1 Background and approach to the study

1.1 Introduction

Concentrated in Victoria and South Australia, the Australian motor vehicles and parts (MVP) industry (box 1.1) includes three foreign-owned vehicle assemblers and around 200 component producers. It accounts for approximately 0.6 per cent of Australia's gross value added and employment, with exports totalling around $5 billion, or some 40 per cent of its production. Several hundred specialised tooling and service providers are also linked to the industry's supply chain.

This study disaggregates the MVP industry into car assembly, car component manufacturing, and production of other vehicles and related components. The 'automotive industry' is defined as the cars and components sectors only, and is the focus of this study. It accounts for around 75 per cent of the value added of the MVP industry.

Although automotive assistance has been wound down over the past 25 years, the automotive industry continues to command much higher levels of assistance than most other Australian industries. For example, tariffs on imported cars and components are generally at 10 per cent — double or more than those applying to most other imports — and the industry obtains substantial budgetary assistance from the Australian Government. The resultant assistance to the industry is estimated to have amounted to some $1.13 billion in 2006-07, equivalent to around $23 500 per automotive worker (chapter 2). The industry also receives ad hoc assistance from State Governments, and benefits from other measures such as government purchasing preferences (detailed in chapter 2).

In recent years, the industry has faced heightened competitive pressures from imports, which have been attributed to four main sources, namely:

- the 35 per cent appreciation of the Australian dollar (in trade-weighted terms) since 2002 which, while reducing the price of imported intermediate inputs used in vehicle production, has also made imported vehicles cheaper for Australian consumers

Box 1.1 **The Australian motor vehicle and parts industry: some facts and figures**

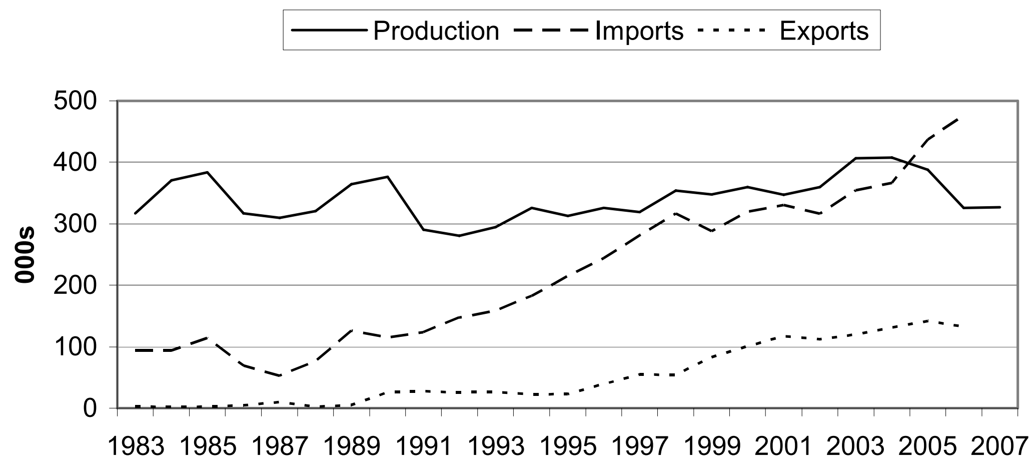
- There are three vehicle producers — Holden, Ford and Toyota — all of which are subsidiaries of major overseas producers. They produce four passenger vehicle models (and derivatives of those models) at three plants in Melbourne and Adelaide, augmenting this range with vehicles sourced from affiliates overseas.
- More than 200 firms produce automotive components for use as both original equipment in new vehicles and for the replacement market. While many of these firms are located in Melbourne and Adelaide, significant component production also occurs in Sydney and in a number of major regional centres. There are also several hundred, mainly small, firms around Australia producing replacement components and accessories exclusively for the 'aftermarket'.
- Numerous small firms provide specialised tooling to vehicle and component producers. Most of these are located in Victoria, with the remainder in New South Wales and South Australia (ABS 2005g). Vehicle and component producers also have some in-house tooling capacity, but this is mainly used for maintenance and repair.
- Several firms provide specialist automotive engineering, design, testing and customising services, although much of this activity is undertaken in-house by vehicle and component producers.
- Employment is around 68 000, including some 23 000 in vehicle assembly. The industry accounts for around 6 per cent of both value added and employment in the manufacturing sector and around 0.6 per cent of value added and employment in the economy as a whole (ABS 2007a). It is of greater significance to the South Australian and Victorian economies, and to particular cities and regions within them.
- The local vehicle market has been growing steadily over the past decade. However, much of this growth has been for smaller passenger and all-terrain/four-wheel-drive vehicles that, apart from sales of the Ford Territory, are currently imported.
- Most locally-produced vehicles are large models, with three-quarters of domestic sales made to fleet customers, of which 25 per cent are government purchases (Bracks 2008a). Domestic demand for large vehicles has stagnated in recent years, contributing to a decline in the industry's share of the local passenger vehicle market from around 70 per cent in the early nineties to 25 per cent in 2006 (DIISR 2006).
- The industry has largely offset the impact of this fall in market share by increasing exports. Exports, which now account for more than 40 per cent of production compared with less than 9 per cent in the early 1990s, were valued at around $5 billion in 2007. Major export markets include the Middle East, the United States, New Zealand and Korea.

- a further shift in consumer preferences from the large cars produced domestically, towards imported smaller and more fuel efficient cars, in the context of a substantial increase in the real price of oil (which more than doubled over the five years from 2001-02).

- the effects of a reduction in automotive tariffs, from 15 to 10 per cent, in 2005
- tariff preferences for automotive imports from Thailand and the United States, provided under preferential trade agreements (PTAs) that commenced in 2005.

Vehicle imports have increased more sharply over the last five years. Although total domestic sales have also increased over this period and automotive exports have continued to grow, local production has fallen significantly from its peak in 2003 (figure 1.1).

Figure 1.1 **Production, imports and exports of cars in Australia, 1982–2007**



Data sources: DIISR (1999, 2006); FCAI (2008a).

These developments have added to pressures for rationalisation within the industry, which in turn have been reflected in some recent plant closures. Most notably, in March 2008 Mitsubishi ceased manufacturing operations in Adelaide, following lacklustre sales of its 380 model, and Ford has foreshadowed the closure of its Geelong engine plant from 2010. The components sector has also struggled against pressures such as escalating prices for raw materials, which have caused a number of businesses to cease production (Bracks 2008a).

Such developments have brought calls for a pause to legislated reductions in tariffs, which are currently scheduled to fall to 5 per cent in 2010, or for further increases in other forms of assistance.

1.2 The Bracks Review and the Commission's study

On 14 February 2008, the Australian Government commissioned a review of the automotive industry by a panel headed by the former Premier of Victoria, the Honourable Steve Bracks. The Bracks Review is to assess the challenges and opportunities currently facing the automotive industry, and to make recommendations on government policies and assistance arrangements for the industry in the years ahead.

In announcing the review, the Minister for Innovation, Industry, Science and Research charged the review with the task of 'laying down a new set of principles to make the industry sustainable into the future' and ensuring 'that government programs [for the industry] are effective and efficient'. The review is also intended to 'particularly consider the impact of global concern about climate change on the industry and the impact of changing consumer vehicle preferences' (Carr 2008c). The panel is scheduled to report by the end of July 2008.

When announcing the review, the Minister foreshadowed that:

> The Government will separately request the Productivity Commission to undertake modelling on economy-wide effects of future assistance options. The Commission's modelling will be released publicly to inform the panel's examination of the industry, public debate, and the Government's deliberations in this area. (Carr 2008c)

The Commission subsequently received a letter from the Assistant Treasurer, on 14 April 2008, formally requesting that it undertake this study (appendix A).

Whereas the Bracks Review has been requested to work with the automotive industry 'to overcome barriers to success and … take advantage of new opportunities' (Carr 2008c), the emphasis of the Commission's task is to focus on the *economy-wide* effects of future assistance options for the industry. Taking an economy-wide approach involves gauging the effects of the various policy options on all parts of the economy — including firms and workers in other industries as well as consumers and taxpayers. It also requires consideration of impacts across different parts of Australia.

1.3 Background to the current assistance regime

In the past, the automotive industry has received extremely high levels of assistance, delivered predominantly through tariffs, import quotas, local content schemes and similar protective arrangements. A series of inquiries by the Commission's predecessor bodies, dating from the 1970s (IAC 1974, 1981; IC 1990, 1997), found that the industry was one of Australia's most highly assisted. Indeed, when the industry's 'effective rate of assistance' (ERA) peaked in the mid-1980s, it was almost six times higher than the average rate for manufacturing industries.[1]

The Commission's inquiries revealed that behind these protective walls had grown a fragmented, inward-looking and uncompetitive industry. The arrangements were found to be imposing high costs on consumers and on other industries, and modelling confirmed that the distortions in the allocation of resources across the economy were creating net costs for Australia overall.

As noted earlier, Australian governments have significantly reduced automotive assistance since the mid-1980s. Assistance has also been recalibrated, with less emphasis on import protection and more on budgetary support, including for adjustment and innovation.

Over this period, the automotive industry has undergone a major rationalisation and transformation. In its most recent inquiry into automotive assistance, conducted in 2002, the Commission reported that domestic vehicle assemblers and component producers had become more specialised, adopted more innovative and efficient production practices, lifted quality standards, undertaken greater product innovation, adopted more flexible and productive work practices, and become more export-oriented. Although the industry still had some significant weaknesses (especially in relation to workplace relations), the Commission found that the industry's efficiency and competitiveness had improved considerably.

While reforms to the industry's assistance were found to have played a strong role in these improvements, they were also facilitated by macro- and micro-economic reform generally (including more flexible industrial relations and lower infrastructure costs) and other economic developments (including a significant depreciation in the exchange rate from the early 1980s).

Modelling and 'exogenous' considerations in the Commission's 2002 policy assessment

The principal task of the Commission's 2002 inquiry was to advise the Government on assistance for the automotive industry beyond 2005, when key elements of the previous assistance arrangements were due to terminate.

[1] The ERA is a measure of net assistance to an industry divided by the industry's value added (see chapter 2 for further details). The ERA for the motor vehicle and parts industry peaked at almost 140 per cent in 1984-85, when the average ERA for the manufacturing sector was 23.4 per cent (PC 2000). Today, the ERA for the automotive industry is around 15 per cent, (see chapter 2) compared to 4.5 per cent for the manufacturing sector overall (PC 2008a).

In contrast to its approach in earlier inquiries, which were conducted when automotive assistance was much higher, the Commission noted that making assessments about appropriate assistance arrangements for the years after 2005 was more complicated.

The previously high levels of automotive assistance had led to significant distortions in resource allocation across the economy. Hence, reducing assistance offered the prospect of a significant net gain to the community from a better allocation of resources — an outcome reflected in quantitative modelling undertaken at the time. These so called 'static resource allocation' gains were judged, in those earlier reviews, to greatly outweigh the accompanying adjustment costs — particularly given the opportunity for the industry to mitigate adjustment pressures through improvements in productivity and quality.

But with assistance to the industry to be much lower by 2005, the Commission found in its 2002 inquiry that the allocative gains likely to ensue from further reductions in government support would be commensurately smaller. Indeed, the quantitative modelling undertaken for the inquiry suggested that the gains could even be outweighed for a period by consequent small, but adverse, shifts in the 'terms of trade' (the price of Australia's exports relative to its imports).

With the static resource allocation effects becoming smaller and, it appeared, largely offset by terms of trade effects, the Commission indicated that policy judgements depended more than previously on considerations that were not directly captured in quantitative modelling. These 'exogenous' considerations, such as potential productivity gains, industry-specific market failures and adjustment costs, had always been part of the policy calculus; they now assumed greater significance in formulating future assistance policy.

Among the key exogenous issues raised in favour of assistance were that process and skills development in the automotive sector generated 'spillover' benefits, and that assistance was necessary to ensure that local automotive producers were able to capture globally mobile capital, ahead of rivals in other countries. However, the Commission did not find such spillover and 'investment competition' arguments for greater assistance compelling. Among other things, it found that generally-available measures such as an Research and Development (R&D) tax concession, which could be accessed by all industries, were the preferable means of realising any such benefits.

Nor did the Commission see merit in arguments by industry participants that changes in assistance to the Australian automotive industry should be made contingent on reforms in overseas markets. It noted, among other things, that such a policy would effectively sideline the range of domestic considerations that are relevant to Australia's decision on whether to further reduce automotive tariffs (such as costs to consumers and other businesses), and could greatly delay the benefits of further reform.

On the question of whether assistance should be linked to currency movements, the Commission concurred with the view put by the Federation of Automotive Product Manufacturers that:

> To argue that the tariff should be reduced when the dollar is down is to suggest that it should be increased when the Australian dollar is strong. This would not be good policy and would create enormous uncertainty for the future. (PC 2002, p. 151)

On the other hand, the Commission did see a number of exogenous matters as enhancing the case for continuing with reductions in automotive assistance. These included the scope for such reductions to induce further improvements in the industry's productivity, as earlier reforms had achieved. There were also risks that halting reform may indicate that the government was susceptible to industry lobbying for preferment, encouraging the diversion of entrepreneurial effort away from more productive activities. The Commission was also cognisant of the substantial and ongoing costs to car buyers, taxpayers and other Australian businesses entailed in assistance to the automotive sector.

The Commission's 2002 recommendations and the Government's response

Recognising the desire of the automotive industry for policy clarity and certainty and the benefits they would bring, the Commission's recommendations covered the decade from 2005 to 2015. Its key recommendations were that:

- after the scheduled decline in automotive tariffs to 10 per cent in 2005, they should remain at that level until 2010, when they should be reduced to 5 per cent
- the Automotive Competitiveness and Investment Scheme (ACIS) be extended, largely in its prevailing form, as a transitional mechanism until the end of 2010.

Although there were reservations about the effects of ACIS, the Commission supported an extension of the scheme until 2010 on the basis that it would help ease the industry's transition to the lower tariff environment it had recommended. Similarly, the Commission expressed concerns about some other forms of assistance to the industry, such as government purchasing preferences, but held back from recommending reforms to these areas in the transitional period to 2015, during which automotive tariffs were to fall to 5 per cent.

While recognising that adoption of its recommendations would generate further pressures for rationalisation within the industry, the Commission indicated that they had been designed to minimise the potential for disruptive change in the industry. It noted, however, that diverse pressures for adjustment would remain, and that any pronounced or regionally concentrated adjustment could warrant specific measures to assist affected employees or regions.

The Australian Government announced a new assistance package for the automotive industry in December 2002. The package mirrored the Commission's recommendations regarding tariffs, but entailed an increase in the quantum of assistance provided under ACIS and extended the scheme until 2015. In announcing the new arrangements, the Government stated:

> The new look package goes far beyond what was recommended by the Productivity Commission Review, adding an extra 50% or $1.4 billion over the 10 year continuation of the scheme. … Similar to its predecessor, the post-2005 Automotive Competitiveness and Investment Scheme will be a transitional scheme that will encourage competitive investments by firms in the automotive industry in order to achieve sustainable growth. (Macfarlane 2002)

1.4 The Commission's approach to this study

Whereas the Commission's 2002 review of automotive assistance was a full public inquiry, entailing the release of a draft 'position' paper and providing extensive scope for public consultation and the testing of ideas and arguments, this present commissioned study is a more limited exercise. As outlined earlier, the Commission has been tasked with modelling the economy-wide effects of assistance options and scenarios outlined by the Bracks Review of the automotive industry. However, the purpose of the study is not only to inform the Review's examination of the industry, but also to help inform the public discussion and the Government's deliberations (Carr 2008c).

The model used in this report is a version of the Monash Multi-Regional Forecasting model, a general equilibrium model based on the one used in the Commission's report on the *Potential Benefits of the National Reform Agenda* (PC 2006) and subsequently released publicly. It includes a detailed representation of the automotive industry at the State/Territory level, and provides an indication of how policy changes affect different parts of the Australian economy. For this report, the model has been disaggregated to identify vehicle assemblers and component manufacturers separately. Thus, in measuring how each jurisdiction's economy and the national economy adapt to the modelled scenarios, the model reflects the influence of:

- differences in the size and structure of each jurisdiction's economy
- the relationship between various parts of the automotive industry and other parts of the economy.

The model is used to simulate different policy scenarios detailed in chapter 3. The scenarios include, but are not limited to, the options indicated in the request from the Assistant Treasurer (appendix A). The options include various changes to the mix, nature and level of assistance provided through tariffs and ACIS. Importantly, they exclude changes to other government policies benefitting the automotive industry such as the tariff on second-hand vehicles, government purchasing preferences, and generally available measures such as TRADEX and the 125 per cent tax concession for expenditure on R&D (see chapter 2).

While shedding light on a number of issues relevant for considering future assistance for the automotive industry, economic modelling also has limitations. Accordingly, as in the 2002 inquiry, this study has examined the sensitivity of parameters and features of the model used, and has sought to take into account key exogenous factors that influence the effects of assistance policies and/or the merits of those policies, together with its primary modelling assessments.

The Commission's modelling approach and some preliminary results were reviewed by a panel of expert modellers at a work-in-progress technical workshop, held on 28 April 2008. Participants included three referees, as well as representatives of the Automotive Review Secretariat, the Australian Government Treasury, and the Department of Innovation, Industry, Science and Research. A summary of the referee comments and a description of how those comments have been incorporated into the modelling are set out in appendix B.

Where relevant, the Commission has also drawn on findings from its earlier reviews and modelling exercises, together with information provided in the Bracks background and discussion papers.