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COMMISSION

THE AUTOMOTIVE INDUSTRY

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INDUSTRY COMMISSION

17 October 1990

Honourable P J Keating M. P.
Treasurer
Parliament House
CANBERRA ACT 2600

Dear Treasurer

In accordance with Section 7 of the Industry Commission Act 1989, we submit to you the report on the Automotive Industry.

Yours faithfully

A S Cole	D L McBride	W I Scales
Chairman	Commissioner	Associate Commissioner

COMMISSIONER

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Acknowledgment

The Commission wishes to thank those staff members who contributed to this report.

TERMS OF REFERENCE

The following are the terms of reference received by the Commission on 10 May 1990.

Industry Commission Act 1989

I, PAUL JOHN KEATING, in pursuance of Section 7 of the Industry Commission Act 1989, hereby:

1. refer the automotive industry to the Industry Commission for inquiry and report by 31 December 1990. The inquiry and report will cover the passenger and light commercial vehicle sectors and the component sector including both original and after market components;

2. specify that the report and recommendations will cover the assistance arrangements for the industry from 1993 to 2000 and will include any factors, including institutional, regulatory or other arrangements affecting the competitiveness of the industry;

3. without limiting the scope of the reference, request that the Commission have regard to the Government's desire:

(a) to have a viable and internationally competitive industry;

(b) to provide better quality, reasonably priced vehicles to the Australian consumer;

(c) to lower the level of assistance to the automotive industry;

(d) to provide as far as practicable equality of assistance between the vehicle assembly industry and the component manufacturing sector; and

(e) to simplify the administration of assistance arrangements for the industry;

and, in the inquiry and report, have regard to:

(i) the large investment required to ensure a viable and competitive motor vehicle industry in Australia;

(ii) the lead times associated with the industry and the industry's desire for a stable planning environment and for a manageable rate of change;

(iii) the cost of protection to consumers of automotive products;

(iv) the importance of further rationalisation to improved efficiency and productivity within the industry;

(v) the measures which enable the industry to concentrate on areas of greatest comparative advantage and to take advantage of opportunities arising from globalisation of the automotive industry;

(vi) the importance of volume to achievement of further economies of scale and better capacity utilisation necessary for international competitiveness;

(vii) the importance of accelerating moves by the industry toward international best practice, including but not limited to, areas of training and skills development, quality, technology employed and industrial/human resource relations; and

(viii) the tooling and technology requirements of the industry.

4. specify that the Commission is to avoid duplication of recent substantive studies undertaken elsewhere.

P J KEATING

10 May 1990

ABBREVIATIONS

Abbreviations used for participants are given in Appendix B. Other abbreviations used are listed below.

ABS	Australian Bureau of Statistics
ADR	Australian Design Rule
AIA	Automotive Industry Authority
AIC	Automotive Industry Council
AMC	Automotive Manufacturing Council
ARMS	Automotive Research and Marketing Services
ASEAN	Association of South East Asian Nations
ASIC	Australian Standard Industrial Classifications
cbu	completely built-up
cif	cost, insurance and freight
ckd	completely knocked-down
CNC	Computer Numerically Controlled
CPI	Consumer Price Index
CTCS	Commercial Tariff Concession System
EFS	Export Facilitation Scheme
4WD	four-wheel drive
fob	free on board
GDP	Gross domestic Product
GNP	General Motors
gvw	gross vehicle weight
IAC	Industry Assistance Commission
IC	Industry Commission
IMVP	International Motor Vehicle Program
JIT	Just-In-Time

LATA	Labour Adjustment Training Arrangements
LCV	light commercial vehicle
ldf	landed duty fee
ldp	landed duty paid
MES	minimum efficient scale
NIEs	Newly Industrialising Economies
NIEIR	National Institute of Economic and Industry Research
NZ	New Zealand
OE	original equipment
OECD	Organisation for economic Co-operation and Development
OTC	Overseas Telecommunications Commission
PMV	passenger motor vehicle
R&D	research and development
SCP	specialist component producer
TAFE	Colleges of Technical and Further Education
UAAI	United Australian Automotive Industries
UK	United Kingdom
USA	United States of America

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OVERVIEW

The automotive industry is one of Australia's major manufacturing activities. The industry accounts for around five per cent of value added and nearly six per cent of employment in the manufacturing sector. Its value added represents around one per cent of Australia's Gross Domestic Product.

However, maintaining domestic passenger vehicle production -- the dominant part of the Australian automotive industry -- has required substantial government assistance. If assistance currently provided to the passenger vehicle industry by the current complex package of measures were instead provided by direct subsidies, the cost to taxpayers would be some $1.6 billion each year. This is equivalent to around $25 000 for each job in the industry and $4000 for each vehicle produced. Inflated prices for cars have been an important factor underlying stagnant demand and an ageing vehicle population over the last 15 years.

And even though substantial assistance has been provided to the Australian passenger vehicle industry for more than 40 years, the industry is still a long way from being internationally competitive.

Change has begun

The current car plan has begun the task of winding back the industry's very high assistance. Tariffs are being significantly reduced and quota protection and the local content scheme have been abolished. These latter mechanisms had for many years automatically increased assistance to the industry as its international competitiveness declined and thereby shielded it from the need to adjust.

But there is still a long way to go. At the end of the current car plan in 1992, the passenger vehicle industry will still enjoy tariff protection more than three times greater than the manufacturing sector as a whole. And, when account is taken of extensive duty free entitlements provided under the automatic 15 per cent by-law provision and the export facilitation arrangements, this disparity with other industries is magnified. The Commission estimates that the effective rate of protection to the industry in 1992 will be some seven times higher than the average for the manufacturing sector in that year.

While this assistance underpins activity and employment in the passenger vehicle industry, it does so at the expense of consumers and to the detriment of other industries which compete with vehicle producers for Australia's scarce resources. The community as a whole will benefit if assistance to the industry is further reduced after the expiry of the current car plan.

The need to lower assistance to the vehicle industry after 1992 is explicitly recognised in the reference to the Commission and was accepted by most industry participants. Thus, in reporting to the Government on the assistance arrangements for the industry in the period 1993 to 2000, the Commission's starting point has not been whether assistance should be reduced, but rather by how much and how fast.

The target: no special treatment for the passenger vehicle industry

The argument that the benefits provided by the passenger vehicle industry to the economy justify the continuation of very high tariffs for the industry in the foreseeable future is not, in the Commission's view, sustainable. While the industry provides benefits in terms of such things as employment, exports and skills development and has linkages with some other parts of the manufacturing sector, other industries provide similar benefits. A number of major industry players accepted that, in this regard, there is nothing special about the passenger vehicle industry. Thus, continuing high assistance for the industry will simply allow it to attract or hold resources which would generate greater wealth for the economy as a whole if used by other industries better able to compete on their own merits in the marketplace.

The primary objective of the post-1992 assistance arrangements for the passenger vehicle industry must therefore be to remove or significantly reduce the extent of the preferred treatment which the industry currently receives. In the Commission's view, only that production which can survive without special treatment from the Government can be regarded as truly viable and internationally competitive.

A substantial reduction in protection recommended

The Commission is recommending that the tariff on passenger vehicles and original equipment passenger vehicle components be reduced from 35 per cent at the end of the current car plan to 15 per cent by the year 2000 through eight annual reductions of 2.5 percentage points.

It has stopped short of recommending the complete removal of the industry's special assistance status in this period because of its concern to avoid undue disruption in the industry. In effect, the Commission is proposing that the industry be given a further period of transition to get its house in order.

However, in the Commission's view, this should be the last period of special treatment for the passenger vehicle industry. It therefore suggests that, when announcing the assistance arrangements for the period 1993 to 2000, the Government indicates to the industry that assistance reductions will continue after 2000 with the objective of removing the industry's special assistance status within four or five years. Under this arrangement, two decades of transitional arrangements would have been provided to the industry since the commencement of the current car plan.

While the Commission has focussed heavily on the need to reduce tariffs and hence the overall cost to the community of assistance to the passenger vehicle industry, it has also had to consider whether the automatic by-law entitlement for vehicle producers and the export facilitation arrangements should be retained.

Removal of both the automatic by-law entitlement and export facilitation would promote a more transparent assistance regime and would provide a signal to the industry that, in the future, it must expect to be treated in the same way as other industries. There would also be the prospect of an improved allocation of resources between industries.

Nonetheless, the Commission is recommending that both the automatic by-law entitlement and export facilitation be retained in the period 1993 to 2000. A concern to avoid introducing additional adjustment pressures and uncertainties at the time of substantial tariff reductions, and the fact that the significance of the measures will diminish as the tariff falls, were the dominant considerations underlying its decision on this matter. The Commission is also recommending a number of modifications to the export facilitation scheme.

The Commission considers that the specification of a target industry structure and penalties for low volume production should be abolished at the end of the current car plan. It further recommends that an authority be established to provide independent information and advice to the Government on developments in the industry in the post-1992 period.

Some contraction in the vehicle industry is inevitable

A reduction in the tariff on passenger vehicles and components to 15 per cent by the year 2000 will almost certainly result in a decline in activity and employment in the industry. It is impossible to be precise about the size of this contraction given all the other uncertainties which will influence the industry's competitiveness in the post-1992 period. Projections from the ORANI model of the Australian economy suggest that, unless the industry boosts its productivity performance, a contraction in its output and employment of between 19 and 38 per cent could follow from implementing the Commission's recommendations. Most participants believed the contraction would be even more significant.

Improved productivity performance and microeconomic reform will help the industry cope

If, however, the passenger vehicle industry can improve its productivity performance relative to its competitors, the adverse impact on it of implementing the Commission's recommendations would be reduced. For example, an improvement in the industry's relative labour productivity of 10 per cent over the life of the new arrangements could offset about 40 per cent of the reduction in activity in the industry flowing from the Commission's recommended tariff reductions. Improvements in the use of capital and materials in the industry would provide an additional offset. Further, more general microeconomic reform will benefit all industries in the economy. In so doing, it will enhance the vehicle industry's capacity to cope with lower levels of assistance.

But there will inevitably be some areas of the industry which would not survive irrespective of such developments. Under the Commission's recommendations, the industry would be given a further period of eight years, on top of the eight years provided by the current car plan, to adjust to a tariff that will still be higher than that afforded virtually all other manufacturing activities. The Commission considers that it is not in the community's interests to try to retain those parts of the industry which are unable to take advantage of this lengthy adjustment period to restructure their operations to survive at this still generous level of assistance.

There will be significant gains for the economy as a whole

While the magnitude of the contraction in the passenger vehicle industry from implementing the Commission's recommendations cannot be predicted precisely, there would be more than offsetting benefits to other areas of the economy. Lower vehicle prices would obviously benefit consumers and would also reduce the costs of other industries, including export industries, thereby enhancing their competitiveness and increasing their output and employment. Projections from the ORANI model suggest that the net effect, in the longer term, would be to increase Australia's Gross National Product by between $640 million and $985 million each year.

SUMMARY OF RECOMMENDATIONS

The Commission recommends that:

1. In the period 1993 to 2000, the tariff on passenger motor vehicles and original equipment passenger vehicle components be reduced to 15 per cent.

   The majority of the Commission recommends that this be achieved through eight annual reductions in the tariff of 2.5 percentage points commencing on 1 January 1993.

   Mr McBride recommends that this be achieved through four annual reductions in the tariff of 5 percentage points commencing on 1 January 1993.

   The Commission suggests that, when announcing the new arrangements, the Government indicates to the industry that there will be further reductions in assistance after 2000 which will bring assistance to the passenger vehicle industry into line with the prevailing regime for industry generally within four or five years.

2. After 1992, tariffs on non-derivative light commercial and four-wheel drive vehicles, original equipment components for use in those vehicles, and replacement components for all vehicles under reference, be reduced from 15 per cent in accordance with future general tariff reduction programs.

3. The automatic by-law entitlement for vehicle producers be retained for the period 1993 to 2000, and continue to be available for the importation of either completely built-up vehicles or original equipment components.

4. Export facilitation be retained for the period 1993 to 2000, but that the following modifications be implemented from 1 January 1993:

   - the 1979 base year hurdle in the vehicle and component producers' schemes, and the 1986 base year hurdle in the importers' scheme, be abolished;

   - the value added criteria applying to exports earning credits above 7.5 percentage points under the vehicle producers' scheme, and to all exports earning credits under the importers' scheme, be abolished. After 1992, credits to accrue on the basis of value added in the automotive industry in eligible exports, with no requirement for products earning credits to achieve minimum levels of value added;

- all credits to accrue at a rate of one dollar for each dollar of value added in the automotive industry;

- ceilings on the level of export credits that a firm can earn be abolished;

- restrictions on the direct use of export credits by component producers be removed;

- restrictions on the sale and transferability of export credits be abolished;

- the arrangements be extended to allow the use of export credits to import any light automotive product, including light commercial and four-wheel drive vehicles and replacement components; and

- entitlements to export credits on exports to New Zealand be phased out as follows:

1 January 1993 75 per cent of standard accrual rate
1 January 1994 50 per cent of standard accrual rate
1 January 1995 5 per cent of standard accrual rate
1 January 1996 No eligibility.

5. Passenger, light commercial and four-wheel drive vehicles supplied to Federal and State Governments be exempted from offsets obligations.

6. There be no specification of a target industry structure for the passenger vehicle industry under the new arrangements and the current penalties for low volume production be discontinued after 1992.

7. A body be established for the duration of the new arrangements to provide independent information and advice on the industry and to undertake administrative functions in respect of the export facilitation arrangements. The body to have no review functions.

8. The passenger vehicle industry continue to be a designated industry under the Labour Adjustment Training Arrangements scheme.

The Commission draws attention to its comments on:

- the need to accelerate the pace of microeconomic reform (Sections 4.2 and 6.1);

- the need to review the Labour Adjustment Training Arrangements scheme (Section 8.5);
- Australian Design Rules (Section 9.1);
- the luxury vehicle sales tax (Section 9.2); and
- environmental issues (Section 9.3).

1 THE INQUIRY

1.1 Background

The development and maintenance of a sizeable automotive industry has been an important element of industry policy for many years. The industry has been viewed by governments as an integral part of Australia's manufacturing sector, particularly as it requires a range of inputs from other domestic industries such as steel, rubber, plastics and glass.

Establishing and maintaining a sizeable automotive industry in this country has required considerable government assistance. For much of the last two decades, the industry has been shielded from import competition through import quotas and local content schemes which have provided it with open-ended assistance. That is, whenever the industry's competitiveness declined, assistance against imports automatically increased. As a consequence, passenger motor vehicle and component production has for many years been one of the most highly assisted activities in Australia. This assistance has imposed major costs on the rest of the economy.

A history of assistance arrangements for the Australian automotive industry is provided in Appendix C.

The Button Plan

The current assistance plan for the passenger vehicle industry, sometimes referred to as the Button Car Plan, commenced in 1985. Some major changes were made to elements of the plan in April 1988 following a mid-term review. The plan is due to terminate at the end of 1992.

Through the current plan, the Government sought to give the industry additional time to restructure and modernise; to improve its efficiency to enable it to compete with imports with lower levels of government assistance; to provide better quality products for consumers at reduced real prices; and to minimise disruption to production and employment in the industry during the transition to a more efficient industry.

Several measures were introduced to pursue these objectives. The industry's exposure to import competition has been gradually increased through the abolition of import quotas and reductions in tariffs on imported vehicles. The local content scheme, which since 1965 had provided very high protection to domestic component producers, was abolished mid-way through the plan and replaced by tariff-based assistance.

The plan also places considerable emphasis on industry restructuring. Underlying the plan is a view that the industry will only be able to compete with imports at lower levels of assistance if it increases its scale of operation -- through rationalisation of production for the domestic market and/or through greater export orientation. To this end, the Government specified that an appropriate response by the industry would see the development by 1992 of an industry structure comprised of no more than three vehicle manufacturing entities producing a total of no more than six models. In pursuit of this objective, the plan imposes penalties on low volume production and has increased the access of all sectors of the industry to export assistance through the export facilitation arrangements.

In contrast to previous assistance packages for the industry, there have been some important positive developments under the current plan. First, a plan was announced and adhered to -- most of the amendments to the plan made subsequent to its introduction did no more than restore adjustment pressure on the industry following the major depreciation of the Australian dollar in 1985 and 1986. Second, for the first time in at least twenty years, there have been ongoing reductions in assistance to the industry. Third, the automatic provision of increased assistance to the industry whenever its competitiveness declined has been ended through the termination of import quotas and the local content scheme. Fourth, there has been some rationalisation of production facilities in the industry and the quality of locally produced vehicles has improved. Fifth, since the removal of quotas and reductions in tariffs in 1988, there has been a fall in the real price of both locally produced and imported motor vehicles.

But despite these improvements, the passenger vehicle industry is still a very long way from being viable and internationally competitive in its own right. At the end of the plan in 1992, the passenger vehicle industry will still enjoy tariff protection more than three times greater than the manufacturing sector as a whole. Underlying this lack of competitiveness is a significant gap in the productivity and quality performance of the Australian industry relative to its overseas competitors and, despite high assistance, industry profitability has generally been poor for a number of years.

The reference

An Industry Commission inquiry into the industry was originally scheduled for 1991. However, the Government decided to bring forward and fast-track the inquiry on the grounds that an earlier decision would assist the industry in its planning for the post-1992 period. When announcing the inquiry, the Treasurer and the Minister for Industry, Technology and Commerce jointly stated:

> The car industry will spend hundreds of millions of dollars on new investment each year during the 1990s. It is important that it knows the longer term policy framework in which it will be operating after 1992 so that it can plan accordingly.
>
> An early inquiry and decision by the Government will also ensure that the process of automotive industry rationalisation is not constrained by a lack of knowledge of Government policy.

A copy of the joint Ministerial Statement is provided as Appendix A.

The Treasurer's reference, dated 10 May 1990, asks the Commission to report to the Government by 31 December 1990 on the assistance arrangements to apply for the automotive industry from 1993 to 2000, and on any factors, including institutional, regulatory or other arrangements, that affect its competitiveness. The reference, which is set out at the front of this report, specifies a range of matters to which the Commission must have regard when preparing its report. In particular, the Government has requested that the Commission have regard to its desire:

- to have a viable and internationally competitive industry;
- to provide better quality, reasonably priced vehicles to the Australian consumer;
- to lower the level of assistance to the automotive industry;
- to provide as far as practicable equality of assistance between the vehicle assembly industry and the component manufacturing sector; and
- to simplify the administration of assistance arrangements for the industry.

The reference covers passenger and light commercial vehicles and original equipment (OE) and after-market components used in those vehicles.

The passenger vehicle sector includes passenger motor cars and station wagons, passenger car derivatives (that is, utilities and panel vans) and certain four-wheel drive (4WD) vehicles such as the Subaru 4WD station wagon. The light commercial sector comprises non-passenger derivative commercial vans and utilities and four-wheel drive vehicles (not classified for assistance purposes as passenger vehicles), which have a gross vehicle weight (gvw) of less than 2.72 tonnes. Vehicles with a gvw of 2.72 tonnes or more are classified as heavy commercial vehicles and are not covered by this reference.

As noted above, the reference also covers OE and after-market components used in passenger and light commercial vehicles. A distinction is sometimes made between after-market and replacement components, with the former referring to OE accessories, such as air conditioning, fitted after a vehicle has left the factory. However, for the purposes of this inquiry, the Commission has regarded after-market components as including both accessories and components supplied for replacement purposes.

Inquiry information

Immediately following receipt of the reference, the Commission released an information paper on assistance to passenger vehicle production (IC 1990a). In late May, June, and early July 1990, the Commission visited and held discussions with all five vehicle assemblers, a range of component producers and importers, major industry associations, vehicle industry unions and some government and non-government organisations (see Appendix B). Following this round of industry consultations, the Commission released an issues paper for the inquiry (IC 1990b) calling for submissions on matters raised. Because of the short period provided for the completion of the inquiry, the Commission did not hold public hearings prior to the release of its draft report in September 1990. Public hearings to receive comments and to discuss further written submissions on the draft report were held in Adelaide on 22 and 23 October 1990 and in Melbourne on 24-26 and 29-31 October 1990.

All up, some 120 submissions were made to the inquiry. Submissions were provided by a wide range of industry participants and other interested parties including all local vehicle assemblers, the Federation of Automotive Products Manufacturers (FAPM) and a number of individual component

producers, the Federal Chamber of Automotive Industries (FCAI), the Importers Group of the FCAI and a number of individual importers, the Federation of Vehicle Industry Unions (FVIU) -- representing all affiliated vehicle industry unions, two regional development organisations, the South Australian and Victorian Governments, the Australian Consumers' Association and a number of environmental organisations. Inquiry participants are listed in Appendix B.

In addition to participants' written submissions, in preparing this report the Commission drew heavily on the reports prepared since 1985 by the Automotive Industry Authority (AIA) on the state of the automotive industry (AIA 1986 to 1990). It also used information contained in reports on the International Automotive Assembly Plant Study done by researchers at the Massachusetts Institute of Technology, and in various other research papers and reports (see References at the end of this report).

In October 1990, the Commission released its draft report on the Commercial Tariff Concession and By-law Systems (IC 1990c). The Customs Tariff provisions which permit duty free importation of components and vehicles under the current passenger motor vehicle plan are part of the By-law system. No recommendations made in that report would undermine the assistance arrangements under the vehicle plan. The Commission's final report on the Commercial Tariff Concession and By-law Systems is due in March 1991.

1.2 The Commission's approach

When reporting on matters referred to it by the Government, the Commission is required to have regard to both the reference and to the policy guidelines set out in the Industry Commission Act. In essence, the policy guidelines require the Commission to have regard to the desire of the Government to encourage the development of efficient industries, facilitate structural adjustment, reduce unnecessary regulation, and recognise the interests of other industries, consumers and the community generally. The Commission is also required to report on any social and environmental consequences of its recommendations.

These guidelines recognise the interdependent nature of economic activity. Government policies designed for a specific industry generally have wider effects: on investment, employment and output in other activities; and on users, consumers and taxpayers. Thus, policies which benefit a particular industry are not necessarily in the best interests of the community as a whole.

The reference asks the Commission to report on assistance arrangements for the automotive industry in the period 1993 to 2000, and on factors affecting the competitiveness of the industry. For the reasons set out above, these matters are addressed in this report in an economy-wide framework, rather than solely in terms of their impact on the automotive industry.

As set out in Chapter 5, assistance to the automotive industry is much higher than that provided to most other activities. While this assistance underpins activity and employment in the industry, it does so at the expense of domestic consumers and other vehicle users who pay higher prices for vehicles than would otherwise be the case, and to the detriment of other industries which compete with the automotive industry for resources. As discussed in Chapter 6, there was widespread recognition, including by industry participants, that the burden imposed on the rest of the community by assistance to the automotive industry has to be reduced.

In regard to factors which will influence the automotive industry's future competitiveness, its productivity and quality performance will be very important. If the industry is able to improve its productivity and quality performance by more than its overseas competitors then its capacity to cope with lower levels of assistance will be enhanced. As part of this inquiry, the Commission sought information on the scope for further productivity and quality improvements in the industry and the key determinants of, and impediments to, such improvements.

Another important determinant of the industry's future competitiveness will be the impact of factors which affect industries throughout the economy. These economy-wide factors can be divided into two groups -- those which constitute part of the Australian macroeconomic environment and those which reflect inefficiencies in areas of the economy which supply inputs to the automotive industry. It is inefficiencies at the industry level which are the target of microeconomic reform. As part of this inquiry, the Commission sought information from participants on the impact of economy-wide factors.

2 INDUSTRY AND MARKET INFORMATION

2.1 An international perspective

The automotive industry has long been a major manufacturing activity in many developed countries and is now becoming increasingly important in a number of newly industrialising economies (NIEs) such as Mexico, Brazil, Taiwan and the Republic of Korea. At the international level, the industry is highly integrated with substantial intra-firm and intra-industry linkages. A major spur to this 'globalisation' of the automotive industry has been the movement of Japanese production off-shore into the USA, Europe and a number of NIEs. Production capacity over the last decade has grown faster than market demand. There is currently over-capacity in the international industry.

The state of the international industry and changes in its method of operation have obvious ramifications for the automotive industry in Australia. The following section of the report therefore provides a brief overview of the international automotive industry.

Passenger vehicle production and sales

Demand for new passenger vehicles, as measured by registrations, has grown at varying rates in developed countries over the last decade. In the world's single major market, the USA, demand has been stagnant while voluntary restraints on exports from Japan to the USA have been in place. By contrast, demand in many NIEs has grown strongly with, for example, the Republic of Korea experiencing a 250 per cent increase in demand between 1985 and 1988 (see Table 2.1). Industry expectations are that demand in Western economies will decline slightly in the immediate future, while strong growth will continue in the NIEs (and possibly in Eastern European markets).

Table 2.1: **Registrations of new passenger vehicles in selected countries: 1979 to 1989** ('000)

Country	*1979*	*1985*	*1986*	*1987*	*1988*	*1989*
Australia	462	509	398	363	410	448
Japan	3037	3104	3146	3274	3717	4404
USA	10335	11042	11452	10277	10479	9869
France	1976	1766	1911	2105	2217	2326[a]
West Germany	2623	2379	2829	2915	2807	2890[a]
United Kingdom	1716	1832	1882	2013	2215	2311[a]
Sweden	218	263	270	315	343	na
Mexico[b]	na	242	161	154	210	na
Republic of Korea	na	255	455	784	888	na

na: not available.
a Estimates. b Sales of local production/assembly only.
Sources: Motor Industry of Great Britain 1989; Intelligence Unit 1990; AIA 1990; IAC 1981b; Japan Automotive 1990.

World passenger car production in 1989 totalled 36 million units. Japan and the USA are the world's two largest producing countries accounting for over 40 per cent of this production (see Table 2.2). France, West Germany, the UK and Italy are also major producers. Over the last decade, there has been significant growth in production in NIEs. As shown in Table 2.2, the Republic of Korea's production increased four and a half fold between 1984 and 1988, and now accounts for about 2 per cent of total world production, whilst Mexico's production almost doubled between 1986 and 1989. At the firm level, the largest eight manufacturers -- General Motors (GM), Ford, Toyota, Nissan, Renault, Volkswagon, Fiat and Peugeot -- account for 78 per cent of world output (AMC 1990).

Scale economies in passenger vehicle production are important. This is indicated by the high production volumes of the major producers' vehicle models. For example, output of GM's top two models in 1988 -- the Chevrolet Corsica/Benetta and Chevrolet Cavalier -- was more than 300 000 units each. Toyota, the leading Japanese producer, manufactured nearly 700 000 Corolla's and nearly 350 000 Camry's. By contrast, in Australia, most models are produced at annual volume levels of less than 40 000 units with no model achieving more than 100 000 units.

Table 2.2: **Passenger vehicle production in selected countries: 1979 to 1989**('000)

Country	*1979*	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*
Australia	403	370	382	317	309	320	364
Japan	6176	7073	7646	7809	7891	8198	9052
USA	6550	7773	8184	7828	7098	7110	6822
France	3221	2713	2632	2773	3051	3223	3409
West Germany	3933	3790	4166	4310	4373	4346	4564
United Kingdom	1187	908	1047	1019	1143	1226	1229
Sweden	297	372	400	421	431	407	384
Mexico	na	na	na	236	276	354	439
Republic of Korea	na	158	264	457	793	872	872

na: not available.
Sources: Motor Industry of Great Britain 1989; Intelligence Unit 1990; AIA 1990; IAC 1981b; Toyota 1990.

Trade

There is substantial trade in passenger motor vehicles. With the exception of the USA and, to a lesser extent, the UK, the world's major producing countries are heavily oriented to exports. For example, Japan exports more than 50 per cent of its production. Further, with the exception of Japan, there are significant vehicle imports into most developed producing countries (see Tables 2.3 and 2.4).

The specialisation in production indicated by the combination of significant exports and imports is not restricted to major producing countries. Sweden, with similar production levels to Australia, has for many years exported more than half of its production and sourced more than half of its domestic requirements from imports.

The growth in exports achieved by individual countries in recent years has varied considerably. In the latter half of the 1980s, there has been a reduction in the volume of Japanese exports, reflecting the continuing trade barriers imposed by a number of countries on Japanese vehicles. For example, since 1980, Japan has 'voluntarily' restrained exports to America and Canada. Recently, the Japanese government decided to limit vehicle exports to the USA at the 1989 level of 2.3 million

units (Maskery & Chappell 1990). Consequently, Japanese producers are now increasingly supplying those markets from production facilities in those countries. By contrast, there has been strong growth in exports by NIEs. For example, the Republic of Korea's vehicle exports increased nearly five-fold between 1985 and 1988 -- from 119 000 units to 565 000 units.

Table 2.3: **Passenger vehicles exports by selected countries: 1979 and 1988**

Country	*1979*		*1988*	
	'000 units	*% of production*	*'000 units*	*% of production*
Australia	4	1.0	2	0.6
Japan	3102	50.2	4432	54.1
USA	782	9.3	781	11.0
France	1698	52.7	1353	42.0
West Germany	1997	50.8	2548	58.6
United Kingdom	393	33.1	261	21.3
Republic of Korea	na	na	565	64.7
Sweden	188	63.3	193	47.5

na: not available.
Sources: Intelligence Unit 1990; Japan Automotive Manufacturers Association 1988; AIA 1990; IAC 1981b.

Table 2.4: **Passenger vehicles imports by selected countries: 1979 and 1988**

Country	*1979*		*1988*	
	'000 units	*% of production*	*'000 units*	*% of production*
Australia	86	18.6	76	18.6
Japan	65	2.1	134	3.6
USA	3006	29.1	3678	35.1
France	429	21.7	570	25.7
West Germany	607	23.1	758	27.0
United Kingdom	966	56.3	927	41.8
Sweden	158	72.5	219	63.7

Sources: Japan Automotive Manufacturers Association 1988; AIA 1990; IAC 1981b.

Recent developments

Since the late 1970s, international passenger vehicle production has become increasingly concentrated and integrated. The last decade has seen a proliferation of intra-industry and intra-firm arrangements spanning many markets.

Integration of automotive production facilities around the globe is not a new phenomena -- Ford and GM have operated subsidiaries in countries such as Great Britain, West Germany, Australia and South Africa since the 1940s. Further, Volkswagon established a plant in the USA in the late 1970s.

However, the extent of off-shore production has increased dramatically over the last decade with the move by the Japanese to locate production facilities in a number of major overseas markets. The emergence of restrictions on Japanese exports, together with a growing shortage of land and increasing labour costs facing producers in Japan, were the main catalysts for this move.

During the 1980s, a number of major Japanese firms established production facilities in the USA. Honda was the first in late 1982, followed by Nissan in 1983 and Toyota through a joint venture with GM. All major Japanese vehicle manufacturers now have production facilities in North America, either on a stand alone basis or through joint ventures with USA or other Japanese producers. In 1983, production by these Japanese 'transplants' totalled approximately 75 000 vehicles. But within three years, that production had increased more than eightfold to over 610 000 units.

In the 1980s, Japanese manufacturers also began locating production facilities in Europe, with Nissan building plants in Great Britain and Spain. Further, Toyota is establishing a manufacturing facility in Great Britain, and has collaborative arrangements with other European producers.

Globalisation in the automotive industry has also seen a major increase in inter-firm linkages. Capital linkages have played a significant role in this integration. For example, GM has a five per cent stake in Suzuki, a 40 per cent holding in Isuzu of Japan and a 50 per cent share of Daewoo. Ford owns 24 per cent of Mazda and 70 per cent of a Taiwanese subsidiary. Chrysler has had links with Mitsubishi, which in turn owns part of Hyundai.

There has also been a substantial expansion in joint ventures as a means of sharing the substantial costs of product and technological development. For example, GM receives small vehicles from Suzuki and Isuzu (300 000 in 1987) and sells them in the USA under its own badge. In return, Isuzu markets GM's Opel vehicles in Japan. Joint ventures are also important in the components sector. For example, there are currently more than 500 joint ventures between USA and Japanese component producers (Chappell 1990). Further, Honda supplies engines and transmissions to Rover whilst, in return, Honda receives British assembled cars.

The emergence of the NIEs, such as the Republic of Korea, Brazil and Mexico, during the 1980s has also been an important part of the 'globalisation' process. Lower production and investment costs together with government assistance in some of these countries have been the major factors contributing to this growth. Apart from vehicle exports marketed directly by producers in these countries, there is significant sourcing of vehicles and parts from them by producers in developed countries. Examples include:

- under a Mazda-Ford-Kia partnership, a Mazda designed car is produced in the Republic of Korea by Kia with a large part of the production being shipped to and sold in the USA using the Ford sales network; and

- Mexico ships about one million car and light-truck engines to the USA and Canada each year, and is the key supplier of many labour-intensive components (Wards 1990).

Intra-firm trade has also increased sharply over the last decade. The Japanese are now beginning to import vehicles from their overseas transplants. For example, Honda is the USA's biggest exporter of cars to Japan. Ford's world car program (Tempo/Topaz/Sierra) is based on the principle of international specialisation of production. Further, as noted later in this report, small numbers of vehicles from Australia are sold by parent companies in the USA and Japan.

While there has been some rationalisation of production facilities over the last decade, the establishment of new, more modern facilities to accommodate changing consumer requirements accompanying globalisation has resulted in an expansion in global production capacity in this period. There is currently excess capacity in the industry world-wide. According to some estimates,

this over-capacity could be as high as six to ten million cars or 17 to 28 per cent of total production. However, such estimates include 'old' plants in the USA, which are dedicated to the production of left hand drive vehicles and which are unlikely to remain competitive in the longer term.

The above developments have ramifications for the Australian automotive industry. The increasing globalisation of the industry and the emergence of new markets, particular in the ASEAN region, may provide the Australian industry with opportunities in the future. However, gaining access to these markets will not be easy given the current lack of cost competitiveness of the Australian industry and the barriers imposed on imports to these markets by both companies and governments. Moreover, excess capacity internationally could mean that, in many countries including Australia, local producers will face greater pressure from imports.

2.2 Domestic industry and market information

Extensive information on the domestic automotive industry and the vehicle market in Australia has been presented by the AIA in its annual reports on progress under the current car plan (AIA 1986 to 1990).

This section of the report provides a brief overview of that material, supplemented as appropriate by information submitted to this inquiry. Some summary statistics are presented in Appendix D.

The significance of the Australian automotive industry

The Australian automotive industry is one of Australia's major manufacturing activities. Production of motor vehicles and components accounts for around five per cent of valued added and nearly six per cent of employment in the manufacturing sector (see Table D.1 in Appendix D). The industry's value added represents around one per cent of Australia's total gross domestic product. However, this activity is dependant upon substantial government assistance (see Chapter 5).

Like other industries, the automotive industry sources inputs from a range of industries. While the industry accounts for only one per cent of total purchases from the rest of the economy, for some

manufacturing industries including basic metals, fabricated metal products and leather, rubber, glass and plastic goods, it is an important customer (see Table D.2). It also has technological links with a range of other manufacturing and service industries.

The purchase and operation of vehicles represents a major component of consumer spending. Such expenditure was some $23.4 billion in 1989-90, representing about 11 per cent of total private consumption in that year (ABS 1990).

Reflecting the significance of consumer spending on the purchase and operation of motor vehicles, there is considerable activity and employment in the distribution, retailing and servicing of motor vehicles. In 1988, there were about 2000 vehicle dealerships which employed about 60 000 persons (AIA 1989, p 89). Evidence provided by the Motor Trades Association of Australia (MTAA) indicates that total employment in the automotive retail, service and repair sector is over 250 000 persons.

Structure and operations of the Australian automotive industry

Domestic production comprises passenger vehicles and their derivatives, and components for those vehicles. There is no local production of non-derivative light commercial or four-wheel drive vehicles.

There are five local vehicle assemblers -- Ford, GMH, Mitsubishi, Nissan and Toyota. All are foreign owned. Other than facilities operated by Ford in Sydney, all passenger vehicle assembly plants are located in or around Melbourne and Adelaide.

In 1989, the industry produced a little over 364 000 vehicles with an ex-factory value of just over $6 billion. Virtually all of these vehicles were directed to the local market, with exports being a little over 5000 vehicles -- primarily to New Zealand. Other destinations included Papua New Guinea and the South Pacific region. The level of vehicle exports increased significantly in 1990 with the commencement of the Ford Capri export program to the USA. Present estimates are for annual exports under this program to reach a level of around 35 000 vehicles, valued at between $300 million and $400 million.

There are linkages between the vehicle producers. In 1988, Toyota and GMH established a partial joint venture known as United Australian Automotive Industries (UAAI). The model sharing arrangements entered into during 1989 under this arrangement include Corolla/Nova, Camry/Apollo and Commodore/Lexcen (AIA 1990, p 21). Also, Nissan and Ford share production of the Pintara/Corsair vehicle and each supplies the other with a commercial vehicle. There is also inter-company trade in components by vehicle producers.

There are as many as 500 firms supplying materials and components to the vehicle producers. The largest 35 of these account for about 80 per cent of sales. In addition, some major components are produced in-house by the vehicle producers. While there are several significant locally owned specialist component producers, the majority are foreign owned. Like the vehicle producers, specialist component producers are concentrated in Adelaide, Melbourne and Geelong. However, there is significant activity in Sydney and also in areas such as Albury-Wodonga, Ballarat, Bendigo, Launceston and Taree.

According to FAPM estimates, the total value of locally produced components incorporated in domestic vehicles was around $2.7 billion in 1989. Of this, sales by specialist component producers who are members of the FAPM totalled more than $1.7 billion, about 20 percent of which represented after-market sales.

To date, exports of components and knocked-down vehicle packs have been much more significant than vehicle exports. In 1989, component exports accounted for $449 million out of total automotive exports of $650 million (see Table D.3). Component exports include engines, braking equipment and wheels. Major destinations for component exports include the Federal Republic of Germany and the UK (mainly engines), New Zealand (ckd vehicle packs), the USA and Japan.

At 30 June 1989, employment in the domestic industry was more than 60 000 persons -- 33 500 were employed by the five vehicle producers and 27 000 by the largest 35 specialist component producers. Employment in the industry has declined by more than 20 per cent over the last decade (see Table D.4).

Profitability in the industry is, in aggregate, poor. Vehicle producers have experienced negative returns on sales of locally produced vehicles in three of the past five years. However, when account is taken of vehicle importation activities, overall profitability in the vehicle assembly sector is a little better. Profitability in the specialist components sector has been consistently better than for vehicle assembly (see Table D.5).

The importing, distribution and service sector

There are around 15 specialist importers of passenger motor vehicles into Australia. In addition, the vehicle producers are themselves significant importers. In 1989, just over 126 000 vehicles were imported with an fob value of nearly $1.4 billion. Employment by specialist passenger vehicle importers totalled around 2000 persons in 1989 (AIA 1990, pp 89, 96). As noted earlier, there is also very significant activity and employment in the vehicle distribution and service sector.

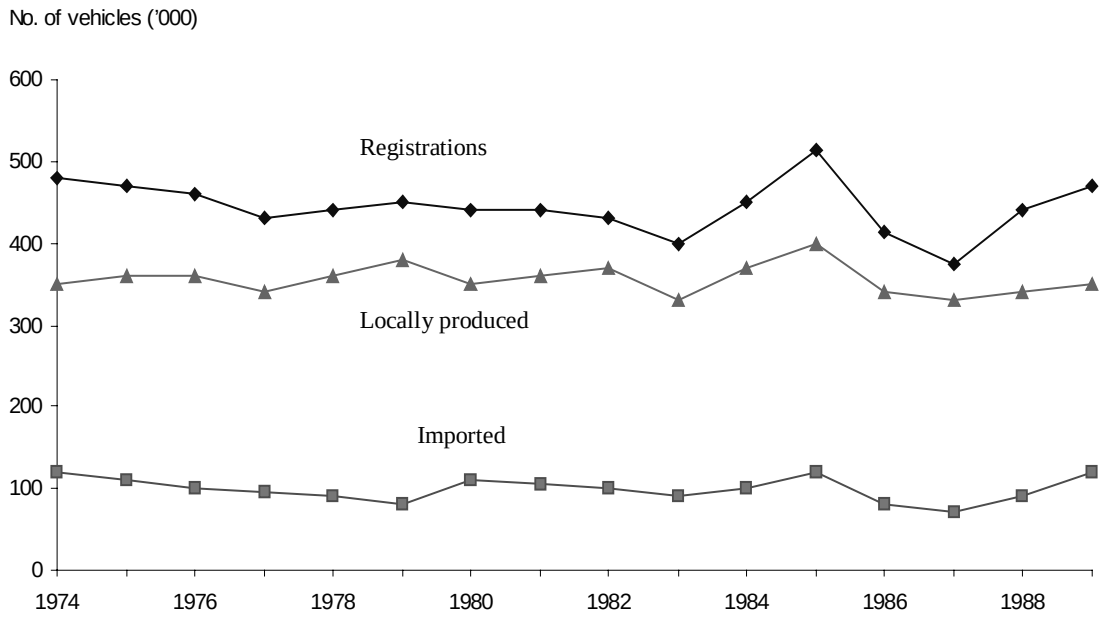
The vehicle market

In 1989, sales of passenger vehicles were a little over 448 000 units. Of these sales, locally produced vehicles accounted for about 339 000 units or some 75 per cent (see Table D.6). As shown in Figure 1, the total passenger motor vehicle market, and the share of that market held by domestic producers, have been essentially static over the last 15 years. This is despite the fact that there has been a twenty per cent increase in population and, by some estimates, there are now three million more people of vehicle buying age in the community. The FCAI Importers Group noted that, over the same period, total sales in other OECD countries had increased by an average of 40 per cent.

Sales of non-derivative light commercial and four-wheel drive vehicles totalled around 135 000 units in 1989, compared to some 92 000 units in the previous year and more than 175 000 units in the peak year of 1984. These vehicles are all imported.

For most of the period since 1985, between 70 and 80 per cent of passenger vehicle imports have been sourced from Japan. Virtually all remaining imports are sourced from Europe or from the Republic of Korea (see Table D.7). Around one-third of passenger vehicle imports are entered by vehicle producers to supplement their model range (see Table D.6).

Figure 1: **Trends in the Australian passenger vehicle market: 1974 to 1989**



Sources: AIA 1986 to 1990; IAC 1981b, 1983.

While new passenger vehicle sales have been stagnant over the last 15 years, the number of vehicles on the road has increased steadily. This points to an ageing of Australia's vehicle stock. Evidence from the FCAI indicates that the number of vehicles aged 10 or more years in use has increased from 1.2 million in 1971 to 4.3 million in 1988, or from 23 to 47 per cent of the 'vehicle park'. Mazda provided information that indicates that the passenger vehicle replacement cycle is now in excess of 17 years in Australia compared with 13 years in the USA and 8 to 11 years in most other western countries.

Better built and more durable vehicles as well as better roads would have contributed to the ageing of Australia's vehicle stock. Regulations and harsher climatic conditions may also account in part for the lower age of the vehicle fleet in many northern hemisphere countries. However, the high cost of new vehicles in Australia as a result of the very significant price raising assistance provided to the domestic industry has been an important factor.

Vehicle prices

Since the commencement of the current plan, the average price of passenger vehicles has increased by more than 50 per cent, compared to an increase of 36 per cent in the Consumer Price Index (see Table D.8). Most of this increase occurred in the period 1985 to 1987, at a time when the value of the Australian dollar depreciated significantly. Since 1988, the removal of quotas and reductions in tariffs have been accompanied by a fall in the real price of both locally produced and imported passenger vehicles.

3 PRODUCTIVITY AND QUALITY ISSUES

The reference asks the Commission to identify and report on factors which will influence the automotive industry's international competitiveness.

The industry's future productivity and quality performance is obviously vital in this regard. If the industry can improve its productivity and quality performance relative to its overseas competitors, then its capacity to cope with future reductions in assistance will be enhanced. But if the industry fails to match or surpass the improvements achieved overseas, then the resulting reduction in its competitiveness will make it more difficult for it to adjust to lower assistance.

Information documented in Appendix E points to a number of broad areas in which the industry lags behind its overseas competitors and thus to some potential sources of improved productivity performance in the industry. These include greater realisation of economies of scale, better capacity utilisation, more efficient labour market practices, reduced labour turnover, better management practices and increased product quality.

The need to continue to improve productivity and quality performance is widely recognised by the industry and the union movement. An important part of initial industry submissions to the inquiry comprised information on initiatives currently in train to improve performance and what is planned for the future. Much of that material was qualitative rather than quantitative. However, in draft report submissions and at the draft report hearings, industry participants provided some estimates of the magnitude of the productivity gains that might be achievable in the foreseeable future.

With some 70 to 80 per cent of the total cost to produce a car accounted for by brought-in components and services, vehicle assemblers argued that the potential for significant future productivity gains by the industry depended greatly on efficiency gains being made in the components and services sectors.

Both vehicle and specialist component producers supplied information on the extent of productivity gains currently being asked of component suppliers. The FAPM and a number of specialist component producers said that most vehicle assemblers are now demanding productivity gains

sufficient to achieve real price reductions of around five per cent per annum (that is, CPI less five per cent) as a condition of longer term supply contracts, although the extent of productivity offset negotiated varies from vendor to vendor. GMH, Toyota and Nissan confirmed that they are seeking real price reductions of around five per cent per annum but indicated that they are not achieving this figure across-the-board. GMH, for example, stated that it is only achieving, on average, about two per cent. Toyota indicated that, under many of its agreements, suppliers are required to absorb half of any cost increases in labour and variable overheads in addition to the productivity offsets negotiated. Mitsubishi said that its negotiations with individual vendors are based on what pressure it believes each company can bear over the time period of the contract. The company said that it has recently negotiated productivity improvements with its major suppliers to at least maintain their relative position compared to their overseas competitors.

As to efforts being made by the vehicle assemblers to improve their own productivity, GMH provided the following report card of its performance. The company said that it:

- has completely restructured the company over the last four years;
- has rationalised its assembly plants to a single plant operation;
- has fully double-shifted the plant;
- has made significant attempts to improve cost structures on changeover to new model series;
- has significantly reduced its employment levels;
- has set and met annual labour productivity targets in the plant of between 7 and 10 per cent over recent years;
- has demanded higher quality from its suppliers which is leading to improved in-house productivity and efficiency;
- can improve productivity by capital investment;
- can improve the efficiency of the product by better design; and
- can look at rationalising its overhead cost structures.

For its part, the FVIU has set up nine union working parties to review the successes, failures and answers, from the unions' perspective, to a wide range of issues impinging on improved

productivity and quality in the automotive industry -- namely occupational health and safety regulations, and associated insurance premiums; tooling; research and development; quality; work organisation and changes; labour turnover, absenteeism, management practices and the Labour Adjustment Training Arrangements scheme; industrial democracy and communications; training; technological change; and industrial relations.

The remainder of this chapter discusses the evidence on the potential scope for improved performance in the key areas identified in Appendix E.

3.1 Economies of scale and capacity utilisation

Information presented in Appendix E suggests that throughput in the Australian industry is well below the level required to minimise production costs. For example, assembly volumes of 200 000 per plant are generally regarded as necessary for efficient production. However, in Australia, no plant is currently operating at more than 100 000 vehicles per year. Moreover, capacity utilisation in the domestic industry is well below the levels achieved in overseas plants. Industry participants said that this reflected not only the low volumes produced in Australia, but also institutional factors such as higher shift premiums in Australia and the lower number of hours Australian employees work compared to their overseas counterparts.

While there are potentially large gains to be had from increased scale and capacity utilisation in the Australian industry and particularly in the components sector, this does not mean that the scope for realising those gains is large.

Rationalisation in the local industry will not necessarily provide significant increases in throughput. Very close imported substitutes are available for most vehicles produced by the domestic industry, including vehicles produced by the same firms overseas. This suggests that much of the demand for deleted vehicles could flow to imports. Mitsubishi said that this had occurred in the case of its deleted Colt model.

Export programs are another avenue for increasing the scale of operations in the domestic industry. However, the evidence in Chapter 5 indicates that most of our existing automotive exports require subsidies. This suggests that, as assistance is reduced in the future, local producers will have to lift their performance to hold onto existing export markets and embark on new export programs.

If the scope for significantly increased scales of operation and capacity utilisation in the industry is limited, then productivity improvements in this area will essentially depend on initiatives to find ways to compensate for low volumes of production.

Participants commented on a range of initiatives in this regard including:

- increasing model life cycles;
- badge engineering;
- greater intra-industry trade;
- greater commonality of components used; and
- greater use of flexible manufacturing technologies.

However, there was a widespread view that many of these initiatives may offer fairly limited scope for improvements because, although lowering costs, they reduce the attractiveness of products in the market.

Improved economies of scale can be achieved by increasing the life cycle of a vehicle model. This is a common practice in Australia. But a number of participants said that the international trend is towards shortening of model life cycles, brought about mainly by improved technologies that reduce the costs and lead times associated with product development.

Badge engineering clearly offers some scope for reducing costs through obviating the need for designing and tooling for additional local models at low volumes. Badge engineering under the current plan has also apparently contributed to some reduction in the costs of suppliers of 'under the bonnet' componentry.

However, the need to differentiate products has, according to the FCAI and others, seen a concomitant proliferation of items used for trim and styling. Hella, a manufacturer of 'visible' components, said that it had not benefited from the promised scale economies from either model reductions or badge engineering initiatives. The need for product differentiation may also place constraints on the scope for cost reductions from greater commonality of components and increased intra-industry trade.

This is not to suggest that future initiatives in these areas would not bring benefits to the local automotive industry. Bridgestone Australia noted, for example, that savings of 5 to 15 per cent on a typical $300 car seat were achievable through rationalisation of the basic seat structure and using it for several models. Henderson's said that there are presently some 30 different basic seat designs manufactured in Australia. Similarly, Pilkington indicated that it currently has to produce glass for 26 model variants.

As discussed in Appendix E, the greater use of flexible manufacturing technologies apparently allows more economic production of individual batch runs within a plant. But most participants argued that, at the same time, it requires increased throughput in the plant as a whole to operate efficiently.

3.2 Tooling, product design and technology

Machine tools and tooling

The lack of a sizeable domestic machine tool industry in Australia is seen as an impediment to the achievement of international productivity levels in the local automotive industry. Because most machine tools have to be imported, participants argued that the lack of ready access to the supplier's technicians generates additional costs in servicing equipment, particularly in regard to the downtime involved.

The Council of Australian Machine Tool and Robotics Manufacturers said that, while the local machine tool industry is not competitive in the mass production machine tool market, it is competitive for specialised niche markets or one-off applications. In fact, evidence was provided in draft report submissions of a number of export successes in these areas.

While the Commission accepts that a sizeable machine tool industry in Australia would benefit the automotive industry, it has received no evidence to suggest that such an industry will emerge in the future. Accordingly, this lack of local capacity is likely to remain an impediment to the Australian industry in the foreseeable future. This is not to suggest that remedial action is required -- the existence or otherwise of a significant machine tool industry in Australia should properly be regarded as a natural feature of the automotive industry's operating environment.

As regards tooling, the Commission notes that the automotive industry's costs are increased by tariffs on imported tooling. Accordingly, future reductions in the tariff on imported tooling as part of current and future general tariff reduction programs will provide a small benefit to vehicle producers.

Product design and technology

The skills and technologies in the Australian automotive industry include capabilities in casting, forging, plastic and rubber moulding, electronics, metal stamping, paint finishing, and product design and engineering.

Component manufacturers were, however, critical of the increasing dependency of local vehicle producers on foreign vehicle designs. The FAPM argued that this practice reduces the competitiveness of local component producers. In this regard, the FVIU questioned whether some plan producers are inhibiting significant productivity gains by:

- denying component producers the opportunity of being involved in product design and simply handing them the overseas blue prints and specifications;
- failing to push component commonisation into some of the volume sensitive areas where the full potential of design productivity can be realised; and
- the parent company taking decisions to simply continue making in Australia vehicles that are virtually identical to those mass produced overseas which in turn provides a significant advantage for some of the overseas suppliers.

But the FCAI argued that:

> ... the key product design and engineering expertise must remain with the assembler, who is ultimately involved in the development of the vehicle concept. If vehicles are to retain some identity, they must be designed and engineered as unique products rather than collections of components produced by independent suppliers.

Then again, Toyota stated that, in its view:

> By the year 2000 it is likely that all locally manufactured vehicles will be developed based on an overseas design.

At the draft report hearing, Mitsubishi was another to suggest that globalisation will bring to an end the concept of a totally Australian designed car. However, it considered that the move to overseas designed cars would still present opportunities for local design work and component supply, in order to make these cars more suitable for Australian conditions. It also suggested that this localisation process has conferred and would continue to confer a degree of natural advantage to the local car and might also result in niche vehicle export sales, as is about to occur with its localised Magna Wagon.

In the Commission's view, product design and the sourcing of technology are matters properly determined by the industry on the basis of usual commercial considerations. The Commission received no evidence to suggest that there are any specific impediments subject to the influence of governments which are having an undesirable influence on design decisions or activity. The Commission considers that any specific measures designed to push the industry in a particular direction in terms of product design would reduce its commercial performance and international competitiveness.

3.3 Labour issues

Because direct labour costs represent only a small component of total vehicle costs, the FVIU cautioned against concentrating too heavily on labour efficiency issues as a means of achieving big productivity gains. Nonetheless, improving the efficiency with which labour is used can enhance productivity performance and improve product quality (see Section 3.5).

The Commission received information on a wide range of labour-related issues that participants claimed were impeding the local industry's productivity and quality performance, and thus adversely affecting its competitiveness. They included the issues of labour turnover and absenteeism, award restructuring, training, union structures, enterprise bargaining, general labour market reform, payroll taxes, superannuation, workers compensation, differences in work ethic, and the number of days worked each year -- including rostered days-off.

While initiatives in all of these areas can improve the industry's productivity performance, the Commission has concentrated on what it sees as potentially key areas.

Labour turnover

As discussed in Appendix E, labour turnover in the local automotive industry has been high by international standards, but has declined during 1990 because the industry is contracting and because of more limited employment opportunities elsewhere in the economy.

High turnover increases recruitment and training costs and also reduces competitiveness through the loss of skills and experience. The results of a recent study commissioned by the Automotive Industry Council (AIC) suggests that labour turnover added about $850 to the cost of locally produced vehicles in 1989.

According to the study, engendering a commitment in the workforce to the organisation is the key to dealing with high turnover and absenteeism. It argues that initiatives should begin with a change in management style towards more open, communicative and consultative practices (AIC 1990, Overview).

With the cost so high, most participants indicated that they had already implemented programs to increase their ability to retain their skilled and experienced employees. GMH noted that the new career structures for non-trade and trade employees, negotiated under the award restructuring process, will assist in addressing the turnover issue. Some firms said that the use of incentive payments based on length of service might also help, but suggested that, in the current labour market climate, it could be difficult to get union agreement. No estimates were provided of the extent to which such initiatives might actually reduce the level of turnover in the industry.

At the draft report hearings, the FVIU indicated that the question of labour turnover is to be reviewed by a union working party and addressed not only in terms of the costs it adds to the vehicle, but also in terms of the pressures that it imposes on employees in the industry.

Award restructuring

Award restructuring is intended to provide efficiency and productivity gains to industries through, for example, revised job classification structures, elimination of impediments to skill acquisition, the establishment of career paths and improved work organisation. Unions in the automotive industry have recognised the need for a well trained, flexible workforce capable of accepting change.

There has been progress in award reform in the automotive industry. The Department of Industrial Relations (DIR) said:

> In the vehicle assembly sector, the automotive companies have finalised award restructuring agreements with the vehicle unions. The key features are
>
> • new skill related and integrated career paths
>
> • training initiatives
>
> • flexibility arrangements
>
> • work organisation
>
> Enhanced training through the development of the Vehicle Industry Certificate (VIC) for the non-trades group of employees is integral to the award restructuring process. New pay levels for this group are linked to the VIC which is to be a nationally recognised qualification. The VIC will be articulated with other training, allowing employees completing the Certificate to move to trades, technical supervisory or clerical streams.
>
> The components sector is largely covered by the Metal Industry Award, which has also been at the forefront of award restructuring developments.

In their initial submissions, participants were generally of the view that award restructuring has brought or will bring net benefits for the industry. For example, Nippondenso stated:

> Award Restructuring already has assisted operations ... (by way of):
>
> • greater flexibility of employees (through broader skills).
>
> • increased employee involvement, giving greater commitment to quality and productivity.
>
> • greater acceptance of improved factory layout and new equipment.
>
> • more machine uptime, less scrap.
>
> • reduced stock holding.
>
> • introduction of team concepts, less supervision, flatter organisation.

> Many of these initiatives are progressing through pilot stages and after acceptance, will be introduced throughout the operations.

At the draft report hearings, however, there were differing opinions on the benefits to date of the award restructuring process. On the one hand, the FAPM said that, despite considerable time and effort over the last few years, the components industry had not '... really got a win yet out of award restructuring.' On the other hand, the FVIU considered that, within the vehicle assembly sector, the process had in many instances delivered instantaneous results in terms of better productivity. Then again, there was broad recognition of the time frame involved in achieving the required attitudinal change in the workforce before multiskilling and new technology is fully accepted. The DIR said that '... the reform process has only just started and the current challenge for the industry is to implement award restructuring agreements made at the peak level and to progress reform in the workplace.' The FVIU also suggested that some of the initiatives that could be undertaken on the shop floor were dependent on further investment.

Whilst most in the industry see award restructuring as bringing benefits to the industry now or in the future, the quantitative impact of the process on closing the productivity gap with overseas countries is unclear.

Training

As discussed in Appendix E, the level of training of both newly hired and experienced employees in the automotive industry, though increasing, is still on average well below levels achieved by many overseas competitors.

While cautioning against inferences about desirable levels of training for Australia based on overseas experience, virtually all industry participants acknowledged that higher levels of training would be beneficial to the Australian automotive industry. Higher levels of training for workers were seen as contributing to a more committed and skilled workforce, thereby enhancing both the productivity of labour and the quality of output. Increased management training was seen as essential to the successful implementation of the reforms necessary for continued productivity and quality improvement.

Generally speaking, courses offered by educational institutions were seen by participants as being broadly appropriate to the needs of the industry, especially those now offered at TAFEs. Indeed, a number of participants provided information on the interaction that has occurred in recent years between the industry and educational institutions, designed to put in place relevant courses and to prescribe course contents (for example, for robots and their maintenance). The Society of Automotive Engineers said that major course changes were generally two to three years in the planning and then another four years before graduates enter the workforce.

GMH, while expressing some concern over the adequacy of Australia's educational institutions and the infrastructure required to support industry training, considered that implementation of both the Vehicle Industry Certificate and the Advanced Certificate will significantly increase the training effort carried out within the industry. The company said that:

> The Vehicle Industry Certificate and the Advanced Certificate, which are central features in the non-trades and trades career structures respectively, will encourage employees to acquire a broad range of skills training which is based on the needs of the industry and carries accreditation.

One major impediment to increased industry-sponsored training of workers is said to be the high levels of labour turnover in the industry. Industry participants argued that it is often difficult to justify spending large amounts of money on training employees when a significant number of them may leave soon after. This suggests that the potential gains to the industry from reducing labour turnover could be higher than the direct cost saving of $850 identified in the AIC study.

Industrial relations

The automotive industry has displayed a variable industrial relations performance since the commencement of the current car plan. In 1989, days lost through industrial action in the industry exceeded the manufacturing average by more than half. In the past, a significant proportion of days lost has stemmed from disputes not specifically related to the automotive industry (for example, in the raw materials or services industries). Within the industry, a disproportionately high number of days lost has originated from disputes in the components sector, predominantly in companies which are sole domestic suppliers.

The automotive industry, like most Australian industries, has a number of unions which represent employees in any one workplace.

According to the AIA, multiplicity of unions at a single enterprise has, in the past, adversely impacted on industry efficiency with multi-union coverage reinforcing rigid work practices and, in many cases, causing industrial conflict (AIA 1990, pÿ32). Most industry participants in this inquiry concurred with the AIA's views arguing that multi-union coverage at the enterprise level is a major source of industrial relations problems. BTR Engineering commented that, on the basis of its experiences with a multiple union structure at its axle plant in Fairfield NSW, and a virtual single union structure at its transmission plant in Albury NSW, its distinct preference was for a single union. The DIR said:

> The necessity of union rationalisation is most starkly illustrated by the perennial disruption caused by the industrial action in the components sector impacting on the assembly sector.

However, Hella said that the multiplicity of unions at its plant in Mentone Victoria has not hindered its operations due primarily, it believed, to the consultative management practices it pursues. In fact, the company considered that the introduction of enterprise-based bargaining could have a deleterious effect on its current management/union relationships.

The sentiments of the vast majority of industry participants in this inquiry regarding problems arising out of inefficiencies identified in the general labour market are adequately summarised by GMH's position. The company argued that:

> Australia's "conciliation and arbitration" system is not well placed to speedily resolve (or eliminate) plant level or enterprise disputes ... A complex, capital intensive industry which relies on inputs from a large number of independent suppliers, such as the car industry, is vulnerable to this environment ...
>
> Union bargaining structures limit the industry's ability to overcome the inherent inflexibility of the industrial relations system. This often results in wage structures and conditions that are inappropriate for the circumstances of the industry.

> Union structures also extend to instances of inter-union conflict, with some unions having a majority of their membership based outside the automotive industry and others represent particular, specialised areas of work.
>
> A genuine automotive industry union offers the best prospect of improved industrial relations and superior bargaining outcomes based on mutual interest -- that is, reduced sources of inter-union conflict and appropriate wage structures and conditions of employment based on the needs of the industry. Such a union should also have coverage of the automotive component producer sector.

At the draft report hearing, the FVIU gave a clear indication of the vehicle industry unions' commitment towards more decentralised wage and work practice determinations and recognised the need for union rationalisation in the industry. The South Australian branch of the United Trades and Labour Council (UTLC (SA)) said that the automotive unions are seriously looking at the prospect of achieving a one union per car plant structure over the next two years. The DIR noted that amalgamation between some automotive unions has already occurred and said that, in its view, there is the potential for a single industry union within the not too distant future.

3.4 Management practices

As discussed in Appendix E, there is a variety of evidence pointing to the need for more effective management practices if efficient and high quality vehicle production is to be achieved. High quality management contributes both to the implementation of efficient production practices in areas such as waste management, stock holding and utilisation of factory floor space, and in promoting a motivated and adaptive workforce. As already noted, the recent AIC (1990) study has identified management practices as the key to reducing labour turnover and absenteeism in the Australian automotive industry.

The importance of improved management practices as an on-going process was widely recognised by industry participants. Mitsubishi stated:

> Investment and automation will play a significant role in ... improvements (in performance). However, the major factor will be the further implementation of the management policies ... which emphasise:
>
> • ensuring the right processes are used; and
>
> • all the workforce is involved in continuous improvement.

Notwithstanding the obvious importance of improved management practices to the industry's future prospects, the evidence to the Commission does not indicate that there are any major impediments subject to the influence of government in this area which would warrant specific remedial action.

That said, Walker and the FCAI argued that labour market practices in Australia would make it difficult to introduce such initiatives as performance-based pay or, because of the level of industrial disputes, to obtain the maximum benefits from full implementation of 'just-in-time' practices.

3.5 Quality issues

As discussed in Appendix E, the industry is currently addressing the quality gap that it suffers against its overseas competitors. The production of high quality products was generally regarded by the industry as essential if it is to become internationally competitive in the future. Accordingly, industry participants indicated that further improvements in product quality are a key part of their strategies for the coming years.

A host of measures is being used to pursue higher quality. Much of the planned investment in new facilities in the industry is being directed at improved product quality. Efforts to reduce labour turnover and absenteeism, to increase training, to implement better work organisation and to enhance management practices and greater employee involvement in quality issues are all expected to improve product quality. For example, Nissan summarised its quality enhancement program as follows:

> In addition to the stringent quality control and product conformity assurance procedures for export, quality improvement programs have also been implemented throughout the organisation in the major areas of:
>
> • organisation and systems
>
> • new model development and launch
>
> • workforce skills
>
> • locally manufactured parts quality
>
> • manufacturing facilities.

There are also several specific programs already in place in the components sector. Ford's Q1 program, Toyota/Holden's QSA 'A' program and the Automotive Quality Assurance Process are three such examples. However, the National Association of Testing Authorities argued that there are too many quality assurance systems in the Australian automotive industry, resulting in unnecessary duplication and costs (for example, through multiple audits of component suppliers).

Notwithstanding the industry's recent efforts to improve its quality performance, the MTAA indicated that, from the dealers' perspective, not enough had been done. The Association concluded that:

> The history of Australian car plans has been disappointing in the failure to solve the problems of quality. In the end, lower protection may be the only incentive strong enough to bring about the required improvements in management, technology and employee attitudes.

While the past provision of high assistance to the industry has compensated for inferior quality performance, there appear to be few, if any, specific obstacles to improved quality performance in the industry which are directly attributable to the Government and which might therefore warrant a specific recommendation in this inquiry. Accordingly, the Commission considers that the industry's future achievements in this area will depend almost entirely on its own efforts in the various areas referred to above. Again, however, little information was submitted on how quickly the quality gap with overseas competitors might be closed in the post-1992 period.

3.6 Conclusions

The industry has made significant efforts to improve its productivity and quality performance since the commencement of the current car plan and has a number of initiatives in train to achieve further gains.

The Commission notes that natural features of the industry's operating environment, the macroeconomic environment and the general structure of labour markets in Australia all act as impediments to improved productivity and quality performance in the industry.

But despite such impediments, information provided to the inquiry suggests that significant gains in productivity performance are potentially available. For example, reducing labour turnover in the local industry could provide a cost saving of hundreds of dollars per vehicle. And confidential cost information on relative production costs within the industry indicates that, if all vehicle producers were to operate at domestic best practice, then some producers' costs could be reduced by some 10 or 15 per cent. The FAPM suggested that relative productivity gains totalling around 25 per cent were possible in the components sector over the period to the year 2000. Other evidence also suggests that gains of this magnitude and more may be achievable. Holden's Engine Company, for one, indicated that it has achieved productivity gains in excess of 10 per cent per annum over recent years, although it acknowledged that it was unlikely to maintain this level of improvement as its competitiveness increased.

It is, of course, an improvement in the Australian industry's productivity greater than that achieved by competitors which is required to close the competitiveness gap. Some participants considered that it was unrealistic to expect local automotive companies to outperform the Japanese and other competitors by a significant margin due to the economic impediments they must bear locally that are outside their control. For instance, both Robert Bosch and Nippondenso said that, despite having the ability to reduce the productivity gap, they had little prospect of being competitive at substantially lower levels of assistance.

As to specific measures to improve performance, in the Commission's view, the industry's future productivity and quality achievements should be determined by its own efforts rather than being dependent on government initiatives. As the FVIU stated:

> (The Unions) ... agree that Government has an important role to play in encouraging micro-reform, establishing a better macro economic environment and providing a positive framework for the new car plan. However, this should not be used as an excuse to avoid the real issue, which is that management, unions and their members have to take a far greater responsibility for improvements in efficiency and competitiveness. Those who suggest that we wait until Government does its bit, and the Industrial Relations Commission removes penalty rates for double shifting, are in our view a sad example of what the legacy of protectionism has done to management in this industry.

Reductions in protection to the industry also have a role to play in hastening change. In this regard, the UTLC (SA) said:

> ... tariff protection has allowed manufacturing industry generally to maintain management and work practices which are not compatible with international 'best practices', and that this imposes unnecessary costs on other industry sectors and on consumers.

Similar sentiments were also expressed by the FCAI (see Chapter 7).

In summary, the industry clearly has the potential to improve its productivity and quality performance. Any improvements which the industry can make relative to its competitors will narrow the competitive gap and thereby enhance the industry's ability to compete with lower assistance.

4 THE IMPACT OF ECONOMY-WIDE FACTORS

As noted in Chapter 1, a number of economy-wide factors impact on the automotive industry's competitiveness.

These economy-wide factors can be divided into two groups -- those which constitute part of the Australian macroeconomic environment and those which reflect inefficiencies in other areas of the economy which supply inputs and services to the automotive industry.

4.1 Participants' views and experiences

Most industry participants argued that macroeconomic factors and inefficiencies elsewhere in the economy are major impediments to the automotive industry's competitiveness. Some suggested that Australia could not expect to have an internationally competitive automotive industry without a 'world class' economy. Accordingly, many industry participants argued that assistance reductions or the industry should be linked to reform elsewhere in the economy (see Chapter 6).

Macroeconomic factors

The main aspects of the macroeconomic environment of concern to participants were high interest rates, exchange rates, the level of inflation in Australia, and taxes imposed on the vehicle industry.

High interest rates were seen as disadvantaging the industry in two ways. First, industry participants argued that high interest rates in Australia place local producers at a significant disadvantage against their overseas competitors in making investments in plant and equipment. For example, Nissan said the interest cost of servicing its planned $523 million investments in machines, equipment and tooling for the introduction of new models and the upgrading of plant would be between $34 million and $60 million higher per annum in Australia than in the major car producing countries overseas. This, it said, equated to a penalty of between $550 and $1000 per car

at the company's forecast 1990 production levels. Second, participants argued that high interest rates were maintaining the value of the Australian dollar at an artificially high level thus making it more difficult for the industry to compete. The South Australian Government argued:

> In the South Australian context, monetary policy has been a particularly blunt instrument given the inevitable differences in State investment profiles. The same policy has created an overvalued Australian dollar placing industry under more competitive pressure than tariff reductions.

Apart from pointing to the adverse impact of what it considered to be an overvalued exchange rate, the industry argued that short term fluctuations in exchange rates damage an industry which has only a limited capacity to adjust production decisions in the short term. Toyota stated:

> Currency factors have a substantial impact on the local industry. In a deregulated environment, currency has an impact on the competitiveness of local vehicles vs imports and the competitiveness of exports. Short-term fluctuations and artificial aberrations caused by policy initiatives, adversely affect the automotive industry which by nature is a long-run, capital intensive industry with limited flexibility. A stable currency, which reflects the underlying economic fundamentals, should be a goal of the Federal Government.

Like producers in other markets, automotive producers can hedge against exchange rate fluctuations. However, industry participants claimed that this is a costly and only partial solution. BTR Engineering stated:

> BTR Engineering cannot hedge ... The cost is 4 to 5 per cent of the component's sale price which is expensive. Additionally, we have only been able to discuss such cover for up to 11/2 years. But we are already negotiating contracts 2 years out and looking at 5 year contracts.

While the local industry claimed to be disadvantaged by the exchange rate environment, importers argued that the substantial depreciation in the Australian dollar over the life of the current car plan has provided a major benefit to the local industry. BMW stated:

> ... the exchange rate depreciation provides a huge increase in effective "real" protection for the local vehicle manufacturers.

Inflation levels in Australia relative to other countries were seen as another major impediment facing the Australian industry. Participants argued that the faster escalation of costs in Australia has eroded many of the gains the industry had achieved through improvements in its productivity performance. For example, Toyota argued:

> Principle among the impediments experienced by the local industry is inflation, which has been consistently two to four times higher than that for major overseas manufacturing countries through most of the 1980s. The impact of inflation is rapidly to erode productivity improvements, reducing competitiveness. ... If Australian inflation could be reduced to below that of major automotive producers, or even eliminated, protective barriers could be substantially reduced because of resulting improvements in competitiveness.

Holden's Engine Company said that, at forecast Australian inflation rates for 1990 and 1991, the competitive position of its engines, compared to the same engines produced in Europe, will decline by some $50 per engine per annum. The company went on to argue that:

> Such a deterioration would run a severe risk of volume loss for HEC, resultant from German, UK, South African and Korean customers re-sourcing business to lower cost alternatives.

Many participants argued that taxes and government charges have a significant impact on the industry's costs and reduce the market available to it. Toyota stated:

> ... the disproportionately high level of taxes on motor vehicles and their operation ... act to:
>
> (i) substantially increase the cost of transport to the Australian Community;
>
> (ii) act as a deterent to new car sales, which in turn has contributed to the substantial ageing of the Australian park. Reduction in automotive taxation has the potential to boost vehicle sales and production during a period of restructuring.

Microeconomic inefficiencies

As part of its inquiry, the Commission sought information on the impact of inefficiencies elsewhere in the economy on the automotive industry.

While only limited quantitative information was received, inquiry participants stressed the importance of microeconomic reform to improving the local automotive industry's international competitiveness. The Victorian Minister for Industry and Economic Planning stated:

> I urge the Commission ... to urge the Commonwealth Government to push ahead with microeconomic reform.

Apart from labour market problems which were discussed in the previous chapter, inefficiencies in road, rail and sea transport were targeted as having a major adverse impact on the automotive industry. Whilst acknowledging that such inefficiencies also disadvantage importers, industry participants argued that they suffer to a greater extent. Some concern was also expressed about the cost impost for the local industry of tariffs on raw material inputs, such as steel and plastics, and on tooling requirements.

Vehicle producers were particularly critical of inefficiencies in Australia's rail system. GMH stated:

> The logical transport medium for the car industry to use is rail, but Australia's rail system is too costly, too inefficient and offers too poor a service for this to be practicable. An improved rail service could reduce outward finished product freight cost by at least 15 per cent.

A major problem cited with current rail freight services was the absence of regular services between capital cities, with a consequent increase in inventory costs. GMH estimated that:

> ... if line haul deliveries between capital cities were available every 2 to 4 hours, with strictly scheduled timing, substantially greater use of Just in Time delivery could be made. This single change would lead to a reduction in inventory by 15 per cent and a reduction in total freight cost by 8 per cent, for those goods carried by rail.

Savings were also seen as arising from establishing common freight terminals and reducing differences in the standards and requirements imposed by the various rail jurisdictions.

Even with improvements in the efficiency of rail transport, participants argued that road would remain an important medium for shifting vehicles and components within Australia. For example, GMH stated that it would not be possible to make extensive use of rail in vehicle delivery unless there was regular use of three deck carriages around Australia. The company said that this is currently not possible because of bridge and tunnel constraints.

GMH went on to argue that the poor standard of roads, leading to problems of transit damage, and the lack of a uniform set of operating regulations and standards reduced the efficiency of road transport. It estimated that a uniform and moderately liberal set of standards could reduce the cost of new car delivery by 15 per cent. Toyota said that the industry has estimated that it could save $20 million if nationally uniform road transport regulations were enacted and, in particular, if the Victorian road regulations relating to the size of car carrying trucks were made uniform with those of other States.

In the area of sea transport and the waterfront, industry participants pointed to the high cost of shipping facing Australian exporters of automotive products. Of prime concern were high freight rates between Australia and New Zealand. An agreement between the waterfront unions in the two countries to restrict the Trans-Tasman route to Australian and New Zealand-crewed ships contributes to these high rates. Mitsubishi noted that it costs $20 more to ship a car from Australia to New Zealand than it does from Japan. Toyota stated:

> Toyota has dedicated car carrier ships which deliver imported vehicles and CKD packs from Japan to Australian ports. The ships then sail to New Zealand, mostly empty, then return to Japan. ... Freight rates [on Australian exports to New Zealand] could be reduced substantially if the Trans-Tasman shipping were deregulated and our own ships could be utilised for vehicle exports.

The FCAI has recently estimated that the use of these dedicated car carriers could reduce the cost of freighting a vehicle from Australia to New Zealand from $950 to $600 and, at the same time, virtually eliminate the problem of damage to vehicles. At present, 20 per cent of Australian cars arriving in New Zealand are damaged on delivery (Mellor 1990).

Participants also argued that inefficiencies on the waterfront cause considerable delays, with a consequent need to increase inventories in order to minimise disruption. GMH noted that it attempts to compensate for port delays by increasing its inventory of imported components by around 15 per cent. Some doubts were also expressed about the extent of the benefits that would flow from the current program of coastal shipping reform. Nissan stated:

> In the shipping area it is disappointing that traditionally this industry has not been able to transport vehicles around the coast of Australia ... (we are) more optimistic here that the reform process that is going on will

> ultimately give us the opportunity to do that but (we) doubt it in the next 2 or 3 years. There is a lot of modernisation of ships to take place, a lot of de-crewing and training to take place but again (we) have to say the price is the issue and you do not see that mentioned very often in reform principles.

Arrowcrest, a major exporter of steel and aluminium wheels, said that delays in transporting products by sea to the USA had required it to build an additional safety margin into the supply pipeline, in the form of a warehouse facility in the USA, at a cost of more than $300 000. The company also said that it had incurred a further cost of about $50 000 on three occasions, when changed shipping schedules (twice), and excessive queues at the Port of Melbourne (once), had necessitated the use of air freight to transport its wheels to the US market. To overcome these sorts of problems, Arrowcrest said that it has been forced to carry an additional month's stock in the USA at considerable cost.

4.2 The significance of economy-wide factors

While lower interest and inflation rates and a lower and more stable dollar would clearly provide benefits to the automotive industry, in the Commission's view, it is not clear that the macroeconomic environment since the commencement of the current car plan has been universally unfavourable to the industry. In particular, the Commission observes that, even after accounting for the effect of inflation, the depreciation of the Australian dollar since the commencement of the current car plan has boosted the industry's competitive position. This has permitted the industry to cope reasonably well with the significant reductions in assistance under the current car plan.

More generally, while high interest rates etc impose costs on the industry, similar costs are imposed on other activities in the economy. This is relevant in assessing the extent to which output or profitability in the automotive industry might increase if, for example, interest rates were to fall significantly. The automotive industry would of course benefit, but so would other industries with which the automotive industry competes for resources. From this perspective, the impact of the domestic macroeconomic environment on the Australian automotive industry is further clouded.

The gains from microeconomic reform

The overall consequences for the automotive industry of inefficiencies elsewhere in the economy are indicated by work the Commission has undertaken on the benefits of microeconomic reform using its ORANI model of the Australian economy.

The economy-wide implications of such reform were reported in the Commission's 1989-90 Annual Report (IC 1990d). Information in that report indicated that the removal of major inefficiencies in the road, rail, water and air transport sectors, and in the postal, telecommunications and electricity sectors, together with the improved provision of water and sewerage services, the contracting-out by governments of certain services and capital works, and the removal of assistance to agriculture and manufacturing could boost Australia's Gross Domestic Product by around $22 billion and increase average household income by around $2300 each year.

At the industry level, the impact of these microeconomic reforms is more complicated. Microeconomic reform will obviously affect different industries to varying extents. And, as in the case of changes in the macroeconomic environment, an industry may experience an initial reduction in costs from a particular microeconomic reform, but whether it will benefit from that reform in terms of an increase in its output will depend on how the reform affects other industries with which it competes for resources. Similarly, the ORANI framework illustrates that the impact of microeconomic reform on competing imports will also influence how an industry fares.

The Commission's modelling work suggests that the automotive industry[1] would be a major beneficiary of microeconomic reform of other sectors of the economy. Collectively, the microeconomic reforms listed in Table 4.1 are estimated to increase the industry's output by around 8.5 per cent which, on the basis of 1989 production levels, translates to an annual increase in output of around 20 000 vehicles. Employment is projected to increase by a similar rate which, on current levels, translates to more than 4000 persons. More general microeconomic reform would therefore partly offset reductions in activity and employment resulting from reductions in assistance to the automotive industry.

1 See Appendix F for a definition of the industry modelled in these simulations.

The most important element of these gains is reform in the road transport sector. The Commission's simulation covers the impact of restructuring of road charges to conform to the user pays principle and increased productivity from improved road durability. The restructuring of road charges and more durable roads would have complex effects on the automotive industry. Lower production costs in the automotive industry, higher income levels in the community and reduced vehicle operating costs are among factors which would contribute to an increase in demand for locally produced vehicles (see Appendix F).

Table 4.1: **Impact of selected microeconomic reform on output in the automotive industry** (percentage change)

Source/Industry sector of reform	*Effect on Automotive Industry Output*
Road Transport	4.1
Domestic Aviation	..
International Aviation	0.8
Communications	0.6
Domestic Water Transport	0.1
International Liner Shipping	-1.4
Bulk commodity handling	-0.9
Rail Transport	-0.1
Electricity	0.4
Contracting out of certain government services and capital works	1.0
Improved provision of water services	-0.1
Removal of agricultural and other manufacturing assistance	4.0
Total	8.5

.. Between -0.05 and 0.05 per cent.
Source: Commission estimates.

The other major reform benefiting the automotive industry is the removal of assistance to agricultural and manufacturing (other than automotive) activities. This indicates that, by raising costs, assistance elsewhere in the economy has a significant adverse impact on the automotive industry's competitiveness.

Two of the simulated microeconomic reforms -- international liner shipping and bulk commodity handling -- are projected to have a significant negative impact on the automotive industry. Cheaper liner shipping would obviously benefit the industry in lowering the cost of transporting its exports and component imports. However, the cost of vehicle importation would also be reduced. In the ORANI simulation, this latter effect predominates such that the domestic industry's competitiveness declines.[2] The explanation for the adverse impact on the automotive industry of reforms to improve the efficiency of bulk commodity handling is complex. As discussed in Appendix F, the adverse effect derives from a decrease in the competitiveness of import competing industries as the economy grows and real wages rise.

The simulations also show a small negative impact on the automotive industry from reform to rail transport. While such reform would lower the cost of transporting finished vehicles by rail around Australia and thus benefit the domestic automotive industry relative to imports (which are delivered to various ports by ship), it would also reduce the demand for road transport and hence the demand for motor vehicles. The Commission notes, however, that this latter effect would fall disproportionately on the truck segment of the industry modelled in the ORANI simulation. The Commission therefore agrees with participants that passenger motor vehicle producers would benefit from rail reform.

More details of these simulations are provided in Appendix F.

The ORANI simulations and the evidence submitted to the inquiry demonstrate the substantial benefits for the automotive and other industries from microeconomic reform. This evidence highlights the need to press on quickly with structural reform across the whole economy, including in the automotive industry which is, of course, an integral part of the microeconomic reform process. The extent to which inefficiencies in the rest of the economy and the macroeconomic environment in Australia should influence future assistance arrangements for the automotive industry is discussed in Chapter 6.

[2] As discussed in Appendix F, the ORANI simulation does not incorporate the stimulus to vehicle exports that would accrue from cheaper liner shipping. However, given the small share of the industry's output accounted for by exports, modification to account for the stimulus to export activity would be unlikely to reverse the direction of the change reported in Table 4.1.

5 CURRENT ASSISTANCE ARRANGEMENTS

A major part of this inquiry concerns the assistance arrangements to apply to passenger and light commercial vehicle and component production from 1993 to 2000. Discussion of post-1992 assistance issues and options requires an understanding of the way in which the current complex assistance package operates.

As discussed in Chapter 1, through the current assistance package, the Government has sought to give the industry additional time to restructure and modernise; to improve its efficiency to enable it to compete with imports with lower levels of government assistance; to provide better quality products for consumers at reduced real prices; and to minimise disruption to production and employment in the industry during the transition to a more efficient industry.

Various assistance measures were introduced to pursue these objectives. These are discussed separately in this chapter.

However, it is also important to consider the impact of the package as a whole as the individual measures are interdependent in both objectives and effects. To this end, the chapter presents estimates of the level of assistance provided by the total package.

5.1 Assistance to vehicle production

Assistance to the automotive industry is determined mainly by protection provided to finished vehicles. Following the abolition of quantitative import restrictions on passenger motor vehicles in April 1988, tariffs are the sole form of protection against vehicle imports. The current tariff on passenger vehicles and most derivatives thereof is 40 per cent and will fall at a rate of 2.5 percentage points each year to 35 per cent by January 1992.

Tariffs for non-derivative light commercial and four-wheel drive vehicles are also specified in the current car plan, although there is currently no local production of these vehicles. The current tariff is 18 per cent and will be reduced to 15 per cent by January 1992.

5.2 Assistance to components

The distribution of tariff protection for automotive production between the assembly and component sectors of the industry is determined by the assistance arrangements for component production and the operation of export facilitation (see Section 5.3).

Original equipment components for passenger vehicles

When put in place in 1985, the current car plan retained a local content scheme. Under the scheme, passenger vehicle producers which sourced locally at least 85 per cent of the wholesale value of the vehicles they produced for sale in Australia were able to import free of duty components and/or vehicles worth up to 15 per cent of the value of their production. The penalty for non-compliance with the local content requirement generally took the form of a duty on imported content in excess of the 15 per cent entitlement, with the duty being progressively increased every three months. Consequently, it would have become prohibitively costly for vehicle producers to fail to comply with the local content scheme for any length of time.

Because failure to comply with the local content requirement invoked an open-ended penalty, passenger vehicle producers had very limited scope to switch between using domestic and imported components in response to changes in the competitiveness of local component production. Thus, if the competitiveness of the local component sector declined, vehicle producers had little option but to bear the associated cost impost. For this reason, the local content scheme provided potentially open-ended assistance to the domestic component sector.[1]

[1] The option to either earn or purchase additional duty free entitlements under the export facilitation scheme (see Section 5.3) placed some constraints on the open-ended nature of assistance to component production. However, a general decline in the competitiveness of the domestic component sector would also have increased the costs of generating duty free entitlements under export facilitation.

Following the mid-term review of the car plan, the local content scheme was abolished on 1 January 1989 and replaced by a 'dual tariff' arrangement. There is now no binding constraint on the value of components (and vehicles) that passenger vehicle producers can source from imports.

However, passenger vehicle producers still receive an automatic duty free entitlement equal to 15 per cent of the value of their vehicle production. Subject to export facilitation (discussed below), imports in excess of 15 per cent are dutiable at the tariff rate applying to passenger motor vehicle imports -- that is, 40 per cent in 1990 reducing to 35 per cent in 1992.

As with the previous local content scheme, vehicle producers can use their automatic duty free entitlement to import either vehicles or components. According to the Australian Customs Service, in 1989, vehicle producers used a little over 75 per cent of their duty free entitlements to import components. Based on the 1989 value of production of $6.1 billion, the value of duty free component imports under the automatic entitlement would have been around $700 million.[2] The major components imported duty free by vehicle producers include engines, transmissions (mainly transaxles), power steering gear, carburettors, crankshafts, air cleaners, drive shafts and air-conditioning compressors.

While vehicle producers can import components using their automatic duty free entitlements, this does not mean that Australian component producers receive zero protection against imports. Access to duty free imports is limited and, therefore, it is not possible for vehicle producers to import all their component requirements duty free. Thus, there are many components sourced locally on which a cost penalty is incurred by vehicle producers.

The level of assistance available to domestic component production is bounded by the tariff applying to imported content in excess of the automatic 15 per cent entitlement -- that is, 40 per cent in 1990 phasing down to 35 per cent in 1992. At present, provided that the cost penalty incurred by vehicle producers on locally sourced components is less than 40 per cent, and assuming

[2] The Australian Customs Service does not differentiate between duty free imports made using the automatic by-law entitlement and those made using credits earned under the export facilitation schemes (see below). Moreover, there are provisions allowing for the carry over from year to year of duty free entitlements. Accordingly, the figure of $700 million should be treated as indicative only.

acceptable quality and delivery performance, it will not be profitable for vehicle producers to re-source additional components to imports and pay the 40 per cent tariff duty.[3]

While the 40 per cent tariff provides a bound on the assistance available to domestic component producers, the cost disadvantage actually incurred by vehicle producers on many locally sourced components is lower than this. Thus, the average cost disadvantage incurred by vehicle producers on locally sourced components is considerably less than 40 per cent (IC 1990a, p 12).

In their submissions to the inquiry, many component producers argued that the availability of automatic duty free entitlements provides vehicle producers with a considerable degree of bargaining power to drive down prices of local components towards the duty free price of imported equivalents. The FAPM stated:

> Duty free access provides vehicle builders with a high degree of leverage over suppliers even to the extent that costing comparisons by some vehicle builders are made against duty free prices.

This claim, however, was disputed by Mitsubishi which argued that it did not engage in leverage. It stated:

> For a vehicle producer addressing component sourcing decisions the relevant disability benchmark is the nominal tariff rate. In 1992, for example, sourcing decisions would be made on the basis of whether a local producer can meet or beat an alternative overseas source after taking account of the 35 per cent duty. To the extent, if any, that individual vendors have been pressured by zero tariff negotiating positions Mitsubishi suggests that some bluff-calling might be appropriate.

In the Commission's view, there is potential for leverage to be applied by vehicle producers in negotiating prices for components. Indeed, the potential also existed under the previous local content scheme and also exists under the export facilitation scheme which provides vehicle producers with additional duty free entitlements in return for exports (see below).

Equally clearly, however, there are constraints on the use of this leverage. If a vehicle producer were to specify prices which its local suppliers could not meet, its need for imported components would rise and it could finish up operating with imported content of more than 15 per cent. In these circumstances, the vehicle producer would pay tariff duties on its excess imported content

[3] As explained in Section 5.8, because the tariff is levied on the fob price of an imported vehicle or component rather than on its ldf price, the price raising effect, and hence the bound on assistance, will be slightly less than 40 per cent.

(currently 40 per cent) -- a cost impost conceivably greater than it would have incurred had it offered a price sufficient to sustain its local component suppliers. In view of this risk to the vehicle producer from attempting to negotiate lower prices for domestic components, the Commission expects that those component producers whose products have cost disadvantages against imports close to the level of the tariff would be most at risk from the leverage provided by the automatic duty free entitlement.

This view was challenged at the draft report hearings by Robert Bosch. The company stated:

> That view may be attractive in theory but the reality of global industry relationships and affiliated sources of supply create circumstances where Australia's most efficient and largest scale component activities are at risk through duty free entitlements.

As the Commission noted in its draft report, leverage will not be restricted solely to marginal component producers. But while many factors will come into play in pricing negotiations, it is clear that the benefit/cost trade off to vehicle producers of using the leverage provided by the automatic duty free entitlement improves as the cost disadvantage on locally produced components increases towards the level of the tariff.

Further, at least in the immediate future, the previous local content scheme is likely to furnish some component producers with an additional measure of protection. As pointed out by component producers, there will be some components which can fairly readily be re-sourced to imports mid-way through a model cycle. However, vehicle producers contended that long lead times and contracting arrangements in this industry mean that many sourcing decisions taken under the local content scheme will be binding until new models are introduced. Mitsubishi stated:

> The impact of tariff only assistance to original equipment producers, although theoretically in place since 1988, cannot yet be documented. Re-sourcing of components by the vehicle producers is confined almost exclusively to the introduction of new models ...

This implies that the disadvantages on some locally sourced components in currently produced vehicles could still exceed 40 per cent. Indeed, the FAPM accepted that large parts of the industry could not survive '... at current rates of assistance, in the longer term, without significant change.'

The implications of these arguments for the Commission's estimates of assistance to passenger vehicle assembly and component production are discussed in Section 5.8.

Other components

Original equipment components for use in non-derivative light commercial and four-wheel drive vehicles, and replacement and aftermarket components for use in all vehicles under reference, are subject to separate tariff arrangements. Tariffs on these components are being reduced to 15 per cent by 1 July 1992 as part of the program of general tariff reductions. The tariff is currently 19 per cent.

5.3 Export facilitation

Export facilitation provisions allow firms to import duty free components or vehicles in return for automotive exports. These duty free entitlements are in addition to the 15 per cent automatic allowance to vehicle producers. Separate export facilitation provisions apply to vehicle producers, specialist component producers and vehicle importers.

Vehicle producers earn these additional duty free entitlements -- referred to as export credits -- on the value of local content in their automotive exports over and above the value of local content in exports in 1979. A ceiling of 20 per cent of a producer's wholesale value of production is placed on the additional duty free entitlements that a vehicle producer can earn through exporting. Thus, by virtue of these provisions, vehicle producers can increase their imported content level to 35 per cent without paying duty. Export credits can be sold or transferred to other vehicle producers, subject to prior approval by the AIA.

Eligible exports are passenger vehicles and components for use in, or substantively similar to those used in, passenger vehicles.[4] Where exported components fail to meet these criteria, the Australian

4 For a detailed definition of eligible exports, see AIA 1990, p 123.

Customs Service may ask the AIA to determine whether the export of those components would promote achievement of the Government's passenger motor vehicle industry policy. Exports resulting from offsets obligations are not eligible to earn credits under the scheme.

The rate at which export credits are accrued depends upon the amount of credits earned and the type of automotive products exported. On exports generating additional duty free entitlements of up to 15 percentage points, vehicle producers earn a maximum of one dollar of export credits for each dollar of local content in their exports. For exports giving rise to entitlements in excess of 15 percentage points, credits are earned at a maximum rate of 50 cents for each additional dollar of local content in those exports, to a maximum of 20 per cent of the producer's wholesale value of production.

When the value of automotive exports is less than or equal to 7.5 per cent of a vehicle producer's value of production, export credits automatically accrue at the maximum rate. When a producer wishes to earn credits above this level, the AIA is required to determine whether the proposed exports meet the following criteria:

- value added in the exports concerned equals the value added in the automotive industry of the average passenger motor vehicle or a relatively complex assembly such as an engine;

- the exports proposed involve a reasonably diverse range of production activities rather than just a single process;

- a reasonable level of skill is utilised in the design and/or production of the exports; and

- the export program will contribute to the orderly development of the industry, having regard inter alia to (a) existing capacity in the automotive industry as a whole and (b) the Government's aim of reducing the number of model lines produced in Australia.

If the Authority considers these criteria are met, it will advise the Australian Customs Service on the rate at which credits should accrue, subject to the maximum rates described above.

In 1989, vehicle producers earned $410 million of export credits (see Table 5.1). This represented around one-third of their available 20 per cent export credit ceiling.

The current plan also enables specialist component producers to earn export credits in much the same way as vehicle producers. The limit on export credits that a component producer can earn is 25 per cent of original equipment component sales to vehicle producers. For export credit earnings of up to 20 per cent, credits accrue at a maximum rate of one dollar for each dollar of local content in exports over and above 1979 levels. For credits in excess of 20 per cent, the accrual rate is 50 cents for each dollar of local content in exports. Credits can be transferred or sold to vehicle producers, or used to increase notional local content (for the purposes of local content calculations) in components supplied to vehicle producers. They cannot, however, be used directly by specialist component producers to import goods free of duty. Vehicle producers can earn export credits under this scheme but only if they have first earned some credits under the vehicle producers' scheme. Apparently, component producers often sell products to vehicle producers, who then arrange their export. In these circumstances, the vehicle producer earns the credits, with a price for those credits being included in the overall price paid for the component by the vehicle producer.

As shown in Table 5.1, the total value of export credits earned under the specialist component producers' scheme in 1989 was about $109 million.[5] Based on information supplied by the FAPM, the Commission estimates that this level represented about 20 per cent of credits potentially available under the scheme.

Export facilitation provisions for vehicle importers were introduced in January 1987 -- two years after the commencement of the current car plan. They enable vehicle importers to import passenger vehicles free of duty in return for arranging exports of Australian components. Alternatively, export credits can be transferred or sold to vehicle producers or to other vehicle importers. Credits are calculated at a maximum rate of 50 cents for each dollar of local content in the exports arranged above 1986 levels. The AIA determines the actual rate at which credits accrue, subject to this maximum rate, based on almost identical criteria applying to exports earning credits in excess of 7.5 percentage points under the vehicle producers' scheme.

[5] This excludes credits earned on products manufactured by specialist component producers but exported by vehicle producers. In Table 5.1, these are classified as export credits earned by vehicle producers.

Total credits that can be earned are limited to 25 per cent of the total value of vehicles imported by a company. This scheme is to operate until the end of 1994, two years after the expiry of the current car plan. In 1989, vehicle importers earned $1.2 million of export credits. This represented less than one per cent of the maximum entitlement.

Table 5.1: **Export credits earned under the vehicle producers', SCPs' and vehicle importers' schemes: 1989** ($ million)

Vehicle producers	*SCPs*	*Importers*	*Total*
409.6	108.5	1.2	519.3

SCPs Specialist Component Producers
Source: Australian Customs Service data

Impact of export facilitation

The primary objective of export facilitation is to encourage the passenger vehicle industry in Australia to rationalise, by providing it with an incentive to focus production in those areas where it is most competitive.

In general, firms utilising export facilitation will export those vehicles or components with no or relatively low cost disadvantages relative to production overseas, and use the duty free entitlements they earn either to avoid duty that would otherwise be payable on vehicle or component imports, or to displace locally sourced vehicles and/or components with relatively high cost disadvantages against imported equivalents. Like the automatic by-law entitlement, the duty free entitlements earned under the scheme provide a cost saving to the industry.

However, the exports needed to earn credits may require subsidies which will diminish the savings from the duty free entitlements. From the firm's point of view, iIt will be profitable for firms to export at a price which does not cover production costs, provided that the loss sustained is less than the benefit it derives from the additional duty free entitlements earned through that export activity.

As discussed in Section 5.2, under the dual tariff arrangement for components, the upper bound on assistance to local content is provided by the tariff applying to vehicle producers' imported content in excess of 15 per cent -- that is, 40 per cent in 1990 reducing to 35 per cent in 1992. The maximum (ad valorem) saving from additional duty free entitlements will therefore also be bounded by this tariff. Thus, for those export credits that accrue on a dollar for dollar basis, the maximum ad valorem export subsidy available under the export facilitation scheme will be given by the tariff -- that is, 40 per cent currently, reducing to 35 per cent in 1992.[6] For export credits accruing at 50 cents in the dollar, the maximum subsidy available will be half this rate. In contrast to an explicit export subsidy, there is no direct payment by the Government to firms exporting automotive products. In effect, the export subsidies can be regarded as being funded from the import duty that would otherwise be payable on the products which are imported duty free using export credits.

While export facilitation makes available a sizeable export subsidy, not all automotive exports need be dependent on this subsidy for their viability.

As part of this inquiry, the Commission has sought to determine what proportion of Australia's automotive exports -- worth $650 million in 1989 -- are dependent on the subsidy component of export facilitation. Ascertaining whether a subsidy is required goes beyond simply looking at whether these exports can be produced at the same cost as similar products overseas. Lower quality (whether real or merely perceived), restricted access associated with intra-company trade arrangements or formal trade barriers, higher freight costs, and any reluctance of overseas firms to risk using Australian products are all factors to take into account when assessing the competitiveness of Australian automotive exports. The test of their international competitiveness is not just whether they are cost competitive, but whether, taking as given the international market environment, they could survive without the assistance provided by export facilitation.

While the Commission received little quantitative information on the underlying competitiveness of current automotive exports, many industry participants argued that a significant proportion of those exports depend on the implicit subsidies provided by export facilitation. Toyota stated:

> TMCA exports require the full benefits of the ... arrangements to break even.

[6] See footnote 3 in this chapter for a qualification.

Nissan argued:

> Nissan Australia's experience suggests that few, if any, exports would be profitable without the incentive of export facilitation.
>
> Some exports are very close to being profitable when unit prices are compared with other sources, however they lose advantage when transport, handling and commercial costs are added.

Ford observed that:

> ... few, if any, of the present export programs would be viable without the EFS benefits.

Holden's Engine Company said that it has no major reliance on the subsidy at the factory cost level, but that the subsidy is required to meet other costs of exporting:

> The presence of export facilitation provisions was a key determinant in offsetting structural and geographical disadvantages associated with the Australian site -- and tipped the scale in terms of justification of the investment decision.
>
> ... given investments in place, there is no major reliance on EFS for subsidy at factory cost level. The impact of EFS assistance is, however, most significant to offset logistics penalties into European markets, to contribute to the management of debt associated with specific export facilities ...

There were, however, some exporters of automotive products who claimed not to need an on-going subsidy via export facilitation. GMH argued:

> Holden's exports are not "reliant" on export facilitation in the sense that a loss would be incurred if this benefit did not exist. However, the benefit is important in establishing a level of competitiveness sufficient to justify an initial investment.

The FAPM argued that the fact that some component producers have continued to export well in excess of the level at which their credit earning potential expires indicates that these exports do not require subsidisation.

While the incentives created for producers by the export facilitation scheme are relatively clear, the overall effects of the scheme on economic efficiency are complicated. They depend, in part, on the form of assistance provided to the passenger vehicle industry. Significantly, the form of assistance afforded the industry has changed since the Commission reviewed export facilitation as part of its inquiry into the post-1984 assistance arrangements (IAC 1981b).

When export facilitation was introduced in 1982, the local content scheme operated to protect domestic component production activity. Given the then binding requirement on vehicle producers to source 85 per cent of the value of their vehicles locally, export facilitation allowed vehicle producers to re-source high cost local components to duty free imports through the export of relatively lower cost automotive products. Thus, the scheme served to reduce assistance disparities within the industry -- not only by providing assistance to exports, but also by removing assistance to high cost local component production.

With the termination of the local content scheme, however, the impact of export facilitation is somewhat different. As noted above, there are now no restrictions placed on the volume of components which vehicle producers may import. Rather, imported content in excess of 15 per cent of the producer's value of production is dutiable at the same rate as cbu vehicle imports.

The cost of producing in Australia many of the components (and vehicles) currently sourced duty free using export credits would almost certainly exceed the duty paid price of the imported equivalents. In the absence of export facilitation, it would be rational for vehicle producers to continue to import these items duty paid. Thus, in the tariff regime now applying in the industry, the effect that export facilitation used to have in forcing out high cost import competing automotive production has been significantly reduced and, potentially, removed altogether. Export facilitation is therefore now virtually identical in its effects to a straight export subsidy.

While the abolition of the local content scheme has undermined one of the sources of improvement in the intra-industry efficiency of resource use in the vehicle industry available from export facilitation, providing assistance to export as well as import competing production in the industry still offers the prospect of an intra-industry efficiency gain.

However, given that much of the export activity encouraged by the scheme will now be at the expense of production in other more lowly assisted industries rather than at the expense of very high cost import competing automotive production, the prospects of an inter-industry loss in resource use efficiency are greatly magnified. Whether such a loss eventuates depends on whether automotive exports require all or a significant part of the subsidies potentially available through export facilitation. Suffice it to say that the level of export subsidy available in 1992 -- 35 per cent

-- will be more than double the level of assistance to production in virtually all other manufacturing industries. Given participants' comments that some automotive exports require close to the full measure of the even higher subsidy currently provided, the Commission considers that export facilitation is resulting in a less efficient allocation of resources between industries than would otherwise occur.

It has been argued that there may be an offsetting improvement in the inter-industry efficiency of resource use if the cost savings to the industry from the additional duty free concessions (less the subsidies required on exports earning those entitlements) are passed on to Australian consumers in the form of lower prices. This, in effect, would imply that there is currently 'water in the tariff'.

However, in the Commission's view, there are reasons for believing that any flow-ons to consumers of the cost savings from export facilitation have been limited. As discussed later in the report, industry participants have argued in this inquiry that anything more than a minor reduction in tariffs would have dire consequences for the industry and, indeed, that, even at the levels of assistance which will apply in 1992, parts of the industry will not survive in the long term. This implies that current domestic vehicle production requires the full measure of the tariff protection it is afforded. If this is the case, then it follows that the cost savings from export facilitation have been largely absorbed by the industry.

Importantly, the foregoing analysis implicitly assumes that export credits are freely transferable among firms. As discussed in the following chapter, there are currently some restrictions on the transfer of credits. The Commission acknowledges that these might moderate the effects outlined above but does not believe they are sufficient to invalidate the analysis. Moreover, as noted in Chapter 6, the Australian Automotive Export Group, in calling for a continuation of export facilitation, argued that these restrictions be removed to increase the efficiency of the scheme.

Overall, the Commission concludes that the efficiency implications of the export facilitation scheme are unclear -- a gain in the efficiency of resource use within the vehicle industry must be balanced against an inter-industry loss.

5.4 Directive restructuring

In contrast to the assistance arrangements for most other industries, the plan also contains directive measures aimed at improving industry efficiency by reducing both the number of firms producing passenger vehicles in Australia and the number of models they produce. The Government has specified a target industry structure for 1992 of three manufacturing groups producing at most six vehicle models.

Penalties apply to discourage low volume production. To avoid these penalties, producers of low volume models must develop plans either to increase output or cease production of the models concerned. Failure to develop a plan acceptable to the AIA, or to carry out that plan, results in the imposition of duties on the imported content in those models.

The extent of these penalties is determined by a formula related to model volumes in the domestic industry. For the remainder of the current plan, all imported content (up to a limit of 15 per cent of the value of the vehicle) in vehicle models with production volumes of less than 20 000 per annum is potentially subject to duty. The duty rates applying to this imported content are 72.5 per cent in 1990, phasing to 57.5 per cent in 1992. For models with annual volumes above 20 000, a sliding scale of penalty duties applies on imported content up to the 15 per cent limit. For the remainder of the plan, and depending on the volume achieved by the sixth highest volume domestically produced vehicle, producers of vehicles with annual outputs of between 30 000 and 40 000 could be required to pay some duty on the imported content in those models.

To date, penalties have not been applied even though volumes for some models have been below the levels specified in the penalty provisions. Producers of these models have avoided penalties by either ceasing production of the models concerned (for example, the Mitsubishi Colt and the Nissan Skyline) or taking action to increase output of these models (for example, the Toyota Corolla/Holden Nova and the Nissan Pulsar and Pintara).

There has been considerable rationalisation in the industry since the commencement of the current plan. In its latest report on the state of the automotive industry, the AIA stated that:

In 1984, prior to the Plan, five manufacturers produced thirteen models in eight assembly plants. A total of 370 000 PMVs were manufactured in Australia in that year with average production volumes per model and per plant of 28 000 and 46 000 respectively. Since 1984 the number of models produced locally has fallen from thirteen to eight and the number of assembly plants has been reduced by one. The average production volumes per model and per plant in 1989 were 40 000 and 52 000 respectively (AIA 1990, p 21).

Four of the eight remaining models were the subject of model sharing in 1989 although, as shown in Table 5.2, only two of the eight were produced in volumes in excess of 40 000.

With the joint manufacturing venture between Holden and Toyota, there has also been a reduction in manufacturing groups from five to four. According to the AIA, this has led to the dropping of two model lines and increased capacity utilisation of both firms' local assembly operations and in several areas of their component production (AIA 1990, p 23).

Table 5.2**: Volume performance by passenger motor vehicle model line: 1989**

Sales Volumes	*Model Lines*	*Plan Producer*
0-19 999	Colt[a]	Mitsubishi
20 000-29 999	Corolla/Nova	Toyota/Holden
	Pintara/Corsair/Skyline[a]	Nissan/Ford
	Pulsar/Astra[b]	Nissan/Holden[b]
30 000-39 999	Camry/Apollo	Toyota/Holden
	Laser/Capri	Ford
	Magna	Mitsubishi
40 000+	Commodore/Lexcen	Holden/Toyota
	Falcon/Fairlane/LTD	Ford

a Now ceased production. b Model no longer shared.
Source: AIA 1990, p 22.

Of course, rationalisation in the industry since the commencement of the current plan cannot be solely attributed to the directive restructuring provisions. Reductions in vehicle tariffs, and quite possibly changes in consumer preferences, will also have played a role. As to the future, it appears unlikely that the 3:6 target structure will be achieved by the end of the current plan. Certainly, there is as yet no indication that any of the vehicle producers will cease operations before the end of 1992.

5.5 The role of the AIA

Under the current plan, the AIA was established to monitor and report annually on the industry's performance and outlook, and to encourage the industry to improve its efficiency and reduce its reliance on government support. The AIA is scheduled to cease operations on 31 December 1992.

When details of the plan were first announced, the Government stated that the AIA would not play a direct role in the administration of the plan. This remains the responsibility of the Department of Industry, Technology and Commerce. However, as noted above, the AIA has certain advisory and administrative functions in relation to export credits and the directive restructuring elements of the plan, and also administered the Motor Vehicles and Components Development Grants Scheme (see Section 5.7).

The Authority's salary and administrative expenses totalled $860ÿ000 in the 1989-90 financial year and $5.2 million in the period since its inception in October 1984 until 30 June 1990.

5.6 Adjustment assistance for industry employees

When the current plan was introduced, the Government considered that there would be unavoidable reductions in industry employment by the 1990s. It therefore designated the passenger motor vehicle industry as one to which the Labour Adjustment Training Arrangements (LATA) scheme applies. This scheme provides retraining assistance for workers retrenched from designated industries. Trainees receive a special benefit above unemployment benefits while they undertake full-time vocational courses to upgrade and improve their skills.

In its 1987 report on the state of the industry, the AIA noted that:

> In the period from May 1984 to June 1986, some 2415 persons retrenched from the industry were eligible for retraining under LATA. Of those eligible, 561 nominated to undertake retraining and of those, 426 actually commenced LATA courses. The divergence in numbers eligible to numbers of actual commencements suggests that either alternative forms of employment were found or that people remained unemployed in preference to seeking retraining under LATA (AIA 1988).

The Commission understands that, since 1986, the number of eligible persons and take-up of LATA by retrenched passenger motor vehicle industry employees has been minimal.

5.7 General measures

The automotive industry also benefits from general assistance measures available to the manufacturing sector including the Export Market Development Grants and By-Law for Export schemes, offsets arrangements, and R&D grants and tax concession schemes. In respect of R&D, the industry was also assisted under the industry-specific Motor Vehicles and Components Development Grants Scheme from 1985 until 1989. Of the $150 million which was allocated for this scheme, $83 million was spent.

5.8 Assistance levels for the automotive industry

Assistance for passenger motor vehicles and derivatives

The passenger motor vehicle industry has for many years received much higher assistance from the Government than manufacturing industry generally. The current car plan, as revised in 1988, will see some narrowing of that gap.

The Commission's recent information paper (IC 1990a) presents estimates of assistance to passenger vehicle production. It also apportions that assistance between component and assembly activities, although determining precise levels of assistance to these constituent activities is difficult because of the complexity of the assistance arrangements and associated data limitations. The following brief summary of the levels of assistance provided to passenger motor vehicle production is drawn from that paper.

In its information paper, the Commission used two measures of the level of industry assistance:

- the nominal rate of assistance, which gives an estimate of the price raising effect of the tariff (and tariff quotas before 1988)[7] ; and

- the effective rate of assistance, which measures assistance to the industry's value added, after allowing for both assistance to output and the tax effect of assistance on inputs.

For the passenger motor vehicle industry as a whole, the nominal rate of assistance is estimated to decline progressively from 85 per cent in 1985 to 30 per cent in 1992, and the effective rate from over 250 per cent to 86 per cent over the same period. For 1990, the nominal and effective rates are estimated at 34 per cent and 98 per cent respectively.

Most of this reduction in assistance was concentrated in the early years of the plan, and reflected the substantial depreciation of the Australian dollar which rendered quotas valueless. The more gradual projected decline in assistance following the abolition of tariff quotas in 1988 reflects the phasing down of the tariff on imports of passenger motor vehicles from 45 per cent in April 1988 to 35 per cent in 1992.

These reductions are occurring at a time when assistance to many other activities is also declining. In particular, a major program of general tariff reductions, which commenced in 1988, will see a maximum rate of tariff protection for manufacturing industries, other than passenger motor vehicles and textiles, clothing and footwear, of 15 per cent by 1992. Thus, even when the reductions in tariff protection for the vehicle industry under the current plan are completed, it is

[7] As explained in the information paper, tariffs are levied on the fob price of vehicles imported into Australia. The ldf price of an imported vehicle in Australia is equal to the fob price plus a margin for freight costs and insurance. Thus, a tariff of, say, 40 per cent will raise the ldf price of an imported vehicle by something less than 40 per cent. As the nominal rate of assistance measures the price raising effects in Australia of the tariff, it will therefore be less than the tariff rate. Formally, it is calculated by multiplying the tariff rate by the ratio of the fob price to the ldf price.

estimated that the industry will still receive nominal assistance more than three times higher than the manufacturing sector as a whole and effective assistance some seven times higher.[8]

Assistance to component production and vehicle assembly

While passenger vehicle production comprises the activities of component production and vehicle assembly, in practice it is often difficult to separate the two stages of production. For example, much component production is undertaken in-house by vehicle producers rather than by specialist component producers.

Nevertheless, an indication of the way in which assistance to the passenger vehicle industry is apportioned between component production and vehicle assembly is relevant in ascertaining whether adjustment pressures on the two sectors under the current plan are broadly comparable. The Government has expressed a desire in the reference that, as far as practicable, equal assistance be provided to component and assembly activities.

Estimates of assistance to passenger vehicle assembly and component production under the current plan are presented in the information paper. However, given the difficulties of dividing production into two distinct stages and of obtaining reliable data, the estimates -- particularly the effective rate estimates -- should be interpreted as indicative of orders of magnitude only.

Assistance to vehicle assembly is determined by the tariff on vehicle imports while, as discussed earlier, assistance available to component production is now bounded by an identical tariff which applies to components imported by vehicle producers over and above the automatic duty free entitlement. In the information paper, this upper bound was taken as representing the assistance provided to all component production.

The gradual phasing down of the tariff reduces the estimated nominal and effective rates of assistance to both stages of production between 1989 and 1992. The nominal rate of assistance for the component sector is estimated to decline from 38 per cent in 1989 to 32 per cent in 1992 and, for assembly, from 36 per cent to 30 per cent. Over that period, the effective rate of assistance for components is estimated to decline from 85 per cent to 71 per cent and, for assembly, from 137 per

8 The average nominal and effective rates of assistance for the manufacturing sector are estimated by the Commission to decline to 8 and 12 per cent respectively by 1992.

cent to 108 per cent (IC 1990a, p 14). The very high effective rate for components stems from the high level of nominal protection in conjunction with the relatively low tariff penalty that component producers pay on their inputs such as steel, plastic and rubber. The effective rate for assembly is very high because of high protection against vehicle imports together with assemblers' access to duty free components and the relatively low proportion of value added in assembly activities.

In their submissions to the inquiry, a number of vehicle and component producers claimed that the Commission's estimates overstated the assistance they received. GMH claimed that assistance to vehicle assembly is overstated for several reasons:

- no account has been taken of the cost of subsidies required on exports earning duty free entitlements under the export facilitation scheme, with the consequence that the benefits of those duty free entitlements to vehicle assemblers are exaggerated in the calculations;

- many export facilitation credits are earned through the export of components manufactured by specialist component producers. The benefits of these credits are shared by vehicle assemblers and component producers rather than accruing solely to vehicle assemblers as is assumed in the Commission's estimates;

- the estimates are based on export credits earned rather than export credits used, with the former being larger and therefore overstating the level of vehicle producers' duty free imports;

- no account is taken of the fact that many components would still enter duty free in the absence of the automatic by-law entitlement and export facilitation via the general tariff concession system; and

- the materials to output ratio used in the effective rate calculations for vehicle assembly is too high.

GMH also argued that the average disadvantage incurred on locally sourced components is considerably less than that implied by the tariff applying to vehicle producers' imported content in excess of 15 per cent. Accordingly, it claimed that the Commission had also overestimated assistance to domestic component production. GMH concluded:

> ... after all of these factors are taken into account the effective protection rates for car and component manufacture would be generally similar.

Component producers also argued that the average disadvantage on locally sourced components was considerably lower than the tariff on excess imported content. Moreover, as noted earlier, they contended that the provision to vehicle producers of an automatic duty free entitlement places component producers in an inferior bargaining position when negotiating prices for components, with the consequence that much of the protection provided by the tariff is eroded. The FAPM argued that the nominal rate of protection for components should be set equal to the average disadvantage incurred by vehicle producers on their component inputs, thereby taking into account the availability of duty free component imports. The Federation commented:

> The reductions in effective assistance for the components sector are dramatic and, it is believed, these lower estimates, being average levels of assistance across the components sector as a whole, represent a truer picture of reality than point estimates of the maximum possible assistance available at the margin.

A number of similar criticisms were voiced by the MTAA. It concluded:

> ... while not denying that the (effective rate of assistance) for the PMV sector would be somewhat higher than for manufacturing as a whole, (the association) believes that the Commission has severely overestimated the extent of this difference -- thus any policy recommendations based on the Commission's effective rate analysis would have to be treated very cautiously.

In responding to these criticisms, the Commission observes that many are concerned with the distribution of assistance between the two sectors of the industry, and have no significant implications for the measured level of assistance to the industry as a whole. And, while accepting the conceptual validity of some of the criticisms, others are clearly misplaced.

In regard to some of the specific criticisms detailed above, in its information paper, the Commission specifically acknowledged that, because its materials to output ratio for vehicle assembly was based on data for a year of very low industry profitability, it would overstate the current ratio (IC 1990a, p 22). Indeed, for this reason, sensitivity analysis was conducted. This showed that if the materials to output ratio for vehicle assembly was reduced from 0.9 to 0.8, the projected effective rate of assistance for vehicle assembly in 1992, declined from 108 per cent to 70 per cent. But this latter rate would still be more than five times the average effective rate for the manufacturing sector.

As noted in Section 5.2, the Commission acknowledges that the actual cost disadvantages on many locally sourced components will be less than the disadvantage implied by the tariff on 'excess' imported content. For this reason, the Commission stressed that its assistance estimates were based on assistance potentially available to the component sector. Moreover, calculating assistance to component production on the basis of actual cost disadvantages, while reducing measured assistance to that sector of the industry, would result in a corresponding increase in measured assistance to vehicle assembly.

Also, while the Commission's estimates do not take account of the subsidies required on exports earning credits under the export facilitation scheme, modification to account for these subsidies would result in only a minor reduction in the estimated effective rate for vehicle assembly. There would also be a further minor reduction in effective assistance for vehicle assembly if account was taken of the costs to vehicle assemblers of acquiring export credits from component producers. However, this reduction would be matched by an increase in measured effective assistance for component production.

Some of the other criticisms voiced by participants are not valid. The Commission's calculations of assistance to vehicle assembly are based on Australian Customs Service data for aggregate export credits used by the industry and not, as claimed, on credits earned. The observation that duty free entry for some components could be available under the general tariff concession system in the absence of the automatic entitlement and export facilitation is irrelevant __ in calculating effective rates of assistance for any industry, the Commission does not distinguish between sources of duty free entitlements. Further, while the tariff on excess imported content undoubtedly exceeds the average cost disadvantage on locally sourced components, under current arrangements, that average cost disadvantage will always exceed the average cost penalty incurred by vehicle producers on their total component inputs. This reflects the fact that a significant proportion of vehicle producers' component inputs enter duty free under the automatic by-law entitlement or export facilitation. Hence, it would be erroneous to set the nominal rate of protection for component producers equal to the average cost penalty incurred by vehicle producers on their component inputs.

More generally, while recalculating the assistance estimates in the light of the legitimate criticisms made would have some impact on the distribution of assistance between vehicle assembly and component production, there would be little impact on measured assistance to the industry as a whole. Thus, it would not alter the broad and most important conclusion arising from the estimates: namely, that, although declining, assistance to the industry at the end of the current plan will still be much higher than assistance available to most other manufacturing activities.

The cost to purchasers of assistance to passenger motor vehicles

Substantial costs are imposed on purchasers of passenger motor vehicles by the assistance arrangements for the industry. Prices for both imported and locally produced cars are inflated by the arrangements.

The Commission's information paper provides some estimates of these costs. It indicates that the total cost burden of assistance in 1988 was of the order of $1.6 billion. This equates to an average of $4000 per car at ex-factory prices. Even with the scheduled phasing down of the tariff, the cost per car will still be about $3200 in 1992 (in 1988 dollar terms) (IC 1990a, p 10). Moreover, importers and the NSW Farmers' Association argued that, because these calculations are based on ex-factory costs, they understate the true costs of the arrangements. The FCAI Importers Group stated:

> These cost estimates are computed at factory gate values and exclude the multiplier effects incurred by the end consumer in respect of flow-on costs such as sales tax and certain distribution costs. These flow-on costs inflate the (Consumer Tax Equivalent) by at least 25 per cent.

An indication of the costs of assistance has also been provided by the AIA. It has reported that, in 1989, the price of an imported vehicle retailing at $20 000 includes an import tax of about $4250 (AIA 1990, p 11).

A number of industry participants claimed that removing assistance to the passenger vehicle industry would not lower car prices across-the-board by anything like the $4000 identified by the Commission as the average cost per vehicle of protection. The MTAA argued that estimates of the costs of protection could not be used as a basis for assessing what would happen to prices in the absence of assistance. In support, it cited arguments made by the former Secretary of the Department of Industry Technology and Commerce, Dr Charles, namely:

- that reduced competition from local producers would probably allow an increase in importers' profit margins;

- that, if assistance were removed, the loss of tariff revenue would need to be made good quite possibly by an increase in the sales tax on all motor vehicles;

- that increased imports of vehicles would result in a depreciation of the dollar and a consequent increase in imported vehicle prices; and

- that an increase in unemployment would require additional funding from taxpayers.

The MTAA also provided information on the prices of a range of vehicles marketed in Australia and a number of `comparable' overseas countries to support its contention that prices are not directly related to the costs of supply.

In supporting the MTAA's arguments, GMH argued that the Commission's calculations also failed to consider that the cost of spare parts is substantially higher for imported cars than for local cars, and that nearly half of new cars currently sold in Australia are subject to a fleet or government discount. The company claimed that the size of this discount would be substantially less for imported cars.

While the Commission has never argued that all vehicle prices would fall by $4000 if tariffs were removed, it would expect that there would be considerable downward pressure on prices in these circumstances. The removal of import duties would provide a cost saving on imported vehicles of more than $4000 on average which the Commission believes would ultimately be passed on to consumers.

While there is obviously a range of factors that influences pricing policies, in the Commission's view, the argument that reduced competition from local producers would allow an increase in importers' profit margins does not stand close scrutiny. As discussed in Chapter 2, there are linkages between a number of current or potential importers to the Australian market. This could be seen as reducing the scope for aggressive competition between importers. But profit taking by Japanese suppliers in some overseas markets can be directly attributed to the existence of explicit or implicit quantitative import restrictions in those markets. Indeed, the British National Consumer

Council recently estimated that, if present curbs on Japanese vehicles into Europe were lifted, the price of Japanese cars in the European market would fall on average by about 20 per cent (McCathie 1990). Similar profit taking has been observed in Australia in the past when import restrictions were in place. In addition, when account is taken of the existence of relatively independent suppliers from countries such as the Republic of Korea, the Commission does not believe that collusive behaviour in the importing sector would be a problem. It notes that, for many products which are supplied in Australia exclusively or primarily by imports, price competition appears to be very strong.

In evidence to the inquiry, Mazda stated:

> Mazda believe that providing exchange rates are stable and overseas production costs are kept under control ... retail prices of PMV could drop by between 10 to 15% if the tariff rate is reduced to 15% overnight.

Similarly Toyota stated:

> Every 5% reduction in CBU tariffs potentially reduces retail price by about 3%.

Faced with lower import prices, domestic car makers would experience pressure to reduce their prices or suffer a decline in market share. If local producers were to fully match reductions in import prices, then the average fall in domestic prices would closely approximate the $4000 figure reported in the Commission's information paper. Indeed, this is the assumption underlying the Commission's assistance measures. If, as is implied by the ORANI model (see Appendix F), much of the adjustment is taken out in reduced local market share, then the fall in domestic vehicle prices could, on average, be considerably less than $4000. However, in these circumstances, the benefit to consumers would arise from their ability to purchase a better quality or more highly specified imported vehicle for a similar price to that which they would have previously paid for a locally produced vehicle of lesser quality or specification. Thus, if the average price paid for vehicles did not fall by an amount equal to the average cost of protection calculated by the Commission, there would be a commensurate increase in the value for money obtained by consumers.

As to the argument that removing tariffs on vehicles would lead to a depreciation in the currency with resulting price increases, it should be noted that there is substantial imported content in locally produced vehicles. Thus, the impact on Australia's current account of a reversion to cbu vehicle imports would be substantially less than the full value of the vehicles imported.

More generally, this argument and the argument that removing tariffs on vehicles would give rise to a need for more tax revenue to fund an increase in unemployment benefit payments ignore the impact of reductions in assistance for the passenger vehicle industry on the rest of the economy. Lower vehicle prices would lower costs in other industries, including export industries, thereby enhancing their competitiveness. Thus, the loss of employment in the vehicle industry and the associated increase in vehicle imports would be offset by increased exports and increased employment elsewhere in the economy. Indeed, simulations using the ORANI model suggest that, in the longer term, tariff cuts for the industry would have negligible impact on either the balance of trade or the overall level of employment in the economy (see Appendix F). Moreover, increased activity elsewhere in the economy would generate additional revenue for the Government, thus counterbalancing the loss of tariff revenue.

Finally, arguments regarding the higher cost of spare parts for imported passenger vehicles and lower fleet discounts available on these vehicles are based on observations in the current market environment where local production is concentrated in the relatively high volume product lines and imports in the specialty areas of the market. In the event that imports were to capture the high volume portion of the Australian passenger vehicle market, the Commission sees little reason to expect that the cost of spare parts or the availability of fleet discounts would be significantly different from levels currently applying.

In summary, the Commission considers that the current assistance arrangements for the passenger vehicle industry impose a substantial burden on consumers and other vehicle users. Accordingly, reductions in passenger vehicle tariffs would provide significant benefits to these groups.

Assistance to other goods under reference

In addition to passenger vehicles, the reference to the Commission also covers non-derivative light commercial and four-wheel drive vehicles, OE components for use in these vehicles and replacement components for use in passenger, light commercial and four-wheel drive vehicles. However, at the present time, there is no local production of light commercial and 4WD vehicles or components.

The tariff of 15 per cent which will apply in 1992 to replacement components for passenger vehicles will provide nominal assistance to domestic production of around 13 per cent. Assuming an identical production structure to OE passenger vehicle componentry, the Commission estimates that the effective rate of assistance in that year will be around 20 per cent. This rate is considerably lower than for OE components.

6 ASSISTANCE ISSUES AND APPROACHES

This chapter canvasses issues and broad approaches to assistance for the automotive industry after 1992. It considers both the level of assistance which should be provided to the industry and the form that the assistance should take.

The discussion and assessments in this chapter provide the back-drop to the Commission's preferred approach to assistance for the automotive industry after 1992, which is set out in the following chapter.

6.1 Vehicle tariffs post-1992

Passenger motor vehicles and derivatives

The single most important element of the post-1992 assistance regime for the automotive industry will be the tariff applying to passenger motor vehicles.

As discussed in the previous chapter, the tariff of 35 per cent which will apply at the end of the current plan will provide domestic passenger vehicle production with much higher assistance than is received by virtually all other manufacturing activities.

While assistance to the passenger vehicle industry underpins activity and employment in the industry, it does so at the expense of domestic consumers who pay higher prices for vehicles than would otherwise be the case, and to the detriment of other industries who compete with the vehicle industry for resources.

From the community's point of view, the concern should be to use the resources at Australia's disposal in the most efficient manner. Efficiency, in this sense, goes beyond simply looking at the size of an industry or whether that industry employs advanced technology, modern equipment, a skilled workforce or has high output per machine or person employed. Rather, it involves an examination of the relative capacity of Australia's industries to generate wealth from a given bundle of resources.

Generally speaking, more wealth for Australia will be generated if resources are directed to those firms able to compete in the marketplace on their own merits. By advantaging our less efficient industries at the expense of our more efficient ones, assistance reduces the value of output that Australia gets from its resources.

Accordingly, reductions in the high level of assistance currently provided to the passenger vehicle industry would benefit the community as a whole. This proposition is accepted in the reference to the Commission, with the Government expressing its desire to lower the level of assistance to the automotive industry. It is also accepted, at least in principle, by most elements of the industry.

Against this background, the Commission therefore stated at the outset of the inquiry that the question was not whether passenger vehicle tariffs should be reduced after 1992, but by how much and how quickly.

Participants' views and requests

While most industry participants accepted in principle a need for reductions in the passenger vehicle tariff, many proposed little or no reduction in the period 1993 to 2000. Most argued that a significant contraction in the industry would not be in the community's interests, and that therefore tariff reductions should be predicated primarily on the industry's capacity to adjust.

Among the five vehicle producers, GMH requested that the tariff be reduced by 1 per cent per year to reach 27 per cent in the year 2000, with a mid-term review in 1996 after which:

> ... any necessary change would be made to the tariff to maintain appropriate adjustment pressure on the industry.

Mitsubishi proposed no reductions in 1993 and 1994, a 2.5 per cent reduction to 32.5 per cent in 1995, and reductions of one per cent per annum thereafter to 27.5 per cent in 2000. Toyota argued for reductions of at most one per cent per annum with a review of the progress of microeconomic reform in 1996 and an adjustment to rates if necessary, while Nissan argued that:

> ... tariff reductions cannot occur for cars unless they are tightly bound to the implementation of thorough and comprehensive micro- and macro-economic reforms aimed at simultaneously bringing input costs, macroeconomic conditions and output of the industry to international competitiveness.

Finally, Ford, while proposing a reduction in the tariff from 35 to 30 per cent at the rate of one per cent per year, argued for additional restrictions to be imposed on importers' access to the Australian market. As discussed in Section 6.5, the overall effect of the Ford proposal would be to increase, not reduce, protection for the industry against imports.

Some component producers were prepared to countenance more rapid reductions in passenger vehicle and component tariffs. In a submission endorsed by many individual component producers, the FAPM argued that, as part of a package of measures, tariffs on passenger vehicles and components be reduced to 25 per cent by the beginning of 1996, with the possibility of further reductions thereafter depending on, among other things, progress in economic reform elsewhere in the economy. However, other component producers requested maintenance of tariffs at higher levels. For example, Holden's Engine Company requested a reduction of one per cent per year to 27 per cent by the year 2000, while BTR Engineering requested that:

> ... any reductions in tariff assistance beyond 1992 below 35 per cent be linked to progress in: achieving micro-economic reform in areas significantly impacting on the industry; and rationalisation in the industry.

The Federation of Vehicle Industry Unions requested that tariffs be phased down to 25 per cent by 1996 or 1997 as part of a package of measures, while the South Australian Government requested that tariffs be reduced to 25 per cent by the year 2000 through annual reductions after 1992 of 1.25 per cent.

In suggesting that any significant contraction in the industry would not be in the community's interests, industry participants argued that passenger vehicle production brings benefits to the economy. These benefits were seen as not merely activity and employment in the industry itself, but also activity generated for suppliers, for vehicle dealerships and service outlets. For example, Ford referred to the importance of the passenger vehicle industry to industries such as castings, fasteners, plastic mouldings, tool and die manufacture, machine tools, paint, glass and steel. The South Australian Government argued:

> The automotive industry is critical for broader manufacturing industry development in South Australia in terms of its direct and indirect (invisible) linkages to other manufacturing activity.

In support, it referred to the inter-industry linkages documented in the recent report sponsored by the Australian Manufacturing Council (AMC 1990) and to its own study of the South Australian economy. Similar arguments were advanced by the Victorian Government.

Participants also argued that the skills and technical know-how accumulated by the industry provide benefits to the economy extending beyond the industry and its suppliers. For example, Robert Bosch argued:

> The industry is a catalyst for design, engineering, R&D, electrical and electronics expertise, training and skills development which flows on to other industries.

GMH claimed that, if Australia retains its existing reliance on basic commodities, standards of living will decline in the future. The company went on to argue:

> The car industry is the key element in Australia's production of complex manufactures. It will be the heart of whatever future expansion of complex manufacturing activity may occur.

Given their views about the benefits provided by passenger vehicle production, industry participants cautioned against substantial reductions in assistance which they argued would run the risk of placing too much adjustment pressure on the industry. GMH stated:

> It should be clearly understood that if the Commission over-estimates the rate at which the car industry tariff level can be reduced, the result will most likely be significant and irreversible. In short, lowering duty rates at a pace faster than the local manufacturers can accommodate would lead to the elimination of the industry. More importantly from the Commission's point of view, the cost of re-establishing the industry is such that no manufacturer would consider it once divested.

As well as pointing to constraints on their ability to improve their internal productivity performance, many argued that the automotive industry is particularly vulnerable to inefficiencies in other parts of the economy. GMH stated:

> Output of low cost, high quality cars can only occur if the Australian business environment is on a world competitive footing over a wide range of essential input activities. Other manufacturing rarely, if ever, is dependent on so many upstream factors.

It was for this reason that most industry participants argued that reductions in protection for the passenger vehicle industry be linked to the progress in economic reform elsewhere in the economy.

The other major argument used by industry participants to justify continuing very high assistance for the Australian passenger vehicle industry was that the industry is also heavily assisted in many overseas countries. Nissan argued:

> Formal and informal methods of protecting automotive industries are in place in most major countries of the world ...
>
> If Australia decides to ignore the realities of trade and protection in the international automotive industry and to substantially remove any barriers to imports, then investment and development of the industry will inevitably be directed to those countries which retain or enhance their intervention.

In contrast to vehicle and component producer interests, vehicle importers, user groups and consumer representatives argued for significant reductions in passenger vehicle tariffs after 1992. They argued that continuing special treatment for the passenger vehicle industry could not be justified, and that therefore tariffs should be reduced to levels similar to those received by other industries in the manufacturing sector by or before the year 2000. The FCAI Importers Group stated that:

> There is absolutely no basis to justify a long run differential tariff for the automotive industry. Externalities, infant industry arguments, technology transfers, downstream and upstream advantages and other well worn casuistries apply equally to a range of other manufacturing industries within Australia. We need to move towards the view that possession of a substantial value added automotive manufacturing industry is only justified if it involves no greater costs to the community than any other activity.

> The imposition of some compromise long term level of tariff assistance will only prolong the process of structural resolution within the industry and impose needless cost upon the community. ...
>
> The Group's requests provide for a further adjustment period of four years with stepped reductions in the tariff of 5 per cent ad valorem until the long term level of 15 per cent is achieved.

The Australian Tourism Industry Association commented on the costs to the tourist industry of protection on passenger vehicles and concluded that:

> As its clear first preference, ATIA would like to see automotive industry protection in all forms -- and border protection generally -- eliminated forthwith.

The NSW Farmers' Association requested that tariffs on imported motor vehicles be removed over the next five years, pointing to the costs that protection for the local automotive industry imposes on the farm sector. It stated:

> Apart from the direct use of motor vehicles by farmers, the indirect use is also very high. Most of the services required by farms must be delivered by vehicles from local towns. This is a substantial cost for many of those supporting industries.
>
> The protection regime for motor vehicles, by inflating the cost structure for these essential inputs, provides a significant taxation on internationally traded industries and their consequent ability to increase production for export or for competing against imports.

The Australian Automobile Association argued:

> ... there is a need to pick up the tempo of rationalisation of the Industry and to give more weight to the interests of consumers; ... tariff protection must be progressively wound back to the levels applying to manufacturing generally; ... consumers should no longer have to support inefficiencies in the automotive industry.

In supporting a reduction in the tariff to 15 per cent by the year 2000, the Australian Consumers Association argued that the domestic industry had failed the consumer in three key areas -- price, quality and safety. A variety of anecdotal information was submitted in support of these arguments. The Association claimed that low income earners are particularly disadvantaged by current high assistance and that the regime is also detrimental to the environment because the resultant high cost of new cars means that it will take longer to phase-out vehicles which run on leaded petrol. The Association concluded:

> Tariffs which support inefficiency and poor quality but penalise consumers who underwrite the industry should be phased out progressively at around 2.5% per annum so as to allow the industry to further rationalise and re-orient production to economic scales of production of affordable good quality cars.

The Commission's views

The arguments put forward by industry participants that the benefits provided to the economy by the passenger vehicle industry justify only very gradual reductions in tariffs after 1992 are not, in the Commission's view, sustainable.

The Commission accepts that the industry has significant linkages with some parts of the manufacturing sector and that it has introduced new technologies and skills to companies supplying components and services. But to obtain these benefits, it has been necessary to provide the industry with much higher assistance than is provided to most other activities in the economy.

As discussed above, assistance to an industry is not costless. The benefits of that activity in the passenger vehicle industry which is dependent on high assistance have been obtained at the expense of other Australian industries and activities. These industries also have linkages and therefore flow-on benefits to the rest of the economy, which have been retarded because assistance to passenger vehicle production has reduced their command over resources.

Thus, to argue that the passenger vehicle industry is especially deserving requires acceptance of the proposition that its linkages are not just important, but also uniquely beneficial. Only then would it be sensible to provide the passenger vehicle industry with an artificial advantage over other activities which can use resources more efficiently.

In the Commission's view, no evidence to this inquiry has demonstrated that the passenger vehicle industry's linkages are uniquely beneficial. It is quite possible, for example, that the new management approaches and technologies that the industry claims to have introduced to Australia would have been picked up just as quickly by other industries, if the vehicle industry had not existed.

Significantly, in their responses to the Commission's draft report, a number of major industry participants accepted that the passenger vehicle industry has no unique attributes relative to other industries. Mitsubishi stated:

> ... some people have said that the car industry is important in terms of its linkages with other manufacturing industries in Australia and it sets quality standards higher than what might be imposed otherwise ... but we do not push our request on that basis ... we state that in the long term the industry should not be treated differently from other manufacturing industries, so we should get down to the same levels eventually as other manufacturing industries -- and other industries besides manufacturing.

And the FAPM said:

> ... [we] do not think [we] could mount a credible argument on the case of saying this industry is unique and special.

Similar sentiments were also expressed by Toyota, Nissan and the vehicle unions.

The Commission also rejects the argument advanced by GMH that, to avoid a drop in its standard of living in the future, Australia must become involved to a greater extent in the production of elaborately transformed manufactures of which passenger vehicles would be a key element. Again, this argument presumes that the passenger vehicle industry is special.

The arguments against targeting 'non-traditional' export activities were set out in detail in the IAC's 1986-87 Annual Report. There, the Commission noted that movements in relative export prices of several primary commodities -- including coal and other fuels -- had, over the previous decade, been more favourable on average than those for manufactures. More fundamentally, however, the Commission concluded that the benefits of targeting particular industries with special assistance were unlikely to exceed the costs imposed by that assistance on the rest of the community:

> In sum, the problems with policies of selective assistance to export industries are fundamentally the same as those for policies of industry preferment in general. Their scope for enhancing growth in national income is limited by costs that, in a highly interrelated economy, they impose on other production activities; and their chances of actually promoting efficient industries are limited by the inherent unpredictability of the economic environment (IAC 1987b, p 5).

The Commission also rejects the argument that reductions in assistance to the passenger vehicle industry should be conditional on the progress of economic reform in other areas of the economy. As discussed in Chapter 4, inefficiencies elsewhere in the economy disadvantage the vehicle industry along with many other activities and, in the process, reduce Australia's well-being. For this reason, the Commission has consistently advocated the need for on-going microeconomic reform and has welcomed the progress that has been in a number of areas.

However, other industries will almost certainly face further tariff reductions after 1992 irrespective of the progress in other areas of microeconomic reform. Holding up assistance to the passenger vehicle industry until progress is made on reform elsewhere would simply impose an additional and unwarranted cost on more efficient industries as they attempt to adjust to lower tariffs and, in so doing, reduce community welfare. That is, high assistance for the passenger motor vehicle industry will divert the community's resources away from activities able to utilise them more efficiently, irrespective of whether the motivation for providing that assistance is to protect the industry from import competition or simply to compensate it for inefficiencies elsewhere in the economy.

Further, the reduction of high levels of assistance to activities such as passenger motor vehicle production is an integral part of the microeconomic reform process. While the concept of synchronised reform in all sectors may be superficially attractive, if every sector of the economy were to succeed in the argument that reform in its area should be conditional on reform elsewhere, there would be the very real danger that the whole reform process would be paralysed. For example, those sectors of the economy which the vehicle industry argues must be reformed before passenger vehicle tariffs fall significantly could, on the same basis, argue that reform should wait until the cost penalties imposed on them by high vehicle tariffs are addressed.

Finally, the view that high protection for the Australian passenger vehicle industry is justified in the light of protection for the industry overseas overlooks the fact that Australia is a small country with limited influence on markets for most of our products. As a small country, providing competing assistance to all our industries would be prohibitively costly to the Australian community. Therefore, requiring domestic industries to adapt to the realities of distortions in the external trading environment, rather than shielding them from those distortions, will yield greater overall

wealth for Australia. Significantly, the general tariff reduction program implemented by the Government in 1988 is premised on this view. Similarly, in the case of Australia's rural commodities, the Government has not attempted to match assistance provided by governments overseas, but rather has argued to have that assistance reduced or removed in international trade fora. The Commission can see no reason why future tariff policy for the vehicle industry alone should attempt to take into account the policies of governments in other countries.

In summary, the Commission sees no compelling efficiency reason for accepting the industry's arguments for continuing very high assistance in the foreseeable future. As acknowledged by a number of industry participants, from an efficiency perspective, there is nothing special about this industry. Thus, continuing high assistance will simply allow the industry to attract or hold resources which would generate greater wealth for the economy as a whole if used by other industries better able to compete on their own merits in the marketplace. In the Commission's view, the primary objective of the post-1992 assistance regime must therefore be to remove or significantly reduce the preferred treatment which the passenger vehicle industry currently receives.

This, of course, leaves open the precise timing and extent of assistance reductions in the period 1993 to 2000 -- the period on which the Commission has explicitly been requested to report. Several factors are relevant in this regard. Apart from the concern to avoid undue disruption in the industry as tariffs are reduced, a number of the Government's expressed desires in the reference are pertinent. For example, the Government has expressed its desire to have a viable and internationally competitive automotive industry and has instructed the Commission to have regard to the industry's desire for a manageable rate of change. The Commission's views on the appropriate extent and pace of tariff reductions for passenger vehicle production after 1992 are set out in the next chapter.

Non-derivative light commercial and four-wheel drive vehicles

Non-derivative light commercial and four-wheel drive vehicles will be dutiable at 15 per cent in 1992 and, unless a specific decision on tariffs post-1992 is made in the context of this inquiry, would presumably be subject to any future general tariff reduction programs after 1992. There is no local production of these vehicles.

There were quite different views among both the local industry and vehicle importers on appropriate assistance arrangements for non-derivative light commercial and four-wheel drive vehicles in the post-1992 period. In essence, firms' positions on this issue reflected their orientation towards the importation of these vehicles and hence on the gains or losses for them of any substitution by consumers away from conventional passenger vehicles.

As part of its proposed assistance package for the post-1992 period (see Section 6.5), Ford argued that there should be no distinction in the treatment of passenger, light commercial and four-wheel drive vehicles. It said:

> The configuration and usage pattern of some light commercial vehicles indicates that they are perceived by the market more as "passenger" than "commercial products" and they are being directly marketed as passenger vehicles ...
>
> The combined effect has been to erode the production base of Australian manufacturers ...

Ford's position was supported by the vehicle unions which argued that light commercial and four-wheel drives should be reclassified as passenger vehicles '...where it is apparent that they are serving this function.'

GMH argued that there is currently substantial substitution of imported commercial vehicles for passenger cars encouraged by the duty differential. However, the company argued that, given the importance of light commercial and four-wheel drive vehicles to the rural sector, the problem should be dealt with by freezing current tariffs on these vehicles and reducing the tariff on passenger vehicles. This position was supported by, among others, the South Australian Government, Pilkington and the FAPM. The FAPM, for instance, argued that, besides the substitution effects, any reduction in the tariff on these vehicles below 15 per cent would '... cut off the possibility altogether of the production of these vehicle types in Australia.'

Reflecting their greater orientation to light commercial and four-wheel drive vehicles, Toyota, Nissan, and Mitsubishi supported further reductions in tariffs on these vehicles. Mitsubishi argued that such reductions '... should occur in the context of any general review of post-92 tariffs.'

A divergence of views was also apparent among vehicle importers. For example, BMW argued:

> Most of this "passenger substitute" light commercial product is imported by Plan Producers, another area of discrimination, in practice, in favour of Plan Producers.
>
> There is a need, in the existing car plan, to immediately increase the duty on car substitute LCV's (especially 4WD's) to the PMV duty rate.

In a similar vein, Mazda argued:

> Mazda contends there is a case for reducing the duty on "genuine" commercial vehicles ... and for increasing the duty on 4WD passenger vehicles to the PMV duty rate as these vehicles are substituted for sales of locally produced and imported PMVs.

The company proposed that this be achieved by reclassifying four-wheel drive vehicles with two or more doors, and with a certified seating capacity for three or more but less than nine persons, as passenger vehicles.

But JRA contended:

> The current Plan already reduces import duty on these vehicles to 15% by the end of 1992. JRA's recommendation is that this level is achieved for cars by 1996. We would advocate no change to this situation except that a reduction to below 15% should occur if this happens to the general tariff level.

Participants requesting an increase in tariffs on light commercial and four-wheel drive vehicles provided a variety of evidence to support claims of increasing substitution by car consumers into these vehicles. For example, Mazda stated that sales of passenger four-wheel drive vehicles increased their share of the passenger vehicle market from just over one per cent in 1980 to 10 per cent in 1990. The company argued that these vehicles are advertised and sold with major emphasis on their passenger vehicle features. Vehicle importers also provided evidence to show that they, rather than domestic car producers, are the major losers from such substitution.

On the basis of the evidence put before it, the Commission accepts that there is some substitution between passenger and light commercial and four-wheel drive vehicles. Wherever there are disparities in assistance between similar products, consumers will be encouraged to substitute into the more lowly assisted and thus potentially cheaper product. Indeed, given the very high cost penalties imposed on car consumers under current assistance arrangements, it would be surprising if substitution was not occurring. That said, the relatively high price of many passenger vehicle substitutes suggests that importers of luxury vehicles, rather than local producers, are bearing the brunt of this substitution.

Nonetheless, the Commission does not consider that the request by some participants for higher assistance on light commercial and four-wheel drive vehicles should be met. Through the current 'tops-down' general tariff reduction program, the Government has signalled that it wishes to reduce assistance disparities by lowering high rates of assistance rather than by increasing low ones. The Commission considers that this assistance disparity within the automotive industry should be dealt with according to this general policy, and therefore does not believe that special measures to deal with the substitution issue are warranted. As passenger vehicle tariffs are brought closer to tariffs applying elsewhere in the economy, the incentive for consumers to purchase passenger vehicle substitutes will be reduced.

There is, however, the additional issue of whether tariffs on light commercial and four-wheel drive vehicles should be frozen at the 1992 level of 15 per cent until such time as the tariff on passenger vehicles falls to this level, or whether they should be further reduced as part of post-1992 general tariff reduction programs.

If tariffs on light commercial and four-wheel drive vehicles were reduced as part of post-1992 general tariff reduction programs then, notwithstanding cuts in passenger vehicle tariffs, significant disparities in assistance between the two groups of vehicles could remain for much of the 1990s. To the extent that the distortions in consumption patterns associated with such assistance disparities reduce efficiency, there could be reason to freeze tariffs on light commercial and four-wheel drive vehicles at the 1992 level.

But against this, the changes made to tariffs on light commercial and four-wheel drive vehicles as part of the mid-term review of the current car plan were ostensibly designed to bring tariffs on these vehicles into line with the rest of manufacturing. Freezing tariffs on light commercial and four-wheel drive vehicles as other tariffs are reduced would restore special assistance status to

these vehicles and, in so doing, deny users the cost savings that would otherwise flow from continuing tariff reductions. Moreover, it would raise the prospect of additional substitution by consumers into vehicles just above the 2.72 tonnes gvw demarcation point between light and heavy vehicles, and subsequent calls to widen further the range of products subject to special assistance measures. Given the current level and pattern of substitution, these costs would be incurred to provide only a minimal gain in volume to the domestic industry.

On balance, the Commission judges that the costs from extending the area of special assistance treatment within the automotive industry are likely to be greater than losses in consumption efficiency from maintaining disparate assistance on substitutable vehicles. Accordingly, it considers that, after 1992, tariffs on non-derivative light commercial and four-wheel drive vehicles should be reduced in accordance with future general tariff reduction programs.

6.2 Assistance arrangements for components

Assistance for OE passenger vehicle components

Most participants to the inquiry assumed (or requested) that the current parity between the tariff on imported passenger vehicles and on OE passenger vehicle component imports would be retained in the post-1992 period. For both vehicle and component producers, the critical issue was whether the 15 per cent automatic duty free entitlement should be retained. That said, the FAPM, which argued for the abolition of the automatic entitlement, suggested that, in return, a lower tariff apply on OE passenger vehicle component imports for a period of three years.

The automatic by-law entitlement – participants' views and requests

Not surprisingly, vehicle and component producers had different views on whether the automatic by-law entitlement for vehicle producers should be retained after 1992.

Component producers requested that the by-law entitlement be discontinued. A number of arguments were advanced to support this request. The entitlement was seen as being inconsistent with a transparent assistance regime and as involving unnecessary administrative costs.

However, by far the most important concern of component producers was that the entitlement was seen as providing vehicle producers with excessive bargaining power when negotiating contracts with local component suppliers. Component producers argued that, as a consequence, protection ostensibly provided to component production by the tariff on vehicle producers' imported content above 15 per cent is substantially eroded. Moreover, they claimed that the uncertainty and unpredictability facing component producers made it impossible for them to make rational business decisions. In this regard, Robert Bosch stated:

> The company wants to "pick the winners" in relation to its locally manufactured product range and focus its attention on selected high technology product areas where it has specialised knowledge and manufacturing expertise. These are also the product areas where the opportunity to develop export business is available. Under the current plan regime, the company is constrained from making these investment decisions because the associated risks are unacceptable, especially when plan producers are able to pursue a duty free sourcing agenda the product composition of which can change at short notice and is unknown to the company.

A variety of anecdotal evidence on the impact of the automatic by-law entitlement on component producers was provided. Robert Bosch stated:

> ... the company has recently lost major supply contracts with two plan producers on different products. These contracts were lost to overseas competitors supplying from high volume plants, and duty free price comparisons against the company's prices for locally manufactured products was a major contributing factor in the decisions to re-source by the two plan producers concerned.
>
> In the case of one product, the lost business accounts for 35 per cent of annual production volume for the product, and the other accounts for 25 per cent ... The impact of the loss of fixed overhead contribution from these two contracts is considerable and can not be recovered. The impact on the company's annual turnover will be in excess of 14 million dollars per annum at today's prices.

Component producers also argued that the abolition of the automatic by-law entitlement would meet the Government's expressed desire to provide, as far as practical, equal assistance to the two sectors of the industry.

Vehicle producers, however, argued for the maintenance of the automatic by-law entitlement. Indeed, Toyota and Nissan requested that it be extended to 30 per cent to permit cost effective usage of new vehicle technology.

Vehicle producers contended that the entitlement remains an important mechanism for ensuring that costs of locally produced vehicles are minimised. Nissan estimated the cost increase from the removal of the entitlement at around five per cent. Mitsubishi estimated that perhaps a third of components currently imported under the automatic entitlement could, in its absence, be imported under the Commercial Tariff Concession System (CTCS). However, it argued that the remaining components would not be sourced locally but rather would be imported duty paid. Accordingly, it contended that the cost impost to local vehicle producers from removing the entitlement would have no offsetting benefits in terms of increased activity in the component sector.

Vehicle producers were also concerned that requiring them to seek duty free entry for components not produced in Australia would introduce considerable uncertainty to their operations. Toyota stated:

> ... it (would) introduce an element of great uncertainty into the planning and evaluation process; ... the introduction and administration of the system could seriously disadvantage local manufacturers because of timing delays, interpretations, etc ... it makes optimal sourcing decisions from now on very difficult, if not impossible ...

Vehicle producers also commented on the costs of operating under the CTCS. GMH stated:

> We estimate that such a system would be likely to cost far more to administer than the current system, in view of the very large number of components in a passenger car and the vigour with which these matters are customarily pursued.

GMH also claimed that, if producers were forced to rely on the CTCS, there could be distortions in the vehicle technology used in Australia. It stated:

> Car manufacturers would have a powerful incentive to adopt car configurations for which the components were not available in Australia. A clear example is front wheel drive design; cars of this type have unique transaxle assemblies. The housing is likely to be uneconomic to produce in Australia, resulting in the entire transaxle becoming eligible for duty free entry under case by case law. A car manufacturer would have reason to adopt a front wheel drive design under these conditions.

And vehicle producers argued that removing the entitlement would not promote greater equality in assistance between vehicle and component production, given the relatively low rate of duty on raw materials used by component producers.

The FVIU proposed that the by-law entitlement be retained for those companies entering a partnership agreement:

> ... Plan producers (would) only be eligible to maintain the 15 per cent duty free by law if they negotiate agreements with government for plans to produce in Australia new niche vehicles with good export prospects. This could include production of an Australian 4WD, LCV or niche passenger motor vehicles.

Finally, vehicle importers requested that the automatic entitlement only be available for the importation of components, rather than cbu vehicles as well as components, as is currently the case. The FCAI Importers Group stated:

> Quite simply, the automatic by-law entitlement which permits the duty free entry of cbu cars does nothing to improve the efficiency of the Australian manufacturing industry. It provides Plan producers with the opportunity to either subsidise continued local manufacturing inefficiency or to use duty-free imports to target Australian produced models of their competitors and the models offered by duty-paying importers.

The Commission's views

In the Commission's view, removing the automatic by-law entitlement would have a number of benefits. Assistance to the industry as a whole would be more transparent. Moreover, as other industries do not have access to such an arrangement, removing the entitlement would provide a signal to the industry that it is not special and must in future be expected to be treated in the same way as other industries.

Also, in the absence of the automatic by-law entitlement, component producers would face a more certain environment for making business decisions. However, the problems for component producers under the current regime should not be overstated. For the reasons set out in the previous chapter, it is the least efficient local component producers who are most at risk from the leverage provided to vehicle producers by the automatic by-law entitlement. And, even without the automatic entitlement, duty free credits available under the export facilitation scheme would still ensure a measure of uncertainty for the least efficient local component producers.

In a general sense, removing the automatic by-law entitlement could be argued to deliver a fairer assistance regime, although it is by no means clear that there would be greater uniformity in the level of effective assistance to vehicle and component producers. Effective assistance to passenger vehicle assembly and component production after 1992 will be influenced by a range of factors, including tariffs on raw materials used by the industry and the level of duty free importation available to vehicle producers. The distribution of the benefits of export facilitation between vehicle and component producers, if the scheme is continued, would be a further consideration. Indeed, the effective rate calculations provided by GMH, which indicated that retention of the automatic by-law entitlement was essential to maintain equality of effective assistance, depended critically on the company's assumption about the distribution of the benefits of export facilitation.

Against the benefits for some component producers from removing the automatic by-law entitlement, there would be costs for other areas of the industry and, indeed, the industry as a whole. Given the imprecision of the criteria governing the CTCS under which vehicle producers would have to seek duty free entry for components not produced in Australia, greater certainty for the component sector would be matched by reduced certainty for vehicle producers, at least for an interim period until Tariff Concession Orders were obtained. More importantly, the automatic duty free entitlement increases the cost competitiveness of domestic vehicle production and thus the derived demand for locally sourced components. From this perspective, the entitlement is something of a two-edged sword for component producers.

The rise in vehicle producers' costs in the absence of the automatic duty free entitlement would obviously depend on the extent of duty free entry available under the CTCS. Taking, for the purposes of illustration, Mitsubishi's estimate that one-third of components currently imported under the automatic entitlement could gain duty free entry under the CTCS then, at the tariff of 35

per cent which will apply in 1992, the Commission estimates that the cost impost would be more than $160 million.[1] This increase in costs would be magnified if the removal of the leverage provided to vehicle producers by the automatic entitlement resulted in price increases for existing locally sourced components. Against this, however, reductions in tariffs after 1992 would reduce the cost penalty for vehicle producers. At a 15 per cent tariff, the cost impost of $160 million would be reduced to a little over $70 million. The Commission observes that, with tariffs at this sort of level, it is difficult to accept GMH's claim that, in the absence of the automatic duty free entitlement, vehicle producers would engage in major vehicle redesign in order to qualify individual components under the CTCS.

Nevertheless, removal of the automatic duty free entitlement would result in some increase in vehicle producers' costs and thereby reduce their competitiveness. This in turn would lead to a reduction in the output of locally produced vehicles. While some individual component producers would benefit through the removal of leverage, total demand for components would almost certainly fall in line with the reduction in domestic vehicle output. Hence, the industry's total value of output would also decline.

Viewed in isolation, such a contraction in the industry could be seen as desirable given the high cost of passenger vehicle production as a whole. However, in the Commission's view, the issue is more complicated that this. For example, the removal of the automatic duty free entitlement would cause some disruption to vehicle producers. The Commission's weighing of the various benefits and costs of the automatic duty free entitlement is set out in the next chapter.

Tariffs on other components

Tariffs on OE components for use in non-derivative light commercial and four-wheel drive vehicles, and on replacement components for all vehicles under reference are being reduced as part of the current round of general tariff reductions. A tariff of 15 per cent will apply to all of these components in 1992. There is no local production of components for use in non-derivative light commercial and four-wheel drive vehicles.

[1] Based on 1989 production levels.

The FAPM and a number of component producers pointed to the difficulties that further reductions in the tariff on replacement components would entail for the specialist component sector and therefore argued that duties on these components be frozen at 15 per cent after 1992.

The FAPM stated:

> These products represent an integral and significant element of most component producers businesses with strong linkages to original supply in both production and distribution. FAPM believes that ... continued reduction in tariff support for after market and replacement parts, would place excessive pressures on many producers.

Pacific BBA contended:

> The Company is concerned with the current situation where a large disparity exists between after market component tariffs ... and OE component tariffs ... This is especially highlighted where identical parts are imported for both OE and (after market purposes).

And Nippondenso argued:

> A reduction of the tariff level would not only provide additional assistance to import competition in the after market for radiators but would seriously weaken (the company's) cost performance to the OE market through lower total volumes.

As noted above, replacement and after market components are covered by the current general tariff reduction program. In the absence of a decision coming out of this inquiry to freeze the tariff at 15 per cent, tariffs for these components after 1992 would be set in accordance with future general tariff reduction programs. In assessing which course of action should be followed, the considerations arising in the context of non-derivative light commercial and four-wheel drive vehicles are again relevant. That is, there is a trade-off involved between possible efficiency losses from having disparate tariffs on virtually identical products -- OE and replacement components, and the costs associated with extending special treatment to replacement components and thereby denying users the benefits that would otherwise flow from lower tariffs after 1992. As in the case of non-derivative light commercial and four-wheel drive vehicles, the Commission considers that, after 1992, tariffs for replacement components should be reduced in accordance with future general tariff reduction programs.

6.3 Export facilitation

The export facilitation schemes for passenger vehicle and component producers provide vehicle producers with duty free entitlements (additional to those provided for by the 15 per cent automatic entitlement) in return for automotive exports. The export facilitation arrangements for passenger vehicle importers allow them to import vehicles duty free in return for arranging exports of Australian components.

Continuation of export facilitation

Participants' views and requests

There was almost unanimous support among local vehicle and component producers for a continuation of export facilitation, albeit in a modified form. A continuation of export facilitation was also supported by some individual vehicle importers. However, the FCAI Importers Group requested that the schemes be terminated at the beginning of 1996.

Industry participants argued that, by making available additional duty free entitlements based on exports, the scheme had forced out marginal local production and, at the same time, through greater realisation of economies of scale, had lowered production costs in those areas in which the industry is most competitive.

Many participants argued that the scheme had also been the lever allowing the industry to participate in the 'globalisation' of the automotive industry. The Victorian Government stated:

> The Export Facilitation Scheme has opened the door to better integration of the locally based subsidiaries into the global operation of their parents, and given them a chance to demonstrate a capability that might otherwise have been overlooked.

There was a widespread view among participants that, without integration with the world industry, the local industry could not survive. For example, the FAPM stated:

> Globalisation is a necessary prerequisite for survival. Assistance provided by export facilitation can play an important part in the process of restructuring.

Apart from the benefits of increased economies of scale referred to above, industry participants argued that this tie in to the international industry, with its associated demand for a higher quality of product by overseas buyers, has led to much greater attention to product quality in the domestic industry with resulting benefits for domestic car consumers. For example, in regard to the Capri export program, Ford stated:

> Capri has been a fundamental learning experience for Ford which has assisted the achievement of improved quality and productivity levels by highlighting the exacting nature of world competition.

In its submission to the inquiry, the Australian Automotive Export Group (AAEG) pointed to the role of export facilitation in reducing disparities in assistance within the automotive industry and thereby the discrimination against export activity that would exist in the absence of the scheme. It stated:

> One of the fundamental tenets of the Industry Commission's approach is that it is not possible to know who will win the competitive battles of the future. We can however, surmise that they will often be companies who export, and so we should seek to ensure that within Australia they are placed on a "level playing field" with their more inwardly looking competitors __ that they operate in an environment of "extended neutrality". While it may be appropriate to avoid "picking winners", industry policy should ensure that if assistance is offered, it is not offered in a form which discriminates against the necessary processes by which the market searches and competes for better technology and better practical solutions. ... any assistance regime ... should not discriminate against innovation, risk taking, and exporting.

The Group went on to argue that export facilitation should be viewed as a complement rather than as an alternative to tariff reform:

> ... tariff reform and export facilitation are each "first best" responses to different but related distortions ... They are both essential parts of a "first best" or most direct approach to assistance reform.

In requesting the abolition of export facilitation by 1996, the FCAI Importer's Group argued that preferential arrangements for automotive exports are not appropriate if the industry is to become truly internationally competitive. It stated:

> At the present time the community is effectively subsidising purchases by foreign consumers. There is no reason why automotive exports should be regarded as strategically superior to other exports. In fact it could be argued that the extent of the subsidy has significantly distorted the pattern of automotive exports and generated export sales in markets where we could not realistically expect to be competitive ...
>
> The export facilitation scheme should be seen as a temporary support measure to gain access to overseas markets and technologies ... However, it is critical that Australian industry is progressively exposed to the real competitive pressures associated with maintaining this business in the future.

The Commission's views

Like the automatic by-law entitlement, the Commission sees both benefits and costs in the export facilitation arrangements. The scheme provides a cost saving to vehicle producers. Although, as discussed in Chapter 5, the evidence indicates that a subsidy is required for most automotive exports, the necessary subsidy will generally be less than the savings from additional duty free entitlements generated under the scheme. If it were not, it would not have been worthwhile for firms to avail themselves of the arrangements. Assuming, for the purposes of illustration, that the average subsidy required on exports earning credits under the scheme is 10 per cent then, in 1989, the cost saving attributable to export facilitation would have been as much as $170 million or 2.8 per cent of total domestic production value.[2] However, for the reasons set out in Chapter 5, the Commission judges that most of the cost savings from export facilitation have been absorbed by the industry through an expansion in its level of output.

In terms of its effect on the efficiency of resource use, export facilitation reduces the disparity in assistance between the import competing and export sectors of the industry and thereby delivers an improvement in the intra-industry efficiency of resource use.

[2] The calculation is based on the value of plan production for 1989 of $6.1 billion and the use of credits equal to 8.45 per cent of that production value.

_ See IC 1990d, Appendix 8 for further details.

But, as discussed in Chapter 5, there will almost certainly be an offsetting inter-industry efficiency loss. With the move to tariff-based protection for the passenger vehicle industry, exports encouraged by export facilitation will now often be at the expense of production in other industries, rather than at the expense of higher cost import competing passenger vehicle production as was the case when the local content scheme was in operation. The reduction in the inter-industry efficiency of resource use comes about because a significant proportion of these exports require much higher levels of assistance to be viable than the production they are displacing in other activities. As noted in the previous chapter, assistance available in 1992 to automotive exports under the export facilitation arrangements will be more than double that available to virtually all other manufacturing activities.

Thus, when viewed in isolation, the overall efficiency impact of export facilitation is unclear -- a gain in the efficiency of resource use within the industry must be balanced against the inter-industry efficiency loss.

The AAEG argued that the inter-industry loss in resource use efficiency associated with export facilitation can be avoided by concomitant reductions in the tariff. Thus, as noted earlier, the Group argued that export facilitation and tariff reductions are best viewed as complementary policies.

However, the Commission is concerned that the existence of export facilitation may actually hinder the pace of future tariff reductions in the industry. Because a significant proportion of export activity in the passenger vehicle industry is dependent on the implicit export subsidies provided by the export facilitation scheme, the scheme will have introduced a new pressure on the Government to proceed slowly with tariff reductions to maintain the level of the subsidy and hence the viability of that export activity. In this regard, Ford argued that its Capri export program had been disadvantaged by the reduction in tariffs and the abolition of the local content scheme following the mid-term review of the current car plan:

> The Capri program was approved in the expectation of a relatively stable Plan through to 1992, substantially on the benefits it would provide through export facilitation for selective sourcing of duty free components from outside Australia.

> The 1988 changes provided opportunities for relatively low risk outsourcing, with reducing tariff penalties, but without the business risks and costs associated with a major product export program such as the Capri.

Similarly, at the draft report hearings, Mitsubishi said:

> ... the profitability of (our) export programs will be severely affected by the too rapid reduction in tariff rates proposed by the Commission. This will jeopardise export expansion and, consequently, the driving force for improvement in the industry.

Such problems will not arise under the approach to assistance reform advocated by the Commission: namely, 'tops-down' tariff reductions. Reducing tariffs will also benefit our export activities. While the approach will not be as effective as export facilitation in improving the efficiency of resource use within industries, it does not suffer from the drawback of encouraging potentially high cost export activity, and therefore avoids increasing the pressures to slow the pace of assistance reform.

Whatever the merits of export facilitation per se, by 1992, the scheme will have been in place for a decade and will accordingly have had a significant impact on the industry structure that then exists. Hence, its immediate removal after 1992 could cause significant disruption. As discussed in the following chapter, adjustment as well as efficiency issues are relevant in considering whether export facilitation should be continued after 1992.

Modifications to export facilitation

If export facilitation is to remain in place after 1992, there is the question of whether the operation of the individual schemes requires modification.

Participants' views and requests

As noted above, there was widespread support among vehicle and component producers for a continuation of export facilitation after 1992. However, these participants requested that a variety of current restrictions applying to the schemes be relaxed or removed. While vehicle importers as a group requested termination of export facilitation in 1996, they too requested modifications in the interim period.

A number of local producers and importers were critical of the base year hurdles, which mean that export credits can only be earned on (eligible) exports over and above 1979 levels in the case of the vehicle and component producers' schemes and 1986 in the case of the importers' scheme. They questioned the relevance of this restriction and argued that it discriminates against firms which had achieved significant exports prior to the introduction of the schemes. For example, GMH stated:

> While the government's reluctance to apply a new assistance package to established activities is recognised, the distinction between old and new exports can become somewhat erratic after more than a decade and the question of why some activities should be subject to incentive, while others are not, can become difficult to answer rationally. In particular, a situation must arise where some competitors in a market are being assisted, while others taking part in identical activities are not. The distribution of incentives under these conditions is verging on irrationality.

There was some support for removing or revising the current value added criteria applying to exports earning credits in excess of 7.5 percentage points under the vehicle producers' scheme and to all exports under the importers' scheme. As discussed in Chapter 5, the criteria require, among other things, that value added in the automotive exports concerned is equal to value added in the average passenger motor vehicle or a relatively complex assembly such as an engine, and that a reasonable level of skill is involved in the design or production of the exports concerned. Nissan argued that '... the stage at which the value added test comes into effect ... should be raised in order to encourage exports across the broad range of automotive components.' The company also argued that, at present, low value added products offer the best prospect of entry into automotive export markets and represent the first step in a logical progression to higher value added exports in the future. The FCAI Importers Group were particularly critical of the complexity and administrative discretion involved in the current criteria. They stated:

> ... currently the amount of credit to be earned is not predictable and is known only after the AIA's evaluation of any eligible export by the importers.
>
> The application of criteria by the AIA obviously requires important (and unpredictable) value judgements which the Group believes is highly undesirable.

However, many other industry participants claimed that abolition of the value added criteria would see a proliferation of exports of low value added aluminium castings with the credits earned being

used to displace much higher value added passenger vehicle activity. Moreover, these participants argued that, because export credits would accrue on the full value of local raw materials, very high effective assistance would accrue to value added in the casting process. Holdens' Engine Company stated:

> ... by removal of the value added criterion, an opportunity is created for car or component manufacturers to magnify the effective assistance received, by selecting a type of export which adds a minor amount of value to products largely derived outside the car manufacturing portion of the automotive sector. The reallocation of resources that may result, would be expected to further reduce broad manufacturing activity within this country.

GMH contended that a bias towards highly assisted, low value added automotive exports already exists under the current arrangements given that value added criteria do not apply to many exports earning credits and that the value of raw materials in exports meeting the criteria still qualifies to earn export credits. The company therefore requested that all credits be earned on the basis of value added in automotive exports.

Some local vehicle and component producers argued that all credits available under their respective schemes should accrue at a maximum rate of a dollar for dollar and thus the $0.50 cents in the dollar maximum accrual rates currently applying above certain limits should be abandoned.

Vehicle importers were particularly critical of the fact that the maximum rate at which they accrued credits was only $0.50 per dollar of exports, compared to the dollar for dollar maximum rate applying to the majority of credits earned under the vehicle and component producers' schemes. They argued that exports of components they arrange have the same potential to increase economies of scale in areas in which the local industry is most competitive, and that their use of credits to import vehicles imposes the same sort of adjustment pressures on local production. Accordingly, they requested that, pending the removal of export facilitation in 1996, the arrangements be modified to provide equal treatment for vehicle importers. For example, Hyundai said:

> HADA support the ... contention that importers must benefit from export facilitation at the same rate as domestic manufacturers. There is inherently nothing superior in the exports developed by domestic manufacturers as compared with those developed by importers.

Component producers were particularly concerned about the restrictions placed on their use of export credits. As discussed in Chapter 5, credits earned by component producers can be sold or transferred to vehicle producers or used to increase reported local content in components supplied to vehicle producers. They cannot, however, be used directly by component producers to import components.

Component producers argued that this restriction means that they are unable to use their export credits to import components which are particularly expensive to produce locally. They claimed that the prices vehicle producers are prepared to pay for their credits are both low and difficult to ascertain in advance. It was argued that the restriction on the direct use of credits by component producers discourages them from utilising the scheme. For example, Electrolux stated:

> We would suggest that any export credits earned by component producers should be available to component producers to use for the potential of importation of duty free components which may be advantageous, and thus allow the component producer to offer benefits to the Australian base customers.
>
> Within the Autoliv global family there is an opportunity for global sourcing and attaining product design using the best source.
>
> This would allow us to potentially reduce cost, improve our competitive position further, and obviously take advantage of the Autoliv global economics of scale.

Some participants argued that the scheme should not be limited to passenger vehicles and components, but should also cover other light automotive products such as light commercial and four-wheel drive vehicles and replacement parts. In this regard, the FAPM stated:

> ... (as) many component producers are also suppliers to the aftermarket, extending EFS to cover aftermarket and replacement parts would enable restructuring of businesses to take advantage of the enormous world market for these products.

However, in supporting the continued restriction of the scheme to passenger vehicles and components, Mazda contended:

> The current Button plan is designed to provide assistance for PMVs and covers neither 4WDs nor LCVs. To allow these vehicles now to be covered by export facilitation schemes would expand assistance for the local industry...

The FAPM and a number of individual component producers argued that credits earned on the export of cbu vehicles should be restricted in use to the importation of vehicles, while Robert Bosch argued for an even more restricted use of credits:

> ... neither vehicle assemblers nor component producers should be able to use export credits to import duty free components for which local manufacturing investments already exist.

The Commission also received a deal of comment on whether the overall limits on credits that can be earned under export facilitation should remain. Some participants argued for retention on the grounds that removal would have an uncertain and possibly damaging effect on adjustment in the industry. However, a number of others saw benefits from removing the limits. The AAEG stated:

> ... limits on export facilitation can clearly function as a significant deterrent to major export programs ... Credits (should) go to whatever firm is able to earn them. Some firms will be better able to earn them. They should receive the same rate of assistance as their less export oriented competitors.

Britax Rainsfords argued that, because cost impediments apply to all of its exports, the benefits available under export facilitation should equally apply to all those exports. The company said that to do otherwise would inhibit firms from achieving their full potential. The Victorian Government said that it was important to ensure that export facilitation ceilings do not limit the intra-industry efficiency gains under the arrangements.

The AAEG also argued for the removal of current restrictions on the transferability of credits -- for example, the restriction preventing vehicle producers from selling credits to importers. It argued:

> Free transferability of credits would maximise the efficiency with which the industry imports and exports. Plan manufacturers, for instance, probably need to import vehicles to fill out their product range, but they are unlikely ever to get the returns importing for the mass market that BMW and Honda get when they exploit the more exclusive image of a specialty importer.

A deal of comment was also received on whether exports to New Zealand should be eligible to earn export credits. The New Zealand Government argued that the provision of export subsidies has no

place under the free trade agreement between New Zealand and Australia. It stated:

> The Export Facilitation Scheme (EFS) has a severely detrimental effect on the New Zealand automotive industry and in particular on the component industry. To New Zealand's cost it distorts competition within New Zealand, across the Tasman and in third markets.
>
> The continuation of the application of the EFS on exports to New Zealand is in contravention of the Australia-New Zealand Closer Economic Relations Trade Agreement ...
>
> New Zealand does not believe that the considerable advantages that the Australian motor vehicle industry enjoys in the free trade area should continue to be bolstered by Australian export subsidies that then undermine the New Zealand industry.

The New Zealand Government provided a variety of evidence to the Commission to support its contention that export facilitation is having an adverse impact on the New Zealand industry. The New Zealand Government's position was supported by the FAPM.

But vehicle producers argued that exports to New Zealand should remain eligible to earn export credits. Mitsubishi stated:

> MMAL believes that there are no grounds on which exports to New Zealand should be treated differently. It is a market that has been a significant feature of the Australian industry's export orientation to date and should remain so in the future.

Toyota argued that export facilitation to New Zealand is desirable to redress the advantage New Zealand vehicle assemblers have because of the absence of duties on their component inputs:

> ... the majority of components enter New Zealand duty free whilst CBUs are levied at 35%. By contrast, Australian components are protected by a 40% tariff and consequently cost impediments enter into the vehicle cost either directly or indirectly. Therefore EFS can be seen to be eliminating this cost impediment and enabling Australian produced vehicles to compete on the same basis as New Zealand assembled vehicles.

Finally, a number of firms commented on the relationship between the export facilitation scheme and the offsets programs. Under the civil offsets program, an overseas supplier to Federal and State Governments may incur an obligation to undertake certain high technology/export oriented activities when it supplies a single order, or cumulative orders in the one financial year, exceeding

a duty free price of $2.5 million. If the imported content is more than 30 per cent of the contract value, the overseas supplier incurs an offsets obligation equal to 30 per cent of the value of the imported content.[3] Sales to the Department of Defence also involve similar offsets obligations.

In essence, firms argued that involvement in the supply of imported vehicles to government requires them to juggle their automotive exports between discharging offsets obligations and participating in the export facilitation schemes. This was seen as creating a significant administrative cost, particularly given the complexity of the offsets requirements. Moreover, the export facilitation and offsets arrangements were seen as both having the effect of promoting increased automotive exports. Accordingly, a number of participants requested that the supply of imported vehicles to Federal and State Governments be exempted from offsets obligations.

The Commission's views

Acceptance of some of the proposals put forward by participants to overcome anomalies or increase the flexibility of export facilitation would, at the same time, increase producers' overall access to export credits. Given the Commission's reservations about export facilitation, it considers that, as far as those modifications are concerned, a trade-off is involved between improving internal efficiency of the arrangements and increasing the adverse effects that export facilitation has on other industries. On balance, the Commission considers that, if export facilitation is to remain in place after 1992, improving its internal efficiency should take precedence. The fact that tariff reductions after 1992 will reduce the potency of export facilitation and thereby its adverse impacts has been an important consideration underlying this judgement. Moreover, some of the other modifications which the Commission believes are desirable if export facilitation is continued would more than offset the increase in the industry's access to export credits.

The base year hurdles applying to all three export facilitation schemes appear to have been introduced to make it harder to earn export credits and therefore to reduce the impact of the schemes on the less efficient sectors of domestic production. But given that, by the end of the

[3] See IC 1990d, Appendix 8 for further details.

current plan, export facilitation will have been in place for a decade, there would appear to be little reason to retain the hurdles on adjustment grounds. Retention of the hurdles would simply continue to discriminate against those firms who achieved a relatively high level of exports in the years prior to the introduction of export facilitation and, in so doing, would retain the situation where very similar products might be treated quite differently as far as the provision of export assistance is concerned. Hence, the Commission considers that, if export facilitation is to be retained, the hurdles should be removed.

For similar reasons, the Commission considers that, if export facilitation is retained after 1992, the maximum accrual rate for credits on all eligible exports should be dollar for dollar. In reaching this conclusion, the Commission observes that there is nothing intrinsically different about automotive exports arranged by vehicle importers as opposed to those arranged by local producers, nor for that matter between eligible exports earning credits above or below the $0.50 cents in the dollar tranche applying to the vehicle and component producers' schemes. The very low level of component exports that have so far been arranged by vehicle importers may in part reflect the fact that the export subsidy available is only half that available if the same components are exported directly by the component producer or are channelled through a vehicle producer.

The Commission also considers that, if export facilitation is continued after 1992, component producers should be able to use their export credits for direct importation.

It also sees benefits in removing all restrictions on the transfer or sale of export credits.

If the coverage of the export facilitation schemes was extended to include light commercial and four-wheel drive vehicles and replacement components, greater assistance would be available to these products when exported than would be available on their production for domestic sale. For example, in 1992, the maximum export subsidy for (local content in) such exports would be 35 per cent -- the tariff applying to passenger vehicle imports, while production for the domestic market would be assisted by a tariff of 15 per cent. It is unlikely that, in practice, export production of light commercial and four-wheel drive vehicles would be initiated by such a change, particularly given that the available export subsidy would be reduced after 1992 by reductions in passenger vehicle

tariffs. However, in the case of replacement components, new high cost export activity could be encouraged. Accordingly, the Commission does not consider that exports of other light automotive products should be eligible to earn export credits. That said, it believes that there would be merit in allowing producers to use credits earned on passenger vehicle export activity to import other light automotive products if they so desire. This would increase the range of options, particularly for component producers, for using export credits.

In its draft report, the Commission argued that the current ceiling on export facilitation should not be raised if the schemes are retained after 1992. In reaching this conclusion, it gave heavy weight to the potential efficiency costs associated with an expansion in the scheme and to the fact that most producers are operating well below current limits.

However, the evidence at the draft report hearings suggests that the current limits may be a constraint for some producers in the future. Unrestricted transferability of credits would provide these firms with a way round the limits. That is, additional exports could be arranged through firms operating below their limit, although this option would not be costless.

More importantly, in the light of its judgment that, if export facilitation is to continue after 1992, anomalies and internal inefficiencies should be addressed, the Commission cannot see a strong case for retaining a cut-off point at which export assistance under the schemes is arbitrarily removed.

In its draft report, the Commission also concluded that, if export facilitation is retained after 1992, the value added criteria applying to exports earning credits above 7.5 percentage points under the vehicle producers' scheme and to all exports under the importers' scheme should be abolished. In

reaching this conclusion, it argued that value added was not a good indicator of the relative efficiency of different activities and that, as currently constituted, the criteria unnecessarily increase the complexity of the arrangements and introduce an unwarranted element of administrative discretion.

In the light of the evidence submitted on this matter, the Commission has reviewed its position. It accepts that removal of the value added criteria would most likely result in an expansion of exports of relatively low value added aluminium castings. It also acknowledges that high levels of effective assistance would be available to the casting process given that export credits would accrue on the total value of the castings, the bulk of which would be represented by the aluminium -- an input available in Australia at world prices.

The Commission observes, however, that, while high effective rates of assistance would potentially be made available to the casting process, implicit in the industry's fears about the impact of removing the value added criteria is the belief that the casting process would not require that assistance. If it did, the advantages to firms from this type of export activity would be negated. Indeed, to the extent that abolition of the value added criteria allowed the replacement of high cost automotive production with the export of world competitive, minimally worked aluminium products, there would be benefits to the wider economy.

Having weighed up the various arguments, the Commission considers that, should export facilitation be continued after 1992, the earning of export credits should be related directly to value added in the automotive industry. In varying the position it adopted in the draft report, it has placed greater emphasis on the role of export facilitation as a mechanism for improving resource use within the passenger vehicle industry.

Some current export programs of vehicle and component producers would be disadvantaged by relating export credits solely to value added in the automotive industry, but there are some other projects which would earn additional credits if this change were introduced. More generally, the Commission can see little logic in the current half-way house situation where some raw materials embodied in exports are eligible to earn credits but others are not.

The request to limit the use of credits earned on vehicle exports to the importation of cbu vehicles would, if granted, reduce the scope for export facilitation to improve resource use efficiency within the industry. Maximum benefits from export credits will be derived if those credits can be used to displace the least efficient parts of the local industry whether they be component or assembly activities.

On the issue of whether exports to New Zealand should continue to be eligible to earn credits, much of the evidence centred on whether or not damage was being caused to the New Zealand industry by Australian exports encouraged by the scheme. However, in the Commission's view, the issue of damage is a subsidiary one. Quite simply, it considers that there is no place for an arrangement providing implicit export subsidies under a free trade agreement.

Removing an entitlement to credits on exports to New Zealand would have an appreciable adverse impact on the Australian industry. Information available to the Commission suggests that between 25 and 30 per cent of all export credits are earned through exports to New Zealand. Accordingly, the Commission believes that, if export facilitation is retained after 1992, the eligibility of exports to New Zealand to earn export credits should be phased out rather than removed immediately.

In the case of the offsets arrangements as they apply to imported vehicles supplied to Federal and State Governments, there appears to be a case for a change. The Commission notes that, under 'Partnerships for Development Agreements' applying in some industries, which are aimed, in part, at increasing exports, participating firms are exempt from obligations under the offsets programs. In this instance, the Commission considers that, given the existence of the export facilitation scheme to encourage vehicle exports, there is little sense in duplicating this incentive through the civil and defence offsets programs.

6.4 Directive restructuring

Underlying the current assistance plan for the passenger vehicle industry is a view that a major factor contributing to the industry's lack of competitiveness is the low output of vehicle plants in Australia. Part of the Government's response to this perceived problem was to specify a target industry structure for 1992 of no more than three manufacturing entities producing at most six vehicle models. Penalty provisions involving the withdrawal of by-law entitlements on low volume models were subsequently introduced to encourage the development of this industry structure.[4] The

[4] As discussed in Appendix C, one of the recommendations of the Car Industry Council, which was established in 1983 to advise the Government on post-1984 assistance arrangements, was that the Government should announce an industry goal incorporating both a target for the industry to reach and a strategy to reach it.

rationale underlying these aspects of the plan was that, if a more scale intensive industry structure could be achieved, it would enable the industry to survive with lower tariffs and thus at less cost to the community. From this perspective, the directive restructuring policy was a complement to reductions in assistance.

As discussed in Chapter 5, some rationalisation has occurred in the industry since the commencement of the current car plan although there is no indication that the Government's desired 3:6 structure will be achieved by 1992. Accordingly, an issue for this inquiry is whether that, or a similar, target structure should be retained under the post-1992 arrangements and if that target should be actively pursued through some form of penalty provisions.

Participants' views

Among the local industry, there were differing views on the merits of the directive restructuring policy. A continuation of the policy was supported by component producers who argued that it was necessary to force firms to become outward looking and to ensure the throughput necessary to maintain viable component production in Australia. The FAPM stated:

> FAPM appreciates the concern about the degree of intervention involved in minimum volume sanctions, however in our view, they must be maintained at least over the life of the next model program to ensure a more outward focus necessary for the survival of the Australian industry.
>
> There is the danger that in the absence of volume sanctions appropriate investment aimed at moving Australia's Automotive assembly towards minimum efficient scale may not occur.
>
> Moreover, as assistance declines to component producers, the option of relying on assembly dependent on the relative-competitive advantage available from sourcing inputs overseas becomes a real possibility.

Guarded support for a continuation of the policies was also voiced by GMH. It contended:

> Holden considers that a further rationalisation of local car lines is required to achieve an efficient industry. It is therefore recommended that, having taken steps to achieve a rationalisation which has not yet occurred, government would be well advised to delay the removal of minimum volume sanctions ...

However, other vehicle producers were less supportive of these provisions arguing that decisions about what vehicles to produce and in what volumes are commercial decisions which should be left to producers. Mitsubishi stated:

> The concept of directive restructuring assumes at its core that governments know more about the production and sale of goods than producers and consumers. It is a flawed philosophy. MMAL considers that the role of government is to set broad guidelines which are simple and firm. Responses to those guidelines will be made by participants in the industry and ultimately adjudicated on by the market.
>
> ... Scale is a problem for the automotive industry in Australia ... It is not a problem, however, that can be overcome by bureaucratic efforts to dictate the number of vehicle models produced in Australia or to provide incentives for badge engineering.

Whilst acknowledging that scale was a problem, vehicle producers opposed to a continuation of directive restructuring argued that policy should not become preoccupied with it. Nissan argued that there were numerous avenues for overcoming some of the problems associated with low production volumes. In particular, it stressed the importance of flexible manufacturing systems:

> The adoption of the most advanced forms of flexible manufacturing technology will also enable the economic production of components for lower volume vehicles ...

Mitsubishi noted that a firm's success was dependent on demand as well as cost factors:

> The volume sanctions scheme focussed exclusively on production and ignored the fact that there are few economies associated with producing cars which don't sell.

Finally, Mitsubishi noted that its experience with the Colt suggested that most demand for deleted low-volume locally produced models could well flow to imports rather than to remaining local production. It concluded:

> The likelihood of this outcome is increasing as the era of unique Australian vehicles comes to an end and world designs form the basis for future Australian production.

This view was supported by Toyota which stated:

> Even if some companies abandon local manufacturing it is unlikely that the viability of the remaining companies would improve because of almost certain import substitution.

The Commission's views

All the evidence points clearly to the importance of scale for efficient automotive production. This remains the case even with the development of flexible manufacturing technologies. Significantly, new plants recently commissioned in other countries are designed for much higher throughput than is achieved in plants in Australia (see Appendix E).

From this perspective, the directive restructuring policy could be argued to be pushing the industry towards the sort of structure required if it is to become internationally competitive. Moreover, the directive restructuring policy should not be viewed in isolation, but rather as a complement to tariff reductions and export facilitation which are also designed to promote restructuring in the industry.

Nonetheless, the Commission considers that the directive restructuring policy should not be continued after 1992. For the reasons set out below, it considers that appropriate rationalisation in the industry will occur as the tariff falls. Moreover, directive restructuring may entail efficiency losses if it is in conflict with market-driven decisions.

Like any producer, a vehicle producer's production decisions will be determined not only by the way in which costs vary in response to output, but also by the way in which demand responds to different prices and product ranges. From this perspective, production in Australia of a relatively large range of vehicles at low volumes can be argued as a rational and indeed economically efficient response to meeting consumer preferences for a variety of vehicles, given that the access of imported vehicles to the domestic market has been limited by very high tariffs and, until recently, by quantitative import restrictions.

This is not to suggest that, as tariffs come down in the future and thus imports become relatively cheaper, it will still be rational or efficient to produce as wide a range of vehicles in Australia. Indeed, the increased scope for imports to satisfy consumer demand will place considerable

commercial pressure on domestic producers to cease manufacture of less efficient model lines. But, in these circumstances, it is not apparent to the Commission that pressures for rationalisation over and above those provided by tariff reductions are necessary.

It could be argued that the small number of domestic producers, and hence a potential for oligopolistic behaviour, means that tariff reductions alone will not precipitate efficient rationalisation of facilities and models, with the consequence that specific restructuring measures are required. It is possible that the high costs of entering and exiting this industry and the Government's pursuit of fewer rather than more vehicle producers has provided incumbent producers with an element of market power.

But even if that were so, it does not follow automatically that incumbent producers will eschew commercially warranted rationalisation. Indeed, they would have a strong incentive to ensure that the benefits of any market power were reflected in their profits rather than being dissipated by inefficient production structures. Moreover, the argument that oligopoly in the local industry stifles efficient rationalisation also ignores the discipline provided by competition from imports -- a discipline that will become stronger as tariffs fall in the future.

The arguments above suggest that tariff reductions alone should be sufficient to precipitate efficient rationalisation in the domestic industry. For this reason, the Commission considers that neither a target industry structure nor penalties for low volume production should be part of the assistance regime after 1992.

6.5 Partnerships -- the Ford proposal

There was support among a handful of participants for the partnership agreement approach applying in industries such as computers and telecommunications to be extended to the automotive industry, along the lines suggested in the recent AMC report (1990). As noted earlier, the vehicle unions proposed a partnership agreement based around the 15 per cent automatic duty free entitlement.

The most significant proposed partnerships arrangement was put forward by Ford. The company summarised its proposal thus:

> The Ford proposal introduces a Value-added concept for Plan participation, embodying both passenger and light commercial vehicles, with emphasis on exports and investment in technology.

Under the Ford proposal, vehicle producers would be required to achieve what the company described as 80 per cent value added in their domestic vehicle manufacturing operations. 'Value added' in Australia would comprise all local cost and price elements (other than imported materials and vehicles), with double allowances for exports generated (E) and investment in technologies (T), according to the following formula:

$$\text{Net 'Value Added'}\ (\%) = 100 - \frac{I - 2(E+T)}{W} \times 100$$

where:
- I = Import value
- E = Net export value
- T = Technological investment value (product design/engineering, plus manufacturing investment depreciation and amortisation)
- W = Wholesale value of domestic vehicle production.

In return, producers would be allowed to import their residual vehicle and component requirements duty free. The scheme would cover not only passenger vehicles, but also light commercial and four-wheel drive vehicles.

Tariffs on vehicles imported outside this plan would fall from 35 per cent in 1992 to 30 per cent in 1997. However, vehicles imported at these lower tariff rates would be limited in value to the value of automotive exports arranged by the vehicle importers concerned. To use Ford's words, imports would be 'trade balanced'.

The Commission's assessment

The Commission considers that adoption of the Ford proposal would be a retrograde step which would undo many of the positive aspects of assistance reform under the current car plan. In conflict with the Government's expressed desire, the proposal would increase assistance to the automotive industry. Moreover, it would herald the return of an assistance regime which automatically increased assistance to the industry whenever its competitiveness declined -- a major achievement of the current car plan has been the abolition of quota and local content protection which for many years provided open-ended protection to local vehicle and component producers and led to the development of a highly inefficient vehicle industry in Australia. Further, the scheme would encourage excessive investment in technology and export activity, would provide an incentive to set up high cost light commercial and four-wheel drive vehicle production in Australia and would require a significant adjustment of production between firms within the industry for no efficiency gain.

Considering first the level of protection provided by the scheme, Ford said that its proposal would allow around 85 per cent of passenger and light commercial vehicle imports to enter duty free. The inference drawn by the company from this was that the level of protection under the proposal would be lower than at present. Ford stated:

> ... the abolition of tariffs on products imported by manufacturers has the potential to reduce imported vehicle prices ...

However, in the Commission's view, it is the tariff applying to vehicle imports outside the plan which would determine the overall level of assistance available to the automotive industry under the Ford proposal. The company's 'value added' formula, incorporating provision for duty free imports, would simply determine how that assistance was apportioned to different sectors and firms in the industry.

Under the proposal, as well as paying tariffs, vehicle importers would only be able to import vehicles on a dollar for dollar basis of exports arranged. This discipline would make it very difficult for any vehicle producer to cease production and revert to imports even if meeting the 'value-added' requirement became very costly due to a lack of competitiveness in the local industry. This is because the producer would require a massive increase in its exports to allow it to import sufficient vehicles to fully replace its local production and maintain its position in the marketplace. Indeed Ford said:

Plan manufacturers do not have the option of paying duty, since that would encourage non-compliance, particularly in a regime of lowered tariff protection.

Such protection to local production under the Ford proposal would be reinforced by reducing the access of pure importers to the Australian market. There would be a minor reduction in the tariff on imports to 30 per cent by 1997, but this would be offset by a doubling of the tariff on light commercial and four-wheel drive vehicles. More importantly, there would be significant costs for importers to arrange the exports necessary to maintain their current levels of importation. As discussed in Chapter 5, the large proportion of Australian automotive exports are only viable because of the implicit subsidies made available through export facilitation. The Commission estimates that, to maintain current import levels under the Ford proposal, pure vehicle importers would have to arrange around $1 billion of additional exports. On the bulk of these, they would incur a loss which would be passed on to consumers in the form of higher imported vehicle prices. This in turn would provide additional protection to local producers.

Further, if the competitiveness of local automotive production were to decline then, under the Ford proposal, the cost to importers of arranging the necessary exports to allow continued vehicle importation would increase. This would reduce the competitiveness of vehicle imports and hence increase the protection provided to the local industry. It was the provision to the automotive industry of such open-ended assistance in the past which allowed many of the inefficiencies apparent in the industry today to develop.

At the draft report hearings, Ford suggested that this problem could be mitigated by, for example, limiting the trade balancing requirement to increases in imports over a base point. But provided that any form of trade balancing mechanism is retained, the potential for open-ended assistance will arise. As recognised by Ford, the trade balancing mechanism would be integral in ensuring producers adhered to the 'value added' requirement.

Adoption of the Ford proposal would also have a number of pernicious effects on the structure of production within the industry. The leveraged recognition of exports and investment in new technology in the Ford formula would encourage excessive investment in these areas of the industry. Under the formula, the implicit subsidy provided to exports and investment in technology would still be upwards of 60 per cent in 1997.

By including light commercial and four-wheel drive vehicles within the proposal, a significant incentive would be provided to establish high cost local production of these vehicles in Australia. Under the proposal, protection afforded these vehicles in 1997 would be more than twice the level which will apply in 1992.

Finally, the Commission observes that the Ford proposal would have a differential impact on individual vehicle producers. Ford and GMH would be significantly advantaged at the expense of Toyota, Nissan and Mitsubishi. The scheme would therefore have the potential to cause significant disruption within the industry without providing any benefits to the wider community in terms of lower assistance and hence cheaper vehicles.

For all these reasons, the Commission considers that the Ford proposal is an unacceptable model on which to base post-1992 assistance arrangements for the automotive industry.

6.6 Other assistance measures

In addition to the measures discussed above, industry participants requested a range of other measures to assist the industry to become internationally competitive. For example, Nissan requested an investment incentive for equipment to be used in component production until such time as interest rates facing producers in Australia are the same as those facing competitors overseas and volatility in the exchange rate is removed. The South Australian Government requested financial support for the development of networking initiatives and for the upgrading of infrastructure support in the areas of training, R&D and information technology; greater support for the negotiation of joint ventures and partnerships with overseas producers and for bilateral trade arrangements for vehicles and components; and 'substantial' finance to assist component suppliers to invest.

In the Commission's view, to accede to such requests for new assistance measures to help the passenger vehicle industry achieve international competitiveness would amount to trading tariff reductions for other forms of industry assistance. Granting such assistance to this industry would therefore serve to reinforce the special treatment it already receives. As the Commission has previously stated, the prime objective of the post-1992 assistance package must be to remove or reduce this privileged treatment. Introducing these sorts of assistance measures for the industry would therefore be a move in the wrong direction.

7 RECOMMENDATIONS

7.1 Post-1992 assistance framework

In formulating recommendations for assistance arrangements for the automotive industry after 1992, the Commission is required to have regard to both the reference and the policy guidelines set out in the Industry Commission Act.

As set out in Chapter 1, the Commission's guidelines require it to adopt an economy-wide approach. Thus, its recommendations for assistance to the automotive industry must have regard to the interests of the economy as a whole: not just to those of the industry. In assessing the economy-wide implications of changes to the automotive industry's assistance arrangements, the Commission has taken into account the results of projections from the ORANI model. However, as discussed in the following chapter, the results of these projections have not been the driving force underlying its recommendations.

In formulating its recommendations, the Commission has also had regard to the Government's desires specified in the reference, namely:

- to have a viable and internationally competitive industry;
- to provide better quality, reasonably priced vehicles to the Australian consumer;
- to lower the level of assistance to the automotive industry;
- to provide as far as practicable equality of assistance between the vehicle assembly industry and the component manufacturing sector; and
- to simplify the administration of assistance arrangements for the industry.

The assessment in the previous chapter has already indicated the Commission's position on some aspects of the post-1992 assistance arrangements. For the reasons set out there, the Commission considers that the industry specific assistance arrangements should involve only the passenger vehicle sector of the automotive industry. Tariffs on light commercial and 4WD vehicles, OE

components used in those vehicles, and replacement components for all vehicles should, after 1992, be determined in accordance with future general tariff reduction programs. The Commission also considers that the specification of a target structure for the passenger vehicle industry and penalties to discourage low volume production should be discontinued after 1992.

industry, the main issues to be resolved are the target level of assistance in the period to 2000, the way in which that target should be achieved, and whether the automatic by-law entitlement for passenger vehicle producers and the export facilitation arrangements should be continued.

7.2 The level of assistance to the passenger vehicle industry

Draft report recommendation

In its draft report, the Commission concluded that a tariff of 15 per cent was an appropriate target to aim for in the period 1993 to 2000. It argued that, although there was no compelling efficiency reason for continuing to provide more favoured treatment to the passenger vehicle industry than to other industries, completely removing the industry's special assistance status before the year 2000 would impose undue adjustment pressure. It considered that a tariff of 15 per cent in the period under review would provide significant benefits to the rest of the economy and, at the same time, provide the industry with a further transition period towards becoming internationally competitive.

The Commission recommended that the tariff of 15 per cent be implemented through four annual reductions of five percentage points in the period 1993 to 1996, with no further tariff reductions in the period to 2000. The Commission argued that reducing the tariff to the target rate early in the period under review would give a clear signal to the industry on the need to lift its performance and ensure that vehicle consumers and other industries more quickly reaped the benefits of lower tariffs.

In their draft report submissions and at the draft report hearings, industry participants claimed both that the tariff of 15 per cent was unrealistic for the period to 2000 and that the Commission's recommended phasing approach was too severe. To support these claims, participants reiterated arguments made in their initial submissions to support requests for much smaller tariff reductions (see Chapter 6): namely, that the draft recommendations:

- did not give enough consideration to the linkages/externalities generated by the industry;
- did not give enough weight to the likely slow progress in microeconomic and macroeconomic reforms; and
- did not take into account the levels of protection afforded to the automotive industry in many overseas countries.

A number of participants commented that the pace and extent of assistance reductions was extremely severe given the ability of the industry to improve its competitiveness. GMH stated:

> Because the Japanese, in particular, will continue to reduce costs much faster than Australia has historically, any duty reduction implies a very large improvement in Australia's relative performance. To assert that the local industry should out-perform the Japanese industry to the extent of 5 per cent per year for duty reduction, plus 5 per cent per year for higher inflation, plus the effects of higher interest rates, is clearly nonsensical.

Industry participants argued that implementation of the draft recommendations would therefore result in a major contraction of the industry and could lead to unmanageable disruption in regions such as Geelong.

They went on to argue that this would be contrary to the Government's expressed desire to retain a viable and internationally competitive automotive industry. Mitsubishi stated:

> The Government has set out in the Terms of Reference the range of factors which should be taken into account by the Commission in formulating its recommendations. Mitsubishi considers that the Commission's proposals do not represent a balanced implementation of these factors and that certain key objectives such as "viable and internationally competitive industry" and "manageable rate of change" have not been given sufficient weight by the Commission.

Against this background, industry participants requested the Commission to moderate the extent and pace of its recommended tariff reductions in its final report.

On the other hand, some other participants requested the Commission to recommend greater reductions in assistance to the industry in its final report. For example, Mazda argued that tariffs for the industry should be brought into line with the rest of the manufacturing sector by 2000 through further reductions in tariffs from the draft recommendation of 15 per cent in 1996. And, as noted in Chapter 6, the ATIA and the NSW Farmers' Association argued for the complete removal of protection to this and other industries.

Level of assistance

As noted above, the Commission argued in the draft report that, from an economic efficiency perspective, there is no case for providing the passenger vehicle industry with more favourable treatment than other industries. It said that favoured treatment allows the industry to attract or hold resources which would generate greater wealth for the economy as a whole if used by industries better able to compete on their own merits in the marketplace.

No evidence was presented on the draft report which has changed the Commission's view on this matter. Indeed, acceptance by a number of major industry players that the industry is not special supports the Commission's position. Accordingly, it believes that a much more substantial reduction in assistance than was proposed by industry participants is required.

In the light of the evidence submitted, the Commission has carefully reassessed the 15 per cent target tariff it proposed in the draft report. It has given particular attention to the question of whether that target rate would impose undue adjustment pressure on the industry.

As discussed above, virtually all industry participants interpreted the instruction in the reference for the Commission to have regard to the Government's desire to have a viable and internationally competitive industry as limiting the extent of adjustment which should occur under the new arrangements.

However, translating this interpretation to a specific tariff rate poses considerable difficulties. There is the issue of the timeframe involved -- should the tariff aim to retain that production which will clearly be viable without special treatment in the future, or which might be viable in the longer term given favourable market developments? In this regard, the Commission notes that the current car plan provides the industry with an eight year transition period to enable it to operate with significantly lower levels of assistance. Moreover, the viability and international competitiveness of the industry will be influenced by as yet unknown developments in the Australian macroeconomic environment, by the pace of microeconomic reform, by the success of the industry in improving its productivity performance, and by changes in the structure of the international industry and the marketing strategies of the world's major automotive producers. In such a dynamic and therefore uncertain environment, it is not possible to guarantee that a particular level of tariff will sustain a 'viable' industry as interpreted by participants.

More generally, it is not apparent that there is any conflict between the Government's desire to have a viable and internationally competitive industry and the economic efficiency criterion underpinning the Commission's reporting guidelines. As acknowledged by many inquiry participants, meeting the Government's desire to have a viable and internationally competitive industry does not mean maintaining the industry in its current form if that requires continuing high assistance. In this sense, only that production which can survive without special treatment from the Government should be regarded as truly viable and internationally competitive.

Thus, in the Commission's view, the target tariff in the post-1992 period should not be framed to impose only gradual adjustment pressure on the industry. The reduction in the tariff must be sufficient to ensure that production in the industry ceases if it has little or no prospect of becoming viable without special treatment, and that no new high cost production commences. However, the adjustment pressure must not be so great that production with good prospects of becoming internationally competitive is forced to exit the industry. A balancing exercise is therefore involved.

A reduction in the tariff from 35 per cent at the end of the current car plan to 15 per cent by 2000 would clearly impose considerable adjustment pressure on the industry. The effective rate of protection would, for the industry as a whole, decline from an estimated 86 per cent in 1992 to around 25 per cent at a tariff of 15 per cent. Moreover, the Commission accepts that the full effects of the acceleration in the tariff reductions in the latter half of the current car plan will not have been fully realised by 1992.

However, the Commission considers that it is only since assistance reductions were accelerated to offset the effects of currency depreciation and reimpose adjustment pressures on the industry that producers have made substantial efforts to improve their performance. As Ford acknowledged:

> The lowering of tariffs is an unquestioned spur to quality and productivity improvements.

Similarly, the FCAI commented that:

> Resistance by entrenched domestic interest groups will only yield when international competitive pressures are immediate and when all producers are confronted with the unsettling fact that 'we all sit in the same boat,' exposed to the elements of international competition.

Moreover, a target tariff of higher than 15 per cent would represent a slowing of the tariff reduction program under the current plan. A continuation of current arrangements would see the tariff fall to 15 per cent by the year 2000.

In the Commission's view, no evidence has been presented to this inquiry which would warrant adopting an easier target for the industry than would be implied by a continuation of current arrangements. Indeed, if the target tariff were set much higher than 15 per cent through an easing of the current regime, the risk that non-viable production would be retained in the industry in the foreseeable future would increase, with all the attendant costs for the rest of the community.

Given further general tariff reductions after 1992, a tariff of 15 per cent would continue to provide the industry with more favoured treatment than virtually all other manufacturing industries. Thus, even at this target, there is some risk that production with little or no prospect of being viable without special treatment would be retained in the industry.

Overall, the Commission's judgment is that a target tariff of 15 per cent for both passenger vehicles and components in the period 1993 to 2000 is appropriate to improve the overall efficiency of resource use and thereby provide a benefit to the wider community, while at the same time providing the industry with a further period of transition to get its house in order.

However, in the Commission's view, this should be the last period of special treatment for the industry. The Commission considers that, soon after the year 2000, assistance to passenger vehicle production should be reduced to the level provided to the rest of the manufacturing sector at that time. It therefore suggests that, when announcing the assistance arrangements for the period 1993 to 2000, the Government indicates to the industry that its special assistance status will be removed by no later than 2004 or 2005. The Commission observes that, under this scenario, two decades of transitional arrangements would have been provided to the industry since the commencement of the current car plan.

Phasing arrangements

As noted above, the Commission's draft recommendation to achieve the target tariff of 15 per cent by 1996 with no further reductions before the year 2000 was underpinned by a concern to give a clear signal to the industry on the need to lift its performance, and to ensure that benefits to the wider community were realised quickly.

Despite participants' concerns that this would simply exacerbate the already severe adjustment pressures inherent in the 15 per cent target rate, the Commission continues to see considerable advantages in this approach. Apart from bringing forward the benefits of lower tariffs, the approach would heighten the pressures on the industry to take the necessary actions quickly to improve its performance.

At the same time, however, there is the need to guard against the possibility that a very abrupt reduction in tariffs could force out some production that would otherwise have been viable without special treatment in the future had more gradual phasing arrangements been implemented. There is also a need to ensure that the recommended rate of tariff change does not cause unmanageable

adjustment pressures for the industry and its employees. As noted earlier, adjustment to the tariff reductions implemented in the second half of the current car plan will not have been completed by 1992. Hence, those tariff reductions will continue to impose adjustment pressures on the industry at a time when tariffs are being further reduced.

With these sorts of considerations in mind, the majority of the Commission has decided to recommend a more gradual phasing approach than proposed in the draft report. The majority recommends that the tariff for passenger vehicles and OE components be reduced from 35 per cent at the end of 1992 to 15 per cent by the year 2000, through eight annual reductions of 2.5 percentage points. In effect, it is recommending that the rate of tariff reduction under the current car plan be continued until the year 2000.

However, Mr McBride believes that the phasing arrangement recommended in the draft report __ namely, that the tariff be reduced to 15 per cent by 1 January 1996 through four annual reductions of 5 percentage points, with no further reductions in the period to the year 2000 __ should be adopted. He acknowledges the potential for costs to arise if production which would be viable without special treatment in the future is forced out of the industry by too rapid tariff reductions in the early years of the new arrangements, and the need to avoid imposing unmanageable adjustment pressures on the industry and its employees. However, he considers that the evidence presented to the Commission does not demonstrate with any certainty that these sorts of problems would arise under the phasing arrangements proposed in the draft report. But delaying the benefits of lower tariffs would impose certain costs on the wider community. In his judgement, greater weight should be given to avoiding the certain rather than possible costs in this particular trade-off.

7.3 The automatic by-law entitlement

In its draft report, the Commission proposed that the automatic by-law entitlement provided to vehicle assemblers be removed, but not until 1 January 1996 so as to give assemblers time to prepare for its abolition.

At the draft report hearings, the FAPM and most specialist component producers reiterated their request for the immediate removal of the automatic by-law entitlement after 1992 (see Chapter 6). Vehicle assemblers opposed the recommendation, reiterating arguments made in their initial submissions to support retention of the entitlement.

As discussed in Chapter 6, removing the automatic by-law entitlement would have a number of benefits. Assistance to the industry as a whole would be more transparent and a more certain business environment for component producers would result. And, given that automatic by-law entitlements are not provided to other industries, its removal would provide an important signal to the industry that, in the future, it must expect to be treated in the same way as other industries.

But against these benefits, there would be a number of costs. Given the imprecision of the criteria governing the CTCS under which vehicle producers would have to seek duty free entry for components not produced in Australia, greater certainty for component producers would be matched by new uncertainties for vehicle producers. More importantly, because it is highly unlikely that duty free entry under the CTCS would be available for all items currently imported duty free under the automatic entitlement, there would be a reduction in the cost competitiveness of local passenger vehicle production and hence a decline in vehicle output. This in turn would lead to reduced demand for local components. Viewed in isolation, such a contraction in the industry could be seen as desirable given the high cost of passenger vehicle production as a whole. But this raises the question of whether it is appropriate to place adjustment pressure on the industry additional to that arising from the recommended reduction in the tariff to 15 per cent.

On the basis of evidence received from participants on the draft report, the Commission has reviewed its draft recommendation to remove the automatic by-law entitlement. In principle, it considers that this industry should not be treated differently from other industries as far as access to duty free inputs is concerned. However, it considers that requiring vehicle producers to seek duty free access for components not available in Australia under the CTCS would introduce a new and undesirable uncertainty to the post-1992 arrangements. Significant managerial input would be required for vehicle producers to become familiar with the workings of the CTCS -- a system which continues to undergo change. This would be at a time when managerial input will be at a premium to devise ways for the industry to improve its performance to remain competitive as

tariffs are reduced. Further, removing the entitlement would intensify the already significant adjustment pressures which the Commission's recommended tariff reduction program would entail for the industry. Finally, the Commission observes that the costs which will arise from retaining the automatic by-law entitlement will diminish as the tariff is reduced after 1992.

Having weighed up the competing considerations, the Commission recommends that the automatic by-law entitlement be retained for the period 1993 to 2000.

The Commission also recommends that the entitlement continue to be available for the importation of either cbu vehicles or components. Limiting the use of the entitlement to components imports, as was requested by vehicle importers (see Chapter 6), would, in the Commission's view, reduce efficiency within the industry. Importation of vehicles under the entitlement effectively represents the re-sourcing of assembly to imports. If such assembly activity is less efficient than component production activities that would be re-sourced to imports if the automatic entitlement was limited in use to components, then allowing cbu imports permits a more efficient use of the entitlement.

7.4 Export facilitation arrangements

The Commission's draft recommendation to retain export facilitation received widespread support. A number of participants saw the recommendation as a general Commission endorsement for this type of arrangement. This was not, however, the case. Its draft recommendation that the schemes be retained after 1992 owed much to the Commission's concern to avoid additional disruption from removing arrangements which have had a significant impact on the industry's structure at the same time as tariffs are being significantly reduced.

As discussed earlier in the report, the efficiency effects of export facilitation are unclear. There will be an improvement in the efficiency of resource use within the passenger vehicle industry resulting from more equal assistance treatment of import competing and export activity. But working against this will be an almost certain loss in the inter-industry efficiency of resource use due to the encouragement of high cost automotive exports at the expense of more efficient production in other industries.

Moreover, the evidence presented to the inquiry highlights the very real danger that export facilitation will frustrate rather than promote tariff reductions. Many of Australia's automotive exports would clearly not be viable without the implicit export subsidies provided by the arrangements. Thus, export facilitation has introduced a new pressure on the Government to retain tariffs at high levels to maintain the value of the export subsidies and thereby the viability of current automotive export activity. Statements made by two vehicle producers during this inquiry are ample testimony to this danger (see Chapter 6).

In view of these problems, the Commission does not view export facilitation as a desirable policy instrument in its own right. Rather than attempting to compensate our export industries for the adverse impact of tariffs and thereby reinforcing the belief that the provision of assistance is an acceptable practice, it considers that the costs of tariff protection to exporters and others are best addressed by focussing on reducing that protection as part of the broader program of microeconomic reform.

However, export facilitation has now been in place in the vehicle industry for some 10 years and thus its removal would impose adjustment costs on top of those which would flow from the Commission's recommended tariff reductions. And, as in the case of the automatic by-law entitlement, the potency of this mechanism will decline as the tariff is reduced.

In keeping with its recommendation on the automatic by-law entitlement, the Commission concludes that, despite some strong arguments for removal, export facilitation should be retained and allowed to wind-down slowly as tariffs decline in the post-1992 period.

Modifications to export facilitation arrangements

While the Commission is recommending that export facilitation be retained through to the year 2000, it considers that modifications to the arrangements are warranted. The rationale for these modifications was set out in Chapter 6.

In essence, the recommended changes would remove the existing differentiation between vehicle assemblers, specialist component producers and pure importers as far as the operation of export facilitation is concerned. Thus, the need for separate schemes would be obviated.

The changes recommended to the existing export facilitation schemes are as follows:

- the base year hurdles applying to eligible exports be removed;
- the value added criteria applying to exports earning credits above 7.5 percentage points under the vehicle producers' scheme, and to all exports earning credits under the importers' scheme, be abolished. After 1992, credits to accrue on the basis of value added in the automotive industry in eligible exports, with no requirement for products exported to achieve minimum levels of value added;
- all credits to accrue on a dollar for dollar basis of value added in the automotive industry;
- ceilings on the level of export credits that a firm can earn be abolished;
- restrictions on the direct use of export credits by component producers be removed;
- restrictions on the sale and transferability of export credits be abolished; and
- the arrangements be extended to allow the use of export credits for the importation of all light automotive products including light commercial and four-wheel drive vehicles and replacement components.

The Commission also considers that exports to New Zealand should not be eligible to earn export credits. However, given the disruption that immediate withdrawal of the current entitlement would entail for the industry, the Commission recommends that the entitlement be phased-out over a four-year period. During this phasing period, accrual rates for credits earned on exports to New Zealand would be reduced by 25 percentage points each year.

As discussed in Chapter 6, some of the recommended modifications to the export facilitation arrangements -- for example, the removal of base year hurdles and the abolition of ceilings -- would increase the industry's access to export credits. However, these increases would be more

than offset by the recommendations to relate the earning of export credits solely to value added in the automotive industry and to phase out entitlements to credits on exports to New Zealand. In view of the Commission's concerns about the efficacy of export facilitation as a policy instrument, it considers that the overall contraction in the scheme which would flow from this package of modifications would be a desirable outcome.

7.5 Offsets

For the reasons discussed in Section 6.3, the Commission recommends that passenger, light commercial and 4WD vehicles supplied to the Federal and State Governments be exempted from offsets obligations.

7.6 Industry monitoring

There was widespread support among industry participants for some form of monitoring body to oversee the post-1992 assistance arrangements. They argued that the AIA has played a useful role in promoting achievement of the Government's objectives for the industry and praised the Authority's role in encouraging co-operation between the various sectors of the industry.

The need for a monitoring cum administrative body such as the AIA would be greatly diminished under the Commission's recommendations to end the directive restructuring policy and its associated penalties for low volume production, and to simplify the administrative arrangements governing entitlements to export credits.

Nonetheless, the Commission considers that the AIA has served a useful purpose in providing independent information and advice when the Government has had to consider representations from the industry. The Commission can see merit in a body to continue to provide such information and advice for the duration of the new arrangements. The body could also be responsible for undertaking some residual administrative functions if the Commission's recommendation to retain export facilitation is accepted. For example, the Commission is not recommending any changes to

the complex criteria used to demarcate eligible automotive exports under the arrangements (see AIA 1990, pp 123-124). Thus, there could still be a need for determinations to be made on whether particular exports qualify to earn credits under the scheme.

However, the monitoring body should not be responsible for conducting any reviews of the new arrangements. In the Commission's view, no further reviews of the industry would be required under its recommendations. But if any review were instituted, it should take the form of a public inquiry.

8 EFFECTS OF IMPLEMENTING THE COMMISSION'S RECOMMENDATIONS

The Commission's main recommendations are that the tariff on passenger motor vehicles and original equipment components be reduced from 35 per cent in 1992 to 15 per cent by 2000, and that the automatic by-law entitlement for vehicle producers and export facilitation be retained.

Clearly, it is the recommendation to reduce the tariff which would have the greatest impact on both the vehicle industry and the economy as a whole. This chapter therefore focuses on the likely effects of the Commission's recommended tariff reduction. As part of this discussion, the social consequences of the recommendation and the case for adjustment assistance for the vehicle industry are considered.

In a dynamic market environment, there are obvious difficulties in estimating the effects of tariff reductions for the passenger vehicle industry. Changes in the macroeconomic environment -- particularly in exchange rates, progress in microeconomic reform in other areas of the economy, the industry's productivity performance relative to that of its overseas competitors, developments in the international automotive market and the level of domestic vehicle demand are among the factors which will influence the impact of lower assistance for both this industry and the economy generally.

In discussing the effects of its recommended tariff reduction, the Commission has drawn on projections generated by its ORANI model. As described in Appendix F, ORANI is a large multisectoral model in which the Australian economy is disaggregated into more than one hundred industries, each with its own demand and supply relationships. In response to a given outside stimulus -- for example, a reduction in assistance to a particular industry -- the model will project, among other things, changes in output, employment, prices, imports and exports for each industry and the economy as a whole.

The use of the ORANI model has significant advantages. It allows the effects of tariff reductions for the passenger vehicle industry to be considered in a formal and systematic economy-wide framework. It also allows the impact of productivity improvements in the industry and of microeconomic reform elsewhere in the economy to be considered in the same framework.

However, the limitations of the ORANI model must also be recognised. As in any economic model, simplification and abstraction from real world complexities is necessary. Moreover, it is not possible to reflect in a modelling exercise all of the dynamic features referred to above which will influence the impact of lower tariffs for passenger vehicles. Indeed, the Commission stresses that the ORANI results reported in this chapter and in Appendix F are not forecasts of what will happen to the automotive industry and the economy as a whole after 1992 if the Commission's tariff recommendations are accepted, but rather projections of the impact of those tariff reductions abstracting from all these other factors.

It is also important to recognise that the ORANI projections reported here refer to the longer term -- say, five to ten years -- after all the adjustments to lower tariffs for the passenger vehicle industry have occurred. They do not, therefore, purport to encapsulate the costs of adjustment to lower tariffs or the benefits that would accrue to consumers and other vehicle users during the adjustment period.

For all these reasons, the ORANI modelling work requires supporting analysis and judgment. In discussing the likely effects of its recommendations, the Commission has therefore also drawn on information provided by participants on the impact of changes to the industry's assistance regime and on relevant data available from the Australian Bureau of Statistics. Section 8.3 provides a summary and evaluation of the extensive comment received at the draft report hearings on the likely impact of a reduction in the passenger vehicle tariff to 15 per cent.

Finally, before considering in detail the effects of its recommended tariff reduction for the passenger vehicle industry, the Commission stresses that the recommendation has not been driven by the results of the ORANI simulations. As discussed elsewhere in this report, assistance to one industry will almost invariably impose more than offsetting costs on other activities in the economy so that overall community welfare is reduced. It is that fundamental proposition, together with the Government's expressed desire in the reference to lower assistance to the industry, which underpins the Commission's recommendation. What the ORANI projections do is put some orders of

magnitude on the gains that would be delivered to the community by lower assistance for passenger vehicle production and provide one indication of whether the adjustment pressures imposed on the industry are likely to be manageable.

8.1 Projected longer term effects on the economy

The ORANI projections indicate that a reduction in the passenger vehicle tariff to 15 per cent would bring major gains to the economy as a whole. As detailed in Table 8.1, with standard parameter values[1], there would be an annual increase in Gross National Product (GNP) of 0.2 per cent, or some $640 million in 1989-90 prices, in the longer term. Real wages are projected to rise by 0.2 per cent and the CPI to fall by 0.4 per cent. There would be an increase in both exports and imports with a negligible overall effect on Australia's Balance of Trade. Aggregate employment in the economy would also be little different with the loss of employment in the vehicle industry being offset by increased employment in those industries which benefit from the reduction in passenger vehicle tariffs.

At a sectoral level, the major beneficiaries of the reduction in the passenger vehicle tariff would be the mining, agricultural, construction and food products sectors. However, other manufacturing industries would also benefit (see Appendix F). As well, consumers would benefit from lower vehicle prices.

The projected longer term gains to the economy from implementing the Commission's tariff recommendation for passenger vehicles, though significant, are lower than the gains reported in the draft report. As discussed in Appendix F, this reflects a change to the size of the shock imposed on the ORANI 'motor vehicles and parts' industry. And, as elaborated in Appendix F, if the ORANI motor vehicles and parts industry were disaggregated such that the tariff shock could be applied directly to the passenger vehicle segment of the industry, it is conceivable that the projected economy-wide gains would be smaller than reported in Table 8.1. This is because passenger vehicles are less significant as a production input than commercial vehicles. Nonetheless, the gains to the economy would still be significant.

[1] That is, with the elasticity of substitution between imported and local vehicles set at 5.2. As discussed in Section 8.2, sensitivity analysis has been conducted by doubling the value of this parameter to 10.4.

Table 8.1: **ORANI projections of the long term effects of the Commission's recommended reduction in the passenger vehicle tariff** (% change)

Projected effect on:	*Standard import sensitivity*[a]	*High import sensitivitY*[b]
The Economy:		
- Real GNP	0.2	0.3
- Real wages	0.2	0.1
- CPI	-0.4	-0.6
- Real exports	1.6	3.1
- Real imports	1.3	2.3
- Balance of trade	..	..
- Employment	..	..
The Motor Vehicle and Parts Industry [c]:		
- Output and employment	-13.8	-28.0
- Domestic vehicle prices	-2.3	-2.6
- Imported vehicle prices	-10.2	-10.2
- Imports	20.2	38.0
The Passenger Motor Vehicle and Parts Industry [d]:		
- Output and employment	-18.5	-37.5
- Domestic vehicle prices	-2.9	-3.3
- Imported vehicle prices	-13.1	-13.1

.. Between -0.05 and 0.05 per cent. a Elasticity of substitution between imported and local vehicles set at 5.2. b Elasticity of substitution between imported and local vehicles set at 10.4. c Includes production of heavy trucks and replacement parts as well as passenger vehicles and original components for those vehicles (see Appendix F). d Estimated on the basis that the non-passenger vehicle segment of the Motor Vehicle and Parts Industry changes in equal proportion with other ORANI industries with respect to production, employment and output price (see Appendix F).
Source: Commission estimates.

8.2 Projected longer term effects on the automotive industry

Implementation of the Commission's recommendation to reduce the passenger vehicle tariff from 35 per cent to 15 per cent would, in the absence of a significant improvement in the industry's competitiveness, lead to a contraction in domestic passenger vehicle production.

The extent of the contraction projected by ORANI depends on the assumed elasticity of substitution between local and imported vehicles. The standard ORANI value for this elasticity is 5.2.

As detailed in Table 8.1, using the standard ORANI parameter value for the elasticity of substitution between imported and local vehicles, output and employment in the passenger vehicle industry are projected to decline by more than 18 per cent, domestic vehicle prices to fall by 3 per cent and imported vehicle prices to fall by 13 per cent.

The ORANI results for the projected impact of the recommended tariff cut on the passenger vehicle industry are much smaller than estimates obtained using the National Institute of Economic and Industry Research (NIEIR) model, which were presented by GMH. These estimates indicated that, by itself, a reduction in the tariff on passenger vehicles and components from 35 per cent to 15 per cent by 1996, as was recommended in the draft report, would reduce output and employment in the industry by around 35 per cent (see Appendix F for further details). Moreover, as discussed in Section 8.3, the contraction in the local industry projected using the ORANI model is much smaller than was forecast by many inquiry participants.

In view of the scepticism of many participants about much of the industry's ability to survive at a tariff of 15 per cent, the Commission conducted sensitivity analysis within the ORANI model by doubling the elasticity of substitution between imported and local vehicles from its initial value of 5.2 to 10.4. This latter figure implies a very high degree of substitution between imported and local vehicles.

As detailed in Table 8.1, with the higher elasticity of substitution, the projected decline in the passenger vehicle industry's output from a reduction in the tariff to 15 per cent, increases from around 19 per cent to about 38 per cent. At the same time, however, the benefits to the economy as a whole also increase with, for example, the projected increase in GNP being 0.3 per cent as opposed to 0.2 per cent in the standard simulation. In 1989-90 dollar terms, this would represent an increase in the economy-wide gain to nearly $1 billion per annum.

Productivity improvements and microeconomic reform

If the passenger vehicle industry is able to improve its productivity relative to its overseas competitors in the post-1992 period, the effects of implementing the recommended tariff reduction would be mitigated.

As discussed in Appendix F, an improvement in labour productivity relative to overseas competitors of between 26 and 29 per cent would be required over the period 1993 to 2000 to totally offset the impact of the tariff reduction recommended by the Commission. The industry has improved its productivity performance over the life of the current plan, particularly since import quotas and the local content scheme were abolished and tariffs reduced following the mid-term review. However, while some individual firms in the industry may be capable of substantial productivity gains in the post-1992 period, the evidence presented in Chapter 3 suggests that, at an industry level, the relative productivity improvement required to offset fully the impact of the recommended tariff reduction would be very difficult to achieve.

To illustrate the benefits to the passenger vehicle industry from improved productivity performance, the Commission has therefore modelled a more modest increase in the industry's relative labour productivity of 10 per cent in the period 1993 to 2000. The results are reported in Table 8.2.

The projections suggest that a 10 per cent improvement in the industry's relative labour productivity could offset nearly 40 per cent of the decline in output flowing from the reduction in the tariff to 15 per cent. While increased labour productivity would reduce the demand for labour for a given level of output, higher industry output under the productivity improvement scenario is projected to largely offset this reduction. Accordingly, employment in the industry is projected to be less than two per cent lower than under the straight tariff reduction scenario. Moreover, as discussed in Appendix F, if the same aggregate productivity improvement were achieved through increased productivity in the use of capital and material inputs as well as labour, industry employment would be higher than in the absence of the productivity gain.

Table 8.2: **ORANI projections of the combined long term effects on the passenger vehicle industry of labour productivity improvements and tariff reductions** [a] (% change)

Projected effect on:	
Output	-11.4
Employment	-20.3
Domestic vehicle prices	-6.2
Imported vehicle prices	-13.1

a Reduction in the passenger vehicle tariff to 15 per cent and an improvement in relative labour productivity of 10 per cent, with the elasticity of substitution between imported and local vehicles set at 5.2.
Source: Commission estimates

Finally, as discussed in Chapter 4, microeconomic reform in the major service sector industries and the removal of assistance to agricultural and other manufacturing industries would increase the current level of output in the vehicle industry by 8.5 per cent. Employment in the industry would increase by a similar proportion.

8.3 Evaluations by participants of the ORANI model projections

At the draft report hearings, the Commission received much evidence on the economy-wide and industry effects of reducing the passenger vehicle tariff to 15 per cent and, in particular, on the efficacy of the ORANI projections. The projections reported in the draft report showed a similar contraction in the passenger vehicle industry but a larger gain in GNP than the revised projections reported earlier in this chapter.

This section summarises participants' views and the Commission's responses to them. Detailed criticisms of the ORANI modelling work -- particularly those made by GMH -- are addressed in Appendix F.

Many industry participants were sceptical about the usefulness of econometric modelling in providing guidance on what effects might flow from reductions in the passenger vehicle tariff. For example, Mitsubishi argued '...that applied business sense is likely to yield a greater predictive value than any multisectoral econometric model.'

In general, industry participants argued that the ORANI projections significantly understated the likely impact on the industry of the draft recommendation to reduce the passenger vehicle tariff to 15 per cent by 1996 and, at the same time, questioned whether the projected gains to the wider economy would materialise.

Most argumentation was couched in general terms as opposed to nominating a likely percentage reduction in the size of the industry. At the extreme, some participants asserted that implementation of the draft recommendation would see the end of the passenger vehicle industry in Australia. The South Australia Government stated:

> South Australia believes that the present set of draft recommendations would be likely to lead to a dismantling of the automotive industry in Australia and that the Commission's forecast of a 20-40% downturn due to its recommendations is a severe understatement.

Similarly, Nippondenso argued that, if the draft recommendations were implemented:

> ... the outcome would be to effectively decimate, and perhaps destroy our industry completely.

Central to participants' arguments was that the ORANI model failed to take account of the threshold level of activity necessary to sustain a sizeable passenger vehicle industry in Australia. Ford contended:

> There does not seem to be sufficient recognition of the critical mass concept -- that if the industry, and particularly the supplier base, were to decline by 40 per cent, then the reduced throughput would prevent the necessary injection of capital to improve its productivity further, thus leading to a further considerable decline.

And the Geelong Regional Commission said:

> ... the ORANI model ... is not designed to model strategic decisions of international corporations and therefore cannot provide an estimate of the threshold level of protection necessary to induce them to undertake or remain in in-depth manufacturing activity.

A number of participants also commented that, under the Commission's draft recommendations, the reduction in value added would be significantly larger than the fall in industry output. The Geelong Regional Commission argued that:

> ... the rapid reduction to a tariff of 15 per cent over four years will not enable the maintenance of in depth manufacturing activity by the end of the decade. The exception will be some final assembly activity and low value-added export ...

GMH argued:

> Holden's assessment is that the full implementation of the Commission's recommendations would result in a general cessation of vehicle manufacture unless an unexpected improvement in general international competitiveness occurred. However, there might be a continuation of sectoral activity in the form of export of aluminium castings, and probably CKD car assembly if the results of access to the Commercial Tariff Concession System were as expected by Holden. In terms of dollar value of sectoral output, this outcome could be broadly in line with the Commission's projections.

As noted above, many participants questioned whether a significant reduction in the tariff on passenger motor vehicles would produce gains elsewhere in the economy sufficient to offset the loss in activity in the passenger vehicle sector. These participants referred for support to the modelling work undertaken by the NIEIR which projected a reduction in GDP from a reduction in the passenger vehicle tariff to 15 per cent (see Appendix F for further details).

Participants argued that many resources employed in the vehicle industry are immobile and cannot therefore be transferred to other more productive uses in the economy. The South Australian Government commented:

> ... the Government does not accept that the resource allocation mechanism will operate efficiently due to the extent to which physical and to a lesser extent human resources are dedicated and not transferable.

GMH argued that, if reductions in import prices did not eventuate from the reduction in the tariff, then the major mechanism generating the benefits to the economy within the ORANI framework would be inoperative. The company also contended that the expansion in the mining sector underpinning the ORANI projection of a growth in GDP was implausible.

Industry participants also argued that the Commission's modelling work ignored the adjustment costs associated with reducing activity in the vehicle industry, including lost production, unemployment and adverse regional effects.

In contrast, vehicle importers argued that the Commission's ORANI projections were unduly pessimistic. Mazda stated:

> The reason for this view is that sufficient account may not have been taken of the likely effect on future PMV demand (and therefore on local output) of Australia's rapidly ageing vehicle stock. High prices for PMV's over the last fifteen years have resulted in significantly extended life expectancy for vehicles, thus reducing replacement demand and therefore leading to relatively stagnant demand overall.

The company went on to suggest that lower prices flowing from the lower tariff would increase the rate of vehicle replacement providing an offsetting stimulus to the local industry.

The Commission's response

In responding to participants' comments, the Commission reiterates that, in a dynamic market environment, there are obvious difficulties in estimating the precise effects of future tariff reductions for the passenger vehicle industry. In its view, the ORANI model is the best available tool for modelling the effects of a reduction in the passenger vehicle tariff to 15 per cent, other things being equal. However, as noted earlier, the model does not forecast what would happen to the industry in the event that the recommendation is accepted by the Government. This, of course, will also depend on the macroeconomic environment then prevailing, progress on microeconomic reform, the industry's productivity performance, the level of vehicle demand etc.

Within the ORANI framework, the Commission has attempted to cater for participants' views that reductions in protection would have a very severe impact on the passenger vehicle industry through its sensitivity analysis involving the use of a very high import elasticity of substitution.

However, past experience would suggest that those forecasting the decimation of the industry under the Commission's recommendations are being unduly pessimistic and have given insufficient weight to the industry's capacity to lift its performance.

It is pertinent to recall that, a decade ago, the industry argued that a Commission draft recommendation to replace import quotas and the local content scheme with a tariff only regime of 35 per cent by 1990 would have seen the demise of local vehicle and component production. GMH forecast the cessation of all vehicle manufacturing activity, speaking of a 'door-jam' as manufacturers rushed to leave the industry, Ford spoke of the dismantling of the industry, while component producers predicted that the industry would revert to a vehicle assembly operation (IAC 1981b, pp 169-171).

As it has transpired, the current regime is not greatly different from the Commission's draft recommendation of a decade ago. Yet the same five vehicle producers are still operating in Australia, producing about the same number of vehicles at only marginally lower levels of local content.

It is also important to place the Commission's revised recommendation to reduce the tariff on passenger motor vehicles from 35 per cent to 15 per cent over 8 years in the context of the assistance reductions embodied in the current car plan. The current car plan has seen the removal of import quotas and the local content scheme and, by 1992, will have reduced the level of `border protection' from a tariff equivalent under the quota of close to 100 per cent to 35 per cent. Over the same period, the effective rate of protection will have declined from more than 250 per cent to 86 per cent. The depreciation of the Australian dollar in 1985 and 1986 did provide a major offset to this decline in protection. Moreover, as participants argued frequently during this inquiry, adjustment in the industry to the level of tariff now applying is still a long way from complete. Nevertheless, the experience of the last few years demonstrates the industry's capacity to cope with substantial change. As noted in the previous chapter, the Commission's revised tariff recommendation for passenger vehicles simply maintains the pace of assistance reductions occurring under the current car plan.

As to participants' claims that there would be a significant reduction in value added in the industry, the Commission has accepted that its draft recommendation to remove the value added thresholds applying to export facilitation could have had this effect (see Chapter 6). However, the Commission is now recommending that export credits be earned solely on the basis of value added in the automotive industry in the exports concerned.

More generally, the Commission also accepts that implementation of its recommendation for a tariff of 15 per cent on both vehicles and components by 2000 would see a reduction in local content in locally produced vehicles. Just as the reduction in the tariff would force out very inefficient vehicle assembly operations, so too would it encourage vehicle producers to re-source high cost domestic components to imports.

However, the Commission expects that not all component production would be rendered uncompetitive at a tariff of 15 per cent by the year 2000. As discussed in Appendix E, vehicle producers saw a number of their component suppliers as either being, or having the potential to be, internationally competitive. Accordingly, it is unlikely that implementation of the Commission's tariff recommendation would see the Australian industry revert to a pure assembly operation. The Commission also notes that, as the motor vehicle industry in ORANI includes both vehicles and components, reductions in local content under the lower tariff are encapsulated in the ORANI projections.

The industry's claim and supporting arguments that economy-wide benefits from reductions in passenger vehicle tariffs would fail to materialise are considered in detail in Appendix F. In this section, therefore, the Commission's response is limited to some key observations.

The Commission observes that the claim contradicts the widely accepted arguments that the benefits of protection to one industry are invariably more than offset by costs imposed on other sectors of the economy. The industry's position on this issue is effectively equivalent to saying that Australia benefits from diverting resources from those activities which it is good at to those in which, by international standards, it is a poor performer. Indeed, the industry's arguments that reductions in protection for the passenger vehicle industry will reduce community welfare imply that protection to the industry should be increased. In the Commission's view, this argument is unsustainable.

The Commission dealt with the industry's argument that vehicle prices might not fall if tariffs were reduced in Chapter 5. To reiterate, the contention that collusion among vehicle importers would, in the absence of vigorous domestic competition, hold up prices does not stand close scrutiny. High vehicle prices in some overseas markets with lower tariffs than in Australia can be largely

explained by the existence of non-tariff barriers. Moreover, for many products which are supplied in Australia exclusively or primarily by imports, price competition appears to be strong. Thus, the Commission considers that, over time, the postulated reductions in vehicle prices stemming from a lower passenger vehicle tariff, which drive the economy-wide gain in the ORANI projections, would be realised.

As to the argument that the economy-wide gains projected by ORANI depend on an unrealistic expansion in mining sector activity, the Commission notes that mining output can expand very rapidly. In 1989-90, for example, Australian's mining output grew by an estimated 19 per cent. Nevertheless, the Commission conducted sensitivity analysis in which it deliberately constrained the expansion in the mining sector flowing from the reduction in the passenger vehicle tariff. The projected economy-wide gain in GNP of $530 million per annum, though lower than reported in Table 8.1, is still large.

Finally, on the issue of adjustment costs, the Commission noted at the outset of this chapter that the long run ORANI projections do not take into account the costs of adjustment to lower tariffs in the vehicle industry.

As discussed in Section 8.5, there are a number of factors which will tend to mitigate these adjustment costs. Not the least of these is the Commission's recommendation to phase-in the tariff of 15 per cent over a period of eight years.

Importantly, however, the issue is not simply one of comparing a one-off longer term benefit to the economy with short term adjustment costs. Under the Commission's proposed phased reduction in the tariff, benefits will accrue from day one, with those benefits progressively increasing as the tariff is reduced and as adjustment in the industry occurs. From this perspective, the benefits projected in the ORANI simulations reported above represent an estimate of the maximum economy-wide benefits accruing to the economy each year after there has been full adjustment to the tariff reduction program. As discussed in Appendix F, the costs of adjustment in the vehicle industry are unlikely to exceed these benefits to the economy.

In summary, the Commission reiterates that there is necessarily uncertainty about the extent to which the passenger vehicle industry would contract if its recommendations are adopted and that, in a dynamic environment, the ORANI projections do not provide definitive forecasts on this

matter. But the contraction in the industry, whether smaller or larger than indicated by the ORANI projections, should not be the primary issue in formulating assistance policy for the industry in the post-1992 period. As discussed in Chapter 7, under the Commission's revised tariff recommendations, the industry would be given a further period of eight years, on top of the eight years provided by the current plan, to adjust to a tariff that would still be higher than that afforded virtually all other manufacturing industries. The Commission considers that it is not in the community's interest to try to retain those parts of the industry which are unable to take advantage of the opportunities provided by this lengthy adjustment period to restructure their operations to survive at this still generous level of assistance. This is true even if such activities account for a significant proportion of current industry output.

8.4 Regional effects

The passenger vehicle industry is heavily concentrated in Melbourne, Adelaide and Geelong. Other activity is located in Sydney, Albury-Wodonga, Ballarat, Bendigo, Launceston and Taree.

Submissions from, among others, the South Australian and Victorian Governments, the Albury-Wodonga Development Corporation, the Geelong Regional Commission and the Geelong Chamber of Commerce discussed the implications of a contraction in the vehicle industry for their regional economies. The South Australian Government provided details of an input/output study undertaken by the Centre for South Australian Economic Studies. This indicated that a contraction in demand of 20 per cent for the industry's products would reduce the State's employment and GDP by 2.2 per cent and 2.5 per cent respectively. The South Australian Government said that these estimates would probably underestimate the adverse effects on the State's economy because the underlying model made 'no allowance for threshold effects'.

The Victorian Government pointed out that around 60 per cent of activity in the vehicle industry is located in Victoria and that, within the Victorian manufacturing sector, automotive production accounts for nearly 11 per cent of employment and more than 13 per cent of turnover. The Victorian Government concluded:

> By any measure, the automotive industry is a key player in the Australian economy and a critical element of the Victorian economy. Contraction and dislocation in the industry caused by rapid and large tariff reductions will have major negative direct and indirect economic impacts, particularly in Victoria.

Both the Geelong Regional Commission and the Geelong Chamber of Commerce provided information on the significance of the vehicle industry to the Geelong economy. Apart from pointing out that the industry accounts for 36 per cent of the manufacturing workforce in the region, they said that Ford is a major focus for the region's skilled worker employment. The Geelong Chamber of Commerce concluded:

> This region is already on the brink of a new surge of unemployment as a result of the national economic malaise and the flow on from the collapse of the Farrow corporation. The implementation of a tariff restructure of the severity as recommended by the Industry Commission would seriously undermine the manufacturing economy of the Geelong region for the major period of the nineteen nineties.

The ORANI model is not sufficiently disaggregated to provide an indication of how an overall contraction in the passenger vehicle industry would be distributed among individual firms. Clearly, the regional impact would be influenced by the ability of individual firms to respond to lower assistance through improvements in their productivity performance. However, given the concentration of the industry in Melbourne, Adelaide and Geelong, the quantitatively most significant reductions in activity would be expected in those regions. Reductions in activity in smaller centres such as Albury-Wodonga could also be of regional significance.

But balancing the losses in activity and employment in the vehicle industry flowing from implementation of the Commission's recommendations, there would be enhanced opportunities for other firms in the economy (which are not picked up by simple input/output analysis). These benefits would exceed the costs of reduced activity in the vehicle industry.

That said, these benefits to other industries are likely to be much less regionally concentrated. Accordingly, while those States and regions without vehicle production would clearly benefit from implementation of the Commission's recommendations, Victoria and South Australia and regions such as Geelong and Albury-Wodonga could experience a reduction in overall economic activity and employment.

8.5 Adjustment issues

Any microeconomic reform will entail adjustment pressures for those industries and individuals who benefited from the inefficiencies targeted by that reform. Such pressures cannot be avoided altogether if the longer term benefits of reform to the economy are to be realised.

That said, there should be a concern to ensure that adjustment occurs in a manageable fashion and that the adjustment pressures are not so severe that they squeeze out production with prospects of becoming efficient over time. With these considerations in mind, the Commission has recommended that the 15 per cent tariff for passenger vehicles be phased-in, rather than introduced immediately. There is still the issue, however, of whether specific measures are desirable to facilitate adjustment in the industry.

The extent of the hardship and disruption associated with the contraction in the passenger vehicle industry would depend, in part, on the speed and ease with which people displaced from jobs found other forms of employment, the timing of plant closures and on the adequacy of existing social welfare mechanisms.

Adjustment difficulties are likely to be greatest in areas where the proportion of employment accounted for by the vehicle industry is greatest. The industry accounts for a significant proportion of manufacturing employment in areas such as Melbourne, Adelaide, Geelong and Albury-Wodonga. However, only in Geelong does the automotive workforce account for a major portion of total employment. Information supplied by the Geelong Regional Commission indicates that 8.5 per cent of total regional employment is directly accounted for by the industry. In Albury-Wodonga, BTR Engineering accounts directly for only 2.6 per cent of employment in the region. Of course, the significance of the vehicle industry to employment in these regions increases when account is taken of the indirect effects on employment in supplier industries.

However, the severity of any disruption from a contraction in the industry would be mitigated by the fact that the closure of inefficient plants would most likely be related to the timing of model run outs, rather than occurring at the beginning of the new arrangements. The phasing-in of the 15 per cent tariff, as recommended by the Commission, would reinforce this element of gradualism. Most

importantly, the Commission expects that a sizeable passenger vehicle industry would still exist at a 15 per cent tariff so that the losses in regional employment would be significantly less than the industry employment figures referred to above. These considerations lead the Commission to conclude that no region would suffer unmanageable disruption from implementation of its recommendations.

As far as individual employees are concerned, the adjustment pressures they face will depend on a range of factors including the extent of labour mobility in the automotive workforce and the scope for dealing with employment reductions through 'natural attrition'. The mobility of displaced workers will in turn depend on such things as their qualifications and skill levels, their English language skills, their age and on the availability of alternative employment opportunities.
As discussed in Chapter 3, labour turnover in the passenger vehicle industry has been extremely high. During 1989, labour turnover as a percentage of total industry employment was more than 30 per cent or around 20 000 persons. There are factors which suggest that caution must be exercised in using such figures to gauge the scope for dealing with significant employment reductions in the industry through natural attrition. Labour turnover in the industry has declined considerably during 1990, and most of the turnover is apparently concentrated in only 20 per cent of the industry's total workforce. Nonetheless, significant labour turnover in the industry suggests that there would be scope for dealing with the employment reductions through natural attrition -- an argument accepted by the South Australian Government:

> It is accepted that as the industry contracts there will be some scope for employment reductions to be accommodated through natural attrition.

Skilled workers would generally be expected to have less difficulty in finding alternative employment. A number of inquiry participants referred to current shortages in the availability of skilled labour and claimed that automotive labour was more skilled relative to labour employed in other manufacturing industries.

Non-skilled workers could experience more difficulty in finding alternative employment. In this regard, the Geelong Regional Commission stated:

> The outlook for several thousand employees without formally accredited training would be bleak. They would be entering a national employment market which on all available indicators is likely to show limited growth for persons without formal training. Regionally, these persons would be entering the employment market within the same period as reductions in assistance to the clothing and footwear sectors will be taking most effect.

Data obtained from the ABS indicates that there is a slightly higher proportion of non-skilled labour in this industry than in the manufacturing sector as a whole (see Appendix D, Tables D.9-11).

Non-English speaking members of the automotive industry workforce and older employees might also experience some difficulty in finding alternative employment. While the age profile of employees in the industry is broadly comparable with the manufacturing sector as a whole, the proportion of migrants is significantly higher (see Appendix D, Tables D.9-11). However, such ethnicity data provide only a rough indicator of the extent of non-English speaking workers in this industry compared to other manufacturing industries.

The availability of alternative employment opportunities also varies with the location of firms. Information supplied to the Commission by participants suggests that, in areas such as Clayton and Dandenong, alternative employment prospects for displaced vehicle industry employees have been quite good. In some areas, however, finding alternative employment would be more difficult. The Albury-Wodonga Development Corporation argued that, in the event of BTR Engineering winding back its operations, many retrenched workers would probably have to seek employment in other areas, with a consequent depressive effect on Albury-Wodonga's economy. Similarly, the Geelong Regional Commission said that, in view of the lack of alternative employment opportunities for skilled labour, there would be a de-skilling of the region if the vehicle industry were to contract significantly.

Under the current assistance arrangements, workers displaced from the passenger vehicle industry are eligible for assistance under the LATA scheme. In its draft report, the Commission recommended that the industry should continue to be a designated industry under the LATA scheme after 1992.

At the draft report hearings, comment was received on both the efficiency of the LATA and the need for additional adjustment measures.

The FVIU said that there are two major deficiencies with the LATA -- a consistently low take-up of the scheme by eligible employees and the fact there is evidence to suggest that short training

courses do not significantly improve an individual's prospects of re-employment. The unions argued that there is a need to change the way in which assistance is delivered to workers displaced from industries, with the major elements of the new approach being:

- mandatory advance notice of collective redundancies;
- better representative mechanisms to oversee program delivery at industry, community and plant level;
- pilot projects to explore more flexible means of delivering assistance;
- the evaluation of processes and outcomes to find more effective measures; and
- experimentation with ways to fund retrenched workers to train while on their former wage.

The South Australian Government requested that the LATA arrangements for the industry be extended in scope along the lines of the Textiles, Clothing and Footwear Labour Adjustment Package to include work-oriented English language training as eligible training under the scheme and to provide for an incentive to employers outside the industry to hire displaced vehicle workers through a wage subsidy payable for up to six months. It argued:

> South Australia is concerned that displaced employees be adequately catered for by re-employment programmes so as to prevent periods of structural unemployment or involuntary exit from the labour market by less mobile workers. Such assistance would also contribute towards dampening the adverse income and employment effects likely to be felt in regions dependent on the automotive industry.

In considering these requests, the Commission accepts that there may well be general improvements that could be made to programs facilitating labour adjustment. While, a proper assessment of this issue is outside the scope of this inquiry, the Commission considers that some of the proposals put forward by the FVIU warrant examination by the relevant Commonwealth and State Government departments.

The Commission will maintain its draft recommendation that the passenger vehicle industry be a designated industry under the LATA after 1992. In doing so, the Commission notes the evidence which suggests that the scheme is not all that effective. However, rather than proposing changes of

the sort suggested by the South Australian Government which would apply only to displaced passenger vehicle industry employees, the Commission suggests that it may be time to review the LATA as a whole, with a view to making the scheme more effective and appealing.

9 OTHER MATTERS

In their submissions to the inquiry, participants raised a number of other matters which have not been covered earlier in this report: for example, changes to the criteria for eligible expenditure under the 150 per cent tax concession for R&D, developing country preferences and claimed tariff anomalies for the importation of stainless steel coil.

However, in the time available, it has not been possible for the Commission to consider all of these other matters. This chapter therefore focuses on some residual issues on which information was explicitly sought in the issues paper -- Australian Design Rules, the luxury sales tax and the depreciation limit. There is also a brief discussion of environmental issues raised by participants.

9.1 Australian Design Rules

Standards for the design of motor vehicles registered in Australia are enforced by each State Government through requirements for new vehicle registration. These standards, which are termed 'Australian Design Rules' (ADRs), cover not only physical aspects of vehicle design such as resistance to impact and location of seat belt mountings etc, but also such matters as engine emission and noise levels. Progress has been made in recent years in harmonising ADRs with standards applying in major overseas countries. Nonetheless differences still remain. There are also differences in the ways that ADRs are applied in individual States and Territories.

A number of participants argued that the lack of uniformity of ADRs with international standards and non-uniformities in their application within Australia impose a cost penalty on firms in the industry and ultimately on car consumers. Nissan stated:

> Nissan Australia estimates that the cost to satisfy unique ADRs exceeds $1 million per model in development costs.
>
> Similar costs occur when export programs from Australia are initiated.

> It would be to both the Australian consumers' advantage and to Australia's strategic advantage as an exporter to more closely align Australian design rules to international standards. This is not to suggest a reduction in safety standards. Rather Australia should seek both to align its own and to influence the standards of others so that mutual recognition of internationally accepted standards is increased.

In regard to non-uniformities in the application of ADRs within Australia, the FCAI Importers Group said:

> Vehicle manufacturers and importers therefore have had to negotiate with up to eight different administrations in order to obtain clearance to sell their vehicles across Australia. In some cases the result has been the production/sale of special model variants to satisfy the requirements of one State or Territory.
>
> Such a situation is absurd. It penalises Plan producers and importers alike -- but finally at the expense of Australian consumers.

A number of vehicle importers argued that the cost per vehicle of complying with unique ADRs was greater for importers than for local manufacturers with a consequence that de-facto protection was provided to the local industry. BMW stated:

> The cost of these requirements is greater for importers where they must be borne over a small number of units, in addition to which they delay development and availability of Australian models, whilst adding to their weight and complexity.
>
> The substantial homologation cost, which has to be amortised over a small number of vehicles, is then subjected to (import) duty and (sales) tax -- a further example of the multiplier effect and increased protection for the local manufacturers.

However, GMH argued that unique ADRs had little overall impact on the competitive position of the local industry, claiming that they were not a major impediment to either import or export. It concluded:

> In our judgement ... the overall impact of Australian Design Rules is not a significant advantage or disadvantage to local manufacturers.

Pilkington, whilst accepting that the unique ADRs applying to automotive glass had some protective effect, argued that their removal would provide more than offsetting benefits to the company. It stated:

> The light transmission provisions of ADR8 pose major production and marketing problems to the company. Alignment of those provisions with relevant international standards may result in some loss to us of non-tariff protection against imports. Overall, however, alignment should produce net gains, allowing a measure of product rationalisation and greater interchangeability of our domestic and export automotive glassware.

The MTAA was critical of the fact that, in introducing design rule changes, the impact on the motor trades industry had not properly been taken into account. It argued:

> ... the cost to the retail trade of design rule changes is often significant. The introduction of unleaded petrol and catalytic converters are examples of changes which led to increased servicing and storage costs at a time when Australian industry alone could ill afford to set such a lead.
>
> Such economic considerations should be high on the agenda in future deliberations ... regarding design rule changes.

The Commission can see little reason for unique design rules in Australia. Accordingly, it considers that conformity with overseas standards, or recognition of those standards, should continue to be actively pursued. This will facilitate trade and minimise the possibility that ADRs become de-facto protective barriers. Moreover, there is no justification for non-uniformity in the application of ADRs between the States and Territories. Action to eliminate non-uniform application should be taken as soon as possible.

9.2 Taxation matters

A number of participants raised concerns about the depreciation limit for vehicles, the higher rate of sales tax applying to luxury vehicles, and the level of taxation on vehicles as a whole.

The depreciation limit

Depreciation on motor vehicles can only be claimed on vehicles priced below a specified limit. The depreciation limit for the 1990-91 income year is $45 056. The limit is indexed to the motor vehicles sub-group in the Consumer Price Index.

Although the depreciation limit was introduced some years ago ostensibly to prevent perceived abuse of the depreciation provisions of the Income Tax Act, vehicle importers argued that the limit had originally been set just above the most expensive Australian made vehicle, with the consequence that the measure constitutes a de-facto protective barrier. BMW argued:

> The depreciation limit has no place in the protection area in general. It is a tax measure and, if maintained, should be as a tax measure in the income tax area, with the rate being applied against business/private usage and not the particular vehicle purchase.

The Commission observes that the depreciation limit does not explicitly differentiate between local and imported vehicles, although given the pattern of production in the local industry vis a vis the pattern of imports, its impact clearly falls more heavily on imports. At the present time only two local mass produced vehicle models are priced above the depreciation limit -- the Ford LTD and the Holden Caprice. More than 70 per cent of luxury vehicles sold are imported.

Whether the unequal incidence of the depreciation limit provides a significant benefit to the local industry is, however, more difficult to establish. It is true that the limit will increase the attractiveness for some consumers of purchasing vehicles falling below that limit. But these consumers will still have the option of purchasing a locally produced or an imported vehicle. The Commission received no quantitative information on the pattern of substitution engendered by the depreciation limit and hence the extent of any de-facto protective effect.

In the absence of compelling information pointing to a significant protective effect, the Commission does not believe it necessary or appropriate to make recommendations on the depreciation limit in this inquiry.

The luxury vehicle sales tax

The luxury vehicle sales tax was introduced in August 1986, with an increase in the rate of tax on luxury vehicles from 20 to 30 per cent. This rate was subsequently increased to 50 per cent in May 1990. Then, in August 1990, a split rate tax structure was introduced with sales tax payable on luxury vehicles being the lesser of:

- 50 per cent; or
- 30 per cent up to the statutory threshold and 75 per cent on the value above the threshold.

The threshold retail vehicle value for the luxury tax is the same as the depreciation limit -- that is, $45 056 in 1990-91. The sales tax rate on non-luxury vehicles remains at 20 per cent.

Much of the evidence from importers was based on the blanket sales tax rate of 50 per cent applying to luxury vehicles prior to August of this year. They argued that like the depreciation limit, the tax discriminated against importers and hence provided significant additional protection to domestic producers. They contended that the higher sales tax rate added 15 to 20 per cent to the price of a vehicle with consequent adverse effects on vehicle demand. Further, they noted that a price void had been created in the market at the point which the higher sales tax rate cut in.

Apart from the adverse impact on demand, importers claimed that the tax made it uneconomic to provide certain optional safety features on vehicles priced just below the luxury tax threshold. For example, BMW argued that, even under the revised luxury tax arrangements introduced in August, fitment of an ABS braking system to its 318i model -- an option worth $2300 -- would finish up costing more than $6000 because the optioned-up vehicle would be priced above the tax threshold.

Like the depreciation limit, the Commission is not convinced that the luxury sales tax, in either its current or previous form, has provided significant deÿfacto protection to the local industry. By virtue of the pattern of domestic vehicle production and vehicle importation, its incidence obviously falls more heavily on imported marques. However, the sales tax regime in general does not discriminate between domestically produced and imported vehicles.

That said, the revised sales tax regime still has deficiencies. The base rate of sales tax on luxury vehicles of 30 per cent remains higher than the rate applying to non-luxury vehicles. Hence a price void, albeit smaller, remains. And, there will also remain some disincentive to include safety features and other options on vehicles priced just under the luxury tax threshold.

In the Commission's view, it would be preferable if any luxury sales tax applied only on the value of the vehicle above the designated threshold. Given the current sales tax regime for non-luxury vehicles, this would imply a split rate regime of 20 per cent on the wholesale value below the threshold, and a higher rate on the wholesale value above the threshold.

The overall level of vehicle taxation

As noted in Chapter 4, an almost unanimous complaint amongst participants was that high taxes on vehicles adversely affect vehicle producers and importers alike. Their position was summed up by the FCAI Importers Group:

> Obviously tariffs, quantitative restrictions and other measures have contributed materially to the creation of the small, stagnant market that all in the industry have experienced over that last 15 years or more. However, the tax regime facing the industry -- the sales tax increases, the luxury car and fringe benefits taxes, and the depreciation limits (plus State government taxes and charges) -- have all combined to make cars a far less attractive purchase for consumers than they would otherwise be. This is clearly shown by the progressive ageing of the Australian motor vehicle "carpark".
>
> ... it is for the government to decide if indeed it is serious in wanting a competitive industry. If it is, reform of the taxation regime affecting the car market is an absolute imperative.

The general level of taxation on vehicles raises complex issues which, in the Commission's view, are outside the purview of this inquiry. It is obviously true that a reduction in taxes on vehicles would stimulate vehicle demand to the benefit of vehicle producers and importers alike. However, there would be adverse consequences for government revenues which would necessitate higher taxes elsewhere or reductions in government services. Accordingly, appropriate levels of commodity taxation cannot sensibly be examined in isolation. For this reason, the Commission will not be making any recommendations concerning the overall level of vehicle taxation.

9.3 Environmental issues

Evidence presented to this inquiry suggests that the automotive industry will come under increasing pressure in regard to its environmental impact, particularly with respect to vehicle emissions. The Australian Conservation Foundation (ACF) argued that road transport causes about 20 percent of carbon dioxide and other greenhouse gas emissions and that the car industry would therefore be required to play a significant role in meeting Australia's environmental commitments. Greenpeace suggested that, as consumers become more environmentally aware, demand will shift away from large and environmentally unfriendly cars: it suggested that Commodores and Falcons would be virtually unsaleable within a few years.

Emission levels for new cars sold in Australia are governed by ADR27A, which was introduced in 1976. ADR27A is four times less stringent than the current US standard, which itself is less stringent than standards in some European countries. A number of participants called for a tightening of emission controls on new cars. BMW also advocated the wider use of premium unleaded petrol which facilitates lower emission levels (and better fuel consumption).

Participants also argued that the old age of the Australian car fleet increases the level of vehicle emissions -- old vehicles generally cause more pollution than newer vehicles. In 1988, around 47 per cent of vehicles on Australian roads were over 10 years old, compared with 20 per cent in the UK, Canada and West Germany, and around 30 per cent in the USA. As discussed in Chapter 2, the old age of the car fleet can be attributed partly to the high level of automotive industry assistance which has inflated the price of new motor vehicles. Mazda argued that inadequate roadworthiness standards have also allowed cars to remain on the roads longer: the company suggested that cars which failed to meet ADR27A should be denied registration after 1993.

Participants also advocated a number of other measures. The ACF argued that the provision of assistance to the local industry should be conditional on its environmental performance. Greenpeace put forward a number of measures to reduce private vehicle usage -- among others, it suggested that the Government should promote greater use of public transport; encourage a shift in transport modes from road to rail; and dispense with tax incentives for company cars. The Town and Country Planning Association argued that the Government should direct the local industry to produce an environmentally friendly 'national' car.

The issue of vehicle emissions is clearly important, particularly given the contribution of road transport to overall emission levels. The sorts of measures requested by participants to reduce vehicle emissions will be among the matters considered in the Commission's forthcoming inquiry into Greenhouse Gases.

Central to this inquiry are government measures which affect the production and sourcing of motor vehicles. Such measures may have incidental effects on the level of vehicle emissions: for example,

assistance can inflate the price of new cars and thereby reduce the scrapping rate of older and more polluting vehicles. Thus, implementation of the Commission's proposals -- which would place downward pressure on new car prices -- should be environmentally beneficial.

However, the Commission considers that industry policy measures should not be tailored specifically to achieve environmental objectives: rather, such objectives are generally best pursued through direct measures. This suggests that, once policies governing vehicle emissions are in place, vehicle producers should be allowed to adjust their production and marketing decisions as they see fit. By augmenting rather than supplanting market forces, such an approach should achieve environmental objectives in a way that least distorts consumer preferences, and hence maximises overall community well-being.

Consequently, the Commission does not consider that assistance to the local industry should be tied to its environmental performance: nor does it see a role for government to direct the local industry to build an environmentally friendly vehicle.

A JOINT MINISTERIAL STATEMENT

IMMEDIATE RELEASE 10 MAY 1990

Joint Statement by the Deputy Prime Minister and Treasurer, Mr Paul Keating, and the Minister for Industry, Technology and Commerce, Senator John Button.

INDUSTRY COMMISSION INQUIRY INTO CAR INDUSTRY

An Industry Commission inquiry into arrangements for the automotive industry following the end of the current car plan in 1992 will proceed immediately.

The inquiry had originally been scheduled for 1991 but the Government believes an earlier decision will assist the industry in its planning needs.

The car industry will spend hundreds of millions of dollars on new investment each year during the 1990s. It is important that it knows the longer term policy framework in which it will be operating after 1992 so that it can plan accordingly.

An early inquiry and decision by the Government will also ensure that the process of automotive industry rationalisation is not constrained by a lack of knowledge of Government policy.

The Industry Commission will be asked to report by the end of 1990.

The Government will also appoint the Chairman of the Automotive Industry Authority, Mr Bill Scales, as an Associate Commissioner for the duration of the inquiry. Mr Scales brings with him wide experience and a deep knowledge of the industry.

The terms of reference for the inquiry are attached.

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C HISTORY OF GOVERNMENT POLICY FOR THE AUTOMOTIVE INDUSTRY

The Federal Government has played a central role in the development of the Australian automotive industry. The industry has been viewed as an integral part of Australia's manufacturing sector, particularly as it requires inputs from other local industries such as steel, rubber, glass and plastics.

There have been frequent changes to automotive industry policy, often in response to the needs of producers at particular times. Until recently, the industry was shielded from import competition by arrangements which automatically increased the assistance it received whenever its international competitiveness declined. As a result, automotive production has long been one of the most highly assisted activities in the Australian economy.

This appendix summarises the history of assistance policy for the Australian automotive industry, concentrating on policy over the last decade. A detailed history of motor vehicle policy in earlier years is contained in the Commission's reports on post-1984 assistance arrangements (IAC 1981b) and vehicle substitution (IAC 1983).

The early years

The Australian automotive industry dates back to the early part of this century with the commencement of vehicle assembly and the manufacture of vehicle bodies. This activity was protected by tariffs on imports.

During the 1920s, the extension of tariff protection to chassis and other parts led to the establishment of component production and vehicle assembly facilities in Australia by Ford, GMH, Chrysler and British Leyland.

As early as 1936, the Government expressed a desire to promote the complete manufacture of motor vehicles in Australia, offering increased assistance as an incentive, but it was not until 1948 that GMH produced the first Australian passenger vehicle.

In the years immediately following the commencement of local car production, the major aim of government policy was to increase the local content level in vehicles produced or assembled in Australia. The development of the motor vehicle industry was an integral part of the strategy of encouraging the expansion of the Australian manufacturing sector, particularly given its important linkages with other areas of manufacturing.

By the early 1960s, a number of vehicles were being produced with high levels of local content. For example, the EH Holden was produced at a local content level of nearly 100 per cent and with an output of more than 150 000 units per annum. The tariff on imported vehicles at the time was 35 per cent -- the same tariff that will apply at the end of the current car plan.

1965 to 1985

There has been a significant increase in the complexity and level of assistance afforded local automotive manufacturers since the mid-1960s. In 1965, in an attempt to replicate GMH's success, the government of the day introduced the first of the local content plans. Under the plan, producers were provided with concessions on imported components in return for achieving a specified level of local content in their vehicles.[1] From this time, the industry, which was oriented towards large vehicle production, experienced increasing competition both in the domestic and export markets, from smaller, more economical cars produced by countries such as Japan. In August 1966, the tariff on imported passenger vehicles was increased to 45 per cent, a level at which it remained until July 1973 when it was reduced to 33.75 per cent as part of across-the-board tariff cuts.

The competitive position of the local industry declined steadily in the late 1960s and early 1970s. During 1974, imports increased rapidly and demand for locally produced passenger vehicles weakened. GMH, Ford and Chrysler announced they would be retrenching more than 7000 employees.

To prevent the threatened job losses, the Government increased the tariff to 45 per cent and introduced an 80/20 market sharing arrangement. From January 1975, import quotas were used to restrict imports to 20 per cent of the market. At the time, the Government stated that:

[1] While initially set at 95 per cent, for much of the period from 1965 until the termination of local content protection on 1 January 1989, the local content level required was 85 per cent.

> Market sharing arrangements between local production and importers will be considered where necessary, as a special measure of short-term policy, to assist in stabilising activity in sensitive industry sectors, pending full reviews of longer term policies. (White Paper 1977, p 25)

While market sharing was intended as a short term stabilisation mechanism, except for a short period in 1977, quotas remained in place for the next 13 years.

For a number of years, Toyota and Nissan had been catering for some of the demand for smaller, more fuel efficient vehicles through assembly outside the formal provisions of the local content scheme and, in 1976, the Government invited these two firms to become full manufacturers operating under provisions of the local content plan. In view of the increased costs involved for the two companies, though, their requirement to comply with the 85 per cent local content scheme was phased in over a period of three and a half years. At the time the Minister for Business and Consumer Affairs stated that:

> Because of the strong demand in the Australian market for Toyota and Nissan products, their exclusion from local manufacture would create a continuing need for import restrictions. ... their entry into manufacture would provide additional business for Australian component manufacturers and additional employment opportunities. (Howard 1976, p 1130)

There were then five local manufacturers.

A further deterioration in the competitive position of the local industry in the latter half of the 1970s prompted the Government to increase protection against imported vehicles. The Government decided to extend quotas until the end of 1984, to prevent further disruption in the industry, especially to employment. And, in 1978, the Government increased the tariff on fully assembled vehicles to 57.5 per cent.

The latter part of the 1970s also saw the adoption of export facilitation. This scheme allows vehicle producers to reduce their local content in return for automotive exports. The spur for export facilitation was GMH's proposal to establish a world scale four-cylinder engine plant as part of GM International's strategy of locating major component producing sectors around the globe. The

additional duty free entitlements (and the implicit export subsidies involved)[2] were designed to offset the cost penalties of sourcing engines in Australia. In February 1979, when announcing that export facilitation would be introduced, the Minister for Industry and Commerce stated that:

> The Government, for its part, is convinced that, given the small domestic market for motor vehicles in Australia, the only real and effective way that the industry can improve its cost structure is through closer integration with the world industry and, of course, the export opportunities that this will provide. (Lynch 1979, p 316)

An export facilitation scheme was subsequently announced for component producers. Both schemes commenced operation in March 1982.

In the early 1980s, there was a significant growth of four-wheel drive and commercial vehicle imports which performed a passenger function. These vehicles were not subject to quantitative import restrictions. The IAC received a reference in December 1980 on whether the Subaru 4WD wagon should be brought within the market sharing arrangements (IAC 1981a). The Government accepted the Commission's recommendation that no action be taken.

In a major report completed later in 1981, the Commission proposed a major overhaul of the assistance arrangements for the passenger vehicle industry in the post-1984 period (IAC 1981b). The Commission recommended, among other things, the abolition of the local content scheme, the 80/20 market sharing policy and quantitative import restrictions, and their replacement by tariffs on vehicles and components of 60 per cent, phasing to 50 per cent by 1990. To comply with the terms of reference, the Commission also recommended that vehicle producers continue to have access to duty free import entitlements, some of which would be conditional on export performance.

In December 1981, the then Government announced details of the assistance arrangements to apply for the industry after 1984. These involved the replacement of the 80/20 market sharing arrangements by a tariff quota arrangement under which unlimited vehicles could be imported outside of quota at a penalty duty rate. That rate was to be set initially at 150 per cent and reduced to 125 per cent in 1992. Export facilitation arrangements were also to be extended and the local content scheme would remain as it was.

[2] See section 5.3 for a discussion of the way in which export facilitation makes available a subsidy to exports.

Following a change of government, the proposed post-1984 arrangements were reviewed in 1983. That review involved, in part, a reference to the Commission on whether certain light commercial and four-wheel drive vehicles should be subject to the same import licensing arrangements as then applied to passenger vehicles: the Commission recommended that no action be taken (IAC 1983). There was also a broader and more general reference to a specially established Car Industry Council. That Council, which comprised representatives of the various segments of the industry, was unable to agree on the nature of appropriate solutions to the industry's problems, although it did recommend that the Government announce an industry goal incorporating both a target for the industry to reach and a strategy to reach it. The Council stated:

> The purpose of such a goal would be to give notice to the industry of the direction in which the Government wishes to see it go. Individual participants in the industry would then be able to make forward plans, in consultation with Government, which they knew to be in harmony with the Government's long term aims for the industry. (Car Industry Council 1983, p 36)

In May 1984, details of a revised post-1984 assistance package were announced.

The current car plan

When announcing the plan on 29 May 1984, the Minister for Industry and Commerce said that the Government was committed to the maintenance of a viable vehicle industry, although the Minister expressed concern about the adverse effects that past policies had had on the industry:

> Government policy since the mid-1960s has been increasingly characterised by short-term crisis containment, lack of direction and inward-looking policies.
>
> In summary, the result has been an industry which has had rising levels of protection and declining levels of performance -- circumstances which are costly to the tax-payer and damaging to the industry itself in terms of its morale, prestige, security of the workforce and capacity to plan ahead. The community is entitled to expect that over a period of time the industry will adjust to a reversal of the process I have just referred to, and that there will be an improvement in performance at less cost. (Button 1984, p 2)

The new arrangements were designed to address those deficiencies by providing:

> ... a framework in which the industry can develop with a sense of purpose and vision. They are designed to provide short-term assistance to the industry to help it face up to the process of orderly adjustment with a view to attaining greater efficiency and stability. And they are designed to reduce the cost to the community and the disruptions to the industry and its employees which have occurred over the last decade. They are designed to allow an important manufacturing industry in Australia to show that it has the capacity to adapt and do well in the domestic and international markets. (Button 1984, p 8)

When introduced, the Button Car Plan, as it has commonly been referred to, had four central objectives:

- to give the industry more time to restructure and modernise;
- to make it more efficient;
- to hold down the price of cars; and
- to reduce job losses in the short term and provide job stability.

In pursuit of those objectives, a variety of measures were implemented. Some modified elements of the previous assistance package, while others were significant departures from previous policies. The 80/20 market sharing arrangement was replaced with tariff quotas. The quota was set at around 22 per cent of the expected passenger vehicle market for each year, with the penalty duty for out of quota imports set at 100 per cent, to be phased down to 57.5 per cent by 1992. As 57.5 per cent was the general tariff rate then applying to imports under quota, the intention was that quotas would become redundant in 1992. The 85 per cent local content scheme was retained with only minor amendments, access to export facilitation was increased, and tariff quotas were extended to include certain light commercial and four-wheel drive vehicles. In addition, the Government expressed a desire to see an industry structure by 1992 of no more than three manufacturing entities producing, at most, six models. The Automotive Industry Authority was established to oversee the arrangements.

Central to the assistance package was the view that greater realisation of economies of scale would improve industry efficiency. The specification of a target industry structure, and the subsequent introduction of penalties to facilitate its achievement (see below) followed from that view.

Indeed, at the time the assistance package was formulated, it was envisaged that contractionary pressure associated with lower output protection would be countered by the stimulus provided by industry restructuring. The Minister for Industry and Commerce stated:

> ... major changes in industry structure, relationships and practices will be necessary. If these changes occur then there is, in the government's view, no reason why the industry should not be manufacturing at about the same level as it is today. (Button 1984, p 4)

Subsequent to the introduction of the Button Plan, some changes to the arrangements were made, although these did not change the basic policy framework and direction of the plan. In December 1986, the Government introduced penalties for low volume production and, in January 1987, separate export facilitation provisions were introduced for vehicle importers.

The assistance arrangements now in place followed a mid-term review of the Plan in 1988. In April of that year, import quotas were abolished and the tariff on passenger vehicles was reduced immediately to 45 per cent, phasing to 35 per cent in 1992. Tariffs on light commercial and four-wheel drive vehicles were reduced immediately from 35 and 25 per cent respectively to 20 per cent, with further reductions to 15 per cent by 1992. On 1 January 1989, the local content scheme which had protected component producers since 1965 was abolished and replaced by a dual tariff arrangement. Details of the current assistance package are set out in Chapter 5.

These mid-term changes to the plan were precipitated by the substantial depreciation of the Australian dollar in 1985 and 1986, which had significantly reduced adjustment pressures on the industry under the original arrangements. When announcing the mid-term changes, the Minister for Industry Technology and Commerce stated:

> ... the competitive pressure on the Australian car industry has been considerably reduced with the devaluation of the Australian dollar.
>
> The Government intends, while maintaining the essential elements of the Plan to reassert that pressure. We expect that by reducing protection levels this will create the potential for price stability in the industry. (Button 1988, p 1)

In comparison to previous assistance packages, the Button Plan has had important positive features, although it has continued to make available very high assistance to the automotive industry (see Chapter 5). The basic framework and direction of the plan has been adhered to. For the first time in at least twenty years, there have been ongoing reductions in assistance to the industry. And perhaps most importantly, the termination of import quotas and the local content scheme has removed the mechanisms which, for many years, had automatically increased assistance to the industry whenever its competitiveness declined.

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There have been frequent changes to automotive industry policy, often in response to the needs of producers at particular times. Until recently, the industry was shielded from import competition by arrangements which automatically increased the assistance it received whenever its international competitiveness declined. As a result, automotive production has long been one of the most highly assisted activities in the Australian economy.

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The competitive position of the local industry declined steadily in the late 1960s and early 1970s. During 1974, imports increased rapidly and demand for locally produced passenger vehicles weakened. GMH, Ford and Chrysler announced they would be retrenching more than 7000 employees.

To prevent the threatened job losses, the Government increased the tariff to 45 per cent and introduced an 80/20 market sharing arrangement. From January 1975, import quotas were used to restrict imports to 20 per cent of the market. At the time, the Government stated that:

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> Market sharing arrangements between local production and importers will be considered where necessary, as a special measure of short-term policy, to assist in stabilising activity in sensitive industry sectors, pending full reviews of longer term policies. (White Paper 1977, p 25)

While market sharing was intended as a short term stabilisation mechanism, except for a short period in 1977, quotas remained in place for the next 13 years.

For a number of years, Toyota and Nissan had been catering for some of the demand for smaller, more fuel efficient vehicles through assembly outside the formal provisions of the local content scheme and, in 1976, the Government invited these two firms to become full manufacturers operating under provisions of the local content plan. In view of the increased costs involved for the two companies, though, their requirement to comply with the 85 per cent local content scheme was phased in over a period of three and a half years. At the time the Minister for Business and Consumer Affairs stated that:

> Because of the strong demand in the Australian market for Toyota and Nissan products, their exclusion from local manufacture would create a continuing need for import restrictions. ... their entry into manufacture would provide additional business for Australian component manufacturers and additional employment opportunities. (Howard 1976, p 1130)

There were then five local manufacturers.

A further deterioration in the competitive position of the local industry in the latter half of the 1970s prompted the Government to increase protection against imported vehicles. The Government decided to extend quotas until the end of 1984, to prevent further disruption in the industry, especially to employment. And, in 1978, the Government increased the tariff on fully assembled vehicles to 57.5 per cent.

The latter part of the 1970s also saw the adoption of export facilitation. This scheme allows vehicle producers to reduce their local content in return for automotive exports. The spur for export facilitation was GMH's proposal to establish a world scale four-cylinder engine plant as part of GM International's strategy of locating major component producing sectors around the globe. The

additional duty free entitlements (and the implicit export subsidies involved)[2] were designed to offset the cost penalties of sourcing engines in Australia. In February 1979, when announcing that export facilitation would be introduced, the Minister for Industry and Commerce stated that:

> The Government, for its part, is convinced that, given the small domestic market for motor vehicles in Australia, the only real and effective way that the industry can improve its cost structure is through closer integration with the world industry and, of course, the export opportunities that this will provide. (Lynch 1979, p 316)

An export facilitation scheme was subsequently announced for component producers. Both schemes commenced operation in March 1982.

In the early 1980s, there was a significant growth of four-wheel drive and commercial vehicle imports which performed a passenger function. These vehicles were not subject to quantitative import restrictions. The IAC received a reference in December 1980 on whether the Subaru 4WD wagon should be brought within the market sharing arrangements (IAC 1981a). The Government accepted the Commission's recommendation that no action be taken.

In a major report completed later in 1981, the Commission proposed a major overhaul of the assistance arrangements for the passenger vehicle industry in the post-1984 period (IAC 1981b). The Commission recommended, among other things, the abolition of the local content scheme, the 80/20 market sharing policy and quantitative import restrictions, and their replacement by tariffs on vehicles and components of 60 per cent, phasing to 50 per cent by 1990. To comply with the terms of reference, the Commission also recommended that vehicle producers continue to have access to duty free import entitlements, some of which would be conditional on export performance.

In December 1981, the then Government announced details of the assistance arrangements to apply for the industry after 1984. These involved the replacement of the 80/20 market sharing arrangements by a tariff quota arrangement under which unlimited vehicles could be imported outside of quota at a penalty duty rate. That rate was to be set initially at 150 per cent and reduced to 125 per cent in 1992. Export facilitation arrangements were also to be extended and the local content scheme would remain as it was.

[2] See section 5.3 for a discussion of the way in which export facilitation makes available a subsidy to exports.

Following a change of government, the proposed post-1984 arrangements were reviewed in 1983. That review involved, in part, a reference to the Commission on whether certain light commercial and four-wheel drive vehicles should be subject to the same import licensing arrangements as then applied to passenger vehicles: the Commission recommended that no action be taken (IAC 1983). There was also a broader and more general reference to a specially established Car Industry Council. That Council, which comprised representatives of the various segments of the industry, was unable to agree on the nature of appropriate solutions to the industry's problems, although it did recommend that the Government announce an industry goal incorporating both a target for the industry to reach and a strategy to reach it. The Council stated:

> The purpose of such a goal would be to give notice to the industry of the direction in which the Government wishes to see it go. Individual participants in the industry would then be able to make forward plans, in consultation with Government, which they knew to be in harmony with the Government's long term aims for the industry. (Car Industry Council 1983, p 36)

In May 1984, details of a revised post-1984 assistance package were announced.

The current car plan

When announcing the plan on 29 May 1984, the Minister for Industry and Commerce said that the Government was committed to the maintenance of a viable vehicle industry, although the Minister expressed concern about the adverse effects that past policies had had on the industry:

> Government policy since the mid-1960s has been increasingly characterised by short-term crisis containment, lack of direction and inward-looking policies.
>
> In summary, the result has been an industry which has had rising levels of protection and declining levels of performance -- circumstances which are costly to the tax-payer and damaging to the industry itself in terms of its morale, prestige, security of the workforce and capacity to plan ahead. The community is entitled to expect that over a period of time the industry will adjust to a reversal of the process I have just referred to, and that there will be an improvement in performance at less cost. (Button 1984, p 2)

The new arrangements were designed to address those deficiencies by providing:

> ... a framework in which the industry can develop with a sense of purpose and vision. They are designed to provide short-term assistance to the industry to help it face up to the process of orderly adjustment with a view to attaining greater efficiency and stability. And they are designed to reduce the cost to the community and the disruptions to the industry and its employees which have occurred over the last decade. They are designed to allow an important manufacturing industry in Australia to show that it has the capacity to adapt and do well in the domestic and international markets. (Button 1984, p 8)

When introduced, the Button Car Plan, as it has commonly been referred to, had four central objectives:

- to give the industry more time to restructure and modernise;
- to make it more efficient;
- to hold down the price of cars; and
- to reduce job losses in the short term and provide job stability.

In pursuit of those objectives, a variety of measures were implemented. Some modified elements of the previous assistance package, while others were significant departures from previous policies. The 80/20 market sharing arrangement was replaced with tariff quotas. The quota was set at around 22 per cent of the expected passenger vehicle market for each year, with the penalty duty for out of quota imports set at 100 per cent, to be phased down to 57.5 per cent by 1992. As 57.5 per cent was the general tariff rate then applying to imports under quota, the intention was that quotas would become redundant in 1992. The 85 per cent local content scheme was retained with only minor amendments, access to export facilitation was increased, and tariff quotas were extended to include certain light commercial and four-wheel drive vehicles. In addition, the Government expressed a desire to see an industry structure by 1992 of no more than three manufacturing entities producing, at most, six models. The Automotive Industry Authority was established to oversee the arrangements.

Central to the assistance package was the view that greater realisation of economies of scale would improve industry efficiency. The specification of a target industry structure, and the subsequent introduction of penalties to facilitate its achievement (see below) followed from that view.

Indeed, at the time the assistance package was formulated, it was envisaged that contractionary pressure associated with lower output protection would be countered by the stimulus provided by industry restructuring. The Minister for Industry and Commerce stated:

> ... major changes in industry structure, relationships and practices will be necessary. If these changes occur then there is, in the government's view, no reason why the industry should not be manufacturing at about the same level as it is today. (Button 1984, p 4)

Subsequent to the introduction of the Button Plan, some changes to the arrangements were made, although these did not change the basic policy framework and direction of the plan. In December 1986, the Government introduced penalties for low volume production and, in January 1987, separate export facilitation provisions were introduced for vehicle importers.

The assistance arrangements now in place followed a mid-term review of the Plan in 1988. In April of that year, import quotas were abolished and the tariff on passenger vehicles was reduced immediately to 45 per cent, phasing to 35 per cent in 1992. Tariffs on light commercial and four-wheel drive vehicles were reduced immediately from 35 and 25 per cent respectively to 20 per cent, with further reductions to 15 per cent by 1992. On 1 January 1989, the local content scheme which had protected component producers since 1965 was abolished and replaced by a dual tariff arrangement. Details of the current assistance package are set out in Chapter 5.

These mid-term changes to the plan were precipitated by the substantial depreciation of the Australian dollar in 1985 and 1986, which had significantly reduced adjustment pressures on the industry under the original arrangements. When announcing the mid-term changes, the Minister for Industry Technology and Commerce stated:

> ... the competitive pressure on the Australian car industry has been considerably reduced with the devaluation of the Australian dollar.
>
> The Government intends, while maintaining the essential elements of the Plan to reassert that pressure. We expect that by reducing protection levels this will create the potential for price stability in the industry. (Button 1988, p 1)

In comparison to previous assistance packages, the Button Plan has had important positive features, although it has continued to make available very high assistance to the automotive industry (see Chapter 5). The basic framework and direction of the plan has been adhered to. For the first time in at least twenty years, there have been ongoing reductions in assistance to the industry. And perhaps most importantly, the termination of import quotas and the local content scheme has removed the mechanisms which, for many years, had automatically increased assistance to the industry whenever its competitiveness declined.

D INDUSTRY AND MARKET STATISTICS

In this appendix, the Commission provides some summary statistics of the Australian automotive industry. The contents of the appendix are as follows.

Table D.1: **Summary of operations in the automotive industry: 1987-88**[a]

ASIC	*Industry*	*Establish-ments at 30 June (no.)*	*Average Employment at end of June*[b] *Males (no.)*	*Females (no.)*	*Persons (no.)*	*Wages & salaries*[c] *($m)*	*Turnover ($m)*	*Value added (1986-87)*[d] *($m)*
3231	Motor vehicles	43	26 430	2640	29070	726	6439	1424
	Share of total manufacturing - %	0.14	3.41	0.91	2.73	3.03	4.81	3.12
3233	Motor vehicles instruments and electrical equipment, nec	38	2571	3672	6243	122	500	164
	Share of total manufacturing - %	0.12	0.33	1.27	0.59	0.51	0.37	0.36
3234	Motor vehicle parts, nec	559	20 459	5895	26 354	576	2 226	896
	Share of total manufacturing - %	1.77	2.64	2.04	2.48	2.4	1.66	1.96
ex323	Total motor vehicles and parts	640	49 460	12 207	61 667	1423	9165	2484
	Share of total manufacturing - %	2.02	6.38	4.23	5.8	5.94	6.85	5.44
21-34	Total manufacturing	31 606	775 177	288 615	1 063 792	23 950	133 820	45 686

a The data are based on the Australian Standard Industrial Classification (ASIC) industry classes 3231, 3233 and 3234. These industry classes include not only passenger and light commercial vehicles and their components but also buses and certain trucks and some of their components. b Includes working proprietors. c Excludes drawings of working proprietors. d Value added data for 1987-88 was not collected by ABS.
Source: ABS 1989a.

Table D.2: **Input structure of the automotive industry[a]: 1983-84**

Inputs from: *Industry*	*Proportion of total input* [b] *(%)*	*Total requirements Co-efficient* [c] *($)*	*Significance of motor vehicles & parts to supplier industries* [b d] *(%)*
Agriculture	0.01	0.28	-
Forestry, fishing and hunting	-	0.08	-
Mining	0.03	2.98	0.03
Food manufacturing - animal origins	0.02	0.14	0.02
Food manufacturing - vegetable origins	0.04	0.15	0.03
Beverages and tobacco products	0.02	0.07	0.06
Textiles	0.45	1.02	1.54
Clothing and footwear	0.01	0.06	0.04
Wood, wood products and furniture	0.17	0.83	0.80
Paper and paper products, printing and publishing	0.46	1.42	0.45
Chemicals	0.36	2.29	0.72
Petroleum and coal products	0.10	1.49	0.11
Glass, clay and other non-metallic mineral produce	0.60	0.82	0.95
Basic metals	3.83	10.43	3.57
Fabricated metal products	1.86	4.38	2.37
Motor vehicles and parts and transport equipment etc	28.93	140.83	28.93
Other transport equipment	0.03	0.18	0.29
Other machinery and equipment	0.67	2.33	1.45
Leather, rubber and plastic goods & manufacturing nec	3.27	4.07	4.81
Electricity, gas and water	0.93	3.23	0.64
Construction	0.03	0.18	0.01
Wholesale and retail trade	2.34	5.05	0.65
Repairs	0.05	0.30	0.08
Transport, storage and communications	1.88	4.55	0.58
Finance, insurance, real estate and business services	3.50	7.98	0.90
Ownership of dwellings	-	-	
Public administration and defence	0.35	0.68	0.20
Health, education and welfare	0.22	0.44	0.05
Entertainment and personal services	0.29	0.79	0.14
TOTAL INTERMEDIATE USAGE5	0.35	197.05	1.09

Table D.2: continued

Inputs from:	*Proportion of total input* [b]
Wages, salaries and supplements	21.09
Gross operating surplus	4.98
Commodity taxes – subsidies	0.35
Indirect taxes	0.89
Sales by final buyers	0.08
Competing intermediate imports cif	20.74
Duty on competing intermediate imports	1.53
AUSTRALIAN PRODUCTION	100.00.L.

a The industry as defined in the input-output table includes production of truck and bus bodies as well as bicycles, motorcycles, wheelbarrows etc. b Figures may not add due to rounding. c The domestic output generated in supplying industries by an increase in final demand for motor vehicles and parts of $100, assuming the same relationships between domestic supplies and imports as in 1983-84. d The significance of motor vehicles and parts to supplier industries, as measured by the percentage of each industry's output going to motor vehicle production.
Source: ABS 1989b.

Table D.3: **Value of exports of the automotive industry: 1982 to 1989[a] ($million)**

	1982	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*
Exports	277.0	357.4	383.4	442.3	463.3	754.9	613.4	649.1

a Values are based on the allocation of exports to the ASIC classes, 3231, 3233 and 3234. Exports are valued free on board.
Source: AIA 1986 to 1990

Table D.4: **Employment in the automotive industry: 1976-77 to 1986-87** [abcd]

ASIC Industry		*1976-77*	*1977-78*	*1978-79*	*1979-80*	*980-81*	*1981-82*	*1982-8*	*1983-84*	*1984-85*	*1986-87*
3231	Motor vehicles (no.)	49 097	45 458	46 372	42 889	35 279	36 593	33 862	30 000	31 000	27 500
	Share of total manufacturing (%)	4.18	3.97	4.06	3.72	3.07	3.17	3.22	2.97	3.04	2.71
3233	Motor vehicles instruments and electrical equipment nec (no.)	4537	4188	4069	4269	4515	5405	4774	4500	4900	5600
	Share of total manufacturing (%)	0.39	0.37	0.36	0.37	0.39	0.47	0.45	0.45	0.48	0.55
3234	Motor vehicle parts, nec (no.)	23 851	22 650	26 223	28 773	28 804	30 703	26 767	25 800	27 700	25 700
	Share of total manufacturing (%)	2.03	1.98	2.29	2.49	2.51	2.66	2.54	2.55	2.72	2.53
ex323	Total motor vehicle and parts (no.)	77 485	72 296	76 664	75 931	68 598	72 701	65 403	60 300	63 600	58 800
	Share of total manufacturing (%)	6.59	6.32	6.70	6.58	5.97	6.30	6.21	5.97	6.25	5.8
21-34	Total manufacturing	1 175 831	1 144 558	1 143 502	1 154 170	1 149 838	1 154 659	1 052 900	1 009 800	1 018 400	1 014 600

a The goods covered by ASIC classes 3231, 3233 and 3234 differ slightly from the coverage of the AIA's estimate for 1989 reported in the text. B Average employment over year. c Excludes employment by single establishments with fewer than four employees at end of year. Includes working proprietors. d No manufacturing census in 1985-86.
Source: ABS 1989a; IAC 1983.

Table D.5: **Profitability of the automotive industry: 1985 to 1989**
(return on sales, per cent)

	Plan producer sector				
Year	*PMV Manufacturing operations*	*Total PMV activities*	*Year*	*Specialist component sector*	*Import sector*
1985	1.44	na			
1986	-4.89	na	1985-86	2.34	na
1987	-1.75	na	1986-87	3.06	-5.54
1988	-0.23	2.63	1987-88	5.68	2.37
1989	2.09	3.87	1988-89	6.39	9.44

na not available.
Source: AIA 1990.

Table D.6: **Sales of locally produced and imported passenger and light commercial vehicles: 1979 to 1989**

Market	*1979*	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*
Passenger vehicles:[a]											
Locally produced (no.)	374 868	339 125	353 350	361 853	320 929	355 222	391 408	22 019	307 380 3	30 416	339 331
Market share (%)	82.1	76.0	78.8	81.2	79.9	80.3	76.8	80.8	84.5	80.5	75.6
Vehicle producer imports[b] (no.)				29 772	28 836	27 253	39 406	26 532	15 122	26 372	36 271
Market share (%)				6.7	7.2	6.2	7.7	6.7	4.2	6.4	8.1
	81 749	107 243	95 272								
	17.9	24.0	21.2								
Other imports[c] (no.)				54 079	51 849	59 880	78 775	50 188	41 462	53 685	72 912
Market share (%)				12.1	12.9	13.5	15.5	12.6	11.4	13.1	16.3
Total passenger vehicles	456 617	446 368	448 622	445 704	401 614	442 355	509 589	398 739	363 964	410 473	448 514
Light commercial vehicles[d] (no.)	75 764	87 231	106 322	149 656	149 323	174 850	158 039	109 496	70 815	92 414	135 547

a Prior to 1985, includes registrations of cars and station wagons. From 1985, this group also includes registrations of four-wheel drive motor vehicles without an independent chassis and passenger motor vehicle variants, previously classified as light commercial vehicles. b Registrations of passenger motor vehicles imported by vehicle producers. C Registrations of passenger motor vehicles imported by specialist importers. d The majority of these vehicles are imported.
Source: IAC 1983; AIA 1986 to 1990.

Table D.7: **Country of origin of imported passenger motor vehicles: 1985 to 1989**

Country of origin	*1985* no.	*1985* share %	*1986* no.	*1986* share %	*1987* no.	*1987* share %	*1988* no.	*1988* share %	*1989* no.	*1989* share %
Japan	95 316	83.2	53 280	76.5	36 003	68.2	57 153	74.9	97 530	77.3
Federal Republic of Germany	8876	7.8	6736	9.7	5405	10.2	6446	8.4	9269	7.3
Republic of Korea	3	..	2341	3.4	4625	8.8	5135	6.7	7369	5.8
Sweden	2073	1.8	1690	2.4	2051	3.9	2536	3.3	3591	2.9
United Kingdom	1758	1.5	1003	1.4	1158	2.2	1362	1.8	2387	1.9
Italy	3216	2.8	2228	3.2	1329	2.5	917	1.2	1157	0.9
France	2310	2.0	1540	2.2	664	1.3	597	0.8	548	0.4
Other	973	0.8	810	1.2	1524	2.9	2165	2.8	4411	3.5
Total	114 525	100	69628	100	52 759	100	76 311	100	126 262	100

.. less than 0.05 per cent.
Source: AIA 1989, 1990.

Table D.8: **Price indices for passenger motor vehicles: 1985 to 1989**[a]

\	*1985*	*1986*	*1987*	*1988*	*1989*
Locally produced	100	121	134	142	150
Imported	100	127	145	155	159
CPI	100	110	118	126	136

a At December each year. Prices are recommended retail prices.
Source: AIA 1990.

Table D.9: **Selected characteristics of male employees in the automotive industry and total manufacturing: 1986** [a] (per cent)

ASIC Industry		*Overseas Born*	*Age*			*Qualifications obtained:*					
						Australian born			*Overseas born*		
			<25	*25-49*	*50+*	*None*	*Trade or technical*	*Degree or other tert.*	*None*	*Trade or Technical*	*Degree or other tert.*
3231	Motor vehicles	57	18	59	23	24	15	3	42	13	2
3233	Motor vehicles and electrical equipment nec	53	24	59	18	26	17	4	30	18	5
3234	Motor vehicles parts nec	43	23	58	20	31	23	2	28	13	2
ex323	Total motor vehicles and parts	52	20	59	22	27	18	3	37	13	2
21-34	Total manufacturing	35	22	58	20	38	22	4	22	11	2

a Data acquired from the 1986 Population Census. Figures may not add due to rounding.
Source: ABS (not previously published).

Table D.10: **Selected characteristics of female employees in the automotive industry and total manufacturing: 1986a** (per cent)

ASIC Industry		*Overseas Born*	*Age*			*Qualifications obtained:*					
						Australian born			*Overseas born*		
			<25	*25-49*	*50+*	*None*	*Trade or technical*	*Degree or other tert.*	*None*	*Trade or Technical*	*Degree or other tert.*
3231	Motor vehicles	56	20	67	13	37	5	2	50	5	1
3233	Motor vehicles and electrical equipment nec	53	20	70	10	43	3	1	47	4	2
3234	Motor vehicles parts nec	45	19	68	13	48	5	1	41	3	1
ex323	Total motor vehicles and parts	50	20	68	12	43	4	1	46	4	1
21-34	Total manufacturing	39	22	64	14	50	8	2	34	4	1

a Data acquired from the 1986 Population Census. Figures may not add due to rounding.
Source: ABS (not previously published).

Table D.11: **Selected characteristics of all persons employed in the automotive industry and total manufacturing: 1986a** (per cent)

ASIC Industry		*Overseas Born*	*Age*			*Qualifications obtained:*					
						Australian born			*Overseas born*		
			<25	*25-49*	*50+*	*None*	*Trade or technical*	*Degree or other tert.*	*None*	*Trade or Technical*	*Degree or other tert.*
3231	Motor vehicles	57	18	60	22	26	14	3	43	12	2
3233	Motor vehicles and electrical equipment nec	53	22	65	14	35	9	3	40	10	3
3234	Motor vehicles parts nec	44	22	60	18	35	19	2	31	11	2
ex323	Total motor vehicles and parts	52	20	60	20	30	15	3	39	12	2
21-34	Total manufacturing	36	22	60	18	42	18	3	25	9	2

a Data acquired from the 1986 Population Census. Figures may not add due to rounding.
Source: ABS (not previously published).

E COMPETITIVENESS OF THE AUSTRALIAN AUTOMOTIVE INDUSTRY

The substantial assistance necessary to sustain the Australian automotive industry's current operations implies, prima facie, a general lack of competitiveness by local vehicle assemblers and component producers, although it does not necessarily mean that all sections of the industry are uncompetitive. Indeed, available cost and price information suggests that several locally produced automotive products would be competitive with overseas products on the domestic market at relatively low levels of assistance, or on the international market without the implicit export subsidies currently available through export facilitation (see Chapter 5).

A wide range of factors which ultimately affect the price, quality and thus consumer demand for automotive products has the potential to impact on the competitiveness of the Australian automotive industry and hence on its dependence on assistance to compete in the market place. An indication of the relative significance of various broad factors on the cost competitiveness of the local industry compared with Japan, as estimated by Ford and Toyota, is provided in Table E.1 (overleaf).

As is apparent from the table, participants regarded the macroeconomic environment in Australia as a major determinant of the local industry's current competitive position. The impact and policy significance of macroeconomic factors on the Australian automotive industry's competitiveness is discussed in Chapter 4 of the report.

In this appendix, the main factors which influence the industry's underlying cost competitiveness and quality performance are reviewed. The discussion seeks only to indicate the significance of these factors to current competitiveness. The scope for improving the cost competitiveness and quality performance of the Australian automotive industry is considered in Chapter 3.

Table E.1: **Major elements of unit cost disadvantage: Australia versus Japan**

Source of disadvantage	*Percentage of total disadvantage estimated by:*	
	Ford	*Toyota*
People factors	40	
Microeconomic environment-labour costs		21[a]
Scale/capital/technology	30	
Scale and general efficiency/productivity		23[b]
Relative macroeconomic environment	30	25
Material costs		28
Other		3
Total	100	100

a Wage and labour productivity differentials were not quantified. b Investment differentials were not quantified. An estimate for *worker commitment/effort was included.*
Source: Submissions

The discussion in this appendix draws heavily on information provided in written submissions and on the results of a study done recently by International Motor Vehicle Program researchers at the Massachusetts Institute of Technology, on the relative performance of automotive assembly plants around the world (Krafcik & MacDuffie 1989), hereafter referred to as the IMVP study. The results reported in this section are for firms surveyed in late 1988 and 1989.

E.1 Main factors influencing cost competitiveness

The factors identified by participants and in the IMVP study as having a significant bearing on the productivity and quality performance of the industry, and hence on its underlying cost competitiveness, include realisation of economies of scale, levels of capacity utilisation and automation, management and labour efficiency, and labour costs. These factors are discussed individually below.

Other important factors influencing the cost competitiveness of the local automotive industry are the costs of raw materials and inputs from the services sector, such as transport and power.

Assistance on the industry's inputs and inefficiencies in the service sector inflate the costs and/or prices of Australian automotive products. The quantitative impact of some of these factors on the level of activity in the Australian automotive industry is addressed in Chapter 4.

Scale

Scale economies in automotive production, which can be either model specific or related to the operation of the total plant, arise from several sources. First, unit cost savings are available through spreading the very high costs associated with product design over large output volumes. Second, high volumes of output facilitate greater specialisation in labour functions (ie from a team organisation perspective, while increasing the flexibility of labour within the team) and management functions, which in turn increases productivity. Third, certain more efficient methods, processes or machines have generally been geared to or are more suited to production of larger outputs. There are also significant cost savings to be had from effective capacity utilisation (see below). Much of the evidence from participants on the cost savings from greater throughput did not distinguish between economies of scale and the benefits of greater utilisation of existing facilities.

The importance of scale in passenger vehicle production is indicated by the high degree of concentration of the international industry and the high production volumes of the major producers' vehicle models. In terms of plant size, new assembly plants are, in general, not commissioned for operation at less than 200 000 vehicles per annum.

By contrast, no plant in Australia is currently operating at more than 100 000 vehicles per annum. The IMVP data set out in Table E.2 (overleaf) show that the daily production rates in Australian plants are, on average, less than half those in plants in the newly industrialised economies (Republic of Korea, Mexico, Brazil) and less than a quarter of those in Japanese plants in Japan.

Table E.2: **Scale of operation of international assembly plants**
(daily production rates)

Parent/Plant Location	*Low*	*High*	*Average*
Japan in Japan	517	2800	1385
Japan in Nth America	900	940	914
US in Nth America	392	1040	812
All in Europe	186	3500	1130
All NIEs	288	2144	629
Australia	135	400	298

NIEs Newly Industrialising Economies.
Source: Krafcik & MacDuffie 1989.

The relationship between costs and scale is sometimes expressed in terms of minimum efficient scale (MES), which represents the scale at which virtually all available scale economies have been exhausted. While most studies of MES in the various areas of automotive production are now quite dated (at least 10 years old), there was general agreement among participants with the IMVP results, which suggest that scale economies for final vehicle assembly are exhausted in plants producing between 200 000 and 250 000 vehicles per annum. However, it has been argued by the IMVP and others that this figure could decline to around 150 000 units in the 1990s due to changes in product mix (ie more upmarket), technology and production processes.

Over the years, there has been far less consensus on the optimal scale of production for components and, indeed, estimates presented to this inquiry varied. Nissan estimated that fully integrated engine and transmission production requires production volumes of 200 000 and 120 000 units per annum respectively: it noted that only one Australian plant achieves this type of volume. Nissan also suggested that the MES for many other components was considerably lower and was decreasing. It argued that the use of flexible manufacturing technology, quick change tooling and lower cost tooling could allow efficient production at quite low volumes. Pacific BBA said that, in relation to the manufacture of braking systems, the impact of volume varies according to the type of cost and process. It said that minimum product cost in disc brake machining and brake booster

manufacture is achieved through volumes in excess of 150ÿ000 units per annum tooled on special purpose single function machines, although volumes in excess of 100ÿ000 units per annum begin to approach minimum cost production.

The overseas evidence suggests that MES in most component production is higher than implied by the above estimates from domestic producers. For example, Toyota indicated that many parts suppliers to its parent company in Japan have total plant volumes averaging one million units. Studies done in the 1970s (the latest detailed studies available) of scale in pressing, forging and foundry operations suggested that MES was generally considered to be two million units at that time. Of course, changes in technology (eg transfer press lines) may have changed the economics of production in these areas since then.

The cost penalties for low volume production are generally considered to be significant in all automotive production processes but there is little agreement on their precise magnitude.

A study by Owen suggested that major cost savings could be achieved from increased scale. In looking at the cost-volume relationship in pressing operations (considered to be representative of the capital intensive end of car manufacture and assembly), Owen estimated that an increase from 100 000 to 500 000 units per annum reduced unit pressing costs by over 50 per cent, with a shift to 2 million units reducing them by a further 40 per cent. He also suggested that similar savings would apply in forging, in the foundry and, to a lesser extent, to smaller volumes in machining. On the overall cost-volume relationship in car manufacture, Owen concluded that:

> ... the manufacturing technology employed in car manufacture implies that unit costs decline by 10 per cent with every doubling of volume, right up to two million cars a year. (Owen 1983, p 75)

Estimates of the potential cost savings associated with higher output for individual components in Australia vary. Cost penalties for low volume production are considered to be greatest for major components such as engines and transmissions: the FCAI suggested that this is because of the growing share of R&D in total cost and because of the more capital intensive technologies required. The results of a 1984 survey done by the FAPM indicate that there would be significant savings from an increase in current levels of production to 100 000 units per annum -- up to 16 per

cent for products such as manual transmissions and axle assemblies. Data collected by the Bureau of Industry Economics (1988) on scale economies prevailing in Australia in the mid-1980s in the production of engines, body panels and plastic components suggest that a doubling of output of engines for medium size cars would reduce average unit costs by 11 per cent and, for large cars, by 12.5 per cent. For a 'representative' plastic component, a doubling of the output would reduce unit costs by 5.5 per cent for small cars, eight per cent for medium cars, and 12.5 per cent for large cars. In the case of body panels, a doubling of the output would provide a unit cost reduction of 20 per cent for small cars, 21 per cent for medium cars and eight per cent for large cars. Robert Bosch indicated that volume was important to all its automotive products and estimated that, in general, cost savings of up to 20 per cent could be achieved by a doubling of current volumes. In respect of a total braking system, Pacific BBA estimated that a cost saving of five per cent was achievable from the amortisation of model specific fixed costs over vehicle production runs of 100 000 compared to 40 000 and assuming a model life cycle of five years. The FCAI noted that the shortening of product life cycles of car models has reduced the benefits of large batch production for parts manufacturers.

It is generally considered that cost penalties associated with low volume production are lower in vehicle assembly than in the other manufacturing operations. Nissan argued that this was due in part to the relatively smaller proportion of final cost represented by either model or non-model specific fixed costs in assembly plant operations (less than five per cent compared with an average of 15 per cent in component production). GMH estimated that, with appropriate investment and the removal of bottle-necks to increase utilisation of currently installed capacity, a 50 per cent volume increase on a two shift basis would give about a 10 per cent reduction in its assembly costs. In slight contrast, Mitsubishi stated that:

> A study by [Mitsubishi] shows that increasing production from 50 000 units per annum to 100 000 units per annum by double shifting and enhanced automation would reduce the total assembly cost of a vehicle by 7.5 per cent -- just 1 per cent of the total cost of the car. If two models are required to achieve this volume increase, this benefit is reduced to only one third. One of the key reasons why this benefit is so small is due to the premium which applies to second shift wages.

The small cost savings estimated by Mitsubishi from a doubling of its assembly volume highlights the fact that the cost of assembly represents only around 20 per cent of the total vehicle cost, with

the remainder being accounted for by materials and components. Thus, as noted by the FCAI, the economies associated with reductions in the cost of materials and components as the scale of assembly increases (external to the assembly process) are more important than economies specific to the assembly process. The FCAI stated that:

> Given the high proportion of component costs in the unit price of car manufacture, there would be substantial gains to be made if scale economies could be further realised in component manufacture. Commonisation and export promotion are generally in recognition of this.
>
> High overhead costs arising from lack of scale economies are exacerbated by requirements of the market to offer model variations which require different components ...
>
> There has ... (also) ... been a proliferation of items used for trim and styling to differentiate vehicles which come from the same production line. For example, different designs of head lamps, signal lamps, bumper bars, wheels and seats are used to distinguish one basic car from another. As a consequence, some component makers are being faced with demand for a large variety of products, but a low volume of each one, leading to high unit costs ...

Nissan and others argued that the advent of advanced and more flexible manufacturing techniques, machinery and work systems, shorter model lead and development times, and the development of a more multi-skilled and flexible workforce mean that it is possible to achieve high productivity and profit performance at much lower production volumes than in the past.

However, in its report on the state of the automotive industry in 1989, the AIA argued that high volume production continued to be a major factor underlying competitive automotive production. It stated:

> The argument ... (that flexible manufacturing systems enable efficient production with low total-plant volumes) ... implies that volume is no longer an important consideration in the production of high quality, moderately priced vehicles. Available evidence does not support this argument ... there is no evidence to show that low volume plants, especially those with annual volumes of less than 100 000 produce high quality vehicles at levels of productivity which are required if Australian plants are to prosper at lower levels of assistance. Overseas assemblers still choose to establish new plants at annual volumes substantially greater than 100 000 and annual plant volumes in excess of 200 000 are common in Japan, North America and Europe. Significantly, no vehicle assembly plants in Australia were operated at volumes in excess of 100 000 during 1989. (AIA 1990, p 21)

On the question of whether MES is declining for automotive production due to changing technologies, FAPM stated that:

> It is, in our view, possible that flexible manufacturing technology does in fact favour higher not lower volume at plant level while allowing lower production volumes of specific products. Thus for example we see some Japanese model volumes declining but plant volume remains high.

The FAPM went on to observe that:

> Modern flexible manufacturing technologies which incorporate automated tool changes and machine setting variation are costly. They are also less sensitive to specific product variation and are highly cost sensitive to total volume throughput perhaps even more so than traditional technologies due to their higher capital cost.

In a similar vein, Robert Bosch commented that:

> The high cost of CNC equipment requires ideally that the equipment be operated continuously over 24 hours, 6 days a week. The output is considerably lower, but the investment cost does not reduce proportionally compared to a dedicated high volume manufacturing line.
>
> This means that the flexible systems give improved economics of small volume through reduced set up time, simplified tooling and facilitating manufacture of a family of components on the same equipment, but they do not achieve the unit cost level of a high volume plant.

While flexible manufacturing may have had little affect on the MES of total plant operations, it is nonetheless important in helping Australian manufacturers to cope with lower volumes because it reduces the cost penalties for low volume production of individual products within the plant. In addition, Nissan argued that:

> ... (flexible manufacturing) ... has not been driven internationally by a desire for lower volume production per se, but to provide the necessary flexibility to enable car manufacturers to maximise the benefits of just-in-time (JIT) management and to allow manufacturers to meet consumer demand for greater individualism in their cars.

The potential for productivity and quality gains from greater use of these technologies, as well as from other means of offsetting the cost disabilities associated with lower volume production in Australian automotive plants (for example, commonisation of components and longer model life cycles), is discussed in Chapter 3.

Overall, in the Commission's view, the low volume of production in Australian plants is clearly an important factor contributing to high costs in the domestic industry. The policy significance of this is discussed in Chapter 6.

Capacity utilisation

In general, Australian automotive assembly plants operate at substantially lower levels of capacity utilisation than their major international competitors. In Australia, the installed two-shift capacity for passenger vehicle production is close to 600 000 units per annum. Currently all but one of the five local vehicle assemblers are operating on a one-shift basis. On an adjusted two-shift basis, which is standard in most plants around the world, the IMVP study showed that, in 1988, Australian vehicle assemblers were, on average, operating at only slightly more than 50 per cent of their capacity. This compared with plant utilisation levels in excess of 80 per cent in virtually all other regions surveyed (Krafcik & MacDuffie 1989).

Participants' evidence indicated that local specialist component producers have generally operated at higher levels of capacity utilisation than vehicle assemblers in recent years. Data from the latest ARMS/FAPM survey of the specialist component producer sector showed that, in general, plant utilisation was higher for exporters and smaller companies but, again, much of the sector operated only on a one shift basis.

Apart from single-shift operations, there are several reasons for poor capacity utilisation in the Australian industry. As discussed below, much basic motor vehicle machinery and equipment is designed to operate at much greater capacity than is currently needed by the Australian industry. Another factor referred to by some participants is the fewer number of days worked by labour in the Australian industry. Toyota estimated that the work day differential impact on certain fixed costs represented about six to seven per cent of the total cost disadvantage it calculated for its Australian assembly plant against Toyota Motor Corporation in Japan.

As automotive production is capital intensive, the cost penalties associated with low levels of capacity utilisation can be significant. These penalties are highest in the more highly mechanised areas of body stamping, casting and machining. For example, Owen (1983) estimated that short term variations in capacity utilisation of 25 per cent in these areas would raise or lower unit costs by six per cent and 10 per cent, respectively. Some estimates by participants of the cost savings from greater capacity utilisation, in conjunction with investment in further automation, were referred to in the previous section.

However, the benefits of higher capacity utilisation can be offset by other factors. Owen (1983) stated:

> In periods when capacity utilisation increases, manufacturers face substantial wage claims, partly because they have more to lose from shut-downs in boom conditions; boom conditions may also call for premiums for multiple-shift working and overtime and the use of marginal, less efficient capacity.

Level of automation

International experience suggests that there is a direct relationship between the productivity of automotive plants and their level of automation. This is primarily because, as noted above, the ability to use more sophisticated and efficient equipment as output increases is an important source of economies of scale in the automotive industry.

Reflecting their low scale of operation, Australian assembly plants have, on average, very low automation levels compared with their major international competitors (see Table E.3). The IMVP study also indicated that an even larger technology gap was developing between Australian and Japanese assemblers in the area of flexible automation (Krafcik & MacDuffie 1989). As suggested earlier, this is an area which has the potential to reduce the cost penalties associated with low volume model production.

BTR Nylex, along with a number of other component producers, commented that the cost of amortising internationally competitive tooling over low local volumes is often prohibitive. Pacific BBA gave the following example of the effects of volume on unit amortisation cost for a total braking system -- assuming product development and capital equipment investment costs of $4

million and a model life cycle of five years, the unit amortisation cost declines from $20 to $8 (or from eight per cent to three per cent of selling price) as the annual volume increases from 40 000 to 100 000.

Table E.3: **Automation levels of international assembly plants**
(percentage of direct production steps automated)

Parent/Plant Location	*Low*	*High*	*Weighted Average*
Japan in Japan	33.8	42.3	38.0
Japan in Nth America	30.0	37.2	34.3
US in Nth America	12.0	39.6	30.6
All in Europe	5.9	48.0	32.0
All NIEs	0.0	25.7	11.8
Australia	2.6	13.1	10.9

NIEs Newly Industrialising Economies.
Source: Krafcik & MacDuffie 1989.

Management factors

The IMVP study has identified effective management practices as one key to efficient and quality vehicle production (AIA 1990, p 29). Three important areas were identified:

- *factory operations* which emphasise the reduction of waste (including maintenance of lower stock levels and use of smaller repair areas);

- *work systems* which encourage the development of a highly flexible workforce which works in teams, is multi-skilled, makes suggestions for improvements and is responsible for its own performance; and

- *human resource management* involving motivation of the entire workforce by, for example, selective recruitment, increased training and remuneration more closely linked to performance.

In the IMVP study, management factors are measured by factory practice, work systems and

human resource management policies along a continuum ranging from 'fragile/lean' to 'robust/buffered'. The Japanese model of management is described as 'fragile/lean' as it is, according to the study, highly dependent on the skills and motivation of the labour force. The western volume production management is described in the study as 'robust/buffered' as it is built around various control mechanisms (like quality inspection) and safety nets. It does not, according to the study, rely on the motivation and co-operation of employees.

Table E.4: **Management policies in international assembly plants**

Index	*Australia*	*Japan in Japan*	*Japan in NA*	*US in NA*	*All Europe*	*All NIEs*	*All Luxury Producers*
Overall management index [a] (A+B+C/3)	69.7	15.1	29.7	59.4	63.6	55.6	62.1
(A) Factory practice index [b]	51.9	15.3	24.1	52.2	64.1	48.9	72.8
(B) Work systems index [c]	76.2	7.4	42.7	63.2	72.6	62.3	65.0
(C) HRM d policy index [e]	81.2	22.6	22.3	62.7	56.0	55.6	50.4

NA North America
NIEs Newly Industrialising Economies.
[a] 0 = Fragile/Lean; 100 = Robust/Buffered. [b] 0 = Lean; 100 = Buffered. [c] 0 = Multiskilled; 100 = Specialising.
[d] Human Resource Management. [e] 0 = High Commitment; 100 = Low Commitment.
Source: Krafcik & MacDuffie 1989.

As shown in Table E.4, the management policies operated in Australian assembly plants are, on average, the most 'robust and buffered' of all the plants surveyed. The IMVP study concluded that these characteristics were highly correlated with low productivity and quality and were particularly constraining on potential gains from the implementation of new technology (Krafcik & MacDuffie 1989). Similarly, in terms of establishing multi-skilled work systems, Australian plants were rated as the most `specialised' and their management the least 'committed' in terms of human resource management policies.

However, some caution is required in interpreting these results. There are obviously trade-offs between greater flexibility and the gains from specialisation in the use of all resources including people. Further, management and labour practices which are appropriate in one country may not be

appropriate or indeed achievable in other countries with different labour market structures, cultures etc. Nonetheless, as discussed in Chapter 3, the process of award restructuring is beginning to address some of the inefficiencies in Australian management and work practices.

Labour factors

Industrial relations, the ability to retain skilled and experienced employees and employee training all impact on the automotive industry's capacity to enhance its productivity and quality performance.

In common with most Australian industries, multiple unions represent employees in most automotive plants. Often, there are eight or more of the following trade unions involved -- the Vehicle Builders' Employees' Federation (VBEF); Metals and Engineering Workers Union; Federated Clerks Union; Electrical Trades Union; Australasian Society of Engineers; National Union of Workers; Federated Ironworkers Association; Plumbers and Gas-fitters Employees Union of Australia; Federated Miscellaneous Workers Union; Transport Workers Union; Federated Engine Drivers and Firemen's Association; Shop Distributive and Allied Employees Association; Association of Professional Engineers of Australia; and the Association of Professional Scientists of Australia.

The Australian automotive industry has been characterised by a variable but relatively poor industrial relations performance since the commencement of the current plan. In 1989 for example, 555 working days per thousand employees were lost. This exceeded the 1988 level by 92 per cent and the average for the manufacturing sector by 55 per cent (AIA 1990, p 74). On a geographic basis, the highest number of disputes occurred in Victoria while, reflecting their prominence in the overall union structure, the VBEF (Victorian Branch) and the Amalgamated Metal Worker's Union[1] were the unions involved in the greatest incidence of disputation in 1989. As in previous years, industrial disputation was not widespread across the components industry but occurred in a small number of companies which are predominantly sole suppliers.

1 The Amalgamated Metal Worker's Union has recently amalgamated with the Association of Draughting, Supervisory and Technical Employees to become the Metals and Engineering Workers Union.

Some of the issues underlying high levels of disputation over recent years have been wages policy, including the issues of the national wage case, superannuation, 'Workcare', award restructuring and wages generally; and managerial policies, including the issues of dismissal and demotion, staffing, and job security and retrenchment.

On the basis of the results of the 1989 ARMS/FAPM survey of the specialist component producer sector, it was estimated that disputes had cost the component industry about $168 million in lost production. These costs do not include the additional impost arising from the need to carry higher inventory of the products concerned.

As shown in Table E.5, in 1987, labour turnover in the Australian automotive industry was very high relative to the automotive industry overseas.

Table E.5: **Labour turnover and absenteeism in international assembly plants** (per cent)

1987 Data for:	*Australia*	*Japan in Japan*	*Japan in NA*	*US in NA*	*All in Europe*	*All NIEs*	*All Luxury Producers*
Total absenteeism rate	9.0	5.0	4.8	11.7	12.1	7.1	14.9
Unscheduled absenteeism	5.9	0.9	2.2	5.1	7.6	2.8	6.8
Labour turnover	35.0	4.9	5.5	4.3	6.4	6.9	6.8

NA North America.
NIEs Newly Industrialising Economies.
Source: Krafcik & MacDuffie 1989.

By 1989, average labour turnover in Australia's vehicle assembly plants had declined marginally to about 32 per cent. Labour turnover in the specialist component producer sector was comparable to that in vehicle assembly (AIA 1990, pp 76-7).

The results of a recent study commissioned by the Automotive Industry Council on labour turnover and absenteeism in the Australian automotive industry indicated that, in 1989, turnover ranged among companies from 11 to 61 per cent with a median of 28 per cent but had declined during 1990, because the industry was contracting. The study estimated that turnover costs around $6600 for each non-trade employee, increasing to $71 000 for managers. All up, turnover was estimated to add approximately $850 to the ex-factory cost of a car. This compares with the Commission's estimates of a cost of $4000 per vehicle from tariff protection for the industry. Of course, from a competitive viewpoint, it is labour turnover over and above the levels in competitor countries which disadvantages the local industry.

Training in Australian automotive plants has increased over the last two years. Many participants provided detailed information on the extent of their training activities which showed a significant increase in expenditure on, and commitment to, training in the industry. Increased expenditure has been mainly directed at quality improvement and broadening the skills base of employees.

Nonetheless, the industry still devotes fewer resources to training of both new and existing employees than its overseas competitors (AIA 1990, p 31).

Labour costs

Labour costs account for between 20 and 25 per cent of the total cost to make a passenger vehicle.

Wages in the Australian automotive industry are currently well below those in Japan, West Germany and the USA. For example, the Commission understands that the average wage of a production worker in Australia is about $20 000 compared with about $50 000 in Japan, inclusive of annual bonuses (commonly five twelths of an employee's annual salary in Japan).

However, Australia's direct labour cost advantage is partly offset by other factors. Wage on-costs (eg. penalty rates, rostered days off, payroll tax, holiday loadings, workers' compensation), which the FCAI said add about 45 per cent to the hourly wage of Australian workers, are generally higher than in overseas countries. Also, a number of participants argued that labour costs per unit of output are relatively high in Australia because of the much lower levels of labour productivity and fewer days worked compared to overseas plants.

Participants argued that, overall, labour related costs in Australia are uncompetitive. Toyota estimated that labour-related costs account for about 21 per cent of the total annual unit cost disadvantage it suffers against its parent company's operations in Japan. (An indication of the areas in which labour-related costs differ between Toyota plants in the USA, Australia and Japan is provided in Table E.6). Ford estimated that 'people factors' -- including wage, quality and labour productivity

Table E.6: **Differences in labour-related costs between Toyota plants in the USA, Australia and Japan**

Factor	*USA*	*Australia*	*Japan*
Operating days	247	219	246
Sick leave (days)	Agreed no. of working days/year	5-10	Agreed no. of working days/year
Paid days off		12	
Annual leave (days)		20	
Public holidays		10	
Non-contributory super	Variable	3%a	Lump sum on settlement
Overtime premium	Week:x1.5 Holiday:x2	≤3hrs:x1.5 >3hrs:x2 Holiday:x2.5	0.25 per cent
Overtime rest periods	Paid	Paid	Unpaid
Payroll tax	Low	High	Low
Hours worked per annum	1852	1657	2360
Shift premium: afternoon	5 per cent	18 per cent	0
Shift premium: night	10 per cent	30 per cent	0
Long Service leave	None	3mths after 15yrs	None
Absenteeism	2 per cent	8-10 per cent	1 per cent
Labour turnover	4 per cent	40 per cent	3 per cent

a Toyota's superannuation payments are scheduled to increase to 4.5 per cent in January 1991.
Source: Toyota submission.

differentials as well as labour on-cost differentials -- represent about 40 per cent of the total cost disadvantage of Australian manufactured vehicles against similarly-specified Japanese manufactured vehicles.

E.2 Indicators of the industry's overall competitiveness

For the reasons described above, Australia performs relatively poorly in most of the areas critical to internationally competitive vehicle production. As a consequence, according to the IMVP study, the industry rates poorly by international standards in terms of its overall productivity and quality performance.

As shown in Table E.7, Australian assembly plants require, on average, 130 per cent more labour hours to produce a vehicle than the average plant in Japan, and are only marginally ahead of the average labour productivity levels achieved in plants in newly industrialising countries.

Table E.7: **Productivity of international assembly plants**
(hours per vehicle)

Parent/Plant Location	*Best*	*Worst*	*Weighted Average*
Japan in Japan	13.2	25.8	16.8
Japan in Nth America	20.1	25.1	21.8
US in Nth America	18.6	30.7	25.1
All in Europe	22.7	55.6	36.7
All NIEs	25.6	55.8	39.7
Australia	35.9	44.3	38.8

NIEs Newly Industrialising Economies
Source: Krafcik & MacDuffie 1989

Data on productivity within each of the main functional areas of an assembly plant (ie welding, paint and final assembly) indicate that Australian productivity lags in each of those areas by, on average, at least 120 per cent compared with the performance of Japanese producers in Japan (see Table E.8).

Table E.8: **Productivity by functional area of assembly operations**
(time per vehicle: Japan = 100)

Parent/Plant Location	*Welding*	*Paint*	*Assembly*
Japan in Japan	100	100	100
Japan in Nth America	127	110	116
US in Nth America	127	124	161
All in Europe	180	200	261
All NIEs	260	229	218
Australia	237	262	223

NIEs Newly Industrialising Economies.
Source: Krafcik & MacDuffie 1989.

As shown in Table E.9, the quality performance of Australian plants as measured by the number of defects per 100 vehicles is, on average, considerably below that achieved in all other regions and is some 2.5 times worse than that achieved by Japanese producers in Japan. In respect of the lower quality performance of Australian plants, which is also reflected in the cost of warranty claims (estimated to be up to $250 to $350 per vehicle), the MTAA concluded that:

The history of Australian car plans has been disappointing in the failure to solve the problems of quality. In the end, lower protection may be the only incentive strong enough to bring about the required improvements in management, technology and employee attitudes.

There have been recent improvements in Australia in these performance measures -- for example, local vehicle production per employee has increased from 10 to 11 vehicles over the period 1984 to 1989; the number of labour hours required per vehicle has marginally declined since 1988[2] and

[2] These productivity ratios are only partial measures of efficiency in that they measure the productivity of labour without taking into account the amount of capital used by that labour. However, they can provide an indicator of efficiency and, in particular, changes in efficiency over time.

there has been a trend towards fewer faults in locally produced models. Mitsubishi indicated that, between 1985 and 1989, it had improved its productivity (measured in terms of hours per unit) by 6.6 per cent per annum in assembly and by 7.8 per cent per annum in its stamping and hardware plants. It also said that its management policies and the quality performance of its Magna model were better than all other groups studied by the IMVP with the exception of the Japanese plants in Japan and the USA.

Table E.9: **Quality performance of international assembly plants**
(assembly defects per 100 vehicles)

Parent/Plant Location	*Best*	*Worst*	*Average*
Japan in Japan	36	98	60
Japan in Nth America	42	101	65
US in Nth America	52	152	82
All in Europe	40	204	105
All NIEs	48	101	88
Australia[a]	99	221	151

NIEs Newly Industrialising Economies.
a The figures for Australian vehicles are lower than those reported in AIA 1990 (p 43) which show a reported average number of faults per 100 vehicles for locally produced models ranging from 191 to 338. These estimates are calculated on a different basis to the IMVP study data.
Source: Krafcik & MacDuffie 1989.

In terms of the overall international competitiveness of local component suppliers, Toyota said that the results of a recent study of its 177 local suppliers to assess their potential for export achievement showed that 62 per cent could meet the quality standards set, 58 per cent could meet delivery requirements and 22.5 per cent could be price competitive, but only nine per cent (or some 16 suppliers) could meet the overall standards required for export. Nissan calculated that its average cost disability on local components was about 50 percent compared with those available from Japanese suppliers in Japan. At the draft report hearings, the company stated:

> It is our experience that few Australian components are competitive with Japanese delivered to factory cost and many rely upon a large part of the tariff duty plus natural protection to achieve sales. We judge that only 10 to 12 component suppliers would rank as world competitive.

In summary, although some progress has been made in improving the performance of the Australian automotive industry, the gap in productivity and quality performance between the industry and its overseas competitors continues to be significant. The scope for future improvements in the local industry and their impact on its competitiveness are discussed in Chapter 3 of the report.

F EFFECTS OF ASSISTANCE REDUCTIONS FOR THE AUTOMOTIVE INDUSTRY

The Commission's assistance proposals involve a reduction in the tariff on passenger vehicles and OE components from 35 per cent at the end of the current car plan to 15 per cent by the year 2000.

This appendix contains an analysis of the impacts of this tariff reduction for the industry and for the economy as a whole. It also examines the extent to which productivity improvements n the industry and microeconomic reform elsewhere in the economy would assist the industry to cope with the recommended tariff reductions.

The framework for this analysis is provided by the ORANI model of the Australian economy. Also considered are the results of simulations from another study, which assessed the effects of the tariff proposals in the draft report (NIEIR 1990). This appendix also contains a discussion of criticisms of the ORANI analysis made by participants at the draft report hearings.

F.1 Analytical framework

ORANI is a large multisectoral model of the Australian economy. It embodies considerable microeconomic detail on the nature of production and demand in the economy -- details are specified for over 100 industries.[1] The model captures the links between industries that arise from the purchase of each others outputs of goods and services; competition for available resources, such as labour and capital; and other constraints that operate generally such as the government's budgetary stance and the trade balance.

[1] A non-technical description of the model is available in IAC 1987a. The version of the model which was used for this appendix is FH-ORANI. A technical specification of this version is given in Dee 1989. For details of standard ORANI, see Dixon, Parmenter, Sutton and Vincent 1982.

The ORANI model has gained an international reputation as a valuable contribution to applied economic analysis. But like any economic model, it has certain limitations and simplifications in its data base and underlying assumptions, which must be taken into account when interpreting results. While precision cannot be claimed, the model provides useful indicators of the directions and orders of magnitude of responses to some economic change. Qualitative insights from the model usually remain quite robust, even in the light of what might appear to be significant changes in data or assumptions.

The ORANI framework is especially suited to analysing specific shocks to the economy -- either policy changes or other developments, such as changes in world prices. An analysis of this type estimates the effects of the shock being considered, in isolation from other influences. Estimates are provided for the economy generally, outputs of individual industries, imports and exports of different commodities, employment patterns, commodity prices and so on.

The major purpose of ORANI analyses is to determine whether Australia as a whole would benefit from the change being analysed. In the draft report, this question was addressed in terms of impacts on real GDP – the measure of total output of the economy. But not all of the clue of output accrues to Australia, since some of Australia's capital stock is foreign-owned. As well, Australian derive income from owning capital overseas. Real GNP, which adjusts for these capital and income flows, is therefore a better measure of Australia's economic well-being than real GDP.

While the analysis in this appendix focuses on real GNP, results for real GDP are also presented, since changes in aggregate output are of independent interest. Also, GDP results allow comparison with studies which have not reported findings for real GNP.

In considering whether a policy change will benefit Australia, the focus of ORANI analysis is on the long-run effects of that policy change after adjustments to the changes are largely completed (generally after 5 to 10 years). To illustrate the concept of a long-run effects, suppose that a reform scheduled for 1992 is projected to increase real GNP in the long-run by five per cent. This means that, during the post-adjustment period (sometime after 1997), real GNP will be, on average, five per cent higher than it would otherwise be. For ease of exposition, this result could be described by saving that 'real GNP increases by five per cent'. However, this type of projection is *not* a forecast of the change in real GNP over time. The change over time will depend on many influences apart from the particular reform being modelled.

Model course assumptions

In applications of ORANI, it is assumed that certain elements of the economy are unaffected by the shocks being considered.

To represent long-run effects, the analysis in this appendix makes the following major assumptions:

- the real government budget is held constant through changes in direct tax rates;
- the ratio of government to private real consumption expenditure does not vary;
- wages respond to labour supply and demand, so that the unemployment rate in each occupation does not change; (but the aggregate level of employment can vary);
- the capital stock in each industry adjusts in order to maintain the real rate of return for that industry; and
- the nominal exchange rate remains constant.

The fixed nominal exchange rate assumption stems from the non-monetary nature of ORANI. [2] If the exchange rate were allowed to vary in this analysis, it would be necessary to instead hold constant some measure of prices in domestic currency, such as the overall level of nominal wages. However, the findings obtained under this alternative assumption would be identical to those reported here, both for real variables – such as output and employment – and for nominal variables measured in foreign currency. For example, if a policy reform is projected to increase nominal wages by three per cent with the exchange rate held constant, this is equivalent to appreciation of the Australian dollar by three pre cent with nominal wages instead held constant. In either case, nominal wages increase by three per cent when measured in foreign currency.

[2] ORANI is a non-monetary model, insofar as it incorporates neither the monetary policy of the Government nor the demand for money as an asset: in the model, money is simply a unit of account. As a result, ORANI is not suited for analysing the effects of shifts in the Government's monetary stance. However, the omission of monetary behaviour does not significantly bias the present analysis, which focuses on tariff reform and other non-monetary shocks to the economy.

The short-run effects of the proposed tariff cut are also considered in this appendix. These are the effects before changes in investment can significantly alter the industry's capital stock. The short-run analysis also recognises that tax rates and real wages may by slow to adjust, and thus adopts the following assumptions:

- real wages are constant, while unemployment varies;
- the capital stock in each industry is constant, while rates of return by industry carry;
- the real government budget position varies, while income tax rates and real government expenditure do not change;
- aggregate real investment is unchanged, but is reallocated across industries in accordance with changes in rates of return (new investment does not, however, contribute to production in the period); and
- nominal exchange rate remains fixed.

The ORANI data base

The data bast for ORANI describes the structure of the economy in a certain year. In the simulations, the same structure is assumed for later years in the absence of the specified shocks. Because of the lags in data collection and distribution, the data base for this study – which is documented in Kenderes and Strzelecki (1990) – relates to 1982-83, when the economy was in recession. While the use of a more recent and representative base year would not change the study's main conclusions, it could alter the magnitudes of some estimated impacts, particularly for the short-run analysis – estimates of short-run impacts are sensitive to capital's share of gross returns in the base year.

For simulations in this appendix, other industries in the ORANI model were aggregated to 37 industry categories for ease of computation. Comparisons with results from the standard base (of 112 industries) revealed negligible differences.

Representation of the motor vehicle industry

The passenger vehicle industry is not separately distinguished in ORANI, but is included in the 'motor vehicle and parts' industry. In this broader industry, passenger vehicle production accounted for around 75 per cent of output in 1982-83[3], with the remainder accounted for by the production of items such as heavy trucks. The diversity of the motor vehicle and parts industry's products is not modelled in ORANI, since the industry is assigned a singly notional output. Simulations with the model therefore indicate changes in the industry's total output but not in its composition.

While the analysis in this appendix does not formally disaggregate the ORANI model to separate passenger from other vehicles, it does derive estimates for the passenger vehicle and parts industry from the results for the motor vehicle industry as a whole. It is assumed for this purpose that the non-passenger vehicle segment of the industry changes in equal proportion with other ORANI industries with respect to production, employment, and output prices.

The estimates in this appendix may differ some what from those which would emerge from amore disaggregated model. This is partly because passenger vehicles are less significant as a production input for other industries than are motor vehicles are less significant as a production input for other industries than are motor vehicle generally. Even so, GMH estimated that only 54 per cent of new passenger vehicles are sold to households. This suggests that passenger vehicles are a significant industry input. Moreover, the basis conclusions of the present analysis – including the assessment that the Commission's tariff proposal would have long-run benefits overall – would be robust to this level of aggregation (for further discussion, see Section F.6).

Modelling of imports

As noted above, the ORANI motor vehicle and parts industry encompasses a range of vehicle production activities. In the simulations for the draft report, the recommended tariff reduction for the passenger vehicle industry was applied to the whole of the motor vehicle industry. In the analysis which follows, a weighted average of the tariffs is applied to the composite ORANI industry. Accordingly, it yields smaller results than the analysis in the draft report.

3 'Vehicle production' is defined in this appendix to include production of vehicle parts.

The cost of the motor vehicle imports is assumed in ORANI to be unaffected by domestic market conditions. As a consequences, changes in the ldp price, as reported in this appendix are due to changes in tariffs only.

A key assumption of the ORANI model is that domestically produced goods are imperfect substitutes for corresponding imports. This means, for example, that the prices of domestic and imported automobiles can differ without the entire market being captured by the relatively cheaper product. In part, this is because products like motor vehicles have a variety of characteristics, so that domestic products are not identical to imports. Thus, someone might purchase an Australian-made vehicle in favour of a cheaper import, because the domestic product is better suited to local conditions.

The readiness of purchasers to substitute between domestic goods and imports is measured by the 'import elasticity of substitution'. In ORANI, this parameter is evaluated separately for each industry/commodity group. The import substitution elasticity – denoted by Í -- is defined as follows:

$$Í = \frac{\text{\% change in the ratio of the volumes of imported to domestic goods}}{\text{\% change in the ratio of the prices of domestic to imported goods}}$$

For the automotive industry, the standard value of the import substitution elasticity in ORANI is 5.2. This value implies that a one per cent increase in the price of domestically produced vehicles relative to imports will result in a 5.2 per cent increase in the ratio of imported to domestic sales of motor vehicles (see box opposite for numerical example).

Numerical example of import substitution elasticity

The market for motor vehicles is initially divided as follows:

Source	*Price*	*Sales ('000)*
Imports	100.0	110
Domestic production	100.0	340

Assistance arrangements then change and the structure of the market becomes:

Source	*Price*	*Sales ('000)*
Imports	87.0	142
Domestic production	92.5	330

The change in the ratio of the prices of domestic to imported goods is from 100:100 to 92.5:87.0 -- or 6.3 per cent; and the change in the ratio of the quantities of imported to domestic goods is from 110:340 to 142:330 -- or 33.0 per cent.

Thus in our simplified example the implied import substitution elasticity is:

$$\acute{I} = 32.5 / 6.3 = 5.2 .$$

Other assumptions

In the Commission's simulations reported in Section F.2, F.3 and F.4, exports other than rural and mining-based products are assumed to b unaffected by the changes in question. This is standard practice in ORANI, due tot he lack of satisfactory behavioural evidence on the responsiveness of these 'minor' exports (which accounted for around 30 per cent total exports in 1982-83) to changes in relative prices. However, this assumption is relaxed in Section F.6.

With exports of automotive products being held constant, no allowance is made for export facilitation in the ORANI analysis. Also, the assistance environment I ORANI does not incorporate the automatic by-law entitlement which, coupled with export facilitation. Accordingly, the Commission does not regard these omissions as a serious limitation of the analysis.

F.2 Reductions in tariffs

Long-tern impacts

Without relative improvements in the industry's productivity performance, the Commission's recommended reduction in the passenger vehicle and OE components tariff is projected to have major long run impacts on the domestic passenger vehicle industry, with production and employment declining by around 20 per cent (see Table F.1). this contraction occurs because purchasers of domestic vehicles substitute toward imports, once imports become relatively cheaper.

The relative price of imported to domestic passenger vehicles is estimated to decline by 10 per cent, reflecting a 13 per cent fall in the import price and a 3 per cent drop in the domestic price. The price of domestic passenger vehicle declines primarily because imported components are a major production input. As a result of the tariff cut, nominal wages for the economy as a whole are projected to decline by 0.2 per cent. Lower costs in the domestic passenger vehicle industry partly offset the loss in its competitiveness due to lower import prices.

For other industries, cheaper vehicle inputs and lower nominal wages contribute to a projected decline in production costs and, hence, in output prices. This in turn reduces the costs of domestically produced inputs, both for the passenger vehicle industry and for other users. For example, the cost of Australia-made steel is projected to decline, lowering costs in industries such as passenger vehicles and construction.

Table F.1: **Estimated long-term effects on the motor vehicle and parts industry of the Commission's tariff proposal and of a 10 per cent labour productivity improvement in domestic passenger vehicle production** (% change)

Variable	*Tariff proposal* [a] *only (A)*	*Labour productivity improvement only (B)*	*Total (A + B)*	*Tariff proposal only (high import sensitivity)* [b]
Output:				
total	-13.8	5.3	-8.5	-28.0
passenger vehicle	-18.5	7.1	-11.4	-37.5
Employment:				
total	-13.8	-1.4	-15.2	-28.0
passenger vehicle	-18.5	-1.8	-20.3	-37.5
Nominal wage	-0.2	0.2	..	-0.6
Domestic price				
total	-2.3	-2.5	-4.8	-2.6
passenger vehicle	-2.9	-3.3	-6.2	-3.3
Import price				
total	-10.2	0.0	-10.2	-10.2
passenger vehicle	-13.1	0.0	-10.2	-10.2
Total real imports of motor vehicle	20.2	-5.3	14.9	38.0

.. Between -0.05 and 0.05 per cent.

a Reduction in the automotive industry tariff from 35 per cent to 15 per cent. b This column reports results from a version of the model that uses an import substitution elasticity for motor vehicles of 10.4 (see text), compared with the standard value of 5.2 used for the other simulations.

Source: Commission estimates.

Declines in costs in other trade-exposed industries stimulate demand. In import-competing industries such as cotton yarns and fabrics, it is projected that imports are replaced at the margin with the relatively cheaper domestic product. In the export-oriented sectors, the largest proportional gain in output (2.5 per cent) is projected to occur in mining (see Table F.2). In the

Table F.2: **Estimated long-term effects on industry outputs of the Commission's tariff proposal and of a 10 per cent labour productivity improvement in the automotive industry**

Variable	*Tariff proposal [a] only (A)*	*Labour productivity improvement only (B)*	*Total (A + B)*	*Tariff proposal only (high import sensitivity) [b]*
Agriculture	0.5	-0.1	0.4	0.9
Mining	2.5	-0.4	2.1	4.7
Transport equipment	-10.2	4.0	-6.2	-20.8
-passenger vehicle	**-18.5**	**5.3**	**-13.2**	**-37.5**
Food products	0.5	-0.1	0.4	0.9
TCF [c], wood and paper products	0.2	0.1	0.6	0.6
Chemicals, fuel and mineral products	0.3	0.1	0.4	0.4
Other manufacturing	0.1	0.2	0.3	0.1
Total manufacturing	-0.7	0.4	-0.3	- 1.5
Electricity, water and gas	0.1	0.1	0.25	0.2
Construction	0.5	0.2	0.7	0.7
Trade, business services	0.2	0.1	0.3	0.3
Transport and communication	0.3	..	0.3	0.3
Other services nec	0.1	0.1	0.2	0.1
Total services	0.2	0.1	0.3	0.3
Total economy (real GDP)	0.2	0.1	0.3	0.3

a Reduction in the automotive industry tariff from 35 per cent to 15 per cent. b This column reports results from a version of the model that uses an import substitution elasticity for motor vehicles of 10.4 (see text), compared with the standard value of 5.2 used for the other simulations. c Textiles, clothing and footwear.
Source: Commission estimates.

ORANI model, it is assumed that the demand for mining exports is quite sensitive to changes in price. Hence, if the price of minerals declines due to the lower vehicle tariff, production in mining expands considerably. For agriculture, it is assumed that export demand is somewhat less price-responsive and that the quantity of land is a significant constraint to expanding the industry's output. Thus, although agriculture is also exports-oriented, it is projected to expand by less than mining (by 0.5 per cent).

For the economy as a whole, the proposed tariff cut would provide a significant benefit. Real GDP would increase by an estimated 0.2 per cent, or by about $640 million at 1989-90 values (see Table F.3). In line with higher incomes, real consumption would also increase. These gains reflect a reallocation of the economy's resources from the passenger vehicle and parts industry to more productive sectors. (For further discussion of this point, see Section F.6). With the improved allocation of resources, there is an enhanced incentive for investment in the economy, and this contributes to a projected increase in the real capital stock (0.6 per cent). Because much of the increase in the capital stock is projected to the financed by foreign investment, the projected increase in real GDP is proportionately larger than in real GNP although, because of rounding, this is not shown in Table F.3.

The employment loss in the vehicle industry is estimated to be offset by gains in other sectors. Although no measurable change in aggregate employment is projected, real wages increase by 0.2 per cent, reflecting that labour demand has increased relative to labour supply.[4]

As shown in Table F.3, both imports and exports increase such that the balance of trade is essentially unaffected. The increase in exports is made possible by a decline in production costs. The reductions in costs also assist other import-competing industries to capture market share from imports.

The findings discussed this far are predicated on the standard parameter values in the ORANI model. As mentioned previously, the import substitution elasticity for automotive output has a standard value of 5.2, which implies that domestic and imported vehicles are highly substitutable.

[4] As noted above, an assumption of the analysis is that occupational unemployment rates do not change. In this situation, the principal way in which the tariff cut could increase total employment is by drawing additional persons into the labour force. A priori, one might expect this to happen, since the tariff cut is projected to increase real wages. However, there is evidence which suggests that labour force participation is not very incorporated I the ORANI model.

Table F.3: **Estimated long-term macroeconomic effects of the Commission's tariff proposal a and of a 10 per cent labour productivity improvement in the automotive industry automotive industry** (% change)

Variable	*Tariff proposal* [a] *only (A)*	*Labour productivity improvement only (B)*	*Total (A + B)*	*Tariff proposal only (high import sensitivity)* [b]
Real GDP	0.2	0.1	0.3	0.3
Real GNP	0.2	0.1	0.3	0.3
CPI	-0.4	..	-0.4	-0.6
GDP price delator	-0.4	..	-0.4	0.6
Export price index	-0.2	..	-0.2	-0.4
Capital goods price index	-0.9	-0.1	-0.1	-1.1
Real private consumption	0.1	0.1	0.2	0.1
Real investment	0.6	0.2	0.8	0.8
Real government consumption	0.1	0.1	0.2	0.1
Real exports	1.6	-0.3	1.3	3.1
Real imports	1.3	-0.2	1.1	2.3
Trade balance [c]	..	..	..	..
Persons employed	..	..	..	..
Real wages	0.2	0.2	0.4	0.1
Nominal wages	-0.2	0.2	..	-0.4
Real capital stock	0.6	0.2	0.8	0.8
Income tax rates	0.3	-0.1	0.2	0.2

… Between –0.05 and 0.05 per cent.
a Reduction in the tariff for passenger vehicles and components from 35 per cent to 14 per cent. b This column reports results from a version of the model that uses an import substitution elasticity for motor vehicles of 10.4 (see text), compared with the standard value of 5.2 used for the other simulations. It does not, however, allow for productivity gains in the automotive industry. c The change in the trade balance expressed as a percentage of base-period GDP.
Source: Commission estimates.

To test the sensitivity of the import substitution elasticity parameter, the impacts of the tariff cut have been re-estimated with a doubling of this parameter to 10.4. Under this high substitution scenario, the projected contraction in the passenger vehicle industry is much greater – production and employment both decline by 38 per cent (see Table F.1). But the estimated gains in production

in other industries are larger than before, and these more than offset the increased loss in the vehicle industry (see Tables F.2 and F.3). For real GNP, the estimated gain is $985 million (in 1989-90 values), as compared with the $640 million estimated in the case of the lower elasticity of substitution. The interpretation of these findings is that the extent of resource misallocation which results from a tariff reflects the size of inter-industry shifts when the tariff is reduced. The larger these shifts, the greater is the misallocation pre-reform and, hence, the larger is the increase in real GNP from the tariff cut.

Another qualification to the analysis concerns the assumption that output prices in the vehicle industry are determined in accordance with the competitive market paradigm. Scale economies and product differentiation are a feature of the industry. Even so, it is not clear that these factors would seriously undermine the insights of competitive models – for example, even if the existence of scale economies mean that there are only a few producers in the industry, competition among those few firms may nevertheless be intense.

In any case, allowing for imperfect competition has been generally found to magnify the economy-wide gains from tariff cuts (see Richardson 1989). Of interest in this regard is Horridge's (1987) long-run analysis which examined the impact of scale economies in the ORANI model. For a hypothetical reduction in motor vehicle tariffs, the estimated gain in real GDP was about three times larger when scale economies were featured than in the standard version of ORANI. It should be noted, however, that the additional gains when imperfect competition is incorporated depend critically on the particular price determination mechanism assumed.

Short-term impacts

The projected long-run benefits from the tariff cut accrue after capital stocks have been adjusted through changes in investment, resulting in less capital in the passenger vehicle industry but a larger capital stock overall. This does not require that existing capital in the vehicle is used elsewhere in the economy. But it does imply that net investment in the vehicle industry is curtailed.

By contrast, in the economic environment assumed for the short-run simulation, capital stocks in each industry have not had time to respond, even though the import prices have been fully adjusted. As well, aggregate investment remains unchanged. However, investment decreases in industries where the rate of return declines relative to the rest of the economy (in this case, passenger vehicles and parts) and increases in other industries, although these changes have no effect on production in those sector. [5]

Disinvestment in the vehicle industry would, taken on its own, tend to reduce overall investment in the economy. But in the long run, the Commission's tariff proposal would increase the economy's stock of capital, which additions in other sectors more than offsetting the loss in the motor vehicle and parts sector (see Table F.3). This implies an increase in aggregate investment in the transition period. Thus, by holding aggregate investment constant, the short-run benefits of the tariff cut on overall activity are understated.

In applications of ORANI, it is common to define the short-run as about two years after the shock to the economy occurs.

In simulating the short-run effects, the import substitution elasticity for motor vehicles was assigned its standard value. The results of the simulation show virtually no change in overall economic activity – measured by real GDP, real GNP, or aggregate employment. As before, the trade balance is essentially unaffected, with a fall in nominal wages facilitating an increase in real exports of one per cent. production in the mining sector, which is capital-intensive, is constrained by the short-run fixity of industry capital stocks. Hence, its production is projected to increase by only 0.7 per cent, as compared with 2.5 per cent in the long-run projection.

Similarly, with its capital stock assumed constant, production in the passenger vehicle industry is project to decline by less than in the long-run, and the increase in import penetration is correspondingly smaller. Accordingly, the fall in the domestic price is larger than in the long-run simulation. This is because adjustment tot he lower tariff in the short-run occurs predominantly through a reduced return to capital in the domestic industry which is manifested in a lower domestic price rather than in reduced output. However, as measured in the Commission's data

[5] Strictly speaking, the tariff proposal could not affect an industry's investment in the short-run, without also affecting its capital stock. However, the short-run effect on capital stocks is unlikely to be significant. Accordingly, capital stocks are assumed constant in the analysis.

Base, vehicle production is not particularly capital intensive, so the impact of the short-run constraint of a fixed capital stock is not projected to the large.[6] The short-run estimates are for declines in output prices and production of 4.1 per cent and 16.7 per cent respectively and are therefore not much different from the corresponding long-run estimates shown in Table F.1.

Pressure on the passenger vehicle industry in the short-run is reflected in the return on its capital, which is estimated to decrease by around 16 per cent. this leads to a longer-run fall in the industry's capital stock as changes in investment accumulate. This, in turn, reduces supply and moderates the fall in output prices. This adjustment continues until the rate of return in restored to its normal level.

F.3 Tariff proposal combined wit productivity improvements

Additional long-run simulations were conducted to consider the combined effects of the tariff cut and of improved labour productivity in the passenger vehicle industry. for the productivity gains to give the industry a competitive edge, they must exceed the gains achieved in other countries' automotive industries.

To offset fully the effect of the tariff reduction on domestic passenger vehicle production, it is estimated that the industry's labour productivity would need to improve by around 26 per cent relative to competitors.[7] Based on the industry's performance in recent years, the Commission considers it unlikely that such gains could be achieved at an industry level in the period 1993 to 2000.

6 In the data base for the simulations, the returns to capital account for only four per cent of the industry's output. This estimate relates to 1982-83, when the industry was in recession. Estimation of a representative capital share is made difficult by the year-to-year variations. Suffice it to say that the choice of a higher value would cause a larger divergence between the short-and long-run findings.

7 The figure increases to 29 per cent if the import substitution elasticity for automotive output id doubled, as in the analysis of tariff cuts.

Accordingly, to illustrate the benefits to the industry of relative productivity improvements, a more modest improvement of ten per cent in relative labour productivity has been modelled. The interpretation of the assumed productivity gain is that ten per cent less labour is required for the same output, holding the amount of all other factors constant. This does not mean that employment in the passenger vehicle industry will actually fall by 10 per cent as a result of the assumed improvement. With labour more productive, the industry's production costs decline and this stimulated both output and employment.

The ORANI simulations project that employment in the passenger vehicle and parts industry would decline by only 1.8 per cent in response to a 10 per cent improvement in the industry's labour productivity (see Table F.1). The relatively small decline in employment is due largely to a positive impact on production, estimated to be 7.1 per cent. Because automotive output becomes cheaper, other industries are also projected to expand, with a consequent increase in real GNP (see Table F.2 and F.3).

According to these projections, a 10 per cent improvement in labour productivity in the passenger vehicle industry would offset about 40 per cent of the decline in the industry's output emanating from the recommended tariff cuts.

Of course, productivity gains need not be restricted to labour. An alternative simulation was conducted in which a 2.8 per cent productivity improvement was realised in the use of each factor – labour, capital and material inputs. This improvement was calculated to yield the same gain in the vehicle industry's output as a 10 per cent increase in labour productivity only. In contrast with the latter scenario where employment of person-hours in the vehicle industry declines, the uniform productivity gain is projected to increase such employment by 4.3 per cent. this reflects the fact that the broader productivity gain is not purely labour-saving. Otherwise, the results were virtually identical.

F.4 Other microeconomic reforms

Reforms examined

In its 1989-90 Annual Report, the Commission examined the long-run impacts on the economy of a broad package of microeconomic reforms. Briefly, the Commission examined reforms to:

1) Domestic water transport
   - cheaper costal shipping,
   - a more efficient waterfront,
   - cheaper ports, and
   - reduced shipping delays;
2) International liner shipping
   - allowing foreign vessels on the trans-Tasman route, and
   - allowing non-conference shipping on international routes;
3) Bulk commodity handling
   - changes to the storage, handling and transport arrangements for wheat, and
   - removing excess rail freight charges on coal;
4) Rail transport
   - increases in rail productivity
5) Domestic aviation
   - efficiency gains resulting from deregulation;
6) International aviation
   - increasing competition in international services;
7) Road transport
   - restructuring the charges associated with road use to conform to the user-pay principle, and
   - improved planning of road durability;

8) Post and telecommunications
   - eliminating overcharging by OTC, and
   - increasing productivity in both Telecom and Australian Post;
9) Electricity supply
   - eliminating inefficiencies in pricing and production;
10) Water supply
   - better management of assets to ensure that they are not replaced prematurely, and
   - greater emphasis on competition tendering for asset replacement;
11) Contracting-out by governments of certain services and inputs
   - increased contracting-out of services (such as cleaning and maintenance) and of capital works;
12) Rural assistance
   - removal of income tax averaging, domestic pricing arrangements, and cretain other forms of assistance to agriculture;
13) Manufacturing assistance
   - removal of tariffs, quotas and bounties.

Estimated effects of reforms

The long-run impacts of these reforms on the economy as a whole and on individual industries were estimated using ORANI. The analysis indicates that the motor vehicles and parts industry and thus, by implication, the passenger vehicle industry would be a major beneficiary from these reforms (see Table F.4).

Most of the reforms to the service sector are estimated to boost motor vehicle and parts production.. the biggest gain is from reform to road transport which, by itself, would lead to a four per cent increase in the industry's output. At present, the charges for road use (for example, fuel excise taxes) exceed the total cost of road damage caused by vehicles. However, while passenger vehicles are overcharged, the opposite is true fro heavy trucks. In the reform modelled, these departures

from use-pay charges would be eliminated, leading to higher charges for heavy trucks but lower charges overall. This would e combined with a further reduction in road charges, due to better planning of road durability.

Table F.4: **Estimated long-term effects of various microeconomic reforms on the automotive industry** (% change)

Reform	*Output*	*Domestic price*	*Import price*
Water transport	0.1	-0.1	0.0
International liner shipping	-1.4	0.2	-0.7
Grain handling	0.4	0.1	0.0
Coal freight	-1.3	1.0	0.0
Rail transport	-0.1	0.3	0.0
Domestic aviation	..	..	0.0
International aviation	0.8	-0.1	0.0
Road transport	4.1	-0.8	0.0
Communications	0.6	-0.1	0.0
Electricity supply	0.4	..	0.0
Water supply	-0.1	..	0.0
Contracting-out by government	1.0	-0.2	0.0
Sub-total	4.4	0.3	-0.7
Other manufacturing assistance	3.4	-1.6	0.0
Agricultural assistance	0.6	-0.2	0.0
Total	8.5	-1.5	-0.7

.. Between -0.05 and 0.05 per cent.
Source: Commission estimates.

In combination, these reforms to road transport are projected to have complex effects on the economy, including a general decline in nominal wages and an increase in real income. With labour costs reduced, it is estimated that ex-factory prices for domestically produced vehicles and higher real incomes, this would promote an expansion of the motor vehicle and parts industry.

Since operating charges would increase for heavy trucks, however, this expansion would be concentrated in the passenger vehicle segment of the industry.

Two of the service sector reforms – international liner shipping and coal freight – are projected to have a significant negative impact on the motor vehicle and parts industry.

Cheaper liner shipping would obviously benefit the domestic industry by lowering the cost of transporting its imported component parts and exports. At the same time, however, the cost of cbu vehicle imports would also be reduced. In the ORANI simulation, this latter effect predominates such that the domestic industry's competitiveness declines. The ORANI simulation does not incorporate the stimulus to vehicle exports that would accrue from cheaper liner shipping. However, given the small share of the industry's output accounted for by exports, modification to account for the stimulus to export activity would be unlikely to reverse the direction of the change reported in Table F.4.

The removal of excess rail freight charges on coal is projected to expand coal exports significantly. Pressure of trade balance is reflected in a rise in the real exchange rate, occurring through either an increase in the nominal exchange rate or in wages. This results in a decline in exports other than coal and an increase in imports. Due to the substitution toward imports, the reform to coal rail freight charges is estimated to reduced vehicle production by 1.3 per cent.

The simulations also shows a small negative impact to the motor vehicle and parts industry from reform to rail transport. While such reform would lower the cost of transporting finished vehicles by rail around Australia and thus benefit the domestic vehicle industry relative to imports (which are delivered to various ports by ship), it would also reduce demand for road transport and disproportionately on the truck segment of the industry modelled in ORANI. The Commission expects that the passenger vehicle industry would benefit from rail reform.

The vehicle industry would also benefit significantly from the removal of assistance to the rest of manufacturing. By lowering the cost of imported inputs and nominal wages, this reform would have a broad cost-reducing effect across the economy. Since changes in cost are assumed in

ORANI to be passed on to purchasers, this implies lower costs to the vehicle industry for domestically produced inputs. This reinforces the direct cost saving to the industry from cheaper imported inputs and lower wages, so that the overall cost in the industry declines by an estimated 1.6 per cent. With the industry's competitiveness thus improved, production in the industry is projected to increase by 3.4 per cent.

Assistance to agriculture is lower than assistance to manufacturing and hence there would be smaller economy-wide impacts from its elimination. Due to an improved allocation of resources, national income is projected to increase, this stimulating the demand for motor vehicles. In addition, nominal wages are projected to decline. Couple with the indirect effects through input-output linkages with other industries, this leads to lower production costs in the vehicle industry. Because the price of the industry's output is thereby reduced, demand increases (largely through import replacement) and production increases by an estimated 0.6 per cent.

Taken collectively, the reforms reported in Table F.4 are estimated to increase production in the motor vehicle and parts industry by over 8 per cent. The impacts of these reforms on employment in the motor vehicle industry are projected to be similar to those on production.

F.5 Projections from the IMP model

The effects of a reduction in the passenger vehicle and OE components tariff from 35 per cent in 1992 to 15 per cent in 1996 (as proposed by the Commission in its draft report) were assessed y the NIEIR (1990) using the IMP model. Estimates were presented for the motor vehicle and parts industry, as defined in ORANI, rather than the passenger vehicle industry.

Estimated effects on the motor vehicle and parts industry

As forecast for the year 2000, implementation of the tariff cut would reduced production and employment in the motor vehicle and parts industry by some 35 per cent (as compared with the level which would apply if the tariff remained at 35 per cent). For the industry's capital stock, the

projected decline is quite small (2 per cent), which implies that much of the adjustment of capital to the tariff changes would occur after the year 2000. Thus, the NIEIR describes its projections as medium term rather than long-run. However, given the small change in the capital stock, the relevant comparison with ORANI estimates is with the short-run results discussed above.

This reduction in output and employment is much larger than that projected using the ORANI model. The comparable ORANI short-run simulation projects a reduction in output and employment of 17 per cent.

The differences in results are largely explained by difference price effects in the two analyses. In the ORANI analysis, the price of the industry's output deceases due to lower prices for imported components, reinforced by lower demand for the domestic industry's product. In contrast, in the NIEIR produced vehicles moderates the industry's loss of competitiveness in one analysis, the price increases. Thus, the change in the price of domestically produced vehicles moderates the industry's loss of competitiveness in one analysis (ORANI), and exacerbates it in the other (NIEIR).

The price increase in the NIEIR analysis stems from assumptions in the IMP model[8] about price determination and technology. For the motor vehicle and parts industry, the domestic output prices is assumed to be negatively influenced by the degree of capacity utilisation so that a tariff cut, by reducing capacity utilisation over the medium term, acts to increase the industry's price. The theoretical basis for this relationship is not made clear in the IMP documentation, although it is emphasized that competition among producers is imperfect. However, even with imperfect competition, specifying a relationship in which capacity utilisation determines price is questionable since both depend on a range of other factors, such as demand conditions, the price of competing imports and the cost of inputs. Indeed, a decrease in capacity utilisation could be accompanied by either an increase or a decrease in the domestic price, depending on changes in these underlying factors. Further, although decreases in capacity utilisation are found to increase output prices in the motor vehicle and parts industry, the model yields a positive correlation between capacity utilisation and price for each of the 26 other manufacturing industries for which the relationship is posited.[9]

8 The IMP model is described in Brain 1986.

9 For many industries, including motor vehicles, the estimates are statistically quite significant (see Brain 1986, Table 6.2). Hence, the difference in estimates between motor vehicles and other estimated cannot be readily attributed to sampling error.

For most manufacturing industries including motor vehicles and parts, the IMP model assumes the presence of scale economies. Since the model explains total output by industry, but not the distribution of output among producers, scale economies in the model depend upon total industry output. Hence, it predicts that a tariff cut for the motor vehicle industry will prevent scale economies from being realised by reducing the industry's output. Also, it predicts that the consequent increase in average cost is passed on to purchasers through higher prices. This effect reinforces the price raising effect of lower capacity utilisation in the NIEIR's analysis.

As with the capacity utilisation effect, the scale effect is based on a questionable relationship. Whereas output is seen as determining price via scale economies in the IMP formulation, output and price in turn depend on other factors such as input prices. Further, the Commission observes that scale economics do not depend on total industry output, but on the output levels of individual firms, plants, and vehicle models. Indeed, it is quite possible for the realisation of scale economies to increase at the same time that industry output declines if, for example, the number of firms declines sufficiently.

While the Commission considers that the pricing assumptions in the IMP model are questionable, it observes that, given constraints to adjustment in the short-run, there are necessarily uncertainties about the way in which vehicle producers will respond to a reduction in tariffs. It is for this reason that the Commission's ORANI analysis focuses on the longer term, when constraints to adjustment associated with market rigidities have been overcome and the full competitive pressures of the lower passenger vehicle and OE components tariff have been brought to bear.

Effects on other industries

In the NIEIR's analysis, the employment loss in the motor vehicle and parts industry lowers real household incomes and consumption, leading to adverse multiplier effects on other industries. As projected for the year 2000 by IMP, the economy's overall production - as measured by real GDP - would be about one per cent lower under the draft report proposals than otherwise. Apart from manufacturing, the largest decline in production is estimated for the wholesale and retail sector. Agriculture and mining, which are less dependent on domestic demand, fare somewhat better than other sectors. However, they too are projected to contract slightly. There is also a deterioration in the balance of trade.

Critical to the NIEIR's results is a reduction in the realisation of economies of scale throughout the economy. This exerts upward pressure on the economy's general cost structure.[10] The factors which reduced overall production costs in the Commission's analysis - cheaper vehicles and lower nominal wages - are not operative. Nominal wages and the nominal exchange rate are held constant by assumption. The increase in the price of Australian-made vehicles offsets the reduction in the price of vehicle imports so that there is virtually no change in the price of vehicles in aggregate.

The NIEIR's results imply that, by the year 2000, the tariff cut would have a negligible effect on the capital stock in the motor vehicle industry. Thus, very slow adjustment is assumed in the analysis.

As in the case of the short-run impacts on the vehicle industry, the Commission considers that a number of the assumptions underlying the NIEIR's projected short-run reduction in GDP are questionable. For the reasons set out above, the pricing assumptions in the IMP model - which mean that a reduction in the tariff increases the price of domestic vehicles -may be criticised on a number of grounds. Also, the assumption that both the nominal wage and the nominal exchange rate are fixed in the short-run is, in the Commission's view, an unrealistic constraint on the capacity of the passenger vehicle tariff cut to deliver short-term benefits to other industries. As discussed in Section F.3, in the Commission's short-run analysis, the tariff cut reduces nominal wages, thereby improving the cost competitiveness of trade-exposed sectors.

More importantly, the NIEIR's analysis is, by its own admission, of a short to medium term nature, when rigidities in the economy would operate to constrain the benefits to other industries from lower passenger vehicle and OE components tariffs. Significantly, the Commission's short-run ORANI simulation indicates negligible change in GDP in the presence of such rigidities.

[10] The fall in production levels would also mean a decrease in capacity utilisation, which, in the IMP model, reduces manufacturing output prices (except for motor vehicles). While this effect, taken on its own, would tend to reduce production costs in the export sectors, it is outweighed in the model by the effect of scale economies.

However, in the Commission's view, what is more important from a policy perspective are the effects on the wider economy after the sorts of constraints to adjustment incorporated in the NIEIR analysis and the short-run ORANI simulation have been overcome. As noted in Section F.3, the ORANI model projects that, in the longer-term, the recommended tariff reduction would increase GNP by between $640 million and $985 million per annum.

F.6 The Commission's responses to comments on the ORANI analysis in the draft report

In the Commission's draft report, the ORANI model was used to examine the long term impacts of a tariff cut to passenger vehicles and OE components from 35 per cent in 1992 to 15 per cent in 1996. For a more gradual tariff cut of the same magnitude as the Commission now recommends, the long term effects implied by ORANI are identical, but are realised further in the future.

Adjustment costs

Several participants in this inquiry saw the long-run focus as a serious limitation of the ORANI analysis in the draft report. Concern was expressed that, in the short to medium term, the tariff cut would impose costs on the economy by reducing the return to capital in the vehicle industry and by increasing unemployment. Reference was made to the NIEIR's analysis, indicating that the tariff cut would significantly reduce real GDP over the medium term (see Section F.5).

As explained in the previous section, the Commission considers that the pessimistic outcomes in the NIEIR's analysis stem from a number of questionable assumptions. The Commission's short-run ORANI analysis indicated no significant impacts on real GNP or aggregate employment.

That said, neither the Commission's analysis nor, apparently, that of the NIEIR take account of the costs of reallocating resources between industries - such as job-search and retraining costs - following a reduction in the passenger vehicle and OE component tariff. However, as discussed in Section 8.5, there are several factors which would limit the extent of such costs, including the gradual nature of the recommended tariff reductions and the fact that skills in the vehicle industry are applicable to other industries.

More importantly, such adjustment costs are transitional, whereas the longerrun benefits are ongoing. The Commission estimates the cumulative value of the longer-run benefits to be about $8.8 billion (measured in 1989-90 discounted prices).[11] In the Commission's view, the adjustment costs associated with the reallocation of resources displaced from the passenger vehicle industry would be considerably smaller.

The reasons for the estimated gains from the proposed tariff cut

Several criticisms of the Commission's analysis misinterpreted the assumptions or findings.

The finding of a real G13P gain from the tariff cut was explained by GMH as follows: labour is reallocated from the motor vehicle industry to mining, which has the highest value added per worker of any industry; hence, with aggregate employment unchanged, there is an increase in real G13P (which is the sum of real value added across industries.)

In the Commission's long-run tariff simulations, the mining sector accounts for only about 20 per cent of the gain in employment outside the vehicle industry. Nevertheless, it is still true that, in the data base for the simulations, the motor vehicle and parts industry adds less value per worker than the rest of the economy. Hence, the above interpretation does identify one factor delivering an increase in real GDP in the ORANI simulations.

But it omits another, since real value added per worker does not remain constant within each industry. It is influenced both by changes in indirect tax payments (including tariffs), and by the balance between labour and other value adding inputs (land and capital). In the long-run ORANI

[11] This estimate is based on the following assumptions: adjustments to the tariff cut are completed by 2005, after which real GNP averages about 0.2 per cent higher in perpetuity than it would in the absence of the tariff cut (the more conservative estimate in Table F.3); the real discount rate is 4 per cent per annum; real GNP would grow by 2 per cent per annum in the absence of the tariff cut.

simulations, the reduction in the passenger vehicle and OE component tariff is projected to increase real value added per worker within industries.[12]

Consequently, GMH's interpretation has misleading implications for the evaluation of tariff reductions within the ORANI model. It implies that, if a protected industry has high value added per worker (that is, more so than mining), ORANI will indicate declines in real GDP when protection to the industry is reduced. This implication is false because a tariff creates distortions to production incentives which the model recognises. Because of these distortions, gains would be indicated for real GNP -- the more relevant measure of the economy's well-being -- and most likely also for real GDR

This process by which such gains accrue is demonstrated in the following hypothetical example. It assumes that:

- passenger vehicles are identical, with imported and domestic cars being perfect substitutes;
- cars are produced in Australia at an ex-factory price of $30 000; and
- for an imported car, the landed duty-paid price is $40 000, consisting of a basic price of $15 000 and a $25 000 tariff.

Clearly, under these assumptions, the tariff completely excludes vehicle imports: no purchaser would pay $40 000 for an imported car when the same car produced domestically sells for $30 000. Now, consider the effects on the economy of allowing one vehicle to be imported duty-free, thereby replacing one domestically produced vehicle. Under the competitive market conditions assumed by ORANI, the price of the domestically produced vehicle is also its (opportunity cost' to the economy: that is, the automotive industry requires about $30 000 of the economy's resources to build one vehicle. When one less car is manufactured, resources are released in the long run which can produce about $30 000 of other commodities. Of this potential gain, only $15 000 is required to pay for the imported car, so the net result is the same number of cars consumed and $15 000 more for other commodities. Thus, the direct gain to the economy would be an increase in real GNP of about $15 000.

[12] In accounting terms, this stems partly from the gain in tariff revenue from an increase in automotive imports. It also reflects an increase in capital intensity within industries, due to a fall in the cost of capital relative to wages (see Table F.2). The cost of capital declines because motor vehicles are a significant capital input, and motor vehicles become cheaper.

Although the ORANI model does not assume perfect substitution between domestic and imported vehicles, it implies the same type of direct gains from a cut to the automotive tariff. The model also implies indirect gains as agents in the economy adjust to the changed incentives. As noted previously, the improved allocation of resources enhances incentives for investment in the economy, and this adds to the increase in real GNP (and real GDP).

Several participants argued that resources in the vehicle industry -- particularly capital inputs -- are too specialised to be productive in other industries, so that release of these resources would not yield the GDP improvement suggested in the ORANI analysis.

However, the ORANI analysis does not assume that capital items, once put in place in the automotive industry, can be redeployed elsewhere. It only assumes that the capital base in each industry can change over the long-run through depreciation and changes in investment.

Similarly, the analysis does not require that displaced automotive workers are re-employed in other sectors. Rather, it assumes that unemployment rates remain constant in the long-run. This assumption could be met even without re-employment of retrenched automotive workers, so long as other individuals experience less unemployment.

Another criticism of the Commission's tariff simulations made by GMH was that the direct decline in production costs was too small across the economy to explain the increase in real G13P. The basis for this claim was that, when the overall decrease in the cost of passenger vehicles is weighted by their share in total production costs, the reduction in production costs is only 0.075 per cent, as compared with an increase in projected real GDP around four times larger. The inferred "multiplier" of about four was said to be much larger than in more plausible macro models. The calculated decline in production cost was based on an estimate that 54 per cent of passenger vehicles are sold to households and, hence, are not production inputs. There also appeared to be a suggestion that the true effect on production cost would be even smaller, since many company cars are disguised fringe benefits.

However, the Commission notes that the inferred "multiplier" describes a relationship which does not exist in ORANI, or in any well-structured model of the economy. Indeed, a policy change could directly raise production costs and still have a favourable impact on real GDP (or real GNP). For

example, a tax on a highly inefficient tariff protected industry could increase GDP if activities benefiting from the disbursement of that taxation revenue were more efficient users of resources.

Also, the reduction in the passenger vehicle and OE components tariff is projected to lead to a decline in nominal wages. This reinforces the direct effect of cheaper motor vehicles. Accordingly, the decline in production costs is greater than is indicated in GMH's criticism.

Modelling of export sectors

Another aspect of ORANI which drew comment was the representation of export demand for mineral-based products. In the simulations reported above, the export demand elasticities were 14 for basic minerals and 8 for processed minerals. These elasticities were considered to be unrealistically large by GMH. An important assumption in the Commission's **ORANI** analysis is that there are no ore body constraints on mining expansion. This would seem reasonable in view of Australia's vast reserves for coal and other minerals. Further, given that Australian mineral products are close substitutes for those of other countries, it is not unrealistic that a decline in Australia's export price could lead to a relatively large increase in output for these products.

For industries other than mining and agriculture and related processing, export volumes were held constant in the Commission's analysis (see Section F.2). GMH objected to this restriction, noting that the fastest export growth in recent years has been in industries such as tourism and telecommunications. It also suggested that, if the parameters were set appropriately, ORANI could show most of the boost to exports from the proposed tariff cut as occurring outside the rural and mining-based industries. It went on to suggest that the impact on real GDP could be negative, provided that the sectors which account for most of the increase in exports generate less value added per worker than the vehicle industry.

The Commission is not persuaded that most of the increase in exports would occur outside the rural and mining-based industries, which comprise the bulk of Australia's total exports. For other sectors to account for most of the export gain from the recommended tariff cut, their exports would have to increase by a much larger proportion than those of rural and mining-based industries. This outcome cannot be inferred from the trends in exports referred to by GMR

In any event, it is not correct that a tariff cut will automatically reduce real GDP if it reallocates employment to sectors with currently low value added per worker while leaving aggregate employment unchanged. As explained above, a tariff cut tends to increase real value added across industries by mitigating price distortions.

That said, the specification of the export sector in the ORANI model should not be regarded as inviolate.

Accordingly, the Commission has conducted an alternative simulation of the long-run impacts of its tariff recommendation which vary the model parameters to accommodate the concerns of participants. To constrain the expansion of the mining sector, the export demand elasticities for mining based products were significantly reduced. On the other hand, with the exception of motor vehicles and parts, the 'minor' exports - that is, exports other than mining and rural-based commodities - were allowed to vary. The special treatment of motor vehicles and parts stems from the fact that export facilitation is not modelled. With this omission and without an imposed constraint, the tariff simulations would show increases in vehicle exports due to lower production costs. In reality, though, exports from the industry could well decrease, since export credits would be worth less at the lower tariff rate. In the alternative simulation, the export demand elasticities for basic and processed minerals were set at 7 and 4, or half their standard values. Except for motor vehicles, demand elasticities for the 'minor' exports, which were previously set at zero, were set at 5 to be comparable with those for other products.

Significantly, using the standard import substitution elasticity for motor vehicles, the simulation indicates a gain in real GNP of about $530 million -not much less than the $640 million estimated previously. Sectoral results are of course different. For example, the mining sector expands by only 1.4 per cent in the revised simulation, down from 2.5 per cent originally. For real G13P, the results are similar to those for real GNP.

Finally, to determine whether the tariff simulation would still indicate a gain in real GNP if the export demand elasticities were set very low, the Commission conducted another simulation which retained the zero export demand elasticity for motor vehicles and adopted unitary elasticities for all

other exports. The simulation indicated that, in the long-run, real GNP would be essentially unchanged as a result of the tariff cut. The absence of a welfare gain in this case is due to a deterioration in the terms of trade. As in the other simulations, the reduction in the tariff causes a transfer of resources from the vehicle industry to other sectors, including export-oriented industries. But in this case, export demand is only weakly responsive to changes in price. As a result, the price of exports has to decline significantly for the export sector to absorb additional resources. Export prices fall by an estimated 1.8 per cent, as compared with a 0.2 per cent decline estimated previously (see Table F.3).

However, the Commission considers that the simulation with extremely low elasticities represents an unrealistic and 'worst-case' scenario. For reasons stated previously, it believes that demand elasticities for mining exports are high, and that export demand for many of Australia's rural-based exports is also elastic.[13] The fact that, even in this scenario, real GNP is essentially unchanged only strengthens the argument for reform.

Modelling of imports

It was suggested by the Society of Automotive Engineers and GMH that the proposed tariff reductions would increase the price of vehicles. Supposedly, exporters of automotive products to Australia have held down their prices in the past to capture a larger share of the Australian market. By eroding competition from domestic suppliers, the argument follows, a tariff cut would encourage foreign suppliers to raise vehicle prices. However, for the reasons set out in Section 5.8, the Commission sees little prospect of such behaviour.

Toyota and Mitsubishi questioned the assumption in ORANI that domestic and imported motor vehicles are imperfect substitutes. In their view, the proposed tariff cut would reduce production of passenger vehicles and their components by far more than the 18 to 36 per cent reported in the draft report. On the other hand, the Society of Automotive Engineers argued that the shift toward imports would be limited to some degree by product differentiation. This, it said, would enable domestic manufacturers to cater for niche markets and to produce cars specifically adapted to Australian conditions.

[13] Due to Australia's large share of world wool production, this commodity is a partial exception: this is taken into account in the ORANI data base.

As noted in Section F.3, the elasticities in the Commission's analysis imply that imported and local vehicles are close substitutes. But if the degree of substitution is greater than was assumed, the tariff reduction would cause a larger switch towards imported vehicles than reported earlier. While the contraction in the vehicle industry would therefore increase, the net benefit to the economy would also increase since a larger switch toward imports means larger savings in costs.

Assumptions about unemployment

The Commission has assumed that, in the long-run, the unemployment rate would be unaffected by its tariff proposal. This does not imply, as GMH maintained, that involuntary unemployment does not exist. The assumption is that wages adjust in response to the tariff cut so as to leave unchanged the rates of unemployment, including any unemployment which is involuntary. Because the tariff cut improves overall efficiency, it is projected to stimulate total labour demand, leading to an increase in real wages (see Table F.3). If the analysis had allowed unemployment rates to vary and instead constrained real wages, then part of the increase in labour demand would be reflected in lower unemployment. With aggregate employment increased, the gain in real GNP would be larger than in the simulations reported in Table F.3.

Balance of trade effects on real interest rates.

GMH expressed concern that the tariff reductions for the passenger vehicle industry would have adverse effects on the trade balance, leading to an increase in real interest rates and imposing costs on the economy. In the Commission's ORANI analysis, tariff reductions for the industry are projected to have essentially no effect on the trade balance in the two time frames modelled: the long-run, after adjustments to the tariff cut are completed; and the short-run, prior to adjustments in capital stocks and aggregate investment.

However, the analysis indicates a long-run increase in the total capital stock which is partly realised through foreign investment. As GMH notes, this implies an adverse impact on the current account

over the medium term. While the Commission doubts that this would have an appreciable impact on interest rates, it observes that any such effect would simply constitute one of the adjustment costs which must be incurred to obtain the significant longer term gains that would accrue from reductions in the passenger vehicle and OE components tariff.

F.7 Conclusion

Implementing the Commission's recommended tariff reduction would, taken in isolation, significantly reduce the size of the passenger vehicle industry. Other microeconomic reform could have the opposite impact, as would improvements in the industry's relative productivity. Nevertheless, it is unlikely that these other factors could fully offset the impact of the recommended tariff cut.

But the case for the current proposal rests on its long-run benefits to the economy as a whole. The Commission's estimates of these benefits vary with the choice of parameters, but are substantial with the gain in GDP being as high as $985 million each year.

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