

Introduction

This chapter presents an overview of the current structure and performance of the main industrial sectors of the Victorian economy. The relative contributions of selected industrial sectors to overall Victorian economic activity in terms of production, employment and trade is presented. The industries selected represent the significant contributors to the Victorian economy, as well as emerging industries.

Data in this chapter is sourced from the Victorian Department of Natural Resources and Environment, the Australasian Railway Association and surveys conducted by the ABS.

Overview of industry

Over the period from 1990–91 to 1999–2000 the average annual compound growth in Gross State Product (GSP), was 3.6% for Victoria. For the third consecutive year, Victoria's GSP growth percentage was higher than Australia's growth as measured by Gross Domestic Product (GDP) (table 14.1).

14.1 GROSS STATE PRODUCT, Chain Volume Measures(a)

	Victoria			Australia (GDP)		
	\$m	%(b)	Index Number(c)	\$m	%(b)	Index Number(c)
1994–95	126 141	3.1	111.9	498 550	4.5	112.8
1995–96	130 734	3.6	115.9	520 261	4.4	117.7
1996–97	134 463	2.9	119.2	539 088	3.6	122.0
1997–98	141 084	4.9	125.1	565 126	4.8	127.9
1998–99	151 006	7.0	133.9	595 417	5.4	134.7
1999–2000	157 915	4.6	140.0	620 963	4.3	140.5

(a) Experimental series. Users are cautioned that these estimates are derived indirectly by calculating a deflator from the expenditure components of the state series. (b) Percentage change from previous year. (c) Base year 1991–92 = 100.0.

Source: Australian National Accounts: State Accounts (Cat. no. 5220.0).

Total factor income is one means of measuring an industry's contribution to the economy. Factor income is compensation of employees, gross operating surplus and gross mixed income, plus taxes, less subsidies on production and imports.

The largest contributor to total factor income in Victoria in 1999–2000 was manufacturing (16%) followed by property and business services (14%) (table 14.2). Manufacturing was the largest employing industry, providing employment for 370,100 persons. Retail trade provided employment for 316,400 persons, while the number of people employed in property and business services was 287,100.

14.2 STATE SUMMARY OF INDUSTRY

	Contribution to total factor income at current prices — 1999–2000		Employment — August 2000	
	\$m	%	'000	%
Agriculture, forestry and fishing	4 257	3	92.3	4.1
Mining	2 925	2	7.4	0.3
Manufacturing	23 025	16	370.1	16.3
Electricity, gas and water	2 463	2	13.9	0.6
Construction	7 703	5	159.7	7.0
Wholesale trade	8 654	6	107.6	4.7
Retail trade	7 523	5	316.4	14.0
Accommodation, cafes and restaurants	2 376	2	96.5	4.3
Transport and storage	7 212	5	98.5	4.3
Communication	5 238	4	56.0	2.5
Finance and insurance	10 096	7	90.8	4.0
Property and business services	19 565	14	287.1	12.7
Government administration and defence	3 489	2	71.0	3.1
Education	6 883	5	155.8	6.9
Health and community services	8 498	6	212.0	9.4
Cultural and recreational services	2 740	2	63.5	2.8
Personal and other services	3 469	2	68.6	3.0
Other	14 453	11
Total(a)	140 569	100	2 267.2	100.0

(a) Sum of components may not equal total due to rounding.

Source: Australian National Accounts: State Accounts (Cat. no. 5220.0); Labour Force, Victoria (Cat. no. 6202.2).

Agriculture

The majority of agricultural statistics in this section are derived from the Agricultural Census or Agricultural Commodity Survey conducted at 31 March each year. Prior to 1997–98, data was collected in an annual Agricultural Census. Readers should bear in mind when comparing results between years, that data for 1997–98 and 1998–99 is based on a sample of agricultural producers. Establishments which make only a small contribution to overall agricultural production are excluded from the scope of the census/survey. Information is collected from those establishments which have an Estimated Value of Agricultural Operations (EVAO) of \$5,000 or over.

The 1998–99 Agricultural Commodity Survey included 36,701 establishments with agricultural activity in Victoria (table 14.3). The dairy cattle farming industry was the largest in terms of numbers of establishments, accounting for 22%, closely followed by the beef cattle farming industry with 21.5% of total establishments with agricultural activity. Overall, the total number of agricultural establishments increased marginally between 1997–98 and 1998–99.

14.3 ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, EVAO \$5,000 and Over

	1997	1998	1999
	no.	no.	no.
Vegetable growing	1 001	993	1 045
Grape growing	1 901	1 933	2 086
Fruit growing(a)	1 066	1 093	1 025
Grain growing	3 014	2 657	2 763
Grain-sheep/beef cattle farming	3 308	3 400	3 472
Sheep-beef cattle farming	2 795	2 302	2 357
Sheep farming	4 749	5 107	5 136
Beef cattle farming	7 766	7 371	7 890
Dairy cattle farming	8 064	8 088	8 066
Poultry farming (meat and eggs)	285	338	306
Other livestock farming(b)	1 120	852	1 058
Other agriculture(c)	927	991	1 120
Other industries	660	1 563	379
Total all industries	36 656	36 687	36 701

(a) Comprises apple and pear growing, stone fruit growing, kiwi fruit growing and fruit growing n.e.c. (b) Comprises pig farming, horse farming, deer farming, livestock farming n.e.c. (c) Comprises those industries in ANZSIC subdivision 01 not specified elsewhere in the table.

Source: *Agriculture Commodities (Cat. no. 7121.0)*.

During the last pay period in June 1999, the number of people working in farm businesses in Victoria was estimated to be 86,291 (table 14.4). Of these, 32.5% were paid employees and 58.5% were working proprietors and partners. The agricultural industries with the largest employment were the dairy cattle industry (27% of total), sheep farming (14% of total), and fruit growing (12% of total).

14.4 AGRICULTURE INDUSTRY, Workers

	Proprietors and partners	Employees	Unpaid workers	Total
	no.	no.	no.	no.
1996–97	48 348	20 453	4 353	73 154
1997–98	48 661	24 106	4 534	77 301
1998–99	50 434	28 017	7 840	86 291

Source: *Unpublished data, Agricultural Finance Survey*.

Aggregate turnover for all agricultural industries in 1998–99 was almost \$5.5b, slightly higher than the 1997–98 figure of \$5.1b (table 14.5). Average turnover was \$202,500 per farm business, lower than the Australian average of \$269,300.

14.5 FARM BUSINESS FINANCES, Aggregates

	1996-97	1997-98	1998-99
	\$m	\$m	\$m
Sales from crops	1 887.9	1 800.2	1 978.5
Sales from livestock	994.4	936.3	962.8
Sales from livestock products	2 058.0	2 010.6	2 006.8
Rent and leasing revenue	24.1	51.5	56.4
Other miscellaneous revenue	281.4	327.6	458.7
Turnover	5 245.9	5 126.2	5 463.2

Source: Agriculture, Australia (Cat. no. 7113.0).

Agricultural production

Gross value of production is the value placed on production at the wholesale price realised in the market place and it provides a measure of the output from farming. In 1998-99, the gross value of agricultural production increased by 2.9% over the previous year (table 14.6). The gross value of crops increased by 4.3%, the gross value of livestock slaughtering and other disposals increased by 8.4%, and the gross value of livestock products fell by 2.7%.

14.6 GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED(a)

	1994	1995	1996	1997	1998	1999	Victoria as a percentage of Australia 1998
	\$m	\$m	\$m	\$m	\$m	\$m	%
Crops (incl.pastures and grasses)	2 172.9	1 770.6	2 764.2	2 527.4	2 450.9	2 556.7	15.8
Livestock slaughterings and other disposals	1 485.8	1 375.4	1 370.6	1 419.6	1 554.1	1 684.5	23.2
Livestock products	1 877.8	2 001.4	2 196.1	2 115.5	2 128.2	2 070.2	38.3
Total	5 536.5	5 147.4	6 330.9	6 062.5	6 133.2	6 311.4	21.9

(a) Reference period for crops is year ended 31 March; reference period for livestock slaughterings and other disposals, and livestock products is year ended 30 June.

Source: Agriculture, Australia (Cat. no. 7113.0).

Wheat is Victoria's largest crop in terms of area and production. In 1998-99, despite the area sown increasing by 10.7%, production declined to 1,462,000 tonnes (table 14.7). The production of barley in Victoria for 1998-1999 decreased by 6.3% over the previous year.

Oats are sown for grain production, winter grazing, and hay production. A significant portion of the total production of oats is held on farms for future use, with the balance being used for compound/urban feed markets, milling, and export. Production of oats increased by 24.1% between 1997-98 and 1998-1999, the average yield per hectare was the highest recorded over the last six years.

14.7 CROPS FOR GRAIN

	Wheat			Barley			Oats		
	Area '000 ha	Production '000 tonnes	Average yield per hectare tonnes	Area '000 ha	Production '000 tonnes	Average yield per hectare tonnes	Area '000 ha	Production '000 tonnes	Average yield per hectare tonnes
1993-94	780	2 022	2.6	639	1 386	2.2	186	362	2.0
1994-95	822	944	1.1	492	448	0.9	148	201	1.4
1995-96	853	1 921	2.3	628	1 342	2.1	187	392	2.1
1996-97	963	2 262	2.4	585	1 189	2.0	175	304	1.7
1997-98	857	1 503	1.8	618	928	1.5	172	369	2.1
1998-99	949	1 462	1.5	568	870	1.5	188	458	2.4

Source: *Agricultural Commodities, Australia*, (Cat. no. 7121.0).

The most significant fruit crops in Victoria in terms of production in 1998-99, were pears (excluding nashi), and apples and oranges (table 14.8). Pear production increased by 4% to 136,681 tonnes in 1998-99, apple production increased by 13.8% to 107,291 tonnes and orange production decreased by 12.8% to 72,069 tonnes.

Grape growing, particularly for winemaking, is extensive throughout Victoria, with most vines being grown under irrigation. Grape production for winemaking increased by 29.6% in 1998-99 to 277,869 tonnes, while grape production for drying and table use decreased by 23.8%.

The more significant vegetables, in terms of production, are potatoes and tomatoes (table 14.8). Victorian potato production in 1998-99 was 319,228 tonnes, an increase of 8.2% on 1997-98. Production of tomatoes increased by 17.1% and cabbage production continued to fall, experiencing a 15.2% decline between 1997-98 and 1998-99.

14.8 HORTICULTURAL PRODUCTION, Selected Items

	1997	1998	1999
	tonnes	tonnes	tonnes
Fruit			
Pears (excluding Nashi)	146 060	131 442	136 681
Apples	118 968	94 312	107 291
Oranges	88 963	82 614	72 069
Peaches	43 487	41 025	39 837
Apricots	8 935	6 183	*9 624
Nectarines	7 033	6 982	8 801
Mandarins	5 320	4 726	*7 096
Plums and prunes	4 618	4 711	5 753
Strawberries	3 376	5 476	5 210
Grapes			
Drying and table(a)	147 915	182 534	139 179
Winemaking	181 772	214 462	277 869
Vegetables			
Potatoes	315 727	295 102	319 228
Tomatoes	167 563	192 388	225 233
Carrots	99 274	95 607	96 492
Lettuces	36 557	42 845	40 247
Broccoli	19 198	22 448	21 410
Celery	22 403	21 497	21 787
Cabbages	23 221	21 242	18 019
Onions, white and brown	15 615	18 100	15 600
Cauliflowers	17 409	16 515	16 306
Mushrooms	14 237	15 071	15 047

(a) Production for drying is estimated as fresh weight equivalent of dried weight.

Source: *Agricultural Commodities, Australia (Cat. no. 7121.0)*

Milk cattle numbers in Victoria increased by 6% between 1998 and 1999 (table 14.9). For the fourth consecutive year, meat cattle stock declined, and sheep and lambs reached a six year low.

14.9 SELECTED LIVESTOCK NUMBERS

Year ended 31 March	Cattle		Sheep and lambs	Pigs	Chickens for meat	Chickens for egg production
	Milk Cattle	Meat cattle				
	'000	'000	'000	'000	'000	'000
1994	1 585	2 604	23 439	460	12 307	2 253
1995	1 622	2 663	21 361	439	12 406	2 617
1996	1 682	2 714	21 974	459	12 804	3 009
1997	1 784	2 627	22 325	485	13 374	3 419
1998	1 836	2 306	21 122	518	16 531	3 937
1999	1 945	2 180	20 994	521	15 732	4 028

Source: *Agriculture Australia (Cat. no. 7113.0); Agriculture, Victoria (Cat. no. 7113.2)*

The Victorian environment is very favourable for beef production with cattle able to graze on pasture throughout the year. In 1999–2000, there were 351,372 tonnes of beef and 13,370 tonnes of veal produced (table 14.10).

Mutton is mainly produced from adult sheep which are surplus to the wool industry, consequently production patterns correspond closely to expansions and contractions in that industry. In 1999–2000, mutton production was 76,713 tonnes, an increase of 24.4% on the previous year's figure of 61,646 tonnes.

Prime lamb producers are found throughout the State. However, early to mid-season producers are distributed in a broad band across northern Victoria, including some irrigated areas. In addition, a considerable number of early lambs are brought from southern New South Wales for slaughter in Victoria. Victoria produced 140,205 tonnes of lamb in 1999–2000.

Whole milk intake by Victorian milk manufacturers accounted for 63% of the Australian total for 1999–2000.

14.10 MEAT PRODUCED

	Beef	Veal	Mutton	Lamb	Pig meat	Chicken meat	Whole milk intake by factories	Wool
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	ML	tonnes
1994–95	335 059	14 428	64 440	111 202	84 728	109 515	5 114	124 535
1995–96	348 649	12 009	50 910	110 172	83 052	127 736	5 482	128 529
1996–97	373 818	14 293	55 545	111 403	99 225	121 445	5 622	145 206
1997–98	389 086	15 579	63 470	119 973	112 504	148 288	5 866	167 253
1998–99	398 815	14 225	61 646	128 380	114 582	153 601	6 414	170 844
1999–2000	351 372	13 370	76 713	140 205	106 690	168 139	6 870	n.a.

Source: Livestock Products, Australia (Cat. no. 7215.0); Agriculture, (Cat. no. 7113.0).

A wide range of agricultural products are exported from Victoria. In terms of value, the most significant of these in 1999 were greasy wool and wheat (table 14.11).

14.11 EXPORTS OF SELECTED COMMODITIES — 1999

Year ended 30 June	Quantity '000 tonnes	Value \$m
Barley	324	60
Canola	302	129
Cotton lint	3	8
Rice	19	11
Wheat	1 096	229
Grapes (fresh or dried)	35	86
Pears (excluding Nashi)	12	14
Oranges	30	34
Potatoes	7	3
Live cattle (000's)	51	28
Live sheep (000's)	435	19
Greasy wool	124	480

Source: Agriculture, Australia (Cat. no. 7113.0)

Aquaculture and fisheries

In Victoria, the aquaculture industry's annual production totalled 2,069 tonnes in 1997–98, worth approximately \$18.7m. This exceeds the value of all scalefish landed from Victorian commercial fisheries, and is only exceeded by commercial abalone (\$50m) fisheries.

The three main sectors of commercial aquaculture activity in the State are: inland (mainly salmonids, eels, warm water native fish and yabbies); marine (mainly mussels); and ornamental fish (goldfish and tropical fish). By far the biggest sector, salmonid farming, produces mainly rainbow trout with a small amount of Atlantic salmon. This sector produces about two-thirds of the total Australian trout production and, with eel farming, features the highest degree of vertical integration and value adding in the Victorian aquaculture industry.

In 1997–98, just over 9 million tonnes of fish were landed commercially in Victoria, a decrease of 7.5% on the previous year (table 14.12). In terms of weight, the most important species landed commercially in 1997–98 was abalone, accounting for 15.5% of the total.

14.12 ANNUAL FISHERIES CATCH, Landed Commercially(a)

	Catch landings, live weight		Value	
	1996–97	1997–98	1996–97(b)	1997–98
	tonnes	tonnes	\$'000	\$'000
Finfish				
Anchovy, southern	868	326	1 390	485
Australian salmon	308	717	431	717
Carp, European	625	775	476	718
Eel	201	157	852	629
Flathead	204	219	466	527
Mullet	181	119	224	149
Pilchard	773	791	1 005	926
Whiting	305	283	1 710	1 617
Other finfish	1 153	925	4 579	4 218
<i>Total</i>	<i>4 618</i>	<i>4 312</i>	<i>11 133</i>	<i>9 986</i>
Crustaceans				
Rock lobster, southern	459	522	14 582	17 083
Other crustaceans	127	140	2 097	1 990
<i>Total</i>	<i>586</i>	<i>662</i>	<i>16 679</i>	<i>19 078</i>
Molluscs				
Abalone	1 453	1 396	42 011	49 964
Scallop, commercial	106	416	1 146	829
Other molluscs	142	90	483	308
<i>Total</i>	<i>1 701</i>	<i>1 902</i>	<i>43 640</i>	<i>51 101</i>
Other classes	55	76	97	131
Aquaculture	2 790	2 069	n.a.	18 651
Total	9 750	9 021	71 549	98 947

(a) This information is based on mandatory fishing returns submitted by commercial fishers. The figures do not take into account returns not received or processed. (b) Total value for 1996–97 does not include aquaculture.

Source: Department of Natural Resources and Environment, Marine and Freshwater Resources Institute.

Construction

Value of construction work done refers to the estimated value of construction work actually carried out during the period on building jobs. The total value of construction work done in 1999–2000 was slightly under \$13.9b, an 8.7% increase on the 1998–99 figure (table 14.13). Work done on residential building increased by 32.6%, while non-residential and engineering construction work done fell by 5.3% and 11.2% respectively. Residential building was the largest component of the construction industry, comprising 50.8% of the value of work done.

14.13 VALUE OF CONSTRUCTION WORK DONE

	1994–95	1995–96	1996–97	1997–98r	1998–99r	1999–2000p
	\$m	\$m	\$m	\$m	\$m	\$m
Residential building	3 581.5	3 261.2	3 385.5	4 480.1	5 312.2	7 044.8
Non-residential building	2 322.0	2 870.0	3 252.4	2 960.4	3 571.1	3 381.7
Engineering construction	2 409.1	2 352.6	2 472.2	3 136.8	3 884.9	3 450.0
Total	8 312.6	8 483.8	9 110.1	10 577.3	12 768.2	13 876.5

Source: *Building Activity, Victoria* (Cat. no. 8752.2); *Engineering Construction Activity, Australia* (Cat. no. 8762.0).

During 1999–2000, the value of non-residential building work done in Victoria was \$3,381.7m (table 14.14), accounting for 24.4% of all construction work done in the State.

14.14 VALUE OF NON-RESIDENTIAL BUILDING WORK DONE

	1994–95	1995–96	1996–97	1997–98	1998–99r	1999–2000p
	\$m	\$m	\$m	\$m	\$m	\$m
Hotels, guest houses, etc.	51.8	158.2	249.8	201.0	239.0	221.5
Shops	464.0	487.0	438.1	440.1	632.1	586.5
Factories	245.4	240.4	363.2	299.0	270.0	325.7
Offices	393.1	456.4	470.9	423.2	513.4	468.5
Other business premises	354.9	383.8	423.2	526.8	565.6	486.7
Educational	263.2	341.3	296.6	351.5	470.9	437.5
Religious	16.3	11.2	12.6	19.4	16.9	31.6
Health	209.5	138.2	202.6	290.3	275.0	292.6
Entertainment and recreational	219.7	515.2	570.7	207.6	389.8	398.9
Miscellaneous	104.2	138.2	224.6	201.7	198.3	132.2
Total(a)	2 322.0	2 870.0	3 252.4	2 960.4	3 571.1	3 381.7

(a) Sum of components may not add to total due to rounding.

Source: *Building Activity, Victoria* (Cat. no. 8752.2).

Engineering construction

In 1999–2000, engineering construction work worth \$3,450m was completed in Victoria (table 14.15). Private sector involvement has increased steadily since 1994–95, when 47.6% of the value of work done was completed by the private sector, to a high of 76.1% in 1999–2000. The largest engineering construction sectors were roads, highways and subdivisions (25.5% of the total) and telecommunications (22.0%). The value of electricity generation, transmission and distribution work done rose 66.4% to \$663.3m. At August 2000, the Construction industry employed 159,700 persons, representing 7.0% of Victoria's employed persons (table 14.2).

14.15 VALUE OF ENGINEERING CONSTRUCTION WORK DONE

	1994-95	1995-96	1996-97	1997-98r	1998-99r	1999-2000
	\$m	\$m	\$m	\$m	\$m	\$m
Roads, highways and subdivisions	754.7	770.9	831.6	1 261.1	1 514.7	881.1
Bridges	38.2	31.2	24.8	18.3	77.5	151.8
Railways	130.4	86.1	87.8	151.4	93.8	83.8
Harbours	0.9	3.5	31.4	15.5	14.2	9.4
Water storage and supply	142.2	59.0	86.2	76.2	94.5	163.6
Sewerage and drainage	157.7	98.5	78.1	88.2	81.0	232.0
Electricity generation, transmission and distribution	359.4	295.6	270.5	371.9	496.2	663.3
Pipelines	86.6	88.0	39.2	82.4	189.4	151.9
Recreation	74.9	82.8	119.8	143.3	160.1	179.6
Telecommunications	514.9	656.4	707.2	676.5	764.1	759.0
Oil, gas, coal and other minerals	106.8	64.7	78.3	160.4	262.1	67.0
Other heavy industry	41.8	114.2	102.0	69.3	126.1	72.2
Other	0.6	1.7	15.2	22.5	11.1	35.4
Total(a)	2 409.1	2 352.6	2 472.2	3 136.8	3 884.9	3 450.0
Total of all construction						
Private sector	1 148.4	1 242.0	1 551.3	2 242.7	2 906.5	2 627.0
Public sector	1 260.7	1 110.6	920.9	894.2	978.4	823.1

(a) Sum of components may not equal total due to rounding.

Source: Unpublished data, *Engineering Construction Survey*.

Manufacturing

Manufacturing broadly relates to the physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand. Manufacturing in Victoria, accounted for 16% (\$23,025m) of total factor income in 1999-2000 (table 14.2).

Turnover can be seen as a key performance measure of an industry. It covers the sales of goods and services by an establishment (together with transfer of goods to other parts of the same business), and includes all other operating revenue generated by the business.

Turnover for the manufacturing industry in Victoria was just under \$71,984m for 1998-99, representing almost one-third of total Australian manufacturing turnover (table 14.16). Victorian industry subdivisions which made a significant contribution to national manufacturing turnover in 1998-99 were textile, clothing, footwear and leather manufacturing (51%), machinery and equipment manufacturing (41.2%), and petroleum, coal, chemical and associated product manufacturing (33.1%).

14.16 TURNOVER, By Manufacturing Industry Subdivision — 1998–99

	Australia	Victoria	Victoria as a percentage of Australia
	\$m	\$m	
Food, beverage and tobacco	50 283.5	15 558.8	30.9
Textile, clothing, footwear and leather	9 788.2	4 992.0	51.0
Wood and paper product	12 200.6	3 488.3	28.6
Printing, publishing and recorded media	15 997.7	5 102.1	31.9
Petroleum, coal, chemical and associated product	33 732.7	11 180.1	33.1
Non-metallic mineral product	9 861.6	2 520.4	25.6
Metal product	38 923.3	8 972.2	23.1
Machinery and equipment	43 362.6	17 843.2	41.2
Other manufacturing	6 697.7	2 326.7	34.7
Total(a)	220 847.9	71 983.9	32.6

(a) Sum of components may not add to total due to rounding.

Source: *Manufacturing Industry* (Cat. no. 8221.0).

The Victorian manufacturing industry employed 298,700 persons at the end of June 1999 (table 14.17) and paid \$11,588m in wages and salaries in 1998–99. This represents an average of \$38,794 paid in annual wages and salaries per person employed at the end of June 1999, an increase of 7.3% on the \$36,157 recorded 12 months earlier. Employment in the Victorian manufacturing industry decreased by 4.8% or 15,200 persons between June 1998 (313,900 persons) and June 1999 (298,700 persons). Over the five years from June 1994 to June 1999, employment fell by 0.4% or 1,200 persons.

Between June 1998 and June 1999 employment decreased in six of the nine manufacturing industry subdivisions. The industry subdivisions with the largest decreases were machinery and equipment manufacturing (decreasing by 11.5% or 8,700 persons), textile, clothing, footwear and leather manufacturing (9.6% or 3,600 persons), and metal product manufacturing (4.8% or 1,900 persons).

14.17 EMPLOYMENT(a), By Manufacturing Industry Subdivision

	1993–94	1994–95	1995–96	1996–97	1997–98	1998–99
	'000	'000	'000	'000	'000	'000
Food, beverage and tobacco	45.3	46.4	44.0	46.3	48.4	47.0
Textile, clothing, footwear and leather	38.6	36.8	37.5	36.2	37.6	34.0
Wood and paper product	17.4	17.8	19.9	17.3	17.5	17.6
Printing, publishing and recorded media	27.3	29.3	28.2	29.2	31.0	31.3
Petroleum, coal, chemical and associated product	34.9	36.3	35.7	36.0	35.9	35.5
Non-metallic mineral product	10.0	9.6	9.7	9.2	8.9	9.8
Metal product	37.6	37.3	38.7	38.8	40.0	38.1
Machinery and equipment	71.7	70.4	73.8	73.0	75.8	67.1
Other manufacturing	17.2	17.3	16.6	17.9	18.7	18.3
Total(b)	299.9	301.2	303.9	303.9	313.9	298.7

(a) Includes working proprietors. Data for the period 1993–94 to 1995–96 have been adjusted to allow for lags in processing new businesses to, and the omission of some businesses from, the ABS Business Register. (b) Sum of components may not add to total due to rounding.

Source: *Manufacturing Industry, Victoria* (Cat. no. 8221.2).

Manufacturing exports

In 1998–99, Victorian manufacturers directly exported \$8,452m of the goods that they produced (table 14.18). This represented a 10.5% decrease on the \$9,427m recorded for 1997–98. Manufacturers' direct exports decreased in six of the nine industry subdivisions between 1997–98 and 1998–1999. The industry subdivisions to record the largest decreases in direct exports between 1997–98 and 1998–99 were machinery and equipment manufacturing (decreasing by \$598m or 17.6%), and food, beverage and tobacco (\$255m or 9.6%). The industry subdivision to record the largest increase in direct exports was petroleum, coal, chemical and associated product manufacturing, which increased 13.1%.

14.18 EXPORTS, By Manufacturing Industry Subdivision(a)

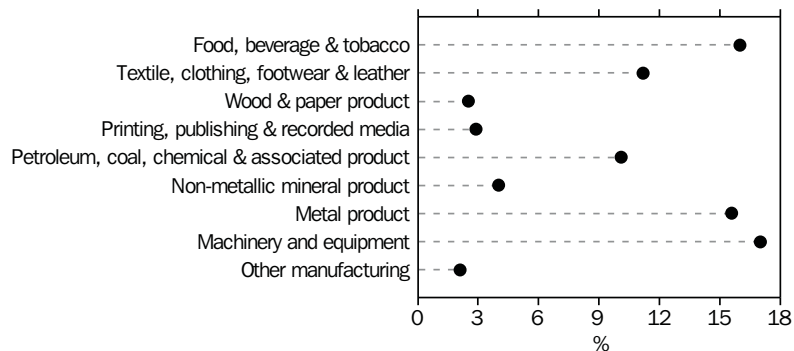
	1996–97	1997–98	1998–99
	'000	'000	'000
Food, beverage and tobacco	2 613.3	2 666.7	2 408.1
Textile, clothing, footwear and leather	492.1	590.4	508.7
Wood and paper product	117.5	141.3	85.4
Printing, publishing and recorded media	74.3	98.6	116.3
Petroleum, coal, chemical and associated product	921.5	946.6	1 069.9
Non-metallic mineral product	81.8	57.4	95.4
Metal product	1 282.2	1 462.3	1 315.8
Machinery and equipment	3 221.1	3 400.1	2 806.9
Other manufacturing	40.3	63.4	45.3
Total(b)	8 844.0	9 426.8	8 451.9

(a) Exported by this business or its agent. (b) Sum of components may not add to total due to rounding.

Source: *Manufacturing Industry, Victoria* (Cat. no. 8221.2).

Of the goods produced by the machinery and equipment industry in Victoria, 17% are exported (table 14.19). This contrasts with wood and paper product manufactured, of which 2.5% are exported.

14.19 EXPORTED GOODS PRODUCED, Manufacturing Establishments — 1998/99



Source: *Manufacturing Industry, Victoria* (Cat. no. 8221.2)

Mining

Mining broadly relates to the extraction of minerals occurring naturally as solids such as coal and ores, liquids such as crude petroleum, or gases such as natural gas, by such processes as underground mining, open-cut extraction methods, quarrying, operation of wells or evaporation pans, dredging or recovering from ore dumps or tailings. Activities such as dressing or beneficiating ores or other minerals by crushing, milling, screening, washing, flotation or other processes (including chemical beneficiation) or briquetting, are included because they are generally carried out at or near mine sites as an integral part of mining operations. Natural gas absorption and purifying plants are also included.

Total turnover for 1998–99 was \$2,493m (table 14.20), a decrease of 25% from 1997–98.

Data gathered in the 1998–99 Mining Collection (a combination of censuses and surveys) for employment may exclude activities other than the operation of the mine site. Employment fell in all States except Victoria, where the oil and gas extraction industry increased the number of employees. Total employment in Victoria increased by 14% to 2,281 persons in 1998–99. Mining employment comprised 2,033 male and 248 female employees. Wages and salaries paid were \$170.0m, an increase of 32% on the figure recorded for 1997–98.

14.20 MINING, Summary of Operations

	Establish- ments at June 30	Employ- ment(a)	Turnover	Wages and salaries(b)
	no.	no.	\$m	\$m
1993–94(c)(d)	29	2 225	4 082.6	139.6
1994–95(c)(d)	25	2 036	3 434.6	139.5
1995–96(c)(d)	22	1 900	3 275.6	115.3
1996–97	25	1 971	3 307.6	122.2
1997–98	26	1 995	3 332.7	128.8
1998–99	29	2 281	2 493.0	170.0

(a) At 30 June, including working proprietors. (b) Excludes drawings of working proprietors. (c) The 1993–94 and 1994–95 (truncated) censuses differ from previous mining censuses in that the construction materials and other non-metallic minerals industries have been excluded. (d) Includes brown coal mining operations of the former State Electricity Commission of Victoria.

Source: *Mining Operations, Australia* (Cat. no. 8415.0); *Mining Industry* (Cat. no. 8414.0).

Overall, Australia is estimated to be the third largest producer of minerals and metals in the world (excluding coal and petroleum). Its mineral wealth makes it virtually self-sufficient in most mineral commodities. Victoria contributed 7.2% to the Australian total value of minerals produced in the coal mining, oil and gas extraction, and metal ore mining industries in 1998–99. The value of Victoria's mineral production fell by \$901m (27%) as a direct result of the reduction in crude oil production from Bass Strait. A significant contributor to Victorian mineral production in 1998–99 was brown coal, with a value of over \$500m (table 14.21).

14.21 MINERAL PRODUCTION, Selected items

	Unit	1998–99	Value \$'000
Oil and gas			
Crude oil-stabilised (includes condensate)	megalitres	9 481	n.a.
Natural gas	gigalitres	5 733	n.a.
Brown coal	kt	66 648	533 184
Gold	kilograms	4 948	72 436
Construction materials			
Gravel	kt	3 939	26 283
Sand for concrete	kt	4 368	30 998
Basalt(a)	kt	9 918	82 503
Granite	kt	3 968	36 055

(a) Not broken down by end use.

Source: *Australian Mining Industry* (Cat. no. 8414.0).

Service industries

The service industries sector is a fast growing component of the Victorian economy. The service industries sector is defined as all industries other than the goods producing industries (agriculture, mining, manufacturing, electricity, construction, and gas and water supply). In terms of the Australian and New Zealand Standard Industrial Classification (ANZSIC), the service industries cover wholesale and retail trade; accommodation, cafes and restaurants; transport and storage; communication services; finance and insurance; property and business services; government administration and defence; education; health and community services; cultural and recreational services; and personal and other services.

Combined, the service industries sector is the largest component of the Victorian economy in terms of number of businesses, employment and total contribution to total factor income (see table 14.2). The service industries sector constituted approximately 70% of Victoria's \$140.6b total factor income in 1999–2000.

Employment growth over the three years from 1996–97 to 1998–99, has occurred in the accommodation, cafes and restaurants; personal services; and property and business services sectors (table 14.22).

14.22 SERVICE INDUSTRIES, Employment and Businesses(a)

	1996–97		1997–98		1998–99	
	Persons employed	Businesses	Persons employed	Businesses	Persons employed	Businesses
	'000	'000	'000	'000	'000	'000
Wholesale trade	100.2	14.4	104.8	15.0	119.7	15.2
Retail trade	245.5	40.0	237.8	37.0	240.4	35.9
Accommodation, cafes and restaurants	70.3	7.0	77.2	7.5	79.2	6.8
Transport and storage	70.4	12.7	64.2	13.3	63.6	13.3
Finance and insurance	68.4	4.5	68.2	3.9	73.4	5.2
Property and business services	172.7	40.2	188.2	46.5	221.9	44.4
Education	58.5	4.6	48.6	4.6	52.8	5.3
Health and community services	140.7	18.1	108.3	17.4	106.3	15.6
Cultural and recreational services	35.3	7.6	57.4	8.8	57.2	8.7
Personal and other services	36.4	15.5	41.6	18.8	42.1	20.0

(a) Includes non-agricultural private sector small businesses and employment.

Source: *Small Business Australia (Cat. no. 1321.0)*.

Retail Trade

The retail industry is a major contributor to the Victorian economy, providing employment for 240,400 persons in 1998–99. Small business (those businesses with less than 20 employees) represented 97% of all Victorian retail businesses and employed 41% of all employees.

Retail turnover in Victoria increased by 8.1% from 1998–99 to 1999–2000, accounting for over \$35.8b turnover (table 14.23). All Industry Groups increased turnover with the exception of recreational goods, which recorded a decrease of 6.2%.

14.23 ANNUAL TURNOVER OF RETAIL ESTABLISHMENTS(a) AT CURRENT PRICES, By Industry

	1994–95	1995–96	1996–97	1997–98	1998–99	1999–2000
	\$m	\$m	\$m	\$m	\$m	\$m
Food	10 785.5	11 780.7	12 453.6	12 933.8	13 932.6	14 648.8
Department stores	2 554.4	2 680.4	2 724.0	2 913.6	3 084.7	3 297.1
Clothing and soft goods	1 873.7	1 808.9	1 773.1	1 979.2	2 399.3	2 841.4
Household goods	3 515.9	3 753.2	4 062.4	4 036.7	4 012.1	4 394.3
Recreational goods	1 448.3	1 573.0	1 623.1	1 702.9	1 831.3	1 717.3
Other retailing	2 640.2	2 647.8	2 835.7	3 162.1	3 568.2	3 803.8
Hospitality and services	3 575.4	3 566.3	3 524.9	3 688.1	4 346.1	5 169.6
Total(b)	26 393.1	27 810.4	28 996.2	30 416.0	33 174.4	35 872.4

(a) Excludes establishments which retail motor vehicles, parts, petrol etc. but includes non-petrol sales of identified convenience stores of petrol stations. (b) Sum of components may not equal totals due to rounding.

Source: *Retail Trade, Australia (Cat. no. 8501.0)*.

Tourist accommodation

At June 1999, Victoria had 705 licensed hotels, motels, guest houses and serviced apartments. Total takings from accommodation for the year 1999–2000 was \$774m, compared to \$718m in 1998–99 (table 14.24). Motels and guest houses comprised 71% of all accommodation establishments in June, and accounted for 33% of total takings. Licensed hotels with facilities provided 18% of the accommodation establishments and accounted for \$379m in takings, or 49% of total takings.

14.24 TOURIST ACCOMMODATION(a)

	Unit	1997–98	1998–99	1999–2000
LICENSED HOTELS WITH FACILITIES				
Establishments (June quarter)	no.	115	121	125
Guest rooms (June quarter)	no.	9 856	10 766	10 906
Room nights occupied	'000	2 259	2 477	2 638
Room occupancy rate	%	65.5	65.6	66.3
Persons employed (June quarter)	no.	13 856	14 406	13 957
Takings from accommodation	\$'000	331 256	356 050	378 545
MOTELS AND GUEST HOUSES WITH FACILITIES				
Establishments (June quarter)	no.	504	507	504
Guest rooms (June quarter)	no.	16 391	16 214	16 306
Room nights occupied	'000	3 053	2 983	2 995
Room occupancy rate	%	50.9	50.5	50.4
Persons employed (June quarter)	no.	5 893	5 822	5 879
Takings from accommodation	\$'000	252 769	252 577	257 993
SERVICED APARTMENTS				
Establishments (June quarter)	no.	50	70	76
Guest rooms (June quarter)	no.	2 603	3 786	4 172
Room nights occupied	'000	532	834	1 031
Room occupancy rate	%	67.4	67.3	68.9
Persons employed (June quarter)	no.	1 005	1 497	1 750
Takings from accommodation	\$'000	69 151	109 249	137 531
TOTAL ESTABLISHMENTS				
Establishments (June quarter)	no.	669	698	705
Guest rooms (June quarter)	no.	28 850	30 766	31 384
Room nights occupied	'000	5 844	6 293	6 664
Room occupancy rate	%	57.1	57.6	58.4
Persons employed (June quarter)	no.	20 754	21 725	21 586
Takings from accommodation	\$'000	653 176	717 876	774 068

(a) Comprising establishments with 15 or more rooms or units.

Source: *Tourist Accommodation, Victoria* (Cat. no. 8635.2.40.001).

Transport

Between 1997–98 and 1998–99 revenue from urban passengers decreased despite the increase in rail passengers (table 14.25). Estimated non-urban revenue increased 10% while non-urban passenger numbers declined 4.4%. The amount of rail freighted in 1997–98 in Victoria was 5,452,000 tonnes, earning \$99,964,000.

14.25 RAIL PASSENGER OPERATIONS(a)

	Passengers		Revenue	
	1997-98	1998-99	1997-98	1998-99
Urban	229 789	233 000	257 000	203 421
Non-urban(b)	6 694	6 400	30 000	33 000
Total	236 483	239 400	287 000	236 421

(a) Includes tram operations. (b) 1998-99 non-urban revenue is an estimate.

Source: Australasian Railway Association Inc.

Victoria has major ports handling cargo at Melbourne, Geelong, Portland and Westernport. Melbourne is Victoria's busiest port, loading 7.9 million tonnes and discharging 8.2 million tonnes in 1999-2000 (table 14.26). In total, 15.7 million tonnes were loaded in Victorian sea ports in 1999-2000, a 16% increase on the 1998-99 figure. The amount of cargo discharged from Victorian ports showed a small decrease, from 13.7 million tonnes in 1997-98 to 13.6 million tonnes in 1998-99.

14.26 TONNAGE LOADED AND DISCHARGED, By Port

	1997-98		1998-99		1999-2000	
	Loaded	Discharged	Loaded	Discharged	Loaded	Discharged
	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes
Melbourne	6 907	6 467	7 106	8 426	7 950	8 239
Geelong	2 829	4 172	3 108	4 816	3 925	4 901
Portland	1 989	406	2 320	404	2 611	316
Westernport	975	36	944	124	1 198	204
Welshpool	3	1	—	—	—	—
Total	12 703	11 082	r 13 478	13 770	15 684	13 660

Source: Unpublished data, International Trade statistics.

International trade in goods and services

The level of export trade fundamentally influences a nation's prosperity. In general, the more a country exports, the more prosperous it becomes, as exports bring external income into the country which otherwise would not be available. Under the Australian Constitution, the Commonwealth Government is responsible for legislation relating to trade and commerce with other countries. The Department of Foreign Affairs and Trade is in turn responsible for developing and maintaining Australia's position as a world trading nation through international trade and commodity commitments and agreements, developing export markets, and formulating proposals for Government on Australia's international trade policy and trading objectives. It is also responsible for matters relating to the commercial development, marketing, and export of minerals and fuels.

Merchandise trade

The trade statistics in this section are compiled by the ABS from documentation submitted by exporters and importers, or their agents, to the Australian Customs Service, as required by the Customs Act. These are recorded on a general trade basis, i.e. total exports include both Australian produce and re-exports; total imports comprise goods entered directly for domestic consumption, together with goods imported into customs warehouses. State statistics for exports comprise those reported as State of origin. 'State of origin' is defined as the State in which the final stage of production or manufacture occurs. For imports, the State recorded is that in which the import entry was lodged with the Australian Customs Service.

Imports to Victoria increased by 8.7% in 1999–2000 to \$33,717m, continuing the upward trend since 1994–95 (table 14.27). Imports over the six year period 1994–95 to 1999–2000 increased by 37%. The value of exports increased 15.5%, from \$16,484m in 1998–99, to \$19,033m in 1999–2000. Victorian exports comprised 19.6% of the Australian total (\$97,275m) in 1999–2000, an increase of 19.2% over 1998–99. Victoria received 30.1% of Australia's imports (\$110,132m) in 1999–2000, a slight fall from 32% in 1998–99.

14.27 OVERSEAS TRADE, Recorded Values of Imports and Exports

	Imports	Exports
	\$m	\$m
1994–95	23 967	13 008
1995–96	24 663	15 410
1996–97	25 093	16 306
1997–98	28 851	15 931
1998–99	31 014	16 484
1999–2000	33 717	19 033

Source: Unpublished data, International Trade Statistics.

In 1999–2000, more than 50% of Victoria's imports came from four countries (table 14.28). The major import sources were the United States of America (USA) (\$7,701m), Japan (\$4,416m), and China (\$3,030m). The largest percentage increase in imports from 1998–99 to 1999–2000 were sourced in Malaysia (28.1%), followed by China (19.4%).

14.28 IMPORTS(a), Countries of Origin and Consignment

	1997-98	1998-99	1999-2000
	\$m	\$m	\$m
United States of America	7 027	6 891	7 701
Japan	3 847	4 133	4 416
China	2 154	2 537	3 030
Germany	2 116	2 341	2 402
United Kingdom	1 694	1 839	1 793
New Zealand	1 311	1 333	1 491
Malaysia	668	873	1 118
Italy	963	1 038	1 036
Taiwan	852	905	922
Indonesia	637	1 078	894
Other	7 582	8 046	8 915
Total	28 851	31 014	33 717

(a) Customs value.

Source: Unpublished data, International Trade statistics.

Victoria's major imports in 1999-2000 were machinery and equipment (\$13,768m); manufacturing goods classified chiefly by material (\$4,648m); and chemicals and related products (\$3,352m) (table 14.29). Minerals fuels, lubricants, and related materials imports increased by 53.3% over the value recorded in 1998-99.

14.29 IMPORTS, By sections of the Australian Import Classification(a)

	1997-98	1998-99	1999-2000
Description	\$m	\$m	\$m
Food and live animals chiefly for food	1 171	1 313	1 357
Beverages and tobacco	127	134	141
Crude materials, inedible (except fuels)	566	585	625
Minerals fuels, lubricants, and related materials	783	1 150	1 764
Animal and vegetable oils, fats and waxes	92	108	93
Chemicals and related products, n.e.c.	2 958	3 247	3 352
Manufacturing goods classified chiefly by material	4 311	4 470	4 648
Machinery and transport equipment	12 438	13 489	13 768
Miscellaneous manufactured articles	5 008	5 343	5 835
Commodities and transactions of merchandise trade, n.e.c.	1 397	1 175	1 133
Total(b)	28 851	31 014	33 717

Source: Unpublished data, International Trade statistics.

In 1999-2000, more than half of Victoria's exports went to six countries. The major export destinations were New Zealand (\$2,297m) and Japan (\$1,860m) (table 14.30). New Zealand replaced Japan as the largest export destination, despite an increase in exports to Japan of \$184m to \$1,860m in 1999-2000. The value of exports to China almost doubled in 1999-2000.

14.30 EXPORTS(a), Country of Destination

	1997-98	1998-99	1999-2000
	\$m	\$m	\$m
New Zealand	1 552	1 635	2 297
Japan	1 686	1 676	1 860
United States of America	1 603	1 469	1 630
Singapore	989	1 080	1 475
Republic of Korea	1 039	862	1 236
China	624	669	1 124
Hong Kong	1 073	900	945
Taiwan	657	920	835
Saudi Arabia	268	511	704
United Kingdom	453	1 169	694
Other	5 987	5 593	6 233
Total	15 931	16 484	19 033

(a) Free on board.

Source: Unpublished data, International Trade statistics.

Victoria's main exports in 1999-2000 were food and live animals chiefly for food (\$4,426m), followed by machinery and transport equipment (\$3,963m) and manufacturing goods classified chiefly by material (\$2,681m)(table 14.31). Between 1998-99 and 1999-2000, exports of machinery and transport equipment; and minerals fuels, lubricants, and related materials rose by 37% and 53% respectively.

14.31 EXPORTS, By sections of the Australian Export Classification(a)

	1997-98	1998-99	1999-2000
	\$m	\$m	\$m
Food and live animals chiefly for food	3 665	3 972	4 426
Beverages and tobacco	159	166	187
Crude materials, inedible (except fuels)	1 860	1 403	1 580
Minerals fuels, lubricants, and related materials	938	798	1 221
Animal and vegetable oils, fats and waxes	111	108	113
Chemicals and related products, n.e.c.	915	977	1 024
Manufacturing goods classified chiefly by material	2 369	2 422	2 681
Machinery and transport equipment	2 969	2 892	3 963
Miscellaneous manufactured articles	978	1 039	1 162
Commodities and transactions of merchandise trade, n.e.c.	1 968	2 707	2 677
Total(b)	15 931	16 484	19 033

(a) Export commodities subject to a confidentiality restriction are included in "Commodities and transactions of merchandise trade, n.e.c." (b) Sum of components may not add to total due to rounding.

Source: Unpublished data, International Trade statistics.

Trade in services

In 1999, Victoria recorded services credits of \$6.0b, which accounted for 22.3% of the Australian total (table 14.32). Victoria recorded services debits in excess of \$7.24b, or 25.4% of the Australian total, resulting in a net trade in services of negative \$1.24b.

The largest component of the Victorian \$619m 'other business services' credit, is architectural, engineering and other technical services (\$193m). Included in these services are transactions related to architectural design of urban and other development projects; planning and project design and supervision of dams, bridges, airports, turnkey projects, etc.; and surveying, cartography, product testing and certification, and technical inspection services.

14.32 INTERNATIONAL TRADE IN SERVICES

	Credits (\$m)		Debits (\$m)	
	Victoria(a)	Australia	Victoria(a)	Australia
Transportation	1 936	6 660	-2 516	-9 358
Travel	2 239	12 440	-2 285	-9 368
Communication(b)	292	1 275	-428	-1 562
Construction	1	21	—	—
Financial	315	732	-158	-498
Insurance	297	873	-37	-929
Computer and information	83	652	-70	-530
Royalties & licence fees	92	533	-452	-1 741
Other business services	619	2 722	-1 144	-3 172
Personal, cultural, & recreational services	112	412	-136	-747
Government services n.e.c.	13	558	—	-607
Total	5 999	26 878	-7 242	-28 512

(a) The State trade in services statistics have been compiled by splitting the Australia-wide totals using a number of assumptions and approximations. The State allocation methods for transportation, travel and communication services are considered reasonable, especially for the analysis of movements in the services. The allocation for other business services, however, is primarily based on the location of the business reporting the information as a proxy for State of origin/consumption of that service. Care should be exercised in interpreting the State data because of the unknown impact of the use of the location of the business as a proxy for State of origin/consumption. (b) Includes Other Services, n.e.c.

Source: *Australian Economic Indicators, October 2000 (Cat. no. 1350.0)*.

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