.86	19.05
September	17.61	16.91	19.91	21.66	20.33
December	18.57	17.54	20.48	21.75	22.45
1992 quarter					
March	16.37	15.55	17.89	18.86	18.78
June	18.49	17.94	20.15	21.17	20.10
September	19.04	18.42	20.27	21.33	22.15
December	18.08	17.26	19.20	20.46	20.27
1993 quarter					
March	16.87	15.84	18.29	19.83	19.25
June	16.95	15.93	18.16	19.74	19.25
September	15.16	14.32	16.46	17.63	17.61
December	14.02	13.54	14.86	16.83	15.67
1994 quarter					
March	13.34	12.75	14.00	14.83	14.86
June	15.28	14.74	16.17	17.81	15.74
September	16.45	15.85	16.95	18.50	17.43
December	16.15	15.63	16.57	17.66	16.38
1995 quarter					
March	16.90	16.34	17.04	18.40	17.80
June	17.80	16.96	18.12	19.38	18.36
September	15.98	15.33	16.15	17.87	17.01
December	16.55	15.87	17.03	18.17	17.62
1996 quarter					
March	18.13	16.49	18.64	19.78	19.53
June	19.09	17.24	19.24	21.72	19.26
September	20.22	19.51	21.10	22.43	20.08
December	22.75	21.64	23.30	24.65	23.68
1997 quarter					
March	20.69	20.93	19.94	22.81	22.68
June	17.53	18.04	17.83	19.98	19.56
September	17.59	17.73	18.73	19.80	19.46
December	17.80	17.97	18.93	19.92	20.23
1998 quarter					
March	12.78	12.59	14.54	16.01	15.01
June	11.95	12.30	13.86	14.72	14.62
September	11.87	11.69	12.75	13.59	12.85
December	11.11	11.56	11.73	13.00	12.57
1999 quarter					
March	10.93	11.13	11.53	13.11	11.57
June	15.33	15.28	15.85	17.67	16.15

a Based on daily prices unweighted and averaged over the period using posted or official selling prices with Rotterdam spot prices for Middle East and North Sea crudes after 1980. **b** Saudi Arabian light crude, 34 API gravity. **c** Middle East crude, 32 API gravity. **d** North Sea crude, 38 API gravity. **e** North American crude, 40 API gravity. **f** Australian crude, 42 API gravity. Price series discontinued in 1988. **g** Quarterly averages of weekly rates; average contract selling prices fob of internationally traded crude oils only, weighted by estimated export volume.

Sources: ABARE averaging of daily prices using: Middle East Petroleum and Economic Publications, *International Crude Oil and Product Prices,* London; Department of Resources and Energy, *Australian Energy Statistics,* AGPS, Canberra; Energy Information Administration, US Department of Energy, Washington DC; *Platts Oilgram Price Reports,* London; Reuterlink.

326 Summary of Australian statistics for salt

		Exports		
	Production	Volume	Value	Unit value a
	kt	kt	$m	$/t
1960	471	19	0.3	15.79
1961	517	61	0.7	11.48
1962	545	76	0.7	9.21
1963	591	122	0.8	6.56
1964	554	119	0.8	6.72
1965	665	115	0.6	5.22
1966	655	95	0.5	5.26
1967	714	89	0.5	5.62
1968	914	228	0.9	3.95
1969	1 680	775	2.1	2.71
1970	3 071 b	2 331	8.2	3.52
1971	3 788 b	2 815	9.0	3.20
1972	3 340 b	2 417	7.0	2.90
1973	4 204	3 475	10.6	3.05
1974	5 009	4 211	15.4	3.66
1975	4 660	3 652	17.5	4.79
1976	5 489	4 258	26.9	6.32
1977	4 716	4 057	29.5	7.27
1978	5 873	4 654	32.9	7.07
1979	5 215	4 513	33.3	7.38
1980	5 665	4 515	44.3	9.81
1981	6 716	3 964	44.0	11.10
1982	4 811	4 144	55.2	13.32
1983	5 170	4 535	69.4	15.30
1984	5 695	4 783	74.7	15.62
1985	5 835	5 166	97.4	18.85
1986	6 131	5 213	102.0	19.57
1987	6 486	2 745 c	56.0 c	20.40
1988	6 958 b	6 206	117.2	18.89
1989	7 070 d	6 194	121.5	19.61
1990	7 229 d	6 466	136.3	21.08
1991	7 768 d	7 061	165.6	23.46
1992	7 693 d	7 028	174.9	24.89
1993	7 553 d	6 982	185.5	26.56
1994	7 792 d	7 259	174.1	23.99
1995	8 298 d	7 649	176.5	23.08
1996	7 993 d	7 651	166.6	21.77
1997	8 883 d	8 187	190.9	23.32
1998	8 999 d	8 701	233.4	26.82

a Average export unit value of all salt, bulk, bagged and table. **b** Excludes Victoria. **c** Excludes salt, common, in bulk from 1 January to 30 June. **d** Excludes Victoria and the Northern Territory.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

327 Australian supply and disposal of salt

	Unit	1992	1993	1994	1995	1996	1997	1998
Production								
Queensland	kt	268	290	214	345	208	175	342
South Australia	kt	753	774	773	662	585	592	467
Western Australia **a**	kt	6 672	6 489	6 806	7 291	7 200	8 116	8 191
Total	kt	7 693 **b**	7 553 **b**	7 792 **b**	8 298 **b**	7 993 **b**	8 883 **b**	8 999 **b**
Exports (all types) c								
Japan	kt	3 852	2 442	0	0	0	0	0
South Korea	kt	1 130	512	0	0	0	0	0
Taiwan	kt	900	378	0	0	0	0	0
Other	kt	1 144	3 651	7 259	7 649	7 651	8 187	8 701
Total	kt	7 028	6 982	7 259	7 649	7 651	8 187	8 701
	$m	175	185	174	177	167	191	233
Imports								
Common salt	t	7 144	9 034	9 428	10 263	10 936	12 522	12 310
	$'000	1 478	2 436	2 103	2 522	2 660	2 978	3 299

a Sales. **b** Excludes Victoria and Northern Territory. **c** Individual country data not available after June 1993 as a result of confidentiality restrictions. Included under other. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

328 World production of salt

	1991 Mt	1992 Mt	1993 Mt	1994 Mt	1995 Mt	1996 a Mt	1997 a Mt	1998 a Mt
Argentina	0.9	1.0	1.0	0.8	1.0	1.1	1.1	1.1
Australia	7.8	7.7	7.6	7.8	8.3	8.0	8.9	9.0
Brazil	4.9	5.3	5.6	6.0	5.8	5.9	5.5	5.7
Canada	12.0	11.2	10.9	11.5	10.9	12.3	13.3	13.0
Chile	1.7	1.7	1.4	3.2	3.5	4.0	5.5	6.0
China b	24.1	28.1	29.4	29.7	25.0	28.9	29.3	30.0
Egypt	0.7	0.8	1.1	1.0	1.2	1.1	1.2	1.2
Former Soviet Union b	14.0	14.0	na	na	na	na	na	na
Russia	c	c	3.5	3.0	2.0	1.6	1.4	1.4
Ukraine	c	c	4.0	3.5	3.0	2.8	2.5	2.5
France	6.5	6.1	5.7	5.7	7.4	7.7	7.2	7.2
Germany d	14.9	12.7	12.7	12.7	12.4	13.4	14.7	14.7
India	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Iran	1.1	1.0	1.0	0.9	1.0	1.4	1.4	1.4
Italy	4.0	3.8	3.7	4.1	4.1	4.2	4.2	4.2
Japan	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Mexico	7.5	7.4	7.5	7.5	7.7	8.5	7.9	7.9
Netherlands e	3.4	4.0	3.5	3.5	5.0	5.5	5.0	5.0
Poland	3.8	3.9	3.8	3.8	4.0	4.2	4.0	4.0
Romania	4.0	2.5	2.2	2.4	2.5	2.7	2.7	2.7
Spain	3.4	3.8	2.8	3.5	3.7	4.0	4.0	4.0
Turkey	2.0	1.4	1.5	1.4	1.4	2.0	2.0	2.0
United Kingdom	6.1	6.1	6.6	7.0	7.0	7.0	6.6	6.6
United States	35.9	34.8	39.8	39.8	42.1	42.2	41.4	41.4
Other	15.4	9.9	10.8	14.3	19.1	14.6	10.3	10.3
Total	185.0	178.0	177.0	184.0	189.0	194.0	191.0	191.0

a US Bureau of Mines estimate (except for Australia). **b** Marketable salt. **c** Included in former Soviet Union total. **d** Unified Germany. **e** Includes the Antilles. **na** Not applicable.

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; British Geological Survey, *World Mineral Statistics,* Nottingham, England; US Department of the Interior, US Geological Survey, *Mineral Commodity Summaries,* Washington DC; ABARE.

329 Summary of Australian statistics for silica

	Production	Exports		Imports	
	Volume	Volume	Value	Volume	Value
	kt	kt	$'000	t	$'000
1960	213	na	na	96	20
1961	218	na	na	49	6
1962	234	na	na	24	10
1963	247	na	na	46	38
1964	330	na	na	97	25
1965	337	na	na	44	55
1966	354	na	na	533	33
1967	446	na	na	478	na
1968	550	na	na	438	31
1969	652	na	na	624	37
1970	879	178 **a**	575 **a**	785 **a**	53 **a**
1971	1 112	211 **a**	736 **a**	1 126 **a**	85 **a**
1972	1 058	219 **a**	658 **a**	1 000 **a**	86 **a**
1973	1 259	557 **a**	1 836 **a**	696	259
1974	1 443 **b**	555 **a**	1 838 **a**	846	74
1975	1 219	513 **a**	2 193 **a**	1 121	119
1976	1 381	389 **a**	1 867 **a**	343	52
1977	1 224	495 **a**	3 030 **a**	441	77
1978	1 290	467 **a**	3 112 **a**	283	45
1979	1 768	647	4 896	368	77
1980	1 828	649	5 762	199	49
1981	1 743	383	4 075	569	169
1982	1 813	519	5 399	3 678	589
1983	1 928	670	6 879	2 464	647
1984	2 242	686	7 430	3 087	550
1985	2 091	895	9 972	1 267	648
1986	2 091	1 137	13 590	852	567
1987	2 361	1 094	13 249	535	397
1988	2 667	1 577	20 973	3 633	609
1988-89	2 795 **c**	1 660	23 319	3 473	523
1989-90	3 116 **c**	2 226	34 848	2 029	282
1990-91	3 835 **c**	2 398	37 685	6 835	667
1991-92	3 347 **d**	2 547	40 175	9 025	1 205
1992-93	3 570 **d**	2 488	41 825	2 231	906
1993-94	na	2 600	43 083	1 130	631
1994-95	4 576	3 007	49 163	2 431	989
1995-96	na	3 227	49 538	1 731	1 153
1996-97	na	3 074	52 062	4 237	2 681
1997-98	na	3 280	61 616	3 495	2 306
1998-99	na	2 986	58 401	2 704	975

a Year ended 30 June. **b** Excludes Western Australia. **c** Excludes Victoria. **d** Excludes Tasmania and Victoria. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

330 Australian production of silica, by state

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
	kt	kt	kt	kt	kt	kt	kt
1960	168.1	na	16.1	8.8	14.8	5.3	213.2
1961	153.3	na	29.7	8.3	23.1	1.4	218.0
1962	173.4	na	26.0	10.5	23.8	0.5	234.2
1963	176.7	na	32.5	10.1	25.3	2.7	247.3
1964	241.9	na	38.2	10.2	25.4	13.8	329.6
1965	234.9	na	46.2	9.4	36.4	10.1	337.0
1966	234.1	na	39.4	28.7	46.2	5.5	353.9
1967	289.1	na	70.2	42.4	35.1	8.7	445.6
1968	283.6	na	164.5	20.9	67.1	14.3	550.4
1969	315.4	na	208.9	49.7	49.4	28.3	651.7
1970	335.2	114.5	295.0	39.3	43.2	51.8	879.1
1971	430.2	108.1	405.7	57.8	74.0	36.7	1 112.4
1972	464.2	98.8	395.4	20.9	60.5	18.1	1 058.0
1973	459.7	109.0	568.1	27.4	66.2	28.1	1 258.5
1974	474.9	141.8	712.4	na	75.2	38.4	1 442.8
1975	392.9	142.6	544.1	28.3	77.6	33.3	1 218.8
1976	511.7	166.3	516.5	40.6	118.7	27.7	1 381.4
1977	410.3	199.4	458.7	78.1	104.4	51.5	1 224.3
1978	417.3	184.3	520.2	91.2	114.8	53.1	1 289.7
1979	544.9	196.2	627.3	217.7	91.7	89.9	1 767.6
1980	588.1	255.3	670.7	148.1	99.9	65.5	1 827.6
1981	548.5	288.2	581.4	168.1	120.4	36.5	1 743.1
1982	557.5	361.0	563.7	144.0	146.8	40.1	1 813.2
1983	471.5	348.5	627.4	322.8	114.5	43.3	1 927.8
1984	448.4	406.9	866.7	352.6	124.4	43.1	2 242.1
1985	338.5	273.7	924.6	373.1	143.4	37.1	2 090.5
1986	412.3	267.0	839.4	390.4	141.3	40.9	2 091.3
1987	464.8	224.0	1 079.2	386.0	147.2	59.5	2 360.7
1988	457.6	218.7	1 467.0	348.9	96.8	78.0	2 667.0
1988-89	480.2	na	1 682.6	364.5	109.7	158.0	2 794.9
1989-90	574.0	na	1 802.0	478.0	112.0	150.0	3 116.0
1990-91	551.1	na	2 145.1	861.7	104.4	172.3	3 834.6
1991-92	552.5	na	2 019.8	654.6	119.8	na	3 346.7
1992-93	495.0	na	2 421.0	518.0	136.0	na	3 570.0
1993-94	na	na	2 494.2	568.4	na	na	na
1994-95	565.0	220.0	2 828.7	614.5	174.0	174.0	4 576.0
1995-96	636.2	na	na	741.9	132.0	na	na
1996-97	699.1	na	2 680.5	700.2	157.0	na	na
1997-98	613.7	na	2 851.1	784.3	131.0	na	na

a Excludes Western Australia. **b** Excludes Victoria. **c** Excludes Tasmania and Victoria. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* BMR, Canberra; state mines departments and their equivalents; ABARE.

331 Australian imports of silica based products

	Silicon		Ferrosilicon		Ferrosilicomanganese		Piezoelectric crystals
	Volume t	Value $'000	Volume t	Value $'000	Volume t	Value $'000	Value $'000
1960	na	188	3 968	na	na	na	na
1961	na	210	8 308	1 217	na	na	na
1962	797	168	6 307	1 004	na	na	na
1963	830	249	5 720	710	na	na	na
1964	1 593	466	10 348	1 167	na	na	na
1965	638	194	13 211	1 747	na	na	na
1966	na	142	7 620	1 061	na	na	na
1967	na	422	9 440	1 379	na	na	na
1968	na	na	6 327	923	na	na	na
1969	na	625	7 722	1 180	na	na	na
1970	na	621	13 603	2 272	na	na	na
1971	3 403	1 192	12 281	2 073	na	na	112
1972	1 950	688	9 771	1 794	na	na	259
1973	2 366	777	9 202	1 526	na	na	159
1974	2 496	1 047	14 286	3 048	na	na	330
1975	2 602	2 723	21 578	8 528	na	na	558
1976	1 845	1 229	14 258	5 249	na	na	467
1977	3 896 **a**	2 982 **a**	6 437	3 114	390 **a**	200 **a**	738 **a**
1978	2 006 **a**	1 492 **a**	6 363	2 893	414	271	536 **a**
1979	2 573 **a**	2 950 **a**	7 149	3 640	488	392	819 **a**
1980	4 888 **a**	5 749 **a**	14 598	8 856	532	376	971 **a**
1981	3 093 **a**	3 553 **a**	9 716	4 675	217	180	1 040 **a**
1982	2 961	3 685	10 761	6 222	193	127	1 886
1983	2 695	4 064	7 174	4 280	336	300	1 859
1984	4 572	7 422	9 461	5 273	774	709	2 402
1985	4 914	9 447	13 890	7 153	940	1 183	3 782
1986	5 852	10 461	11 469	6 873	392	558	3 407
1987	5 083	11 853	12 897	8 894	656	913	4 106
1988	3 759	6 592	9 095	7 533	433	571	3 444
1988-89	3 714	8 062	14 100	12 065	293	401	4 347
1989-90	2 908	10 160	21 507	18 566	205	308	4 470
1990-91	2 443	10 545	19 330	13 929	231	316	3 475
1991-92	2 301	11 469	13 229	11 460	913	922	8 486
1992-93	3 611	11 910	24 738	21 091	932	832	4 423
1993-94	3 025	11 393	35 732	31 342	510	548	6 114
1994-95	2 863	15 083	32 593	25 699	377	375	6 607
1995-96	4 899	14 862	34 506	38 060	288	482	7 951
1996-97	3 226	10 408	52 952	38 258	279	468	6 305
1997-98	3 054	11 369	36 016	39 544	199	304	6 485
1998-99	4 110	15 289	32 044	33 968	451	752	9 431

a Year ended 30 June. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra.

332 Summary of Australian statistics for silver

	Production		Exports a		
	Mine	Refinery	Volume	Value	Price b
	t	t	t	$m	$/kg
1970	808	374	304	na	59.39
1971	678	328	203	na	47.87
1972	681	313	219	na	49.76
1973	707	261	115	na	60.07
1974	670	256	112	na	104.89
1975	726	283	134	na	109.41
1976	779	255	100	na	115.23
1977	856	280	136	na	135.01
1978	813	299	76	na	153.05
1979	832	320	85	na	318.76
1980	777	355	85	na	598.78
1981	744	376	90	na	295.90
1982	907	357	234	na	254.09
1983	1 033	329	222	na	410.83
1984	972	302	164	na	300.47
1985	1 086	329	167	na	284.96
1986	1 023	336	192	na	264.55
1987	1 119	362	178	na	326.30
1988	1 134	359	26 c	26 d	275.61
1989	1 075	376	23 c	28 d	229.50
1990	1 173 s	419	16 c	43 d	205.75
1991	1 180 s	388	106 c	38 d	175.75
1992	1 218 s	383	200 c	49 d	179.50
1993	1 152 s	356	257 c	60 d	212.50
1994	1 045 s	362	190 c	53 d	240.75
1995	939 s	346	192 c	52 d	234.30
1996	1 013 s	356	316 c	73 d	222.50
1997	1 106 s	280	215 c	54 d	220.80
1998	1 474 s	319	362 c	123 d	291.50

a Refined silver only. **b** Pasminco Metals, fob/fot Port Pirie. **c** Refined bullion only. **d** Includes refined bullion, powder, unwrought silver and semi-manufactured forms. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

333 Australian supply and disposal of silver

	Unit	1991	1992	1993	1994	1995	1996	1997	1998
Production									
Mine									
New South Wales	t	292	270	249	229	232	196	201	151
Victoria	t	na	na	na	na	na	na	na	na
Queensland	t	606	584	548	na	419	493	573	986
Western Australia	t	na	na	na	na	76	81	83	99
South Australia	t	19	na	na	na	14	14	15	16
Tasmania	t	162	162	na	na	174	173	168	146
Northern Territory	t	na	na	na	na	24	54	68	76
Total	t	1 180	1 218 **s**	1 152 **s**	1 045 **s**	939 **s**	1 013 **s**	1 106 **s**	1 474 **s**
Refinery	t	388	383	356	362	346	356	280	319
Exports									
Refined silver									
India	t	na	na	na	na	na	na	na	na
Japan	t	36	62	61	48	104	141	102	na
United Kingdom	t	17	na	70	48	6	10	0	na
Other	t	49	na	93	93	82	165	113	na
Total	t	106 **a**	200 **a**	257 **a**	190 **a**	192 **a**	316 **a**	215 **a**	362 **a**
	$m	38 **b**	49 **b**	60 **b**	53 **b**	52 **b**	73 **b**	54 **b**	123 **b**
Silver content of lead bullion	t	na	na	na	na	na	na	na	na
Silver content of other primary materials	t	na	na	na	na	na	na	na	na
Total **c**	t	na **s**	na	na	na	na	na	na	na
Prices									
World **d**	US cents/troy oz	403.9	393.6	430.9	528.1	520.0	519.9	489.7	554.0
Australia **e**	A$/kg	175.8	179.5	212.5	240.8	234.3	222.5	220.8	291.5

a Refined bullion only. **b** Includes refined bullion, powder, unwrought silver and semimanufactured forms. **c** Silver content of all ores, concentrates, intermediate products and refined bullion; excludes powder, unwrought silver and semimanufactured forms. **d** Handy and Harman price. **e** Pasminco Metals, fob/fot Port Pirie. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

334 World mine production of silver

	1990	1991	1992	1993	1994	1995	1996	1997	1998
	t	t	t	t	t	t	t	t	t
Australia	1 173	1 180	1 218 **s**	1 152 **s**	1 045 **s**	939 **s**	1 013 **s**	1 106 **s**	1 474 **s**
Bolivia	311	337	282	333	352	452	384	386	404
Brazil	60	154	162	160	150	145	140	140	140
Canada	1 502	1 339	1 215	896	768	1 285	1 309	1 224	1 179
Chile	654	674	1 043	985	959	1 038	1 130	1 088	1 337
China	783	736	804	841	812	918	918	918	918
Former Soviet Union	1 380	1 270	na	na	na	na	na	na	na
Kazakhstan	**a**	**a**	450	450	408	371	414	389	536
Russia	**a**	**a**	300	300	250	250	250	250	241
Uzbekistan	**a**	**a**	150	150	150	150	150	150	150
Indonesia	67	80	100	90	107	265	255	279	349
Japan	150	171	178	137	134	100	85	87	95
Mexico	2 170	2 295	2 325	2 416	2 215	2 334	2 528	2 678	2 672
Morocco	241	229	217	307	333	204	200	262	307
North Korea	280	300	280	250	200	200	200	200	200
Peru	1 762	1 770	1 570	1 621	1 667	1 908	1 949	2 059	2 004
Poland	833	867	914	767	1 064	1 001	935	1 038	1 097
South Africa	161	170	178	193	196	174	168	153	145
Spain	270	208	160	180	175	124	103	66	25
Sweden	243	239	311	299	275	268	272	304	299
United States	2 121	1 855	1 804	1 640	1 480	1 450	1 430	1 660	2 038
Other	1 103	1 016	935	739	740	747	726	694	680
Total	15 264	14 890	14 596	13 906	13 480	14 323 **b**	14 559 **b**	15 131 **b**	16 290 **b**

a Included in former Soviet Union total. **b** Excludes countries for which data are not available. **s** ABARE estimate. **na** Not applicable.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

335 Summary of Australian statistics for talc

		Exports a			Imports a	
	Production b	Volume	Value	Unit value	Volume	Value
	t	t	$'000	$/t	t	$'000
1960	15 794	3 968	129	32.56	504	24
1961	13 664	4 258	149	35.05	1 489	45
1962	13 754	5 068	164	32.34	2 156	72
1963	12 790	4 090	142	34.63	2 591	81
1964	15 439	5 264	177	33.69	2 351	75
1965	19 695	6 887	234	33.98	2 404	68
1966	21 616	7 758	231	29.78	2 903	62
1967	20 431	8 787	277	31.52	2 199	74
1968	37 860	24 875	661	26.57	3 590	117
1969	52 259	34 134	863	25.28	1 823	77
1970	47 517	31 037	791	25.49	3 441	164
1971	41 280	32 662	861	26.36	4 091	197
1972	43 849	32 051	897	27.99	1 186	69
1973	50 850	36 179	996	27.53	1 109	66
1974	63 992	51 325	1 428	27.82	1 606	10
1975	67 242	45 457	1 527	33.59	947	72
1976	77 447	62 306	2 425	38.92	370	62
1977	112 920	87 271	4 052	46.43	335	65
1978	137 553	107 177	5 338	49.81	527	103
1979	138 266	107 849	6 330	58.69	420	86
1980	159 962	83 059	5 286	63.64	382	82
1981	74 840	82 641	5 529	66.90	329	105
1982	143 325	80 512	5 428	67.42	93	30
1983	167 009	131 914	8 401	63.69	147	68
1984	179 709	163 370	10 810	66.17	215	111
1985	132 074	122 306	9 577	78.30	352	196
1986	179 467	183 357	15 028	81.96	151	85
1987	206 865	129 656	11 012	84.93	266	189
1988	201 740	168 758	13 073	77.47	509	223
1988-89	208 998	126 597	9 447	74.62	578	216
1989-90	234 579	200 870	18 158	90.39	631	297
1990-91	173 803	137 260	12 770	93.03	528	237
1991-92	179 678	152 009	13 717	90.24	563	298
1992-93	172 273	119 830	14 184	118.36	629	372
1993-94	154 073	152 297	15 440	101.38	534	328
1994-95	125 701	133 060	12 672	95.23	1 053	353
1995-96	176 163	182 600	17 388	95.22	1 066	423
1996-97	185 601	143 227 c	12 861 c	89.80	1 262	451
1997-98	199 315	1 614 c	572 c	354.23	1 341	578
1998-99	na	3 333 c	1 053 c	315.82	886	695

a Includes pyrophyllite. **b** Excludes pyrophyllite. **c** Excludes uncrushed product from 1 June 1997. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

336 Australian production of talc and pyrophyllite, by state

	Talc				Pyrophyllite
	New South Wales	South Australia	Western Australia	Australia	New South Wales
	t	t	t	t	t
1960	1 154	9 082	5 558	15 794	509
1961	838	7 594	5 232	13 664	1 309
1962	732	7 962	5 061	13 754	1 303
1963	878	7 168	4 744	12 790	1 176
1964	1 388	8 533	5 518	15 439	723
1965	1 710	10 783	7 202	19 695	0
1966	1 426	6 611	13 580	21 616	266
1967	2 169	7 303	10 958	20 431	564
1968	2 153	10 586	25 121	37 860	985
1969	2 925	12 459	36 876	52 259	3 165
1970	1 162	14 559	31 796	47 517	7 707
1971	698	11 506	29 076	41 280	6 596
1972	650	11 336	31 863	43 849	12 299
1973	765	14 088	35 997	50 850	12 820
1974	430	12 773	50 789	63 992	15 845
1975	280	12 975	53 987	67 242	15 145
1976	305	16 892	60 250	77 447	14 650
1977	90	16 391	96 439	112 920	16 039
1978	105	14 070	123 378	137 553	9 401
1979	150	15 565	122 551	138 266	19 209
1980	77	16 414	143 471	159 962	11 002
1981	76	21 046	53 718	74 840	8 146
1982	0	20 497	122 828	143 325	9 467
1983	63	14 913	152 033	167 009	9 569
1984	145	18 588	160 976	179 709	7 051
1985	239	16 804	115 031	132 074	7 317
1986	38	18 061	161 368	179 467	8 588
1987	120	17 471	189 274	206 865	6 036
1988	126	18 840	182 774	201 740	3 932
1988-89	155	13 536	195 307	208 998	3 436
1989-90	88	14 228	220 263	234 579	2 965
1990-91	136	12 107	161 560	173 803	1 032
1991-92	0	10 787	168 891	179 678	1 260
1992-93	0	13 484	158 789	172 273	1 175
1993-94	na	13 016	141 057	154 073	na
1994-95	27	12 950	112 724	125 701	777
1995-96	0	14 751	161 412	176 163	595
1996-97	0	8 061	177 540	185 601	337
1997-98	0	8 018	191 297	199 315	702

na Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

337 Australian exports of talc, by destination [a]

	Belgium	Japan	Nether-lands	New Zealand	South Korea	United States	Other	Total Volume	Total Value
	t	t	t	t	t	t	t	t	$'000
1960	na	na	na	1 161	na	na	na	3 968	129
1961	na	na	na	957	na	na	na	4 258	149
1962	na	na	412	1 116	na	na	na	5 068	164
1963	na	na	0	1 259	na	na	na	4 090	142
1964	na	na	217	1 049	na	na	na	5 264	177
1965	na	na	1 852	1 421	na	na	na	6 887	234
1966	na	na	4 864	1 198	na	na	na	7 758	231
1967	na	78	6 971	1 235	na	na	503	8 787	277
1968	na	190	19 026	1 285	na	na	4 374	24 875	661
1969	na	9 976	22 236	1 474	na	na	448	34 134	863
1970	na	16 445	12 786	1 567	na	na	239	31 037	791
1971	na	20 754	10 048	1 740	na	na	120	32 662	861
1972	na	14 953	14 991	2 029	na	na	78	32 051	897
1973	na	20 061	14 346	1 661	na	na	111	36 179	996
1974	na	30 889	18 703	1 644	na	na	89	51 325	1 428
1975	na	28 329	12 163	2 060	na	na	2 905	45 457	1 527
1976	na	39 050	15 107	2 802	na	na	5 347	62 306	2 425
1977	na	66 557	13 422	2 461	na	na	4 831	87 271	4 052
1978	na	90 577	11 291	1 860	na	na	3 449	107 177	5 338
1979	na	85 511	12 868	3 099	na	na	6 371	107 849	6 330
1980	3 150	64 152	13 500	1 868	na	na	389	83 059	5 286
1981	6 096	60 406	6 215	2 917	na	na	7 007	82 641	5 529
1982	12 597	51 096	10 063	2 419	na	na	4 337	80 512	5 428
1983	5 004	93 988	14 655	1 325	5 023	9 990	1 929	131 914	8 401
1984	11 213	119 678	14 327	1 988	14 167	0	1 997	163 370	10 810
1985	20 051	66 765	14 980	1 848	15 420	0	3 242	122 306	9 577
1986	15 007	120 312	15 252	1 069	15 745	14 003	1 969	183 357	15 028
1987	8 084	84 701	5 001	1 079	9 311	15 472	6 008	129 656	11 012
1988	12 112	124 843	11 960	669	0	18 030	1 144	168 758	13 073
1988-89	5 000	107 482	5 507	548	0	7 019	1 041	126 597	9 447
1989-90	21 754	137 648	13 565	366	4 648	18 510	4 379	200 870	18 158
1990-91	6 000	87 984	35 167	476	0	6 003	1 630	137 260	12 770
1991-92	5 255	103 279	30 200	421	0	4 728	8 126	152 009	13 717
1992-93	17 002	70 331	14 630	686	0	8 166	9 015	119 830	14 184
1993-94	6 317	94 451	37 356	689	0	10 911	2 573	152 297	15 440
1994-95	6 300	68 657	46 800	679	0	9 300	1 324	133 060	12 672
1995-96	12 803	85 375	48 300	797	680	30 100	4 545	182 600	17 388
1996-97 [b]	6 300	69 029	45 625	669	4 815	5 262	11 527	143 227	12 861
1997-98 [b]	0	0	0	910	3	0	701	1 614	572
1998-99 [b]	0	1 200	0	944	99	0	1 090	3 333	1 053

a Includes pyrophyllite. **b** Excludes uncrushed product from 1 June 1997. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

338 Australian imports of talc, by source [a]

	Norway	United Kingdom	United States	Other	Total Volume	Total Value
	t	t	t	t	t	$'000
1960	na	na	na	na	504	24
1961	na	na	na	na	1 489	45
1962	34	na	64	na	2 156	72
1963	41	na	119	na	2 591	81
1964	61	na	135	na	2 351	75
1965	82	na	139	na	2 404	68
1966	19	na	256	na	2 903	62
1967	13	na	381	na	2 199	74
1968	40	na	469	na	3 590	117
1969	9	na	442	na	1 823	77
1970	23	na	560	2 858	3 441	164
1971	31	na	732	3 328	4 091	197
1972	65	na	765	356	1 186	69
1973	86	na	647	376	1 109	66
1974	97	na	355	1 154	1 606	10
1975	2	na	244	701	947	72
1976	62	na	188	120	370	62
1977	26	na	186	123	335	65
1978	51	na	236	240	527	103
1979	41	na	168	211	420	86
1980	23	na	187	172	382	82
1981	60	na	228	41	329	105
1982	22	na	49	22	93	30
1983	27	29	82	9	147	68
1984	39	61	111	4	215	111
1985	46	47	248	11	352	196
1986	43	61	36	11	151	85
1987	66	47	107	46	266	189
1988	31	17	431	30	509	223
1988-89	45	34	338	161	578	216
1989-90	25	23	571	13	631	297
1990-91	58	75	368	28	528	237
1991-92	17	65	451	29	563	298
1992-93	30	99	354	146	629	372
1993-94	35	50	297	152	534	328
1994-95	20	46	287	700	1 053	353
1995-96	4	24	305	733	1 066	423
1996-97	11	44	185	1 022	1 262	451
1997-98	14	42	218	1 068	1 341	578
1998-99	6	24	224	632	886	695

a Includes pyrophyllite. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

339 World mine production of talc, by country a

	Australia	Brazil	China b	Japan	South Korea	United States	Other c	Total
	kt	kt	kt	kt	kt	kt	kt	kt
1960	16	na	150	592	na	666	833	2 520
1961	15	na	150	635	na	692	914	2 708
1962	15	na	150	589	na	700	931	2 712
1963	14	na	150	654	na	730	993	2 857
1964	16	na	150	1 055	na	807	1 032	3 485
1965	20	na	150	1 008	na	783	1 038	3 444
1966	22	na	150	1 109	na	812	1 003	3 526
1967	21	na	150	1 370	na	819	1 003	3 831
1968	39	na	150	1 689	na	869	1 058	4 298
1969	55	112	150	1 705	180	934	1 280	4 490
1970	55	130	150	1 676	204	932	1 413	4 940
1971	48	130	150	1 895	212	932	1 203	4 950
1972	56	130	150	1 507	236	1 005	1 290	4 764
1973	64	90	150	1 564	417	1 131	1 457	5 272
1974	80	201	150	1 542	443	1 170	1 276	5 272
1975	82	221	270	1 192	416	841	1 430	4 872
1976	92	247	300	1 345	496	963	1 532	5 415
1977	129	254	150	1 359	605	1 093	1 601	5 641
1978	147	240	150	1 272	665	1 202	1 577	5 723
1979	157	366	150	1 709	778	1 318	1 889	6 847
1980	171	413	916	1 749	719	1 125	1 946	7 529
1981	83	503	898	1 545	565	1 218	1 912	7 224
1982	153	384	898	1 492	591	1 030	1 780	6 838
1983	177	396	950	1 466	632	967	1 982	7 070
1984	187	413	952	1 498	848	1 023	2 177	7 615
1985	139	425	1 000	1 434	932	1 151	2 257	7 855
1986	188	425	1 000	1 334	900	1 181	2 190	7 735
1987	213	600	na	1 260	900	1 120	3 763	7 856
1988	206	400	na	1 266	850	1 249	3 678	7 649
1989	212	620	1 000	1 286	800	1 253	2 279	7 980
1990	238	720	1 000	1 293	910	1 267	2 823	8 251
1991	175	570	2 300	1 295	840	1 037	2 715	8 932
1992	181	480	2 650	1 123	760	997	2 673	8 864
1993	173	440	2 700	1 090	750	968	2 579	8 700
1994	na	440	2 400	999	710	935	2 396	7 880
1995	126	460	2 400	994	730	1 060	1 380	7 150
1996	177	510	2 400	965	820	994	2 324	8 190
1997	186	625	2 350	1 010	810	1 050	2 439	8 470
1998 p	200	625	2 350	1 000	810	958	2 457	8 400

a Includes pyrophyllite. **b** Excludes Hong Kong. **c** Includes former Soviet Union. **p** Preliminary. **na** Not available.
Sources: BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; US Department of the Interior, US Geological Survey, *Mineral Commodity Summaries,* Washington DC; ABARE.

340 Summary of Australian statistics for tin

	Production		Exports		
	Mine a	Refinery	Volume b	Value	Price c
	t	t	t	$m	A$/t
1955	2 018	2 004	0	0	2 044
1956	2 078	1 850	0	0	2 171
1957	1 952	1 806	0	0	2 080
1958	2 237	2 121	0	0	2 026
1959	2 351	2 226	0	0	2 164
1960	2 202	2 254	0	0	2 196
1961	2 745	2 546	0	0	2 450
1962	2 715	2 704	0	0	2 470
1963	2 860	2 626	97	0	2 506
1964	3 642	3 021	253	1	3 416
1965	3 849	3 179	633	2	3 892
1966	4 807	3 640	1 327	4	3 570
1967	5 586	3 594	1 690	5	3 339
1968	6 537	3 692	3 238	8	3 125
1969	8 177	4 156	4 075	10	3 427
1970	8 828	5 211	4 681	14	3 669
1971	10 035	6 333	5 249	14	3 497
1972	11 997	7 027	8 129	23	3 761
1973	10 801	6 904	7 414	21	4 802
1974	10 481	6 714	6 755	30	8 167
1975	9 577	5 254	6 977	32	6 841
1976	10 611	5 603	5 670	30	7 650
1977	10 634	5 561	7 405	60	10 788
1978	11 864	5 129	9 071	89	12 867
1979	12 571	5 423	8 450	103	15 419
1980	11 588	4 819	8 919	118	16 795
1981	12 233	4 286	8 622	98	14 244
1982	12 093	3 105	7 779	92	12 764
1983	9 252 d	2 913	6 692	120	12 995
1984	7 923 d	2 899	6 577	83	12 217
1985	6 363 d	2 683	5 667	85	12 161
1986	8 508 d	1 399	7 512	58	11 581
1987	7 691	563	7 163	60	12 004
1988	7 009	439	7 376	60	11 299
1989	7 709	424	7 511	85	13 352
1990	7 425	312	6 187	55	9 913
1991	5 380	268	5 770	35	9 054
1992	6 609	240	6 569	45	10 363
1993	8 057	222	8 161	53	7 623
1994	7 400	320	7 234	44	7 918
1995	8 656	570	8 574	59	8 420
1996	8 824	460	8 780	56	7 873
1997	10 168	605	10 160	63	7 609
1998	10 204	655	10 066	73	8 830

a Metallic content. **b** Tin content of all ores, concentrates, slags, residues and refined tin. **c** London Metal Exchange cash settlement price for refined tin, 99.75 per cent purity, expressed in Australian dollars; between 1 January 1986 and 31 May 1989, Kuala Lumpur Tin Market. **d** Excludes content of copper–tin concentrate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

341 Australian supply and disposal of tin

	Unit	1991	1992	1993	1994	1995	1996	1997	1998
Production									
Mine **a**									
New South Wales	t	0	61	83	64	34	30	30	30
Queensland	t	62	56	52	na	21	79	70	40
Tasmania	t	5 106	6 300	na	na	8 046	8 337	9 602	9 566
Western Australia	t	197	192	na	na	555	378	466	568
Total	t	5 380	6 609	8 057	7 400	8 656	8 824	10 168	10 204
Refinery	t	268	240	222	320	570	460	605	655
Exports									
Tin ore and concentrate									
Malaysia	t	9 640	11 046	7 663	6 697	11 098	11 109	11 115	11 542
Thailand	t	20	637	6 842	6 490	4 767	4 616	5 951	3 834
Other	t	0	99	18	40	12	0	0	0
Total	t	9 660	11 782	14 523	13 227	15 877	15 725	17 066	15 376
	$m	33.00	44.00	53.00	43.00	54.00	52.00	60.00	73.00
Refined									
Malaysia	t	189	1	14	74	16	133	35	0
Thailand	t	0	0	0	21	484	0	0	0
United States	t	261	237	198	119	20	281	500	480
Other	t	5	3	3	17	36	85	3	62
Total	t	455	241	215	231	556	498	537	542
	$m	2.56	1.82	1.45	1.47	4.00	3.00	4.00	5.00
Tin content of primary materials exported **b**	t	5 770	6 569	8 161	7 234	8 574	8 780	10 160	10 066
Prices **c**									
World	US$/t	5 593	6 098	5 161	5 463	6 214	6 165	5 648	5 541
Australia	A$/t	9 054	10 363	7 623	7 918	8 420	7 873	7 609	8 830

a Metallic content. **b** Tin content of all ores, concentrates, slags, residues and refined tin. **c** London Metal Exchange cash settlement price for refined tin, 99.75 per cent purity, expressed in US and Australian dollars; between 1 January 1986 and 31 May 1989, Kuala Lumpur Tin Market. **na** Not available.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

342 World mine production of tin in concentrates a

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Australia	5.4	6.6	8.1	7.4	8.7	8.8	10.2	10.2
Bolivia	16.8	16.5	18.6	16.3	14.7	15.5	14.1	10.5
Brazil	29.3	21.7	25.9	19.7	19.4	20.3	20.4	14.6
China	42.1	43.8	49.1	54.1	61.9	69.6	67.5	79.5
Former Soviet Union	12.0	na	na	na	na	na	na	na
Kazakhstan	**b**	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Russia	**b**	15.2	13.1	10.5	9.0	9.0	7.5	7.0
Indonesia	37.7	37.0	36.1	38.5	46.1	51.0	55.2	55.9
Laos	0.3	0.3	0.7	1.3	1.2	0.8	0.8	0.8
Malaysia	20.7	14.3	10.4	6.5	6.4	5.2	5.1	5.8
Myanmar	0.5	0.7	0.8	0.4	0.7	0.4	0.1	0.1
Nigeria	0.4	0.4	0.3	0.2	0.3	2.7	2.7	2.7
Peru	6.6	10.2	13.7	20.0	22.3	27.0	28.0	25.7
Portugal	3.1	3.0	5.3	4.3	4.6	4.8	3.5	3.1
Rwanda	0.7	0.5	0.5	0.2	0.2	0.0	0.0	0.0
South Africa	**1.0**	0.6	0.5	0.0	0.0	0.0	0.0	0.0
Thailand	10.9	8.4	5.1	3.1	1.8	1.3	0.7	1.7
United Kingdom	2.3	2.0	2.2	1.9	2.0	2.1	2.3	0.4
Vietnam	0.8	3.4	3.5	4.0	4.0	4.5	4.8	4.5
Zaire	1.2	0.7	0.7	0.5	0.7	0.0	0.0	0.0
Zimbabwe	0.8	0.7	0.7	0.1	0.0	0.0	0.0	0.0
Other **s**	6.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Total **s**	198.7	186.7	195.9	189.7	202.0	223.6	223.5	223.0

a Recoverable tin content of ores and concentrates produced. **b** Included in former Soviet Union total. **s** ABARE estimate; excludes some small producer countries. **na** Not applicable.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Metallgesellschaft AG, *Metallstatistik,* Frankfurt; World Bureau of Metal Statistics, *World Metal Statistics,* London.

343 Summary of Australian statistics for titanium

	Ilmenite concentrate				Rutile concentrate			
	Production a	Exports			Production a	Exports		
	Volume	Volume	Value	Unit value	Volume	Volume	Value	Unit value
	kt	kt	$m	$/t	kt	kt	$m	$/t
1960	108	77	1	8	90	95	8.1	85.3
1961	169 b	146	1	9	103	101	6.4	63.4
1962	182 b	158	1	9	121	119	7.3	61.3
1963	205 b	155	2	10	185	157	10.6	67.5
1964	309 b	250	2	9	185	197	14.1	71.6
1965	448 b	367	4	10	221	243	17.1	70.4
1966	522	362	4	10	251	235	17.8	75.7
1967	554	391	4	10	270	263	19.7	74.9
1968	562	402	4	10	293	290	21.9	75.5
1969	721	576	6	10	326	304	25.5	83.9
1970	886	648	7	10	371	374	34.8	93.0
1971	814	657	7	10	375	325	35.8	110.2
1972	707	410	4	11	313	354	41.1	116.1
1973	720	650	7	11	335	336	40.5	120.5
1974	817	739	9	12	319	345	48.2	139.7
1975	991	534	7	13	348	319	60.0	188.1
1976	959	951	14	14	390	347	72.5	208.9
1977	1 033	1 083	18	16	325	247	53.5	216.6
1978	1 255	994	16	16	257	371	69.2	186.5
1979	1 181	907	15	17	275	318	69.3	217.9
1980	1 385	1 059	20	19	312	315	88.8	281.9
1981	1 321	908	21	24	231	216	64.1	296.8
1982	1 149	879	22	25	221	199	50.9	255.8
1983	893	817	23	28	163	218	54.0	247.7
1984	1 493	1 173	34	29	170	192	58.0	302.1
1985	1 419	1 152	40	34	212	212	83.5	393.9
1986	1 238	1 034	49	47	216	230	116.4	506.1
1987	1 498	1 046	61	58	246	257	149.9	583.7
1988	1 610	1 046	68	65	231	238	137.5	576.9
1989	1 690	1 001	73	72	243	252	165.0	655.0
1990	1 616	1 041	83	79	244	186	143.9	775.3
1991	1 466	977	82	84	192	175	124.1	708.8
1992	1 787	945	77	81	183	196	111.6	568.5
1993	1 795	962	79	83	187	182	98.9	543.3
1994	1 777	1 084	90	83	233	209	113.4	541.3
1995	1 980	1 075	98	91	204	221	132.1	598.0
1996	2 030	1 062	103	97	183	169	128.5	761.3
1997	2 233	1 350	137	102	214	208	150.3	724.1
1998 p	2 381	1 286	141	110	255	218	176.1	807.9

a Ex mine. **b** Despatches. **p** Preliminary.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

344 Australian exports of ilmenite, by destination

	Japan	Spain	United Kingdom	United States	Other	Total Volume	Total Value
	kt	kt	kt	kt	kt	kt	$m
1960	23	na	32	18	na	77	0.6
1961	29	na	70	32	na	146	1.3
1962	28	na	77	53	na	158	1.4
1963	23	na	73	37	na	155	1.5
1964	51	na	124	16	na	250	2.3
1965	46	na	205	66	na	367	3.5
1966	45	na	197	49	na	362	3.7
1967	63	na	169	49	na	391	3.9
1968	68	na	157	30	na	402	4.1
1969	121	na	235	37	na	576	6.0
1970	227	na	208	83	na	648	6.6
1971	180	9	294	44	130	657	6.7
1972	68	na	193	2	na	410	4.4
1973	112	na	239	45	na	650	7.2
1974	134	na	199	94	na	739	8.8
1975	110	na	134	62	na	534	6.8
1976	178	24	214	226	309	951	13.5
1977	131	68	232	329	323	1 083	17.5
1978	74	56	227	260	377	994	16.1
1979	51	94	196	150	416	907	15.2
1980	56	35	184	340	444	1 059	20.1
1981	36	88	176	250	358	908	21.4
1982	61	80	162	329	247	879	22.3
1983	65	89	93	284	286	817	23.0
1984	214	106	145	425	283	1 173	33.9
1985	240	96	128	489	199	1 152	39.7
1986	152	79	165	453	185	1 034	48.5
1987	162	105	198	384	197	1 046	61.0
1988	100	105	203	455	183	1 046	68.3
1989	95	97	143	431	236	1 001	72.6
1990	152	50	238	384	217	1 041	82.8
1991	164	75	178	293	266	977	82.0
1992 **a**	36	27	26	23	832	945	76.6
1993 **a**	0	0	0	0	962	962	79.4
1994 **a**	0	0	0	0	1 084	1 084	89.7
1995 **a**	0	0	0	0	1 075	1 075	98.0
1996 **a**	0	52	52	0	958	1 062	103.4
1997 **a**	0	51	53	0	1 246	1 350	137.2
1998 **ap**	0	0	0	0	1 286	1 286	141.4

a Confidentiality provisions prevent full reporting after 1991. Confidential country data included under Other. **p** Preliminary. **na** Not available.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

345 Australian exports of rutile, by destination

	Japan	Netherlands	United Kingdom	United States	Other	Total Quantity	Total Value
	kt	kt	kt	kt	kt	kt	$m
1960	8	10	13	27	37	95	8.1
1961	12	12	15	24	38	101	6.4
1962	8	16	17	32	46	119	7.3
1963	11	10	15	80	41	157	10.6
1964	16	14	16	98	53	197	14.1
1965	21	11	17	138	56	243	17.1
1966	22	9	16	124	64	235	17.8
1967	30	19	16	132	66	263	19.7
1968	31	17	17	149	76	290	21.9
1969	29	22	32	153	68	304	25.5
1970	34	37	38	196	69	374	34.8
1971	30	31	22	184	58	325	35.8
1972	31	30	48	168	77	354	41.1
1973	33	27	65	132	79	336	40.5
1974	24	29	57	157	78	345	48.2
1975	20	19	45	167	68	319	60.0
1976	17	30	60	155	85	347	72.5
1977	17	29	40	101	60	247	53.5
1978	26	28	48	195	74	371	69.2
1979	27	22	81	121	67	318	69.3
1980	35	35	55	130	60	315	88.8
1981	31	13	41	83	48	216	64.1
1982	29	8	59	71	32	199	50.9
1983	27	12	56	85	38	218	54.0
1984	19	27	38	83	25	192	58.0
1985	34	14	48	88	28	212	83.5
1986	26	25	69	79	31	230	116.4
1987	14	46	67	86	44	257	149.9
1988	21	25	45	104	43	238	137.5
1989	28	29	51	111	33	252	165.0
1990	29	20	20	89	28	186	143.9
1991	26	26	26	71	25	175	124.1
1992 **a**	0	0	0	0	196	196	111.6
1993 **a**	1	0	0	0	182	182	98.9
1994 **a**	0	0	0	0	209	209	113.4
1995 **a**	0	0	0	0	221	221	132.1
1996 **a**	0	0	0	0	169	169	128.5
1997 **a**	0	0	0	0	208	208	150.3
1998 **ap**	0	0	0	0	218	218	176.1

a Confidentiality provisions prevent full reporting after 1991. Confidential country data included under Other. **p** Preliminary.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

346 World ilmenite production, by country

	Australia a kt	India kt	Malaysia kt	Norway kt	Ukraine s kt	United States kt	Other s kt	Total s kt
1960	108	250	120 b	246	127	714	1 015	2 580
1961	169	174	109 b	311	135	710	1 217	2 825
1962	182	138	103 b	245 c	144	727	923	2 470
1963	205	26	149 b	242	153	806	1 079	2 660
1964	309	11	131 b	272	163	908	1 516	3 310
1965	448	30	124 b	284	174	879	1 591	3 530
1966	522	34	118 b	370	185	876	1 635	3 740
1967	554	42	91 b	427	197	874	1 565	3 750
1968	562	59	126 b	402	210	888	1 723	3 970
1969	721	48	133 b	491	224	845	1 728	4 190
1970	886	79	223 b	579	238	787	2 537	5 340
1971	814	140 c	156 b	595	254	618	2 559	5 150
1972	707	165 c	153 b	610	270	659	2 195	4 770
1973	720	185 c	154 b	750	288	735	2 247	5 090
1974	817	132 c	154 b	844	307	685 c	2 246	5 200
1975	991	140 c	112 b	516 c	327	632	1 990	4 725
1976	959	150 c	180 b	759	381	590	2 249	5 280
1977	1 033	185 c	185 b	823	399	576	1 988	5 200
1978	1 255	185 c	187 b	763	408	535	2 141	5 490
1979	1 181	160	187 b	820	408	580	2 162	5 520
1980	1 385	160	189 b	828	417	498	2 439	5 940
1981	1 321	189	173 b	656	426	462	2 954	6 200
1982	1 149	190	77 b	552	431	239	2 642	5 300
1983	893	180	223 b	544	435	235	1 777	4 300
1984	1 493	150	177 b	661	440	240	2 906	6 100
1985	1 419	143	247 b	736	445	240	3 756	7 000
1986	1 238	140	415	804	450	240	3 599	6 900
1987	1 498	140	509	852	454	240	4 496	8 200
1988	1 610	140 d	506 d	898 d	460	240 d	4 164	8 030
1989	1 690	160 d	520 d	930 d	460	240 d	5 116	9 140
1990	1 616	305 d	250 d	814 d	350	255 d	4 109	7 699
1991	1 466	270 d	200 d	625 d	350	220 d	3 673	6 804
1992	1 787	215 d	338 d	708 d	200	240 d	4 322	7 810
1993	1 795	260	279	713	180	240	4 001	7 468
1994	1 777	290	155	826	150	315	4 196	7 616
1995	1 980	290	179	833	180	330	4 293	8 018
1996	2 030	330	101	747	180	300	4 754	8 461
1997	2 233	305	167	558	180	333	4 764	8 501
1998 p	2 381	388	67	590	180	447	5 128	8 763

a Includes leucoxene. **b** Exports to 1985. **c** Bureau of Mineral Resources estimate. **d** DEMA estimates. **p** Preliminary. **s** ABARE estimate.

Sources: British Geological Survey, *World Mineral Statistics,* Keyworth, Nottingham, United Kingdom; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; Metal Bulletin, *Prices and Data,* Surrey, England; Mining Journal, *Mining Annual Review,* London; TZ Minerals International, *Mineral Sands Annual Review,* Surrey, England; TZ Minerals International, *Mineral Sands Report,* Surrey, England; US Department of the Interior, Bureau of Mines, *Mineral Commodity Summaries,* Washington DC; ABARE.

347 World rutile concentrate and titaniferous slag production, by country

	Rutile concentrate						Titaniferous slag	
	Australia	Sierra Leone	South Africa	United States	Other s	Total s	Canada	South Africa
	kt	kt	kt	kt	kt	kt	kt	kt
1960	90	0	0	8	26	124	312	0
1961	103	0	0	8	25	136	374	0
1962	121	0	0	9	26	156	273	0
1963	185	0	0	11	24	220	344	0
1964	185	0	0	7	22	214	494	0
1965	221	0	0	5	22	248	495	0
1966	251	0	0	5	22	278	476	0
1967	270	24 a	0	5	23	322	547	0
1968	293	14 a	0	2	24	333	610	0
1969	326	28 a	0	0	26	380	680	0
1970	371	44 a	0	0	25	440	766	0
1971	375	12	0	0	25	412	774	0
1972	313	0	0	0	28	341	835	0
1973	335	0	0	8 a	27	370	855	0
1974	319	0	0	6 a	26	351	845	0
1975	348	0	0	10 a	28	386	748	0
1976	390	0	0	8 a	26	424	812	0
1977	325	0	0	7	30	362	691	0
1978	257	0	20	4	35	316	848	100
1979	275	7	42	0	40	364	476	316
1980	312	47	48	10	38	456	875	379
1981	231	51	50	15	40	387	762	408
1982	221	48	47	15	33	364	653	420
1983	163	72	56	18	34	343	612	420
1984	170	91	56	20	33	371	726	417
1985	212	81	55	30 a	35	413	844	435
1986	216	97	60	30 a	37	440	850	435
1987	246	113	56	30 a	35	480	915	632
1988	231	126	55	25 s	38	475	1 025	700
1989	243	128	61	25 s	42	499	1 035	692
1990	244	144	60	29 s	39	516	1 046	672
1991	192	155	90	27 s	86	550	701	808
1992	183	149	95	29 s	65	522	753	884
1993	187	150	100	21	71	529	653	892
1994	233	144	90	24	32	520	765	772
1995	204	0	92	19	50	380	816	988
1996	183	0	108	32	63	405	954	1 065
1997	214	0	113	35	65	439	914	1 075
1998 p	255	0	113	35	74	437	1 034	1 083

a BMR estimate. **p** Preliminary. **s** ABARE estimate.

Sources: British Geological Survey, *World Mineral Statistics,* Keyworth, Nottingham, United Kingdom; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; TZ Minerals International, *Mineral Sands Annual Review,* Surrey, England; TZ Minerals International, *Mineral Sands Report,* Surrey, England; US Department of the Interior, Bureau of Mines, *Mineral Commodity Summaries,* Washington DC.

348 Summary of Australian statistics for uranium

		Exports		
	Production a	Volume b	Value	Unit value
	t	t	$m	$/kg U_3O_8
1959-60	1 214	na	na	na
1960-61	1 557	na	na	na
1961-62	1 362	na	na	na
1962-63	1 193	na	na	na
1963-64	367	na	na	na
1964-65	na	na	na	na
1965-66	na	na	na	na
1966-67	na	na	na	na
1967-68	na	na	na	na
1968-69	na	na	na	na
1969-70	na	na	na	na
1970-71	na	na	na	na
1971-72	na	na	na	na
1972-73	na	na	na	na
1973-74	na	na	na	na
1974-75	na	na	na	na
1975-76	484	na	na	na
1976-77	480	750	26.9	35.9
1977-78	696	1 452	87.0	59.9
1978-79	951	1 317	102.3	77.7
1979-80	1 837	1 210	98.4	81.3
1980-81	3 944	1 625	120.0	73.8
1981-82	5 968	5 460	415.0	76.0
1982-83	4 334	3 233	296.0	91.6
1983-84	5 836	3 259	312.1	95.8
1984-85	4 327	3 441	317.0	92.1
1985-86	4 450	3 210	296.0	92.2
1986-87	4 505	4 364	389.0	89.1
1987-88	4 193	4 552	411.0	90.3
1988-89	4 507	5 061	402.6	79.5
1989-90	4 089	4 812	314.8	65.4
1990-91	4 389	6 129	331.7	54.1
1991-92	4 349	4 729	244.8	51.8
1992-93	2 704	2 289	122.6	53.5
1993-94	2 751	3 992	193.3	48.4
1994-95	2 631	4 069	187.9	46.2
1995-96	5 105	5 286	241.8	45.7
1996-97	5 996	5 701	245.2	43.0
1997-98	5 797	6 415	288.2	44.9
1998-99 p	6 386	5 989	287.8	48.1

a Tonnes of uranium oxide (U_3O_8). **b** Before 1983-84, exports are tonnes of concentrate; from 1983-84, exports are tonnes of U_3O_8. **p** Preliminary.
na Not available.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

349 World uranium production, by country a

	Australia	Canada	Gabon	Namibia	Niger	South Africa	United States	Total b
	kt	kt	kt	kt	kt	kt	kt	kt
1971	0.00	3.83	0.54	0.00	0.43	3.22	9.40	19.10
1972	0.00	4.00	0.21	0.00	0.87	3.20	9.90	20.11
1973	0.00	3.71	0.40	0.00	0.95	2.74	10.20	20.00
1974	0.00	3.42	0.44	0.00	1.12	2.71	8.90	18.70
1975	0.00	3.56	0.80	0.00	1.31	2.49	8.90	19.35
1976	0.36	4.85	0.85	0.65	1.46	2.76	9.80	23.17
1977	0.36	5.79	0.91	2.34	1.61	3.36	11.50	28.58
1978	0.52	6.80	1.02	2.70	2.06	3.96	14.20	34.12
1979	0.71	6.82	1.10	3.84	3.62	4.80	14.40	38.34
1980	1.56	7.15	1.03	4.04	4.13	6.15	16.80	44.24
1981	2.92	7.72	1.02	3.97	4.36	6.13	14.80	44.20
1982	4.42	8.08	0.97	3.78	4.26	5.82	10.30	41.46
1983	3.21	7.14	1.01	3.72	3.43	6.06	8.20	36.99
1984	4.32	11.17	0.92	3.70	3.28	5.73	5.70	38.85
1985	3.21	10.88	0.94	3.40	3.18	4.88	4.30	34.87
1986	4.15	11.72	0.90	3.30	3.11	4.60	5.20	37.21
1987	3.78	12.44	0.80	3.50	2.97	3.96	5.00	36.96
1988	3.53	12.29	0.93	3.51	2.97	3.80	5.04	36.43
1989	3.66	11.32	0.87	3.08	2.96	2.94	5.32	34.09
1990	3.53	8.73	0.70	3.21	2.83	2.49	3.42	28.36
1991	3.78	8.16	0.54	2.45	2.96	1.71	3.06	26.99
1992	2.33	9.30	0.54	1.68	2.96	1.67	2.20	23.88
1993	2.26	9.12	0.68	1.65	2.92	1.69	1.23	23.48
1994	2.21	9.69	0.65	1.90	2.98	1.69	1.40	23.64
1995	3.71	10.52	0.63	2.01	2.97	1.42	2.32	26.22
1996	4.97	11.79	0.56	2.45	3.16	1.44	2.42	29.22
1997	5.49	12.03	0.47	2.91	3.50	1.45	2.17	29.93
1998 p	4.90	11.97	0.73	2.76	3.73	1.00	1.87	28.08

a Uranium (U); excluding current and former centrally planned economies. **b** Includes other Western producers not listed. **p** Preliminary.
Sources: International Atomic Energy Agency, *Uranium: Resources, Production and Demand,* Vienna; Nuexco, *Annual Review,* Denver, Colorado.

350 World uranium consumption, by country a

	Canada	France	Germany b	Japan	United Kingdom	United States	Other	Total
	kt	kt	kt	kt	kt	kt	kt	kt
1983	1.40	6.50	2.70	3.50	1.50	8.90	5.85	30.35
1984	1.30	6.00	3.40	5.00	1.50	10.50	6.50	34.20
1985	1.30	6.00	3.20	4.70	2.20	11.80	6.90	36.10
1986	1.40	6.20	3.30	4.80	1.50	11.85	7.22	36.27
1987	1.60	6.20	3.30	6.00	1.55	11.15	7.70	37.50
1988	1.70	6.50	3.30	6.40	1.70	14.19	6.77	40.56
1989	1.80	7.20	3.30	6.60	1.90	14.50	7.39	42.69
1990	1.90	7.20	3.30	6.90	2.00	11.40	7.64	40.34
1991	1.90	7.30	3.30	7.10	2.00	16.00	8.30	45.90
1992	1.90	7.80	3.20	7.60	2.33	17.30	7.31	47.44
1993	1.90	7.90	3.20	8.10	2.04	17.30	9.34	49.77
1994	1.90	8.90	3.00	7.70	2.43	15.60	9.90	49.43
1995	1.90	8.90	3.30	7.70	2.51	18.40	9.74	52.45
1996	1.80	8.90	3.20	8.70	2.62	17.40	9.81	52.43
1997	1.80	8.60	2.90	7.50	2.62	21.30	8.41	53.13
1998 p	1.20	8.20	3.10	7.81	2.36	17.70	8.92	49.29

a Annual reactor related requirements, excluding current and former centrally planned economies. **b** West Germany until 1991; unified Germany from 1992. **c** Enriched feed deliveries. **p** Preliminary.

Source: International Atomic Energy Agency, *Uranium: Resources, Production and Demand,* Vienna.

351 Uranium prices a

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Av.
1973	5.95	6.00	6.10	6.20	6.45	6.50	6.50	6.50	6.50	6.50	6.75	7.00	6.41
1974	7.70	7.90	8.00	9.00	9.50	10.50	11.50	12.00	12.50	14.00	14.75	15.00	11.03
1975	16.00	16.00	18.00	20.00	21.00	23.00	24.70	26.00	26.00	28.50	30.00	35.00	23.68
1976	35.20	37.00	39.25	40.00	40.00	40.00	40.00	40.40	41.00	41.00	41.50	41.00	39.70
1977	41.35	41.50	41.60	41.60	42.00	42.25	42.25	42.25	42.40	42.75	43.20	43.20	42.20
1978	42.90	43.25	43.25	43.25	43.40	43.40	43.40	43.10	43.25	43.00	43.25	43.25	43.23
1979	43.25	43.25	43.25	43.25	43.25	43.00	42.70	42.70	42.20	42.20	41.00	40.75	42.57
1980	40.00	38.00	35.00	32.00	32.00	31.50	31.50	30.00	28.50	28.00	28.00	27.00	31.79
1981	25.00	25.00	25.00	25.00	25.00	24.25	23.50	23.50	23.50	23.50	23.50	23.50	24.19
1982	23.00	23.00	22.50	20.75	20.50	19.25	18.25	17.00	17.00	17.50	19.75	20.25	19.90
1983	21.50	21.75	22.25	23.25	23.50	23.50	24.00	24.00	24.00	23.50	22.50	22.00	22.98
1984	20.50	17.50	17.00	17.75	17.75	17.50	17.50	17.50	17.50	16.00	15.50	15.25	17.27
1985	15.00	15.00	15.00	14.25	15.00	15.00	15.75	16.00	16.00	16.50	16.75	17.00	15.60
1986	17.00	17.00	17.25	17.25	17.00	17.00	17.00	17.00	17.00	17.00	16.75	16.75	17.00
1987	16.65	16.75	17.00	17.00	17.00	16.90	16.75	16.65	16.65	16.75	16.65	16.55	16.78
1988	16.30	16.15	15.90	15.75	15.40	15.10	14.75	14.15	13.75	13.15	12.50	11.75	14.55
1989	11.60	11.20	10.70	10.10	9.85	9.80	9.80	9.70	9.60	9.40	9.20	9.00	10.00
1990	8.85	8.70	8.80	8.80	9.25	11.60	11.70	11.45	10.10	8.35	9.80	9.70	9.76
1991	9.10	9.50	9.30	9.10	9.20	9.05	8.55	8.75	8.40	7.25	7.40	8.75	8.70
1992	8.00	8.00	7.85	7.75	7.75	7.75	7.75	8.05	8.75	10.50	10.30	9.95	8.53
1993	9.70	10.00	10.00	10.05	10.05	10.00	9.90	10.00	10.20	10.15	9.90	9.85	9.98
1994	9.50	9.45	9.45	9.30	9.25	9.25	9.25	9.10	9.05	9.05	9.45	9.60	9.31
1995	9.65	10.40	11.15	11.60	11.80	11.90	11.85	11.70	11.70	11.70	11.85	12.20	11.46
1996	13.00	15.40	15.75	16.10	16.50	16.50	16.50	16.40	16.00	15.55	15.00	14.75	15.62
1997	14.46	13.73	13.49	12.46	11.72	10.82	10.55	10.32	10.36	11.86	12.75	12.35	12.07
1998	11.91	11.13	10.63	10.80	10.81	10.75	10.51	10.36	10.11	9.45	8.96	8.80	10.35
1999	9.75	10.55	10.70	10.90	10.65	10.55	10.30	10.10	10.26	9.75	9.70	9.68	10.37 s

a Restricted exchange value after 1993, using Nuexco's exchange value up to 1996 and an average of four prices after 1996. **s** ABARE estimate.
Sources: TradeTech, *The Nuclear Review,* Denver, Colorado (previously Nuexco, *Monthly Report);* Uranium Exchange Company, *The Ux Report,* Danbury, Connecticut.

352 European and US prices for delivered uranium

	EU medium or long term contract price US$/lb U_3O_8	US average price for imported uranium US$/lb U_3O_8	US average price for delivered uranium US$/lb U_3O_8
1981	33.25	32.9	34.65
1982	32.00	25.19	38.37
1983	31.00	26.16	38.21
1984	29.75	21.86	32.65
1985	29.00	20.08	31.43
1986	31.00	20.07	30.01
1987	32.50	19.14	27.37
1988	31.82	19.03	26.15
1989	29.35	16.75	19.56
1990	29.39	12.55	15.70
1991	26.09	15.55	13.66
1992	24.71	11.34	13.45
1993	21.17	10.53	13.14
1994	20.25	8.95	10.30
1995	17.48	10.20	11.11
1996	15.63	13.15	13.81
1997	15.16	11.81	12.87
1998	12.31	13.40 **s**	11.96

s ABARE Estimate.

Source: TradeTech, *The Nuclear Review,* Denver, Colorado (previously Nuexco, *Monthly Report).*

353 Summary of Australian statistics for zinc

	Production			Exports d		
	Mine a kt	Refined b kt	Consumption c kt	Volume kt	Value $m	Price e $/t
1956	308	107	69	173	17	244.00
1957	324	112	79	210	18	208.00
1958	278	117	72	178	12	182.00
1959	280	118	78	146	13	212.00
1960	323	122	92	175	17	222.76
1961	316	141	79	169	19	202.49
1962	343	171	86	210	23	196.79
1963	357	183	94	216	26	200.83
1964	350	189	110	184	37	284.24
1965	355	202	98	194	39	286.00
1966	375	198	90	241	47	270.46
1967	407	198	104	254	43	260.73
1968	416	198	102	267	44	262.00
1969	510	253	117	331	59	277.77
1970	487	268	115	390	71	295.00
1971	453	266	109	359	68	319.73
1972	507	304	114	346	80	344.87
1973	480	306	121	418	102	385.78
1974	464	284	120	374	139	534.15
1975	510	200	82	295	117	626.76
1976	462	249	86	388	159	656.54
1977	492	256	81	327	148	657.65
1978	473	295	92	465	157	534.33
1979	529	310	102	382	165	712.55
1980	495	306	100	481	251	713.10
1981	518	300	97	406 f	235 f	799.50
1982	665	296	81	521	323	848.71
1983	699	298	83	645	392	953.12
1984	677	302	77	661	469	1 188.56
1985	759	289	87	633	515	1 255.91
1986	712	303	81	662	489	1 247.44
1987	778	310	82	663	526	1 248.71
1988	760	302	90	674	631	1 563.33
1989	803	294	88	670	962	2 300.00
1990	933	303	82	825	1 159	2 095.75
1991	1 023	324	71	915	900	1 571.50
1992	1 019	332	71	995	1 135	1 818.25
1993	990	316	75	987	851	1 568.00
1994	955	323	79	978	785	1 500.00
1995	937	320	77	907	797	1 560.00
1996	1 076	326	73	983	808	1 478.50
1997	1 035	307	81	965	953	1 890.00
1998	1 066	312	93	1 002	1 025	1 807.00

a Metal content. **b** Excludes secondary (scrap) and zinc dust production. **c** Refined metal only. **d** Quantities refer to the total metallic content of all ores and concentrates, intermediate products and refined metal. The value of zinc contained in other mine and smelter products (for example, zinc in lead concentrates) is included in the value of the product in which it is exported. **e** EZ Industries, Prime Western, 98.5 per cent purity. Before 1968, Prime Western grade zinc at Cockle Creek. **f** Zinc export code classifications changed substantially between 1979 and 1980, creating a break in the continuity of the series.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

354 Australian supply and disposal of zinc

	Unit	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 p
Production									
Mine a	kt	1 022	1 053	1 025	915	1 039	1 060	1 038	1 142
Refined									
Primary	kt	325	332	316	312	330	319	304	323
Secondary b	kt	15	15	15	15	15	15	11	9
Exports									
Ores and concentrates	kt	1 560	1 330	1 516	1 286	1 438	1 555	1 450	1 727
	$m	627	539	429	404	434	491	581	690
Refined metal	kt	247	268	250	238	244	228	198	274
	$m	402	481	381	372	383	353	407	444
Consumption c	kt	74	67	81	79	81	78	86	100
Export unit value									
Ores and concentrates	A$/t	401.9	405.1	282.8	313.8	301.4	315.7	400.9	399.6
Refined metal	A$/t	1 624.4	1 794.6	1 528.2	1 563.2	1 565.7	1 550.3	2 048.7	1 617.8

a Metal content. **b** Includes remelted zinc and direct use of secondary materials. **c** Refined metal only. **p** Preliminary.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

355 Australian exports of zinc, by destination a

	1991 kt	1992 kt	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt
Ores and concentrates b								
Belgium	94	84	88	37	29	116	102	103
China	0	0	0	13	19	70	57	16
Germany	73	55	28	32	35	7	29	17
India	0	13	17	26	38	30	30	36
Italy	24	44	21	31	24	31	20	22
Japan	328	361	322	296	292	258	231	239
Netherlands	9	15	8	55	13	11	5	10
South Korea	147	165	169	146	181	170	170	239
Thailand	0	0	0	5	42	44	25	27
United Kingdom	16	28	41	49	5	3	28	46
Other	33	10	24	21	16	6	43	21
Total	724	775	718	711	694	746	740	776
Metal								
China	1	1	0	0	0	0	0	0
Chinese Taipei	33	31	38	33	40	36	36	49
Hong Kong	24	21	34	40	41	55	45	50
India	10	8	8	6	3	11	12	5
Indonesia	46	53	54	55	54	49	46	34
Japan	20	14	10	4	2	2	1	2
Malaysia	23	21	23	24	26	20	24	35
New Zealand	12	13	15	14	17	16	9	9
Thailand	7	9	15	13	10	13	9	4
United States	21	39	24	35	11	7	7	6
Other	56	49	38	41	30	48	50	34
Total	253	259	259	265	234	257	239	228

a Excluding slags, residues and scrap. **b** Metal content.
Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

356 World production, consumption, stocks and prices of zinc

	Production						
		Refined metal					
	Mine a	Primary	Secondary b	Total	Consumption c	Stocks b	Price d
	kt	kt	kt	kt	kt	kt	US$/t
1960	3 384	2 993	163	3 156	3 114	448	246.9
1961	3 476	3 199	149	3 348	3 282	478	214.3
1962	3 600	3 322	155	3 477	3 438	477	186.5
1963	3 660	3 426	167	3 593	3 644	392	211.8
1964	4 083	3 683	177	3 860	3 986	390	324.0
1965	4 352	3 848	215	4 063	4 099	433	310.6
1966	4 550	4 045	242	4 287	4 292	461	280.4
1967	4 958	4 142	222	4 364	4 323	479	271.9
1968	5 113	4 613	224	4 837	4 701	452	261.7
1969	5 472	5 073	205	5 278	5 092	519	285.2
1970	5 590	4 975	259	5 234	5 013	682	294.5
1971	5 675	4 862	248	5 110	5 164	614	310.0
1972	5 866	5 247	269	5 516	5 679	586	378.4
1973	6 070	5 543	283	5 826	6 195	457	846.8
1974	6 129	5 720	274	5 994	6 000	759	1 237.5
1975	6 176	5 219	264	5 483	5 062	1 185	746.0
1976	6 249	5 545	266	5 811	5 779	1 140	711.7
1977	6 567	5 710	279	5 989	5 857	1 194	590.0
1978	6 401	5 801	237	6 038	6 329	833	593.3
1979	6 299	6 169	287	6 456	6 444	868	741.2
1980	6 108	5 958	285	6 243	6 289	787	761.3
1981	6 004	5 969	318	6 287	6 199	875	859.6
1982	6 275	5 701	355	6 056	6 043	800	745.7
1983	6 289	6 016	368	6 384	6 370	668	765.5
1984	6 523	6 327	351	6 678	6 539	626	891.0
1985	6 651	6 545	325	6 870	6 532	606	763.9
1986	6 534	6 085	295	6 380	6 747	615	753.1
1987	6 885	6 330	293	6 623	6 959	568	816.2
1988	6 714	6 579	299	6 878	6 848	496	1 240.5
1989	6 785	6 426	368	6 794	6 726	572	1 719.6
1990	6 965	6 296	395	6 691	6 666	534	1 520.0
1991	7 165	6 427	428	6 855	6 627	650	1 116.0
1992	7 260	6 605	425	7 030	6 549	989	1 240.0
1993	6 758	6 755	455	7 210	6 605	1 474	961.0
1994	6 806	6 664	467	7 131	6 982	1 669	998.0
1995	6 982	6 862	497	7 359	7 545	1 170	1 031.0
1996	7 296	6 931	534	7 465	7 556	932	1 025.0
1997	7 345	7 280	521	7 801	7 789	899	1 313.0
1998	7 441	7 470	520	7 990	7 892	787	1 023.0

a Metal content. **b** Excludes former Soviet Union, Eastern Europe and China. **c** Refined primary metal only. **d** Average London Metal Exchange cash, midday settlement price, registered brands, minimum 98 per cent purity. **na** Not available.

Sources: BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London; Metallgesellschaft AG, *Metallstatistik,* Frankfurt.

357 World zinc mine production, by region and country [a]

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Africa								
Morocco	27	23	66	79	80	82	91	108
Namibia	36	36	28	33	30	35	37	42
South Africa	64	72	78	76	74	77	71	70
Tunisia	5	2	1	12	42	32	3	28
Zaire	43	45	7	1	0	0	0	0
Total	204	201	203	205	234	232	209	253
Americas								
Argentina	39	41	31	27	32	31	29	36
Bolivia	130	144	123	101	146	145	155	156
Brazil	103	119	138	146	136	128	124	88
Canada	1 157	1 325	1 004	1 011	1 121	1 223	1 077	1 065
Chile	31	30	30	31	35	35	34	17
Honduras	38	33	24	23	27	37	40	37
Mexico	317	352	370	382	364	378	379	370
Peru	638	626	668	690	692	761	865	869
United States	547	551	513	597	644	628	632	733
Total	3 000	3 221	2 901	3 008	3 197	3 366	3 335	3 371
Asia								
China	710	706	775	990	1 011	1 121	1 210	1 200
India	102	153	156	147	154	154	142	195
Iran	31	66	77	73	78	76	77	80
Japan	133	134	119	101	95	79	72	68
Kazakhstan	284	258	207	152	155	157	223	224
North Korea	120	120	110	90	90	80	60	44
South Korea	22	22	14	7	8	9	9	11
Thailand	87	69	69	60	14	19	15	22
Turkey	33	32	32	34	65	68	64	58
Uzbekistan	34	34	33	31	15	12	2	0
Total	1 576	1 664	1 607	1 699	1 699	1 792	1 892	1 925
Australia	1 048	1 014	1 007	928	882	1 008	972	1 013
Europe								
Bulgaria	29	32	32	30	30	28	26	16
Finland	56	31	22	17	16	27	32	31
Germany	54	14	0	0	0	0	0	0
Greece	30	26	22	17	14	7	18	20
Ireland	187	194	194	194	184	163	193	177
Italy	37	31	7	22	23	12	9	5
Norway	19	21	14	16	10	9	7	1
Poland	145	152	151	151	155	159	158	158
Romania	27	26	28	35	37	31	29	26
Russia	190	158	154	147	131	126	121	114
Spain	265	208	171	151	172	140	147	128
Sweden	157	171	167	160	169	160	155	160
Total	1 337	1 160	1 040	966	970	898	937	879
Other countries	0	0	0	0	0	0	0	0
Total	7 165	7 260	6 758	6 806	6 982	7 296	7 345	7 441

a Recovered metal zinc content by analysis of zinc ores and concentrates, plus the zinc content of other ores and concentrates known to be intended for zinc recovery.

Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

358 World zinc metal production, by region and country [a]

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Africa								
Algeria	29	25	33	24	27	30	30	29
South Africa	92	83	96	94	99	101	110	112
Other	35	26	11	1	0	0	0	0
Total	156	134	140	119	126	131	140	141
Americas								
Argentina	36	35	31	35	36	36	39	39
Brazil	157	180	183	199	194	187	186	175
Canada	660	672	670	691	720	716	704	743
Mexico	189	151	209	209	223	222	230	233
Peru	154	126	159	161	159	173	174	184
United States	376	400	382	356	363	366	367	368
Total	1 572	1 564	1 634	1 651	1 695	1 700	1 700	1 742
Asia								
China	577	648	857	1 017	1 077	1 185	1 434	1 469
India	92	137	150	157	159	149	166	178
Japan	731	729	666	666	664	599	603	608
Kazakhstan	292	261	224	172	169	169	185	240
North Korea	130	120	115	100	100	90	55	43
South Korea	242	253	270	271	279	287	336	390
Thailand	69	70	69	71	60	73	84	89
Turkey	17	19	18	20	19	24	37	36
Uzbekistan	100	80	70	58	70	45	53	38
Vietnam	10	na	na	na	na	na	na	na
Total	2 260	2 317	2 439	2 532	2 599	2 626	2 967	3 114
Australia	326	332	317	318	322	327	307	311
Europe								
Belgium	298	217	210	211	211	207	203	205
Bulgaria	52	55	79	77	80	80	82	83
Finland	170	171	170	173	177	179	176	199
France	299	304	310	309	314	324	317	321
Germany	346	383	381	360	356	362	348	361
Italy	256	253	254	256	260	269	268	232
Netherlands	201	218	214	212	208	207	203	218
Norway	125	130	134	137	131	135	136	138
Poland	126	135	149	158	165	165	173	176
Russia	165	186	203	138	166	172	189	196
Spain	274	368	342	296	364	363	378	370
United Kingdom	101	97	105	101	100	99	93	80
Yugoslavia	39	14	7	4	6	31	30	14
Other	98	79	81	79	79	88	91	89
Total	2 550	2 610	2 639	2 511	2 617	2 681	2 687	2 682
Total	6 855	7 030	7 210	7 131	7 359	7 465	7 801	7 990

a Total production by smelters and refineries of zinc in marketable form or used directly for alloying, including production on toll in the reporting country, regardless of the type of source material. Remelted zinc and zinc dust are excluded. **na** Not available or not applicable.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

359 World zinc trade, by country [a]

	1991	1992	1993	1994	1995	1996	1997	1998
	kt	kt	kt	kt	kt	kt	kt	kt
Exports								
Ores and concentrates [b]								
Australia	724	775	718	711	694	746	740	776
Canada	572	663	447	383	604	669	473	391
China	38	33	59	140	77	55	191	95
Ireland	183	224	198	190	192	167	185	169
Mexico	113	150	116	158	127	na	na	na
Peru	438	465	480	465	488	580	618	na
Sweden	160	163	179	159	148	155	158	145
United States	338	307	311	389	424	425	461	552
Metal								
Australia	253	259	259	265	234	257	239	228
Belgium	126	150	183	148	161	145	143	105
Canada	521	510	493	551	533	582	547	577
China	6	82	194	270	181	218	544	354
Finland	149	139	137	137	126	128	129	156
Former Soviet Union [c]	5	80	149	160	164	135	167	220
France	81	147	184	130	209	227	177	143
Germany	74	118	106	103	63	72	48	53
Mexico	79	41	58	77	97	73	na	na
Netherlands	140	144	103	161	144	165	193	263
Norway	109	109	122	120	112	113	124	117
Peru	95	71	85	81	78	109	82	na
Spain	146	218	198	157	165	183	180	123
Imports								
Ores and concentrates [b]								
Belgium	332	206	192	250	277	na	na	304
Canada	177	152	109	152	177	182	182	210
Finland	119	130	138	166	211	146	146	193
Former Soviet Union [c]	10	110	169	75	60	60	90	122
France	316	313	274	316	310	302	317	282
Germany	312	356	387	306	330	245	166	208
Italy	206	222	206	249	229	259	259	248
Japan	584	587	556	508	545	463	512	489
South Korea	234	236	212	288	267	308	330	na
Netherlands	215	227	210	195	186	133	172	na
Norway	80	87	85	76	62	62	62	73
Spain	65	200	192	167	na	141	261	255
United Kingdom	74	82	93	94	74	97	102	73
Metal								
Belgium	39	142	180	121	153	221	248	232
Chinese Taipei	126	129	171	170	206	196	225	241
France	82	98	92	116	138	108	114	117
Germany	270	284	234	248	229	192	236	258
Indonesia	51	59	68	84	96	89	84	na
Italy	71	82	89	92	114	102	98	149
Japan	142	106	84	64	117	135	180	113
Netherlands	25	29	133	130	130	74	118	154
Singapore	36	74	135	148	39	46	240	169
United Kingdom	120	123	119	124	145	132	136	161
United States	549	645	724	793	856	827	876	879

a Metal content. **b** Metal content of zinc ores and concentrates only. **c** Commonwealth of Independent States (CIS) from 1992. Members of the former Soviet Union which are not part of the CIS are Lithuania, Latvia, Estonia and Georgia. **na** Not available.
Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

360 Summary of Australian statistics for zircon and monazite

	Zircon concentrate				Monazite concentrate			
	Production a	Exports			Production a	Exports		
	Volume	Volume	Value	Unit value	Volume	Volume	Value	Unit value
	kt	kt	$m	$/t	kt	kt	$m	$/t
1960	101	103	2.7	26.2	0.4	0.2	0.0	0.0
1961	134	138	3.4	24.6	1.6	1.8	0.1	61.1
1962	132	130	3.3	25.4	0.8	1.5	0.1	80.0
1963	181	177	4.4	24.9	2.1	2.4	0.2	79.2
1964	181	196	5.1	26.0	2.1	2.1	0.2	85.7
1965	223	213	6.8	31.9	2.3	2.3	0.2	95.7
1966	232	207	9.0	43.5	2.0	2.1	0.2	114.3
1967	290	243	10.7	44.0	2.4	1.9	0.2	126.3
1968	292	262	11.0	42.0	2.1	2.6	0.4	134.6
1969	363	306	12.4	40.5	3.9	2.7	0.3	125.9
1970	389	380	13.9	36.6	4.4	4.8	0.6	129.2
1971	406	366	13.3	36.3	4.4	4.6	0.7	145.7
1972	357	386	13.8	35.8	5.1	4.6	0.6	121.7
1973	375	431	15.9	36.9	4.2	5.1	0.7	127.5
1974	368	384	32.2	83.9	3.6	3.8	0.5	142.1
1975	382	299	58.2	194.6	4.5	2.5	0.4	172.0
1976	420	345	54.5	158.0	5.3	3.2	0.5	165.6
1977	398	323	36.2	112.1	9.4	7.5	1.2	161.3
1978	392	390	29.4	75.4	15.0	11.6	2.4	205.2
1979	445	479	33.1	69.1	16.3	13.2	3.1	233.3
1980	492	502	35.1	69.9	14.1	10.3	3.4	329.1
1981	434	444	37.0	83.3	13.3	14.0	5.4	382.1
1982	462	405	43.1	106.4	9.6	15.3	6.1	400.0
1983	382	380	44.7	117.6	15.1	17.7	7.2	406.8
1984	458	438	51.8	118.3	16.3	18.1	7.6	421.5
1985	501	496	63.9	128.8	18.7	18.0	9.2	512.2
1986	452	446	74.5	167.0	14.8	14.1	9.2	651.1
1987	457	465	108.4	233.1	12.8	10.5	7.7	735.2
1988	484	464	189.6	409.0	12.2	9.7	7.6	787.5
1989	511	474	303.7	641.2	12.8	15.9	13.6	855.3
1990	443	332	205.0	616.7	11.1	11.1	9.9	894.0
1991	288	324	136.0	419.4	6.6	8.7	3.3	383.2
1992	355	310 b	71.6	230.8	5.6	5.7	1.7	300.0
1993	413	348 b	62.9	180.7	6.5	6.5	1.9	296.5
1994	511	504	124.1	246.2	2.3	2.7	0.8	290.3
1995	505	514	190.1	370.2	0.2	0.0	0.0	na
1996	460	424	248.3	585.8	0.0	0.0	0.0	na
1997	416	342	204.9	599.4	0.0	0.0	0.0	na
1998 p	395	399	225.9	566.6	na	0.0	0.0	na

a Ex mine. **b** All grades, bulk and bagged, before January 1992; standard grade only until June 1993; all grades thereafter. **p** Preliminary.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

361 Australian exports of zircon, by principal destination

	Italy	Japan	Netherlands	United States	Other	Total Volume	Total Value
	kt	kt	kt	kt	kt	kt	$'000
1960	4	13	12	29	45	103	2.7
1961	6	25	21	33	53	138	3.4
1962	11	17	24	25	53	130	3.3
1963	16	22	24	55	60	177	4.4
1964	14	32	29	46	75	196	5.1
1965	17	28	29	52	87	213	6.8
1966	17	31	20	62	77	207	9.0
1967	21	57	22	64	79	243	10.7
1968	21	60	21	58	102	262	11.0
1969	25	72	31	75	103	306	12.4
1970	33	116	33	84	114	380	13.9
1971	24	91	27	71	153	366	13.3
1972	32	141	33	54	126	386	13.8
1973	41	155	38	88	109	431	15.9
1974	38	154	29	48	115	384	32.2
1975	31	102	16	41	109	299	58.2
1976	43	125	27	52	98	345	54.5
1977	32	89	38	60	104	323	36.2
1978	43	109	39	59	140	390	29.4
1979	65	188	35	66	125	479	33.1
1980	81	176	51	94	100	502	35.1
1981	57	156	53	64	114	444	37.0
1982	59	156	38	61	91	405	43.1
1983	44	163	45	20	108	380	44.7
1984	58	169	50	46	115	438	51.8
1985	60	197	48	30	161	496	63.9
1986	67	160	34	35	150	446	74.5
1987	56	171	30	59	149	465	108.4
1988	83	138	72	54	117	464	189.6
1989	63	139	65	68	139	474	303.7
1990	46	103	60	12	107	332	205.0
1991	41	122	29	19	113	324	136.0
1992 **a**	36	97	27	17	133	310 **b**	71.6
1993 **a**	6	47	4	16	275	348 **b**	62.9
1994 **a**	0	0	0	0	504	504	124.1
1995 **a**	0	0	0	0	514	514	190.1
1996 **a**	0	0	0	0	424	424	248.3
1997 **a**	0	0	0	0	342	342	204.9
1998 **ap**	0	0	0	0	399	399	225.9

a Confidentiality provisions prevent full reporting after 1991. Confidential country data included under Other. **b** All grades, bulk and bagged, before January 1992; standard grade only until June 1993; all grades thereafter. **p** Preliminary.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat no. 5464.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; BMR, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

362 World zircon production, by major producing country

	Australia	South Africa a	Ukraine	United States a	Other a	Total a
	kt	kt	kt	kt	kt	kt
1960	101	na	na	na	na	na
1961	134	na	na	na	na	na
1962	132	7	na	45	11	195
1963	181	2	na	45	12	240
1964	181	0	na	54	10	245 b
1965	223	0	na	54	8	286 b
1966	232	0	na	70	18	320 b
1967	290	0	na	60	6	356 b
1968	292	0	na	60	8	360 b
1969	363	0	na	63	9	435 b
1970	389	0	na	56	7	452 b
1971	406	1	na	60	12	479 b
1972	357	1	na	75	52	485 b
1973	375	2	na	90	33	500 b
1974	368	12	na	110	30	520 b
1975	382	12	na	100	16	510 b
1976	420	11	na	80	9	520 b
1977	398	17	na	90	15	520 b
1978	392	50	na	75	33	550 b
1979	445	50	na	70	45	610 b
1980	492	80	na	60	28	660 b
1981	434	100	73	70	36	713
1982	462	125	82	78	33	780
1983	382	127	82	64	48	703
1984	458	153	82	67	44	804
1985	501	161	86	70	67	885
1986	452	140	86	85	60	823
1987	457	140	86	90	64	837
1988	484	130	86	115	103	918
1989	511	150	85	118	111	975
1990	443	150	50	102	111	856
1991	288	200	50	103	55	697
1992	355	220	50	108	53	786
1993	413	220	50	105	38	826
1994	511	205	50	114	62	942
1995	505	245	50	115	60	975
1996	460	302	53	117	56	989
1997	416	302	70	130	76	951
1998 p	395	na	na	na	na	995

a BMR estimates until 1987; US Department of the Interior, Bureau of Mines estimates thereafter. **b** Excludes former centrally planned economies.
p Preliminary. **na** Not available.
Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; TZ Minerals International, *Mineral Sands Report,* Surrey, England; TZ Minerals International, *Mineral Sands Annual Review,* Surrey, England; US Department of the Interior, Bureau of Mines, *Mineral Commodity Summaries,* Washington DC; ABARE.

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