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 are covered. 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, Australasian Railway Association and surveys conducted by the ABS.

Overview of industry

Over the period from 1991–92 to 2000–01, the average annual compound growth in Victorian Gross State Product (GSP) was 4.2%. For four of the last six years, Victoria's GSP percentage growth 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)
1995–96	133 112	4.7	112.6	529 355	4.2	112.8
1996–97	137 006	2.9	115.9	548 815	3.7	116.9
1997–98	143 878	5.0	121.7	573 244	4.5	122.1
1998–99	154 588	7.4	130.8	603 447	5.3	128.6
1999–2000	160 518	3.8	135.8	629 212	4.3	134.1
2000-01	164 365	2.4	139.0	641 370	1.9	136.6

⁽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 1992–93 = 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, less taxes on production and imports, plus subsidies on production and imports.

The largest contributor to total factor income in Victoria in 2000–01 was manufacturing (16.0%) followed by property and business services (13.5%) (table 14.2). Manufacturing was the largest employing industry, providing employment for 361,100 persons. Retail trade provided employment for 360,100 persons, while the number of people employed in property and business services was 255,800.

1/10	CHIMI	MADV	ΔE	INDUSTRY

	Contribution to total factor income at current prices — 2000–01		Employment — August 2001		
	\$m	%	'000	%	
Agriculture, forestry and fishing	5 248	3.5	91.3	4.0	
Mining	2 745	1.9	*3.8	0.2	
Manufacturing	23 687	16.0	361.1	15.7	
Electricity, gas and water	4 465	3.0	20.5	0.9	
Construction	7 399	5.0	158.1	6.9	
Wholesale trade	8 080	5.5	103.2	4.5	
Retail trade	7 874	5.3	360.1	15.6	
Accommodation, cafes and restaurants	3 034	2.0	91.0	4.0	
Transport and storage	6 761	4.6	103.9	4.5	
Communication	5 669	3.8	49.2	2.1	
Finance and insurance	11 282	7.6	94.0	4.1	
Property and business services	20 036	13.5	255.8	11.1	
Government administration and defence	3 495	2.4	80.6	3.5	
Education	7 191	4.9	165.7	7.2	
Health and community services	9 287	6.3	221.2	9.6	
Cultural and recreational services	2 881	1.9	58.5	2.5	
Personal and other services	3 283	2.2	85.1	3.7	
Other	15 728	10.6			
Total(a)	148 145	100.0	2 303.1	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 were derived from the Agricultural Census or Agricultural Commodity Survey conducted at 30 June 2000 and at 31 March in previous years. 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 was 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 1999–2000 Agricultural Commodity Survey included 37,304 establishments with agricultural activity in Victoria (table 14.3). The beef cattle farming industry had the largest share of establishments with agricultural activity, accounting for 22.9%, closely followed by the dairy cattle farming industry with 21.8%. Overall, the total number of agricultural establishments increased by 1.6% from 1998–99 to 1999–2000.

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

	31 March 1998	31 March 1999	30 June 2000
	no.	no.	no.
Vegetable growing	993	1 045	1 099
Grape growing	1 933	2 086	2 233
Fruit growing(a)	1 093	1 025	1 131
Grain growing	2 657	2 763	3 181
Grain-sheep/beef cattle farming	3 400	3 472	3 380
Sheep-beef cattle farming	2 302	2 357	2 471
Sheep farming	5 107	5 136	4 521
Beef cattle farming	7 371	7 890	8 528
Dairy cattle farming	8 088	8 066	8 133
Poultry farming (meat and eggs)	338	306	305
Other livestock farming(b)	852	1 058	982
Other agriculture(c)	991	1 120	1 024
Other industries	1 563	379	316
Total all industries	36 687	36 701	37 304

⁽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, Australia (Cat. no. 7113.0).

During the last pay period in June 2000, the number of people working in farm businesses in Victoria was estimated to be 83,748 (table 14.4). Of these, 59.8% were working proprietors and partners and 29.4% were paid employees.

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
1998-98	48 661	24 106	4 534	77 301
1998-99	50 434	28 017	7 840	86 291
1999–2000	50 104	24 600	9 044	83 748

Source: ABS data available on request, Agricultural Finance Survey.

Aggregate turnover for all agricultural industries in 1999–2000 was almost \$6b, 8.5% higher than the 1998–99 figure of \$5.5b (table 14.5). Average turnover was \$219,600 per farm business, 20.1% lower than the Australian average of \$274,800.

14.5 FARM BUSINESS FINANCES, Aggregates

	1997–98	1998-99	1999–2000
	\$m	\$m	\$m
Sales from crops	1 800.2	1 978.5	2 149.8
Sales from livestock	936.3	962.8	1 131.0
Sales from livestock products	2 010.6	2 006.8	1 975.7
Rent and leasing revenue	51.5	56.4	45.8
Other miscellaneous revenue	327.6	458.7	627.4
Turnover	5 126.2	5 463.2	5 929.7

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 provides a measure of the output from farming. In 1999–2000, the gross value of agricultural production increased by 8.0% over the previous year to \$6.8b (table 14.6). The gross value of crops increased by 17.2%, livestock slaughtering and other disposals increased by 3.7%, and livestock products fell by 0.1%.

14.6 GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED(a)

	Crops (incl. pastures and grasses	Livestock slaughterings and other disposals	Livestock products	Total
	\$m	\$m	\$m	\$m_
1995	1 770.6	1 375.4	2 001.4	5 147.4
1996	2 764.2	1 370.6	2 196.1	6 330.9
1997	2 527.4	1 419.6	2 115.5	6 062.5
1998	2 450.9	1 554.1	2 128.2	6 133.2
1999	2 556.7	1 684.5	2 070.2	6 311.4
2000	2 997.2	1 747.6	2 068.5	6 813.4

⁽a) Prior to 2000 the reference period for crops was year ended 31 March; all other reference periods are year ended 30 June.

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

Wheat was Victoria's largest crop in terms of area and production. In 1999–2000, the area sown increased by 30.1% and production increased by 80.7% to 2.6 million tonnes over the previous year (table 14.7). The production of barley in Victoria increased by 36.7% during the same period.

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 decreased by 35.4% between 1998–99 and 1999–2000.

14.7 CROPS FOR GRAIN

	Wheat				Barley				Oats
	Area	Production	Average yield per hectare	Area	Production	Average yield per hectare	Area	Production	Average yield per hectare
	'000 ha	'000 tonnes	tonnes	'000 ha	'000 tonnes	tonnes	'000 ha	'000 tonnes	tonnes
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
1999–2000	1 235	2 642	2.1	585	1 189	2.0	138	296	2.1

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

Excluding grapes, the largest tonnage of fruit crops produced in Victoria, during 1999–2000, were pears (excluding nashi) followed by apples and oranges (table 14.8). Pear production decreased by 0.4% to 136,084 tonnes from 1998–99, apple production decreased by 8.5% to 98,150 tonnes, but orange production increased by 16.9% to 84,222 tonnes.

Grape growing, particularly for winemaking, is extensive throughout Victoria, with most vines being grown under irrigation. Grape production for winemaking increased by 8.7% in 1999–2000 to 301,908 tonnes and grape production for drying and table use increased by 5.7% to 147,125 tonnes.

The main vegetables produced were potatoes and tomatoes (table 14.8). Victorian potato production in 1999–2000 was 294,656 tonnes, a decrease of 7.7% on 1998–99 and tomato production was 249,274, an increase of 10.7%.

14.8 HORTICULTURAL PRODUCTION, Selected Items

		,	
	1998	1999	2000
	'000 tonnes	'000 tonnes	'000 tonnes
Fruit			
Pears (excluding Nashi)	131.4	136.7	136.1
Apples	94.3	107.3	98.2
Oranges	82.6	72.1	84.2
Peaches	41.0	39.8	56.8
Nectarines	7.0	8.8	16.1
Apricots	6.2	*9.6	*10.2
Plums and prunes	4.7	5.8	7.1
Lemons and limes	5.7	4.0	7.0
Mandarins	4.7	*7.1	6.3
Grapes			
Winemaking	214.5	277.9	301.9
Drying and table(a)	182.5	139.2	147.1
Vegetables			
Potatoes	295.1	319.2	294.7
Tomatoes	192.4	225.2	249.3
Carrots	95.6	96.5	122.0
Lettuces	42.8	40.2	48.6
Cabbages	21.2	18.0	28.4
Cauliflowers	16.5	16.3	21.8
Broccoli	22.4	21.4	21.0
Onions, white and brown	18.1	15.6	20.5
Celery	21.5	21.8	13.7
Mushrooms	15.1	15.0	13.1

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

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

Meat cattle numbers in Victoria increased by 8.8% between 1999 and 2000 (table 14.9). Sheep and lamb numbers increased by 8.0% in the same period. The number of chickens for meat decreased by more than 4.0% in each of the last two years.

14.9 SELECTED LIVESTOCK NUMBERS(a)

		Cattle				
	Milk Cattle	Meat cattle	Sheep and lambs	Pigs	Chickens for meat	Chickens for egg production
	'000	'000	'000	'000	'000	'000
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	1 682	2 714	21 974	459	12 804	3 009
1998	1 836	2 306	21 122	518	16 531	3 937
1999	1 945	2 180	20 994	521	15 732	4 028
2000	1 893	2 371	22 664	523	15 096	3 201

⁽a) The reference period for 2000 is year ended 30 June; for all previous years the reference period is year ended 31 March. Source: Agriculture, Australia (Cat. no. 7113.0).

The Victorian environment is very favourable for beef production with cattle able to graze on pasture throughout the year. In 2000–01, there were 347,920 tonnes of beef produced, 1.0% less than the previous year (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 2000–01, mutton production was 81,965 tonnes, an increase of 6.8% on the previous year's figure.

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 155,540 tonnes of lamb in 2000–01. Whole milk intake by Victorian milk manufacturers accounted for 64.2% of the Australian total for 2000–01.

14.10 LIVESTOCK PRODUCTS

	Beef	Veal	Mutton	Lamb	Pig meat	Chicken meat	Wool	Whole milk intake by factories
	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	ML
1995–96	348.6	12.0	50.9	110.2	83.1	127.7	128.5	5 482
1996-97	373.8	14.3	55.5	111.4	99.2	121.4	145.2	5 622
1997–98	389.1	15.6	63.5	120.0	112.5	148.3	167.3	5 866
1998–99	398.8	14.2	61.6	128.4	114.6	153.6	170.8	6 414
1999-2000	351.3	13.4	76.7	140.2	106.7	170.1	169.6	6 870
2000-01	347.9	11.8	82.0	155.5	79.0	175.8	n.a.	6 777

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

A wide range of agricultural products are exported from Victoria. In terms of value, the most significant of these in 1999–2000 were wheat and greasy wool (table 14.11).

14.11 EXPORTS OF SELECTED COMMODITIES — 1999–2000

		Quantity	Value
	Unit	'000	\$m
Canola	tonnes	360.1	119.0
Rice	tonnes	12.5	7.5
Wheat	tonnes	1 687.5	346.7
Grapes (fresh or dried)	tonnes	31.8	71.0
Pears (excluding Nashi)	tonnes	13.8	15.1
Apples	tonnes	2.2	2.6
Oranges	tonnes	40.4	47.7
Potatoes	tonnes	6.1	2.7
Cauliflowers	tonnes	1.4	1.9
Live cattle	no	47.1	30.3
Live sheep	no	562.9	18.1
Greasy wool	tonnes	160.1	629.2

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

Aquaculture and fisheries

In 2000–01, the total fisheries catch landed commercially in Victoria was 9,666 tonnes, 4.7% more than the previous year (table 14.12). The catch was valued at \$130.2m, 19.9% higher than in 1999–2000.

The most valuable parts of the catch were abalone (56.3% of the total value) and southern rock lobster (16.4%). Aquaculture growout production amounted to 15.0% of the total catch and total scale fish landed amounted to 7.6%.

14.12 ANNUAL FISHERIES CATCH, Landed Commercially

	Catch landings,			Value(b)
_	1999–2000	2000–01	1999–2000	2000-01
	tonnes	tonnes	\$'000	\$'000
Scale fish	torines	torines	\$ 000	\$ 000
Australian salmon	808	442	795	492
Bream	210	183	1 401	1 271
Carp, European	1 111	644	951	538
Eel	131	155	1 387	1 643
Garfish	124	124	496	501
Pilchard	200	287	334	654
Snapper	59	80	413	539
Whiting	225	162	2 188	1 489
Other scale fish	860	1 158	2 433	2 725
Total	3 728	3 235	10 398	9 852
Crustaceans				
Prawn	122	166	1 564	2 136
Rock lobster,	122	100	1001	2 100
southern	574	584	18 346	21 349
Other crustaceans	133	145	1 168	1 207
Total	829	895	21 078	24 692
Shellfish				
Abalone	1 417	1 409	57 716	73 331
Scallop,				
commercial	292	809	584	1 618
Other shellfish	20	11	45	24
Total	1 729	2 229	58 345	74 973
Other classes(c)	279	253	1 178	1 119
Aquaculture(d)	2 666	3 054	17 631	19 590
Total	9 231	9 666	108 630	130 226

⁽a) This information is based on mandatory fishing returns submitted by commercial fishers. Excludes landings from Commonwealth waters by the South East Fishery and Southern Shark Fishery. (b) Value is estimated from the Melbourne Fish Market auction prices. (c) Includes cephalopods, echinoderms and sharks. (d) Growout production, excludes hatchery production.

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. The total value of construction work done in 2000–01 was slightly over \$13.5b, a 3.3% decrease on the 1999–2000 figure (table 14.13). Decreases were recorded in the value of work done on residential building (6.0%) and engineering construction work done (6.1%), while non-residential building work done increased by 5.1%. Residential building was the largest component of the construction industry, comprising 49.3% of the value of work done.

14.13 VALUE OF CONSTRUCTION WORK DONE

	1995–96	1996–97	1997–98	1998-99	1999–2000	2000-01
	\$m	\$m	\$m	\$m	\$m	\$m
Residential building	3 261.2	3 385.5	4 480.1	5 312.2	7 089.4	6 661.3
Non-residential building	2 870.0	3 252.4	2 960.4	3 571.1	3 430.7	3 605.8
Engineering construction	2 352.6	2 472.2	3 136.8	3 884.9	3 451.0	3 242.0
Total	8 483.8	9 110.1	10 577.3	12 768.2	13 971.1	13 509.1

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

During 2000–01, the value of non-residential building work done in Victoria was \$3,605.8m (table 14.14), accounting for 26.7% of all construction work done in the State. In terms of building types, shops (\$681.8m), education (\$623.4m) and offices (\$614.6m) comprised just over half of the value of non-residential building done.

14.14 VALUE OF NON-RESIDENTIAL BUILDING WORK DONE

	1995–96	1996–97	1997–98	1998–99	1999–2000	2000-01
Type of building	\$m	\$m	\$m	\$m	\$m	\$m_
Hotels, guest houses, etc.	158.2	249.8	201.0	239.0	221.0	124.3
Shops	487.0	438.1	440.1	632.1	588.5	681.8
Factories	240.4	363.2	299.0	270.0	327.4	304.4
Offices	456.4	470.9	423.2	513.4	469.0	614.6
Other business premises	383.8	423.2	526.8	565.6	483.8	463.8
Educational	341.3	296.6	351.5	470.9	483.3	623.4
Religious	11.2	12.6	19.4	16.9	31.8	17.1
Health	138.2	202.6	290.3	275.0	294.2	292.6
Entertainment and recreational	515.2	570.7	207.6	389.8	399.8	301.0
Miscellaneous	138.2	224.6	201.7	198.3	131.9	182.8
Total(a)	2 870.0	3 252.4	2 960.4	3 571.1	3 430.7	3 605.8

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

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

Engineering construction

In 2000–01, engineering construction work worth \$3,242.0m was done in Victoria (table 14.15). Public sector activity has been close to one-quarter of this work done since 1998–99, after declining from 47.2% in 1995–96.

The largest engineering construction sectors were telecommunications (26.2% of the total), roads, highways and subdivisions (23.4%), and electricity generation, transmission and distribution (23.0%).

14.13 VALUE OF ENGINEERING CONSTRUCTION WORK DONE								
	1995–96	1996–97	1997–98	1998–99	1999–2000	2000–01		
	\$m	\$m	\$m	\$m	\$m	\$m		
Roads, highways and subdvisions	770.9	831.6	1 261.1	1 514.7	882.8	758.6		
Bridges	31.2	24.8	18.3	77.5	151.3	49.3		
Railways	86.1	87.8	151.4	93.8	83.8	44.8		
Harbours	3.5	31.4	15.5	14.2	9.4	38.0		
Water storage and supply	59.0	86.2	76.2	94.5	163.6	75.0		
Sewerage and drainage	98.5	78.1	88.2	81.0	231.9	148.9		
Electricity generation, transmission and distribution	295.6	270.5	371.9	496.2	663.3	744.7		
Pipelines	88.0	39.2	82.4	189.4	151.9	88.3		
Recreation	82.8	119.8	143.3	160.1	179.2	223.6		
Telecommunications	656.4	707.2	676.5	764.1	759.0	849.8		
Oil, gas, coal and other minerals	64.7	78.3	160.4	262.1	67.1	112.6		
Other heavy industry	114.2	102.0	69.3	126.1	72.2	75.3		
Other	1.7	15.2	22.5	11.1	35.4	33.3		
Total(a)	2 352.6	2 472.2	3 136.8	3 884.9	3 451.0	3 242.0		
Total of all construction								
Private sector	1 242.0	1 551.3	2 242.7	2 906.5	2 625.5	2 443.5		
Public sector	1 110.6	920.9	894.2	978.4	825.4	798.5		

14.15 VALUE OF ENGINEERING CONSTRUCTION WORK DONE

Source: ABS data available on request, 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. As mentioned previously, manufacturing in Victoria accounted for 16.0% (\$23,687m) of total factor income in 2000–01 (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 \$74,312m for 1999–2000, representing almost one-third of total Australian manufacturing turnover (table 14.16). Although the machinery and equipment industry recorded the largest turnover in 1999–2000 (\$17,958.7m), in terms of turnover, the industries that contributed most to national manufacturing turnover were textile, clothing, footwear and leather manufacturing (48.5%), machinery and equipment manufacturing (41.0%) and petroleum, coal, chemical and associated product manufacturing (35.4%).

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

14.16 TURNOVER, By Manufacturing Industry Subdivision — 1999–2000

Australia	Victoria	Victoria as
\$m	\$m	a percentage of Australia
51 237.1	16 050.9	31.3
9 161.0	4 441.9	48.5
13 635.1	3 876.8	28.4
17 212.0	5 388.6	31.3
35 957.5	12 736.4	35.4
10 484.2	2 550.4	24.3
40 595.5	9 154.6	22.6
43 784.4	17 958.7	41.0
6 884.4	2 153.8	31.3
228 951.2	74 311.9	32.5
	\$m 51 237.1 9 161.0 13 635.1 17 212.0 35 957.5 10 484.2 40 595.5 43 784.4 6 884.4	\$m \$m 51 237.1 16 050.9 9 161.0 4 441.9 13 635.1 3 876.8 17 212.0 5 388.6 35 957.5 12 736.4 10 484.2 2 550.4 40 595.5 9 154.6 43 784.4 17 958.7 6 884.4 2 153.8

(a) Sum of components may not add to total due to rounding. Source: Manufacturing Industry, Australia (Cat. no. 8221.0).

The Victorian manufacturing industry employed 292,100 persons at the end of June 2000 (table 14.17) and paid \$11,679.3m in wages and salaries in 1999–2000. This represents an average of \$39,984 paid in annual wages and salaries per person employed at the end of June 2000, an increase of 3.1% on the \$38,792 recorded 12 months earlier. Employment in the Victorian manufacturing industry decreased by 2.0% or 6,000 persons between June 1999 and June 2000. Over the five years from June 1995 to June 2000, employment fell by 3.0% or 9,100 persons.

Between June 1999 and June 2000 employment decreased in seven of the nine manufacturing industry subdivisions. The largest decreases were other manufacturing (decreasing by 19.7% or 3,600 persons); printing, publishing and recorded media manufacturing (4.5% or 1,400 persons); and metal product manufacturing (3.1% or 1,200 persons).

14.17 EMPLOYMENT(a), By Manufacturing Industry Subdivision

	1994–95	1995–96	1996–97	1997–98	1998–99	1999–2000
ANZSIC Subdivision	'000	'000	'000	'000	'000	'000
Food, beverage and tobacco	46.4	44.0	46.3	48.4	46.9	46.8
Textile, clothing, footwear and leather	36.8	37.5	36.2	37.6	33.7	32.8
Wood and paper product	17.8	19.9	17.3	17.5	17.6	17.3
Printing, publishing and recorded media	29.3	28.2	29.2	31.0	31.3	29.9
Petroleum, coal, chemical and associated product	36.3	35.7	36.0	35.9	35.8	37.0
nonmetallic mineral product	9.6	9.7	9.2	8.9	9.4	9.0
Metal product	37.3	38.7	38.8	40.0	38.1	36.9
Machinery and equipment	70.4	73.8	73.0	75.8	66.9	67.6
Other manufacturing	17.3	16.6	17.9	18.7	18.3	14.7
Total(b)	301.2	303.9	303.9	313.9	298.1	292.1

(a) Includes working proprietors. Data for the periods 1994–95 and 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 1999–2000, Victorian manufacturers directly exported \$10,372.8m of the goods that they produced (table 14.18). This represented a 22.7% increase on the \$8,451.9m recorded for 1998–99. Manufacturers' direct exports increased in six of the nine industry subdivisions during this period, particularly food, beverage and tobacco (up by \$1,110.7m or 46.1%) and machinery and equipment manufacturing (\$568.3m or 20.2%). In contrast, the largest decrease was recorded in nonmetallic product manufacturing, which fell by \$42.0m or 44.0%.

14.18 EXPORTS, By Manufacturing Industry Subdivision(a)

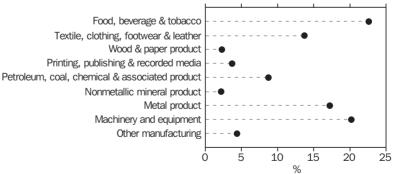
	1997–98	1998–99	1999–2000
ANZSIC Subdivision	\$m	\$m	\$m_
Food, beverage and tobacco	2 666.7	2 408.1	3 518.8
Textile, clothing, footwear and leather	590.4	508.7	561.9
Wood and paper product	141.3	85.4	84.8
Printing, publishing and recorded media	98.6	116.3	145.4
Petroleum, coal, chemical and			
associated product	946.6	1 069.9	1 048.0
Non-metallic mineral product	57.4	95.4	53.4
Metal product	1 462.3	1 315.8	1 495.8
Machinery and equipment	3 400.1	2 806.9	3 375.2
Other manufacturing	63.4	45.3	89.6
Total(b)	9 426.8	8 451.9	10 372.8

⁽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 food, beverage and tobacco industry in Victoria, 22.6% were exported (graph 14.19). This contrasts with nonmetallic mineral products manufactured, of which 2.2% were exported.

14.19 GOODS EXPORTED AS A PERCENTAGE OF TOTAL GOODS PRODUCED, Manufacturing Establishments — 1999–2000



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 (i.e. crude petroleum); gases (i.e. natural gas); and 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 covering 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 1999–2000 was \$3,642.3m (table 14.20), an increase of 46.1% from 1998–99. The lower turnover in 1998–99 was mainly a result of decreased activity in the oil and gas extraction industry. Reduced output from Bass Strait as a result of the refinery explosion at Longford in eastern Victoria, along with record low prices, were the main factors.

Data gathered in the 1999–2000 Mining Collection (a combination of censuses and surveys) for employment may exclude activities other than the operation of the mine site. Total mining employment in Victoria increased by 5.7% to 2,412 persons in 1999–2000, comprising 2,109 male and 303 female employees. Wages and salaries paid were \$161.3m, a decrease of 4.9% on 1998–99. This represents an average of \$66,874 paid in annual wages and salaries per person employed at the end of June 2000.

14.20 MINING, Summary of Operations

	Establishments at June 30	Employment(a)	Turnover	Wages and salaries(b)
	no.	no.	\$m	\$m
1994-95(c)(d)	25	2 036	3 434.6	139.5
1995-96(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	28	2 281	2 493.0	169.6
1999–2000	22	2 412	3 642.3	161.3

(a) At 30 June, including working proprietors. (b) Excludes drawings of working proprietors. (c) The 1994–95 (truncated) census differs from other mining censuses in that the construction materials and other nonmetallic 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).

A significant contributor to Victorian mineral production in 1999–2000 was brown coal, with a value of \$538.9m (table 14.21). Gold production in the same year was valued at \$71.9m and the average value of a kilogram of gold produced was just under \$15,000. The total value of construction materials produced was \$303.3m, the main types were basalt (\$126.8m), sand for concrete (\$48.7m), and granite (\$44.8m).

· /			
	Unit	Qty	Value \$'000
Oil and gas			
Crude oil-stabilised (includes condensate)	megalitres	11 604	n.a.
Natural gas	gigalitres	5 558	n.a.
Brown coal	kt	67 363	538 904
Gold	kilograms	4 791	71 861
Construction materials			
Gravel	kt	2 479	15 482
Sand for concrete	kt	4 977	48 691
Basalt(a)	kt	13 074	126 828
Granite	kt	3 422	44 846

14.21 MINERAL PRODUCTION, Selected Items — 1999–2000

Source: Mining Operations, Australia (Cat. no. 8415.0).

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, construction, and electricity, gas and water supply). In terms of the Australian and New Zealand Standard Industrial Classification (ANZSIC) (Cat. no. 1292.0), the service industries cover wholesale and retail trade; accommodation, cafes and restaurants; transport and storage; communication services; finance and insurance; property and business services; education; health and community services; cultural and recreational services; and personal and other services.

The Service industries sector is the largest component of the Victorian economy in terms of employment and total contribution to total factor income (see table 14.2) and constituted approximately 60% of Victoria's \$148.1b total factor income in 2000–01.

Employment growth from 1998–99 to 1999–2000, has occurred in the property and business services (32.8%), wholesale (10.3%), finance and insurance (7.4%), retail (5.2%), and health and community services sectors (2.6%) (table 14.22). In contrast, accommodation, cafes and restaurants declined by 8.5% over the same period.

14.22 SERVICE INDUSTRIES, Employment and Businesses(a)

		1997–98		1998–99	1999–2000		
-	Persons employed	Businesses	Persons employed	Businesses	Persons employed	Businesses	
	'000	'000	'000	'000	'000	'000	
Wholesale trade	104.8	14.9	119.7	15.1	132.0	16.7	
Retail trade	237.8	40.0	240.4	38.8	252.9	40.5	
Accommodation, cafes and restaurants	77.2	7.7	79.2	6.9	72.5	7.4	
Transport and storage	64.2	16.4	63.6	16.4	63.6	16.2	
Finance and insurance	68.2	3.9	73.4	5.2	78.8	6.7	
Property and business services	188.2	49.4	221.9	47.0	294.7	53.9	
Education	48.6	5.6	52.8	6.6	52.7	7.3	
Health and community services	108.3	18.7	106.3	16.7	109.1	17.0	
Cultural and recreational services	57.4	10.5	57.2	10.4	41.6	10.7	
Personal and other services	41.6	19.9	42.1	21.3	40.1	18.4	

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

Source: ABS data available on request, Small Business in Australia.

⁽a) Not broken down by end use.

Retail trade

The retail industry is a major contributor to the Victorian economy, providing employment for 252,900 persons in 1999–2000. Small business (those businesses with less than 20 employees) represented 97.0% of all Victorian retail businesses and employed 38.7% of all employees.

Retail turnover in Victoria increased by 2.9% from 1999–2000 to 2000–01 to \$36.9b (table 14.23). The industry group with the largest increase in the value of turnover was food retailing, increasing by \$847.3m or 5.8%.

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

	1995–96	1996–97	1997–98	1998–99	1999–2000	2000-01
	\$m	\$m	\$m	\$m	\$m	\$m
Food	11 780.7	12 453.6	12 933.8	13 932.6	14 648.8	15 496.1
Department stores	2 680.4	2 724.0	2 913.6	3 084.7	3 297.1	3 282.1
Clothing and soft goods	1 808.9	1 773.1	1 979.2	2 399.3	2 841.4	2 654.7
Household goods	3 753.2	4 062.4	4 036.7	4 012.1	4 394.3	4 453.2
Recreational goods	1 573.0	1 623.1	1 702.9	1 831.3	1 717.3	1 612.5
Other retailing	2 647.8	2 835.7	3 162.1	3 568.2	3 803.8	4 192.2
Hospitality and services	3 566.3	3 524.9	3 688.1	4 346.1	5 169.6	5 239.8
Total(b)	27 810.4	28 996.2	30 416.0	33 174.4	35 872.4	36 930.3

⁽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 2001, Victoria had 705 licensed hotels, motels, guest houses and serviced apartments. Total takings from accommodation for the year 2000–01 was \$868.7m, compared to \$774.1m in 1999–2000 (table 14.24). Motels and guest houses comprised 70.1% of all accommodation establishments in June 2001, and accounted for 30.2% of total takings. Licensed hotels with facilities comprised 18.2% of the accommodation establishments and accounted for \$443.1m, or 51.0% of total takings.

14.24	TOURIST	ACCOMMODATION (a	ı)

	Unit	1998–99	1999–2000	2000-01			
LICENSED HOTELS WITH FACILITIES							
Establishments (June quarter)	no.	121	125	128			
Guest rooms (June quarter)	no.	10 766	10 906	12 165			
Room nights occupied	'000	2 477	2 638	2 824			
Room occupancy rate	%	65.7	66.3	66.3			
Persons employed (June quarter)	no.	14 406	13 957	14 659			
Takings from accommodation	\$'000	356 050	378 545	443 090			
MOTELS AND (GUEST HOL	JSES WITH FA	ACILITIES				
Establishments (June quarter)	no.	507	504	494			
Guest rooms (June quarter)	no.	16 214	16 306	15 501			
Room nights occupied	'000	2 983	2 995	2 782			
Room occupancy rate	%	50.5	50.4	49.0			
Persons employed (June quarter)	no.	5 822	5 879	5 606			
Takings from accommodation	\$'000	252 577	257 981	262 379			
SEF	RVICED APA	ARTMENTS					
Establishments (June quarter)	no.	70	76	83			
Guest rooms (June quarter)	no.	3 786	4 172	4 629			
Room nights occupied	'000	833	1 031	1 109			
Room occupancy rate	%	67.2	68.9	69.6			
Persons employed (June quarter)	no.	1 497	1 750	1 743			
Takings from accommodation	\$'000	109 249	137 531	163 182			
TOT	AL ESTABL	ISHMENTS					
Establishments (June quarter)	no.	698	705	705			
Guest rooms (June quarter)	no.	30 766	31 384	32 295			
Room nights occupied	'000	6 293	6 664	6 714			
Room occupancy rate	%	57.6	58.4	58.2			
Persons employed (June quarter)	no.	21 725	21 586	22 008			
Takings from accommodation	\$'000	717 876	774 057	868 650			

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

Source: ABS data available on request, Tourism Indicators.

Transport

The number of urban train passengers increased by 8.0% from 1998–99 to 1999–2000 and revenue also increased by 8.0% (table 14.25). Urban tram and light rail passengers increased by 8.6% and revenue was up by 8.7%. Non-urban passengers increased by 4.7% and estimated non–urban revenue was up by 6.1%.

14.25 RAIL PASSENGER OPERATIONS(a)

		Passengers		Revenue	
	1998–99	1999–2000	1998–99	1999–2000	
	'000	'000	\$000	\$000	
Urban train	115 000	124 200	139 834	151 000	
Urban tram/light rail	118 000	128 200	63 587	69 100	
Non-urban train(b)	6 400	6 700	33 000	35 000	
Total	239 400	259 100	236 421	255 100	

⁽a) Excludes West Coast Railway. (b) 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 9.4 million tonnes and discharging 7.1 million tonnes in 2000–01 (table 14.26). In total, 17.8 million tonnes were loaded in Victorian sea ports in 2000–01, a 13.8% increase on the 1999–2000 figure. The amount of cargo discharged in Victorian ports showed a 6.1% decrease, from 13.7 million tonnes to 12.8 million tonnes in the same period.

14.26 TONNAGE LOADED AND DISCHARGED, By Port

		1998–99		1999–2000		2000-01
	Loaded	Discharged	Loaded	Discharged	Loaded	Discharged
	'000 tonnes					
Melbourne	7 106	8 426	7 950	8 239	9 363	7 129
Geelong	3 108	4 816	3 925	4 901	4 921	5 043
Portland	2 320	404	2 611	316	2 856	433
Westernport	944	124	1 197	204	706	222
Total	13 478	13 770	15 683	13 660	17 846	12 827

Source: ABS data available on request, 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 8.2% in 2000–01 to \$36,485m, continuing the upward trend since 1995–96 (table 14.27). Imports over the six year period 1995–96 to 2000–01 increased by 47.9%. Exports from Victoria increased 18.3% to \$22,510m in 2000–01. Victorian exports comprised 18.8% of the Australian total (\$119,556m) in 2000–01 and Victorian imports comprised 30.9% of the Australian total (\$118,243m).

14.27	OVERSEAS TR	ADE. Recorded	Values of	Imports and	Exports

	Imports	Exports
	\$m	\$m
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	19 034
2000–01	36 485	22 510

Source: ABS data available on request, International Trade Statistics.

In 2000–01, more than half of Victoria's imports came from four countries (table 14.28). These were the United States of America (USA) (\$7,377m), Japan (\$4,828m), China (\$3,890m), and Germany (\$2,585m). Of the main countries of origin, the largest percentage increase in imports from 1999–2000 to 2000–01 were sourced in China (28.4%), followed by the Republic of Korea (22.4%).

14.28 IMPORTS(a), Country of Origin

	(,,					
	1998–99	1999–2000	2000-01			
	\$m	\$m	\$m_			
United States of America	6 891	7 701	7 377			
Japan	4 133	4 416	4 828			
China	2 537	3 029	3 890			
Germany	2 341	2 402	2 585			
United Kingdom	1 839	1 793	1 842			
New Zealand	1 333	1 491	1 535			
Republic of Korea	847	870	1 065			
Indonesia	1 078	893	1 049			
Malaysia	873	1 118	1 037			
Italy	1 038	1 036	1 028			
Other	8 104	8 968	10 249			
Total	31 014	33 717	36 485			

⁽a) Customs value.

Source: ABS data available on request, International Trade Statistics.

Victoria's major category of imports in 2000–01 was machinery and equipment (\$15,435m), up 4.5% on 1999–2000 (table 14.29). Increases were also recorded for every other category of imports in 2000–01.

14.29 IMPORTS OF MAJOR COMMODITIES(a)

	1998–99	1999–2000	2000-01
Commodity description	\$m	\$m	\$m
Food and live animals chiefly for food	1 313	1 357	1 430
Beverages and tobacco	134	141	211
Crude materials, inedible (except fuels)	585	625	677
Minerals fuels, lubricants, and related materials	1 150	1 764	2 309
Animal and vegetable oils, fats and waxes	108	93	96
Chemicals and related products, n.e.c.	3 247	3 352	3 855
Manufacturing goods classified chiefly by material	4 470	4 648	4 773
Machinery and transport equipment	13 489	14 768	15 435
Miscellaneous manufactured articles	5 343	5 835	6 205
Commodities and transactions of merchandise trade, n.e.c.	1 175	1 133	1 494
Total(b)	31 014	33 717	36 485

⁽a) Import 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: ABS data available on request, International Trade Statistics.

In 2000–01, more than half of Victoria's exports went to seven countries (table 14.30). The major export destinations were Japan (\$2,248m) and the United States of America (\$2,073m). New Zealand slipped to third major export destination from first in 1999–2000, decreasing 18.3% to \$1,876m in 2000–01. The value of exports to China continued to increase strongly to \$1,430m in 2000–01, more than double the \$669m recorded in 1998–1999.

14.30 EXPORTS(a), Country of Destination

	1998–99	1999–2000	2000-01
	\$m	\$m	\$m
Japan	1 676	1 860	2 248
United States of America	1 469	1 630	2 073
New Zealand	1 635	2 297	1 876
Singapore	1 080	1 475	1 518
China	669	1 124	1 430
Republic of Korea	862	1 236	1 308
Saudi Arabia	511	704	1 206
Hong Kong (SAR of China)	900	945	1 062
Taiwan	920	835	816
United Kingdom	1 169	694	696
Other	5 593	6 234	8 277
Total	16 484	19 034	22 510

⁽a) Free on board.

Source: ABS data available on request, International Trade Statistics.

Victoria's main exports in 2000–01 were food and live animals chiefly for food (\$5,772m) and machinery and transport equipment (\$4,083m) (table 14.31). Between 1999–2000 and 2000–01, exports of inedible crude materials other than fuels increased by 37.0%, and food and live animals chiefly for food increased by 30.4%.

14 31	FYPORTS	OF	MAIOR	COMMODITIES(a)	
T4.3T	EXPURIS	OF	MAJOR	COMMODITIES (a)	

	1998–99	1999–2000	2000-01
Commodity description	\$m	\$m	\$m
Food and live animals chiefly for food	3 972	4 426	5 772
Beverages and tobacco	166	187	228
Crude materials, inedible (except fuels)	1 403	1 580	2 164
Minerals fuels, lubricants, and related materials	798	1 221	1 393
Animal and vegetable oils, fats and waxes	108	113	108
Chemicals and related products, n.e.c.	977	1 024	1 258
Manufacturing goods classified chiefly by material	2 422	2 681	2 901
Machinery and transport equipment	2 892	3 963	4 083
Miscellaneous manufactured articles	1 039	1 162	1 403
Commodities and transactions of merchandise trade, n.e.c.	2 709	2 677	3 200
_Total(b)	16 484	19 034	22 510

⁽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: ABS data available on request, International Trade Statistics.

Trade in services

In 2000, Victoria recorded service credits of \$6,459m, and service debits of -\$7,988m, resulting in a net trade in services of -\$1.5 billion (table 14.32).

The largest service debits were recorded in the transportation sector (-\$815m) and other business services sector (-\$425m), which includes a large component of service debits for operational leasing services (-\$673m).

14.32 INTERNATIONAL TRADE IN SERVICES — 2000

		Credits (\$m)		Debits (\$m)
	Victoria(a)	Australia	Victoria(a)	Australia
Transportation	2 090	7 459	-2 905	-10 860
Travel	2 382	14 490	-2 470	-10 390
Communication(b)	342	1 533	-498	-1 839
Construction	1	34	_	_
Financial	321	747	-184	-527
Insurance	258	750	-36	-902
Computer and information	106	733	-91	-428
Royalties & licence fees	124	589	-458	-1 716
Other business services	731	2 991	-1 156	-2 924
Personal, cultural, & recreational services	100	1 461	-190	-811
Government services n.e.c.	14	822	_	-650
Total	6 469	31 609	-7 988	-31 047

⁽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: International Trade in Goods and Services, Australia (Cat. no. 5368.0).

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