



Year Book Australia

Manufacturing

Article - Australia's automotive industry

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The automotive industry is one of Australia's key manufacturing sectors and an important source of employment, and research and development. The increasing exposure of the Australian automotive industry to international competition has seen it develop to where it is now competing successfully in global markets. There is also a strong inter-dependence between the car makers and their suppliers, and strong linkages with the rest of the economy.

The Australian automotive industry consists of four motor vehicle producers - Ford, Holden, Mitsubishi and Toyota - which produce large passenger motor vehicles (PMV) and variants, light commercial vehicles and sports utility vehicles. There are also over 200 motor vehicle component manufacturers. The four motor vehicle producers are based in Victoria and South Australia.

Domestically produced vehicles account for over 99% of large PMV domestic sales. Other segments of the domestic motor vehicle market are less dominated by domestic producers, who account for 35% of total PMV domestic sales, and 22% of all vehicle domestic sales. The Australian market has shown strong demand for vehicles, with total sales of all vehicles reaching a record 909,811 units in 2003. ([footnote 1](#))

Australian vehicle production is supported by a supply chain with the capacity to design and manufacture the full range of parts and components. Australia has sophisticated production capacity in areas such as engines, panels, braking and clutch systems, suspension systems, exhausts, transmissions and rear axles, air conditioning, occupant safety, vehicle instrumentation and electronics, lighting and mirrors, and wheels and tyres. There are over 200 automobile component firms, around 500 small firms providing tooling to vehicle and component producers, and a number of other firms that provide specialist automobile services.

Businesses engaged in component production are highly internationalised. Many firms are wholly or partially foreign owned and components are exported to many countries. Major exports of Australian components include:

- engines to Republic of (South) Korea
- braking systems to the United States of America
- mirrors to North America and Japan

- anti-theft systems worldwide
- propeller shafts to the United States of America
- heating, ventilation and air conditioning products to North America and China.

There were 13.2 million motor vehicles, including motor cycles, registered in Australia at 31 March 2003. [\(footnote 2\)](#) The average age of the total Australian fleet was 10.4 years, with 64% manufactured after 1990. The average age of PMVs was 10.1 years, with 66% of these vehicles manufactured after 1990.

Petrol is the predominant fuel source, powering over 88% of the Australian vehicle fleet. This is followed by diesel (9.3%) and LPG/Dual fuel/other (2.5%). Around 95% of all registered PMVs are powered by petrol, while nearly 86% of all rigid and articulated trucks are diesel-powered. Nearly 27% of all registered light commercial vehicles are powered by LPG/Dual fuel/other. [\(footnote 3\)](#)

Automotive policy

Over the years the Australian Government has played a key role in establishing a viable automotive industry. Several policy measures have been implemented with a view to assisting the industry to operate efficiently and competitively in both domestic and international markets.

From 1965 specification of minimum levels of local content, import quotas and considerable tariffs on imported vehicles were used to ensure Australian vehicle manufacturers were protected to a large degree from external competition.

High levels of protection proved ineffective in promoting the competitiveness of the industry. The domestic market was small in international terms, with short production runs and lack of scale economies. Consequently, production costs of domestically produced parts were high in comparison with their imported counterparts. Higher levels of Australian content in vehicles resulted in them being less competitive against imports. By the early-1980s it was recognised that protectionist policies were counterproductive to the industry and they were phased out in recognition of the increasing importance of producers attaining competitiveness from a global perspective. Import quotas were phased down from 20% in 1984 and abolished completely in 1988. Tariffs, which peaked at 57% in 1984, were reduced by 2.5 percentage points per year from 1990 until they reached 15% in 2000.

The Automotive Competitiveness and Investment Scheme (ACIS) commenced in 2001. It is designed to provide transitional assistance to encourage competitive investment and innovation in the Australian automotive industry in the context of trade liberalisation. ACIS is expected to deliver an estimated \$2.8b to the Australian automotive industry over the period 2001-2005.

On 13 December 2002 the Government announced its post-2005 assistance package for the Australian automotive industry. This package will deliver an estimated \$4.2b to the industry through ACIS over the period 2006-2015. This assistance package was timed to coincide with, and help the automotive industry adjust to, a decline in the general automotive tariff from 15% to 10% on 1 January 2005 and then to 5% on 1 January 2010.

The ACIS Motor Vehicle Producer Research and Development (MVP R&D) Scheme will run for the duration of ACIS Stage 2 (2005-2010 inclusive). It is expected to cost \$150m and aims to increase the amount of research and development undertaken by motor vehicle producers in Australia. All motor vehicle producers registered as ACIS participants (Ford, Holden, Mitsubishi

and Toyota) are eligible to take part in the MVP R&D Scheme.

Economic contribution

Industry value added

The automotive sector's industry value added (IVA) was nearly \$4.7b in 2000-01, accounting for over 6% of total manufacturing activity and nearly 0.7% of total economic activity. [\(footnote 4\)](#) Value added in the industry increased 20% on the previous year. The economy as a whole grew by 2% for the same period. [\(footnote 5\)](#)

The automotive sector is composed of four industry sector classifications:

- motor vehicle manufacturing
- motor vehicle body manufacturing
- automotive electrical and instrument manufacturing
- automotive component manufacturing.

Of these, the largest industry sector is motor vehicle manufacturing, which accounts for 47% of the automotive sector's IVA. It is closely followed by the automotive component classification (36% of IVA). [\(footnote 6\)](#)

Employment

There were 62,661 people employed in the automotive sector at 30 June 2001, accounting for 6.6% of total manufacturing employment [\(footnote 7\)](#) and 1.2% of total employment. [\(footnote 8\)](#) Employment in the automotive sector at 30 June 2001 had increased by 15% on the previous year, and by an average of 3% per year since 30 June 1997. The automotive component manufacturing classification is the highest employer, with 24,424 employees at 30 June 2001, followed closely by motor vehicle manufacturing with 23,243 employees.

In 2000-01, IVA per employee was \$74,324. [\(footnote 9\)](#) IVA per person is highest in motor vehicle manufacturing, [\(footnote 10\)](#) reflecting in part its high capital-intensive nature.

Innovation

Innovation is a key driver of growth in the economy, and in the Australian automotive industry. Research and development (R&D) expenditure in the motor vehicle, parts and other transport manufacturing sector [\(footnote 11\)](#) was \$553m in 2001-02, a 17% increase from the previous year. [\(footnote 12\)](#) This represents 23% of total manufacturing R&D and 10% of total business expenditure on R&D.

In 2001-02 there were 3,427 employees in the motor vehicle and part, and other transport equipment sector engaged in work relating to R&D. As with expenditure, it is the largest R&D employer within manufacturing, and accounts for approximately 10% of total R&D employment. [\(footnote 13\)](#)

International trade

Exports

The Australian automotive sector has become an export success. Much of the growth that contributed to this occurred between 1998-99 and 2000-01, when exports grew by an average of almost 22% per year. [\(footnote 14\)](#) While exports have since plateaued, the automotive sector remains Australia's leading exporter of manufactured goods and Australia's sixth largest export performer overall. Automotive exports exceed more traditional exports such as wheat, wool and wine.

In 2002-03 exports of vehicles were nearly \$3b, and exports of components and parts were nearly \$2b. Major export markets for vehicles were Saudi Arabia, the United States of America and New Zealand, and major markets for components were the United States of America, South Korea and New Zealand. [\(footnote 15\)](#)

Imports

In 2002-03 imports of vehicles were \$14b and imports of components and parts were nearly \$6b. Major import sources for both vehicles and components were Japan, the United States of America and Germany. Imports have experienced strong growth over the last five years, with an average annual growth of 10%. [\(footnote 16\)](#)

Productivity

Productivity growth in the transport equipment sector has been high in recent years, in contrast to the varied productivity levels in many manufacturing industries. [\(footnote 17\)](#) Labour productivity growth (on an hours worked basis) in the transport equipment sector averaged 3.3% per year from 1993-94 to 2000-01, compared with 1.8% per year in the combined manufacturing industries.

Multifactor productivity growth in the transport equipment sector has been similarly strong, averaging 3.0% per year from 1993-94 to 2000-01. This is in contrast to average yearly growth in total manufacturing of 0.6% in the same period.

Transport equipment has the highest labour and multifactor productivity figures of any manufacturing industry sector in this period.

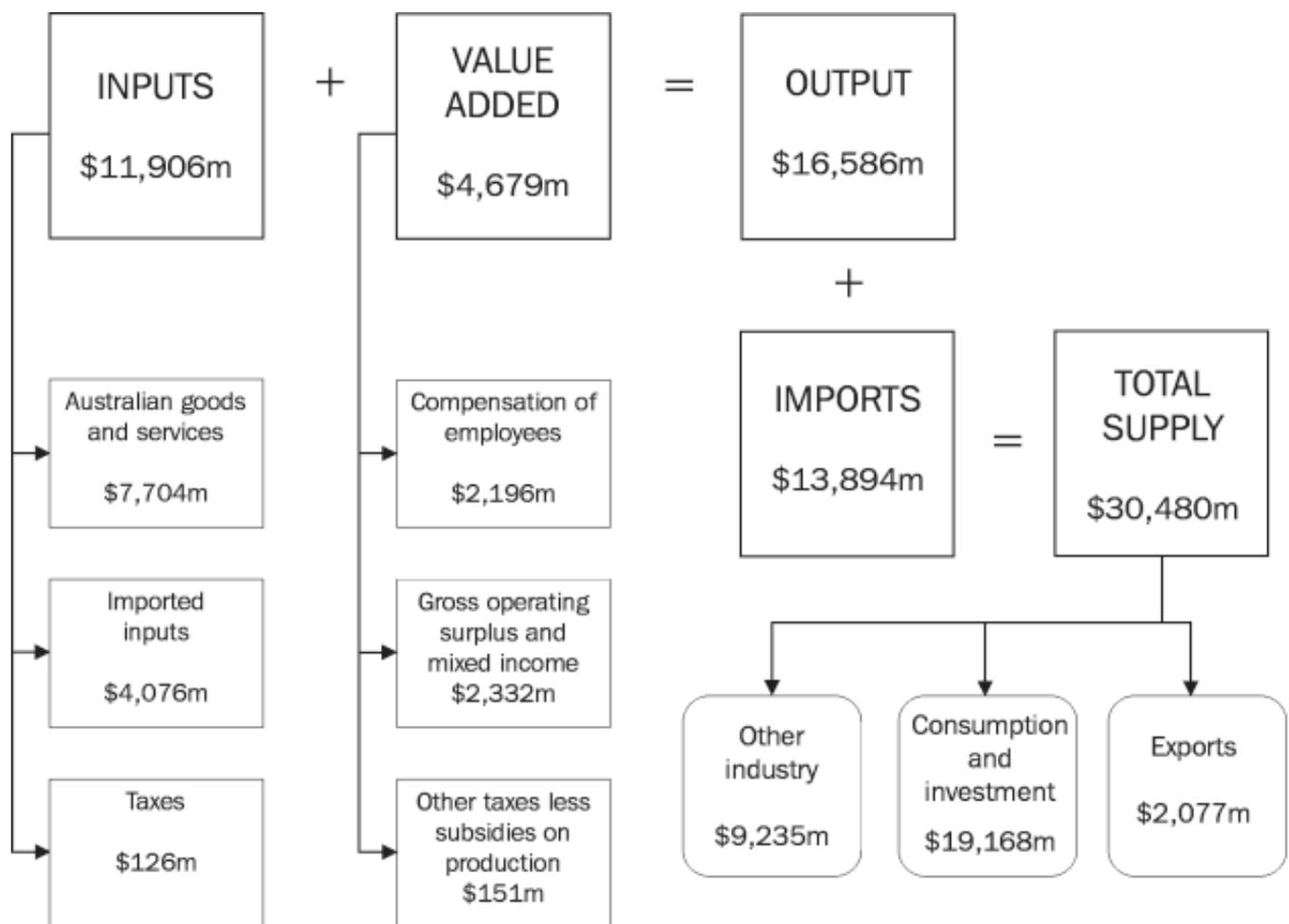
Prices

Nominal prices of transport equipment (including motor vehicles) are rising at a slower rate than the consumer price index (CPI), indicating a fall in 'real' prices. Over the five years prior to 2000-01, transport equipment prices grew by 7%, [\(footnote 18\)](#) whereas the CPI increased by more than 11%. [\(footnote 19\)](#) In addition, average weekly earnings increased by over 17% over the same time period, indicating that vehicles are becoming more affordable. [\(footnote 20\)](#)

Automotive value chain

In addition to the direct contribution of the automotive industry to the economy, it has both upstream and downstream linkages, as reflected in diagram 18.18, which is based on information for 1998-99. [\(footnote 21\)](#), [\(footnote 22\)](#)

18.18 AUTOMOTIVE VALUE CHAIN - 1998-99



Source: Automotive Research and Trade Section, Department of Industry, Tourism and Resources.

This chart shows that goods and services from other Australian industries represent 65% of inputs to domestic automotive production. Principal material inputs are iron and steel, rubber products, basic non-ferrous metal and paints. Major service inputs include property services, mechanical repairs, wholesale trade and business services. The remaining 35% of inputs are imported, the majority of which are components and parts. Around half of imported components are sourced from Japan and the United States of America, the home countries of the four Australian car producers. ([footnote 23](#))

The value added by the automotive industry is just under 30% of production. Around half of the value added of the industry is contributed by capital (as shown by gross operating surplus), with the balance being provided by labour (compensation of employees).

Australian production contributes around 55% to total automotive supply. The high proportion of imports in total supply highlights the high level of import penetration in the Australian market. Household consumption and private sector investment provide the primary sources of domestic demand for total automotive output.

Endnotes

1 Federal Chamber of Automotive Industries, VFACTS Database [<Back](#)

2 Motor Vehicle Census, Australia, 31 March 2003 (9309.0) [<Back](#)

3 Ibid [<Back](#)

4 **Manufacturing Industry, Australia, 2000-2001** (8221.0) [<Back](#)

5 **Australian System of National Accounts, 2002-03** (5204.0) [<Back](#)

6 **Manufacturing Industry Australia, 2000-2001** (8221.0) [<Back](#)

7 **Manufacturing Industry Australia, 2000-01** (8221.0) [<Back](#)

8 **Labour Force, Australia, September, 2001** (6203.0) [<Back](#)

9 Ibid [<Back](#)

10 **Manufacturing Industry Australia, 2000-2001** (8221.0) [<Back](#)

11 This data combines the automotive industry (motor vehicle and part manufacturing) with other transport equipment manufacturing. However; an inference can be drawn as to the extent of R&D in the automotive industry alone as it comprises 76% of IVA of the combined industries, with the remaining transport equipment industries accounting for only 24%. [<Back](#)

12 **Research and Experimental Development, Businesses, Australia, 2001-02** (8104.0) [<Back](#)

13 Ibid. [<Back](#)

14 Department of Foreign Affairs and Trade STARS Database, 2002-03. The commodities in this database are classified according to Standard International Trade Classification Revision 2 [<Back](#)

15 Ibid. [<Back](#)

16 Ibid. [<Back](#)

17 Productivity Commission 2003, **Trends in Australian Manufacturing**, Commission Research Paper, AusInfo, Canberra. [<Back](#)

18 **Producer Price Indexes, Australia, March 2004** (6427.0) [<Back](#)

19 **Consumer Price Index, Australia, March 2004** (6401.0) [<Back](#)

20 **Average Weekly Earnings, Australia, February 2004** (6302.0) [<Back](#)

21 **Australian National Accounts: Input-Output Tables - Electronic Publication, 1998-1999** (5209.0.55.001) [<Back](#)

22 The statistics in this chart differ from those cited above as they are compiled using a different methodology. [<Back](#)

23 Department of Foreign Affairs and Trade **STARS Database, 2002-03**. [<Back](#)

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