

**ECONOMIC MODELLING OF THE POST-2005  
ASSISTANCE ARRANGEMENTS FOR THE  
AUTOMOTIVE MANUFACTURING SECTOR**

This report was prepared for  
the Productivity Commission  
by Econtech Pty Ltd.

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## Executive Summary

The Productivity Commission, as part of the Automotive Industry Inquiry (Inquiry), commissioned Econtech to model the economic and regional impacts of alternative post-2005 assistance arrangements for the automotive industry.

The current main forms of assistance for the automotive industry are:

- passenger motor vehicle (PMV) tariffs, which have applied at a rate of 15 per cent since 1 January 2000; and
- the Automotive Competitiveness and Investment Scheme (ACIS), which provides annual assistance of \$580 million. In this report, ACIS is modelled as a production subsidy.

These automotive industry assistance arrangements will change from 2005 as follows:

- PMV tariffs to be cut from 15 per cent to a new rate of 10 per cent; and
- annual ACIS funding cut to \$468 million as the cut in PMV tariffs renders less valuable the duty-free import credits paid to motor vehicle producers under ACIS.

The Inquiry commissioned Econtech to undertake economic modelling of the economic and regional impacts of options for further reductions in assistance post-2005. The economic modelling was undertaken using Econtech's Murphy Model 600 Plus (MM600+), which is a long-term computable general equilibrium (CGE) model of the Australian economy. MM600+ includes a detailed treatment of the automotive industry, including distinguishing between motor vehicle producers and component producers.

### Industry Assistance Scenarios

Econtech was commissioned to model several automotive industry assistance scenarios, as summarised in Table 1.

**Table 1**  
**Main Alternative Post-2005 Assistance Arrangement Scenarios**

	Baseline	No ACIS	Reduced Auto Assist.	No Assist.
ACIS funding	\$468m	\$0m	\$234m	\$0m
PMV tariff rates	10%	10%	5%	0%
General tariffs rates	0% - 5%	0% - 5%	0% - 5%	0%

- **Baseline Scenario.** This scenario models the Australian economy under the automotive industry assistance arrangements that will apply from 1 January 2005. PMV tariffs are reduced to 10 per cent, and with the resulting drop in value of duty-free credits for motor vehicle producers under ACIS, annual ACIS funding is reduced to \$468 million.
- **No ACIS Scenario.** Under this scenario, assistance of the automotive industry through funding under the ACIS scheme is abolished, while PMV and general tariffs remain unchanged from the 2005 level.
- **Reduced Automotive Assistance Scenario.** Under this scenario, automotive assistance is halved. So PMV tariffs are cut from 10 to 5 per cent and ACIS funding is cut from \$468 million to \$234 million. General tariffs remain at the 2005 level.

- **No Assistance Scenario.** Under this scenario, all assistance to the automotive industry, including both PMV tariffs and ACIS, is eliminated. General tariffs are also eliminated.

**Main Simulation Results**

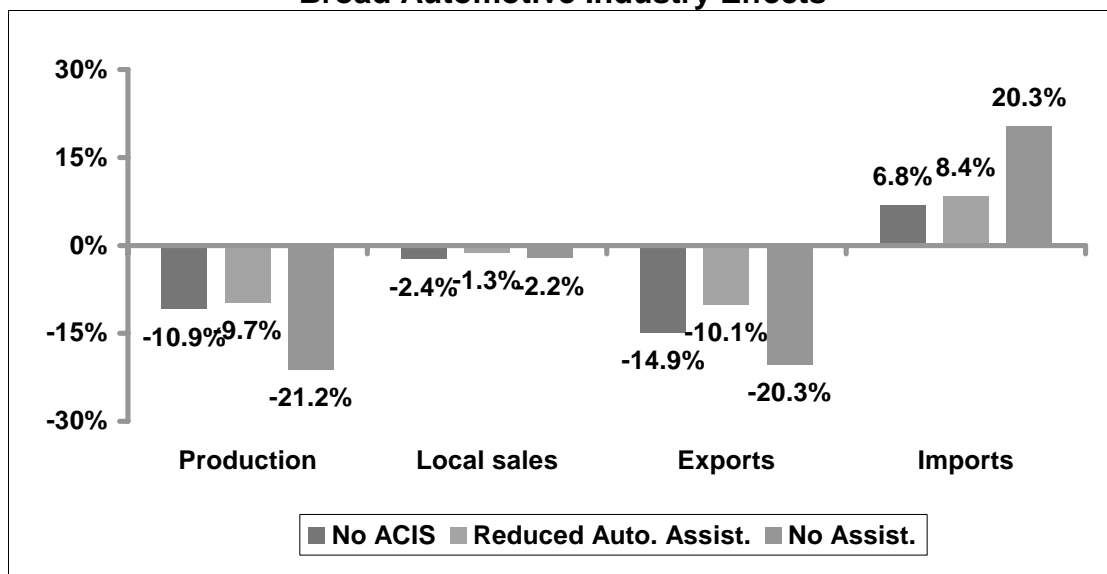
Under all three scenarios, reductions in automotive industry assistance lead to gross gains in consumer living standards. As explained later, gross annual consumer living standards rise by between \$62 million and \$194 million. These gains are the result of the allocative efficiency improvements from reducing industry assistance as resources are reallocated from the automotive industry to other industries such as agriculture and mining. That is, with reduced industry assistance, resources move from lower valued uses that were supported by assistance to higher valued uses that are not reliant on assistance.

The scenario results also show that reducing or eliminating automotive industry assistance has a neutral to slightly positive effect on GDP. Within that outcome, there are losses in production in the automotive industry that are matched or more than matched by gains in other industries.

**Broad Automotive Industry Effects**

Reducing or eliminating the assistance of the automotive industry is expected to mean that automotive industry production is lower than in the Baseline Scenario. As seen in Chart 1, automotive industry production is lower than baseline by between 9.7 and 21.2 per cent as imported automotive products become cheaper relative to locally produced automotive products. Reducing PMV tariffs make imported automotive products cheaper, while reducing ACIS funding of the local industry makes locally produced automotive products dearer. Lower automotive industry production leads to similar percentage effects on automotive industry employment. This means that automotive industry employment is between 8,300 and 18,400 jobs lower than in the Baseline Scenario.

**Chart 1  
Broad Automotive Industry Effects**



These results do not mean that production and employment are lower in the economy generally. Rather the reductions in automotive industry production and employment are

offset, or more than fully offset, by gains in other sectors of the economy. As shown later, at the national level total production is maintained or increased, while total employment is unaffected.

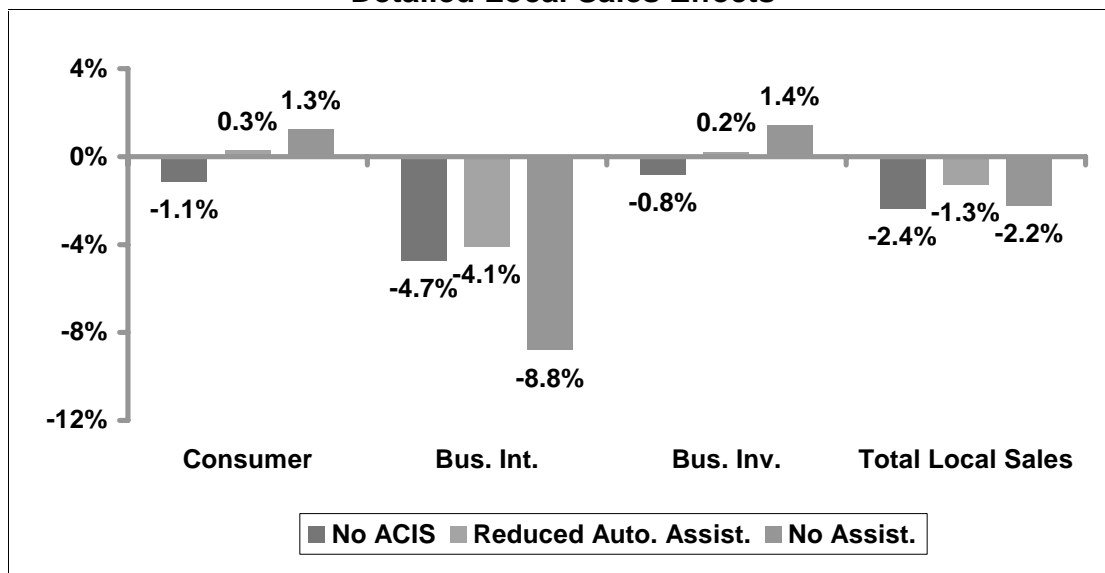
The results in Chart 1 show that two alternative methods of reducing automotive industry assistance — abolishing ACIS versus halving both ACIS and PMV tariffs — lead to a similar effect on automotive industry production, which in both cases is about 10 per cent lower than in the Baseline Scenario.

Also both methods of reducing assistance mainly impact on automotive production through trade flows, rather than through a loss of local sales. Not surprisingly, abolishing ACIS leads to a bigger loss of automotive exports, while reducing PMV tariffs as part of reducing assistance leads to a bigger rise in automotive imports.

Not surprisingly, the largest effects on automotive industry production are expected if automotive industry assistance is completely eliminated. For example, while halving assistance is estimated to lead to a loss in production of about 10 per cent, this rises to about 21 per cent if assistance is completely eliminated.

As shown in Chart 1, local sales of the automotive industry are estimated to fall only moderately under all three scenarios. Chart 2 shows the various sources of these effects on local sales. The biggest impact is on business intermediate (i.e. component) purchases: sales of original (as distinct from replacement) components are directly affected by the loss of local PMV production.

**Chart 2**  
**Detailed Local Sales Effects**

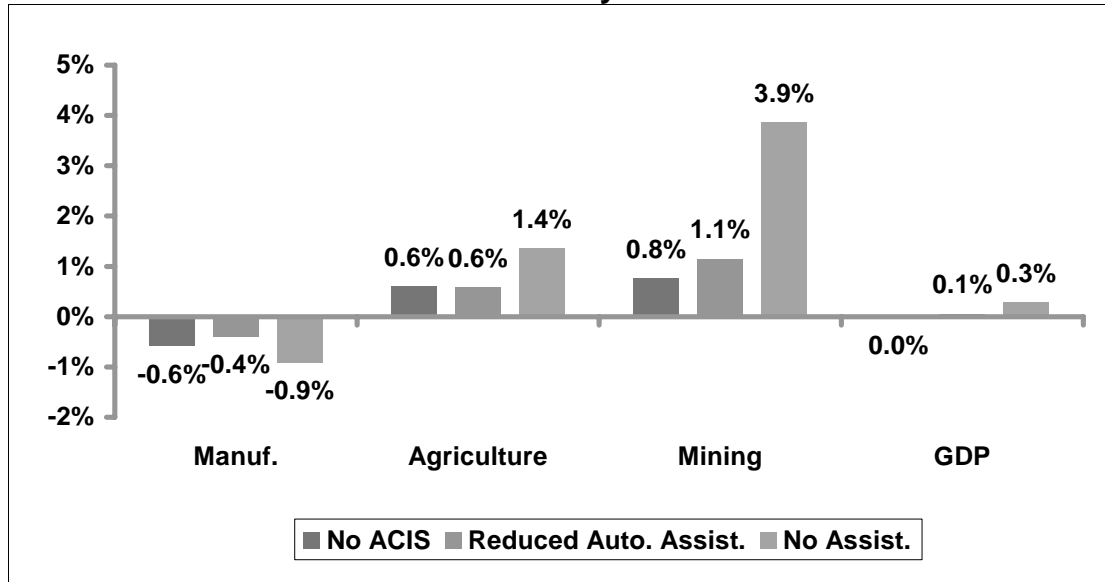


Consumer and business investment purchases are less affected than are business intermediate purchases. Nevertheless, removal of ACIS makes locally produced vehicles dearer, leading to lower consumer and business investment purchases, as seen in Chart 2. In contrast, lower PMV tariffs as part of reduced assistance makes imported vehicles cheaper, leading to higher consumer and business investment purchases, as also seen in Chart 2.

## Wider Industry Effects

While reducing automotive assistance leads to lower production in the automotive industry, it leads to higher production in other industries. Indeed, Chart 3 shows that the effect on GDP is neutral or slightly positive. This implies that the losses in automotive industry production are being matched or more than matched by gains in production elsewhere.

**Chart 3**  
**Wider Industry Effects**



The loss in automotive industry production is reflected in the loss of total manufacturing production in Chart 3. However, the fall in the net balance of exports and imports in the automotive industry leads to a lower Australian dollar, driving gains in the net balance of exports and imports, and hence in production, for other trade-exposed industries.

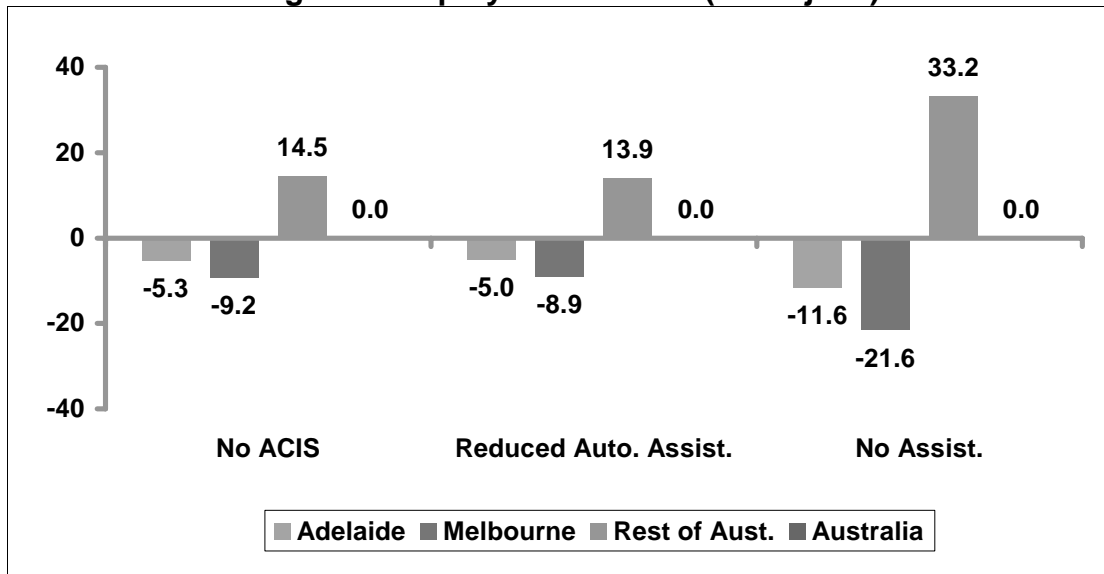
Thus Chart 3 shows that this depreciation will stimulate production in export-orientated industries such as agriculture and mining by improving their international competitiveness. The expansion in these primary industries will flow through to downstream manufacturing industries including food processing and iron and steel manufacturing. The depreciation of the exchange rate will also benefit import-competing industries such as textiles, clothing and footwear as competing imports become more expensive.

## Regional Effects

Reduced assistance to the automotive industry is not expected to affect national employment, as shown in Chart 4. The level of national employment depends on the overall efficiency of the national labour market, which is unlikely to be changed by changes to automotive industry assistance.

Rather reduced automotive industry assistance is expected to change the regional pattern of employment, as also shown in Chart 4. Job losses in Adelaide and Melbourne, where the Australian automotive industry is concentrated, are exactly offset by job gains elsewhere in Australia. The extent of this job shifting is similar whether assistance is reduced by either abolishing ACIS or halving automotive industry assistance. As would be expected, these effects roughly double if all automotive industry assistance is abolished.

**Chart 4**  
**Regional Employment Effects ('000s jobs)**



### Consumer Living Standards

Under all three scenarios, reductions in automotive industry assistance lead to gross gains in consumer living standards. Chart 5 shows that gross annual consumer living standards rise by between \$62 million and \$194 million. These gains are the result of the allocative efficiency improvements from reducing industry assistance as resources are reallocated from the automotive industry to other industries such as agriculture and mining. That is, with reduced industry assistance, resources move from lower valued uses that were supported by assistance to higher valued uses that are not reliant on assistance.

On the other hand, reduced automotive industry assistance in Australia, viewed in isolation, leads to falls in Australia's terms-of-trade. The rise in the supply of exports to restore trade balance leads to lower export prices in some markets. Annual national income falls, reducing consumer living standards.

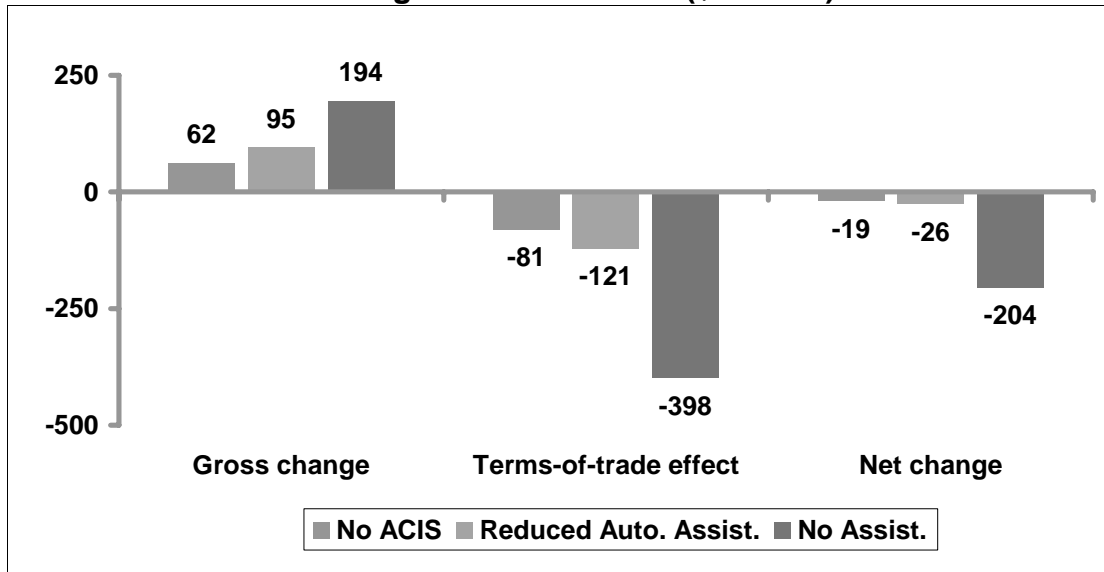
Chart 5 shows how the consumer gain from improved allocative efficiency and the consumer loss from a lower terms-of-trade balance out in the net effect on consumer living standards. For the two scenarios involving reduced assistance, these two effects almost balance out, leaving only a marginally negative effect on consumer living standards. However, there are two reasons for putting more emphasis on the gross effect, which shows a clear gain in consumer living standards.

First, if other countries are reducing their trade barriers at the same time as Australia, there is no reason to expect a fall in our terms-of-trade. This is because reduced import protection in other countries will lift demand for Australian exports, offsetting the increase in supply. In fact, given that import protection is higher in some other countries than in Australia, a general move towards trade liberalisation is likely to raise rather than lower Australia's terms-of-trade. In that case, the terms-of-trade effect will reinforce rather than offset the gross gain in living standards from improved allocative efficiency.

Second, models such as MM600+ arguably understate export price elasticities of demand to avoid model solution complexities. With sufficiently high export demand elasticities, the

terms-of-trade effect would be reduced to the point that the gross gain in living standards from reduced automotive assistance translates into a net gain.

**Chart 5**  
**Annual Consumer Living Standard Effects (\$ million): Main Scenarios**



#### Contribution of Assistance Changes to Consumer Living Standards

The Reduced Automotive Assistance Scenario and the No Assistance Scenario both involve a combination of measures to reduce automotive assistance. The contribution of each measure to the overall results can be understood through a series of dissection simulations, which reduce each form of assistance separately. These dissections are shown for consumer living standards in Charts 6 and 7.

**Chart 6**  
**Composition of Annual Consumer Living Standards Effects (\$ million)**

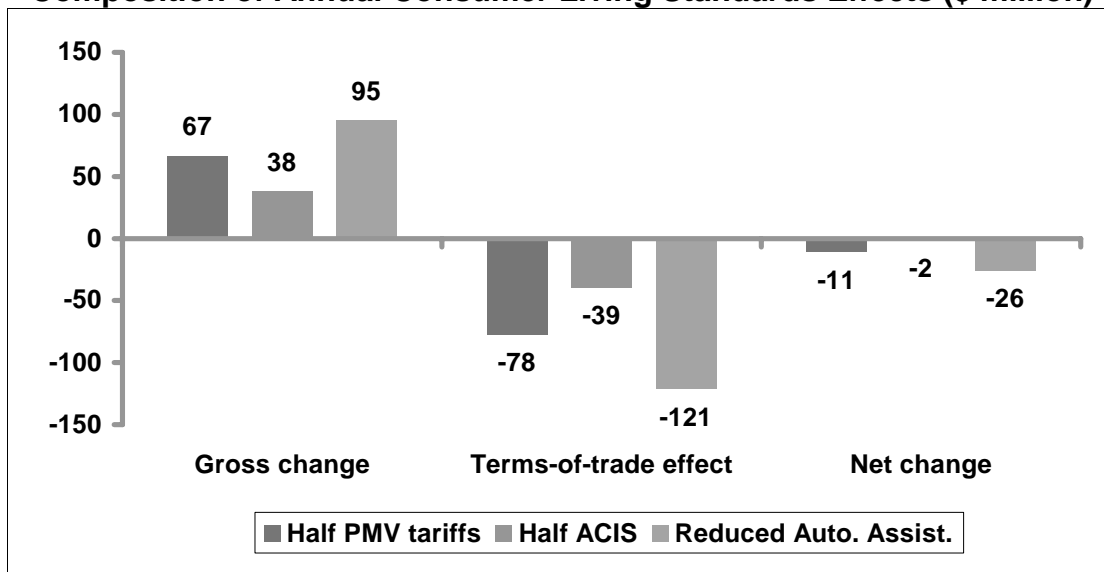


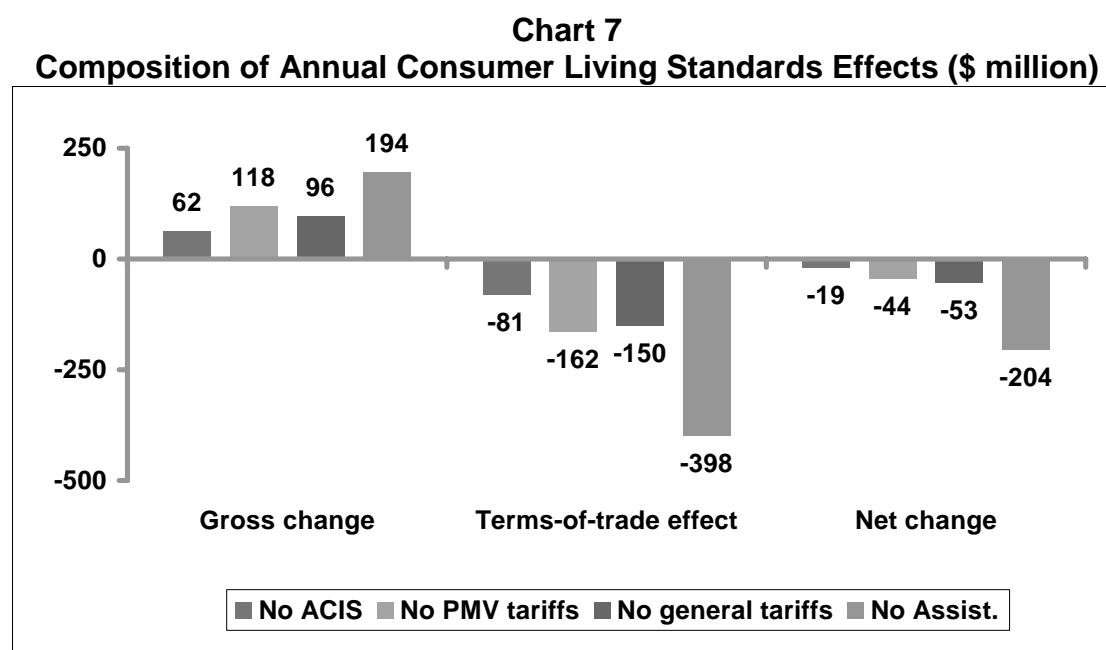
Chart 6 dissects the effects of halving automotive industry assistance by examining the separate effects of halving PMV tariffs and halving ACIS. Chart 7 shows the separate



effects of abolishing automotive industry assistance by examining the separate effects of abolishing ACIS, abolishing PMV tariffs, and abolishing general tariffs.

In both charts, the terms-of-trade effect of all measures implemented together is similar to the total terms-of-trade effect if each measure is considered separately. The same cannot be said for the gross gain in living standards.

The reason for this is that there is diminishing marginal gains in allocative efficiency from reductions in assistance. If assistance is high, resources in the assisted industry are being used highly inefficiently at the margin, and a given reduction in assistance will provide a large gain in allocative efficiency. On the other hand, if assistance is low, resources in the assisted industry are being used less inefficiently at the margin, and the same reduction in assistance will provide a smaller gain in allocative efficiency.



So if each measure to reduce assistance is considered from a starting point where other assistance measures are fully in place, the marginal gain in allocative efficiency will appear larger than if those other assistance measures are not in place. For example, Chart 7 shows a gain in allocative efficiency of \$276 million if the separate gains from each of the three measures to abolish assistance are added together, but this shrinks to \$194 million if all three measures are actually abolished.

Thus measures to reduce assistance have interactive effects on allocative efficiency. This means that it is not valid to estimate the effects of a package of measures by simply adding together the allocative efficiency gains of each measure considered separately. Rather, the package of measures needs to be modelled together in a single scenario that includes all of the measures in the package, such as the Reduced Assistance Scenario or the No Assistance Scenario.

Overall, the modelling results in this report suggest significant long-term benefits from reducing automotive assistance further to below its 2005 level, especially in the context of a move by other countries towards trade liberalisation. The benefits from going further still and completely abolishing automotive assistance are less clear if there is no move towards trade liberalisation in other countries.

## Introduction

The Productivity Commission, as part of the Automotive Industry Inquiry (Inquiry), commissioned Econtech to model the economic and regional impacts of alternative post-2005 assistance arrangements for the automotive industry.

In announcing the Inquiry, the Treasurer and the Minister for Industry, Tourism and Resources stated that the Inquiry is to inform government decision-making on policy arrangements to apply after 2005. Specifically, it will make findings about the automotive industry and its prospects and set out options the Government might consider for the future.

The Commission is also required to identify a range of policy options to achieve an internationally competitive local automotive manufacturing sector. Importantly, these policy options must be consistent with Australia's obligations under the World Trade Organisation (WTO) and the Asia Pacific Economic Cooperation (APEC) forum. For example, Australia is a signatory to the APEC agreement committing its developed country members to move to "free and open" trade by 2010.

As part of the Inquiry, the Commission has been asked to:

- evaluate the outcomes of the Automotive Competitiveness and Investment Scheme (ACIS) and the reform of automotive industry tariffs;
- assess the interdependence between vehicle assemblers and component producers;
- identify strengths, weaknesses and opportunities for the automotive sector including major impediments to its long-term viability;
- examine the impacts of changes in road safety and environmental requirements; and
- report on the progress in trade liberalisation of the automotive sector in existing and prospective export markets.

The focus of this modelling report is to analyse the economic and regional impacts of alternative post-2005 assistance arrangements for the automotive industry. At present, the main forms of assistance to the automotive industry are:

- passenger motor vehicle (PMVs) tariffs, which have applied at a rate of 15 per cent since 1 January 2000; and
- the Automotive Competitiveness and Investment Scheme (ACIS), which provides annual assistance of \$580 million. The scheme distinguishes between motor vehicle producers and automotive component producers. For motor vehicle producers, annual funding is equivalent to a subsidy on production of 4.4 per cent. For component producers, the annual funding is equal to a subsidy on production of 2.8 per cent.

These automotive industry assistance arrangements will change on 1 January 2005 as follows:

- PMV tariffs to be cut from 15 per cent to a new rate of 10 per cent; and
- annual payments under the ACIS scheme to be cut from \$580 million to \$468 million. The cut in PMV tariffs renders the duty-free import credits paid to motor vehicle producers correspondingly less valuable so the equivalent motor vehicle producer subsidy falls to 3.2 per cent. Production subsidies for component producers remain unchanged at 2.8 per cent because this funding is based on research and development expenditure and capital investment and as such is not linked to PMV tariffs.

The Inquiry commissioned Econtech to undertake economic modelling of the economic and regional impacts of options for further reductions in assistance post-2005. This includes options for reducing PMV tariffs below 10 per cent, and reducing annual ACIS funding below \$468 million.

A draft of this report was presented at the Productivity Commission's Modelling Workshop. The results presented in this report differ slightly from the results presented in the draft report because of the following refinements to the modelling.

- The modelling in this report allows for the fact that some passenger motor vehicles purchased by businesses (about 50 per cent) are largely used for private purposes, not business purposes. This represents a significant refinement in the treatment of the passenger motor vehicle industry compared with the standard ABS input-output tables and models of the Australian economy that rely on those tables.
- The automatic impact on ACIS assistance of the scheduled cut in the PMV tariff from 15 to 10 per cent in 2005 has been allowed for more precisely. This means that in this report the production subsidy equivalent of ACIS in 2005 is estimated at 3.2 per cent for motor vehicle producers and 2.8 per cent for component producers, compared with the estimates in Econtech's draft report of 3 per cent and 2 per cent respectively.
- This report allows for the fact that ACIS applies to production of motor vehicle tyres.
- This modelling in this report takes into account Australian company tax paid on income from foreign investment in Australia.

This report uses Econtech's Murphy Model 600 Plus (MM600+) to estimate these effects of further reductions in assistance. MM600+ is a long-term CGE model of the Australian economy. MM600+ includes a detailed treatment of the automotive industry. It also includes a detailed treatment of import tariffs and production taxes for 672 products.

This report is structured as follows.

- Section 1 discusses the main features of the MM600+ economic model used to simulate the Baseline Scenario and the alternative automotive industry assistance scenarios.
- Section 2 outlines the post-2005 assistance scenarios. This includes the calculation of adjusted tariff rates and production subsidies.
- Section 3 presents the effects of abolishing the ACIS scheme under a No ACIS Scenario.
- Section 4 presents the results of halving the assistance to the automotive industry under the Reduced Automotive Assistance Scenario.
- Section 5 presents the effects of abolishing all automotive industry assistance under the No Assistance Scenario. This scenario also includes the abolition of general tariffs on all non-TCF products.

While all care, skill and consideration has been used in the preparation of this report, the scope of this report is based on the strict instructions of the Productivity Commission and it is designed to be used only for the specific purpose set out below. If you believe that your instructions are different from those set out below, or you wish to use this work or information contained within it for another purpose, please contact us.

The specific purpose of this report is to model the economic and regional impacts of specific alternative assistance arrangements for the automotive industry that might apply after 2005.

The findings in this report are subject to unavoidable statistical variation. While all care has been taken to ensure that the statistical variation is kept to a minimum, care should be taken whenever using this information. Should you require clarification of any material, please contact us.

## 1. Methodology

The economic modelling of the post-2005 assistance arrangements for the automotive industry was conducted using Econtech's MM600+ model. MM600+ is a long-term CGE model of the Australian economy that models a long-run equilibrium. MM600+ is highly detailed, distinguishing 672 products produced by 108 industries. This makes it six times more detailed than any comparable model.

The high level of product detail means that many policy changes can be analysed without the need for further disaggregation of the product detail. It also means that the gains from some micro-economic reforms can be more fully captured. For example, a finer level of disaggregation better reveals the diversity in rates of customs duty, leading to more reliable estimates of the gains from tariff reforms than comparable Australian CGE models.

MM600+ has many features that are important for this analysis as follows:

- it fully incorporates the New Tax System (NTS) and models the GST treatment of each of its 672 products, and 24 other indirect taxes;
- it includes a production tax for each of the 672 products, which enables the production subsidies under ACIS to be modelled;
- it also includes an tariff for each of the 672 products, which enables PMV tariffs to be modelled;
- it has a high level of detail of the automotive industry, including motor vehicles and automotive components. For motor vehicles, it distinguishes between passenger motor vehicles, buses and trucks. For automotive parts, it distinguishes between transmissions, trailers, rubber tyres, windscreens, motor vehicle bodies and chassis, while some other models treat the automotive industry as one category;
- it allows for the substitution effects triggered by changes in the prices of goods and services. For example, on the production side of the economy, MM600+ allows for substitution between:
  - labour and capital;
  - different types of capital inputs such as motor vehicles, computers, buildings etc;
  - different forms of primary energy, including black coal, brown coal, and LPG;
  - local and export destinations for sales; and
  - of particular importance for this report, imports and local sources of supply of goods and services.
- it is set up to achieve budget neutrality in alternative ways. The default swing fiscal instrument, which is used in this report, is income tax, and the alternative swing fiscal instrument is GST;
- it generates results for specific regions within Australia. Specifically, MM600+ produces estimates of changes in production and employment across 23 regions and it makes an important distinction between traded and non-traded industries; and
- it provides valid measures of changes in consumer living standards based on compensating variations so that possible tariff options for the automotive sector beyond 2005 can be correctly evaluated in terms of the public interest.

The choice between different types of capital is an important feature of MM600+ for this Inquiry. It means that business purchases of motor vehicles are price-sensitive, which is a

feature of the real world not captured in other Australian CGE models. In these other models, it is assumed that capital goods are combined in fixed proportions. Allowing for the price sensitivity of business demand for motor vehicles is important for fully capturing the effects of changes in assistance of the automotive industry.

At the same time, as with any exercise estimating the economy-wide effects of policy changes, the results are indicative rather than precise. This is because there is a margin of uncertainty around the true values of key economic parameters. This means that results are better quoted using one or (at most) two significant figures, instead of three or four.

MM600+ models a long-run equilibrium. In the long-run, economic agents optimise, all markets are in equilibrium, and assets and liabilities follow sustainable paths. Some of the key assumptions involved are as follows.

- *Profit maximisation:* the representative business in each industry chooses inputs and outputs to maximise profit subject to prices and a production function exhibiting constant returns to scale. This involves choosing inputs of capital and labour and outputs for the local and export markets.
- *Labour market equilibrium:* in the long-run the labour market is assumed to attain equilibrium, so that economic shocks, such as changes in automotive industry assistance, have no lasting effect on total employment. Rather, only the distribution of total employment across industries is affected.
- *External balance:* in the long-run net liabilities to the foreign sector must follow a sustainable path. This assumption is implemented by setting the trade balance equal to the cost of servicing payments on foreign-owned capital. The real exchange rate needed to achieve this outcome is determined by MM600+.
- *Budget balance:* in the long-run the budget balance must be sustainable. Specifically, in MM600+ the government budget is assumed to be in balance. It is necessary to designate a swing fiscal policy instrument to achieve that outcome. In this report the rate of tax on labour income is used as the swing fiscal policy instrument, which is the standard assumption, although the GST rate can also be used.
- *Private saving:* in the long-run the level of private sector saving and associated asset accumulation must be sustainable. Further, one potential problem with long-run models is that saving (i.e. sacrificing present consumption for future consumption) can appear artificially attractive, because the model results show the gain in future consumption but not the sacrifice of present consumption. To address both of these issues, saving is held constant in MM600+ by fixing the quantity of capital that is owned locally.

For more information on MM600+, download the model documentation from Econtech's web-site ([www.econtech.com.au](http://www.econtech.com.au)).

There have been two new developments in MM600+ as part of Econtech's work over the course of this project.

- MM600+ now allows for the fact that some passenger motor vehicles purchased by businesses, about 50 per cent, are largely used for private purposes, not business purposes. This share of 50 per cent was estimated using the ABS Survey of Motor Vehicle Use (ABS Cat. No. 9208.0). Allowing for private use of business-purchased passenger motor vehicles represents a significant refinement in the treatment of the

passenger motor vehicle industry compared with the standard ABS input-output tables and models of the Australian economy that rely on those tables.

- The modelling in this report takes into account Australian company tax paid on income from foreign investment in Australia.

## 2. Industry Assistance Scenarios

The specific purpose of this report is to model the economic and regional impacts of the key alternative assistance arrangements for the automotive industry that might apply after 2005.

### 2.1 Inquiry Modelling Parameters

This report focuses on the passenger motor vehicle industry. This includes the production of finished motor vehicles and the manufacture of both original equipment and replacement components. Specifically, for this Inquiry, the following goods and services are included:

- new motor vehicles under 3.5 tonnes including light commercial vehicles and four-wheel drives;
- components for these vehicles, including tyre;
- automotive machine tools; and
- automotive service providers including design, development, engineering and production.

Goods not covered by the Inquiry are as follows:

- automotive raw materials;
- bulk goods for use by the automotive industry such as motor vehicle paint;
- all component that must be cut to length or shape; and
- all components not purpose-built for automotive use.

### 2.2 Automotive Industry Assistance Scenarios

The Inquiry commissioned Econtech to model four alternative automotive industry assistance scenarios.

- **Baseline Scenario.** This scenario models the Australian economy under the automotive industry assistance arrangements that will apply from 1 January 2005. Specifically, on this date, automotive industry tariffs are reduced to 10 per cent and the annual funding for duty credits under the ACIS scheme is reduced from \$580 million to \$468 million. The Baseline Scenario is the base case against which the alternative assistance scenarios are compared.
- **No ACIS Scenario.** Under this scenario, assistance of the automotive industry through funding under the ACIS scheme is abolished. In contrast, automotive and general tariffs remain unchanged from the 1 January 2005 level. Specifically, PMV tariffs remain at 10 per cent from 2005 and beyond. General tariffs, which excludes tariffs on textiles, clothing and footwear, remain at current levels of between 0 and 5 per cent from 2005 onwards.
- **Reduced Automotive Assistance Scenario.** Under this scenario, automotive assistance is halved. PMV tariffs are cut from 10 to 5 per cent. Annual assistance under ACIS is cut from \$468 million to \$234 million. General tariffs remain at the 2005 levels.
- **No Assistance Scenario.** Under this scenario, all assistance to the automotive industry is eliminated. PMV tariffs are cut from 10 to 0 per cent. Annual assistance under ACIS is cut from \$468 million to zero. Finally, all general tariffs are eliminated.



Four additional scenarios were also simulated for use in this report. The results of these scenarios are not written up as separate sections but are intended to show the separate contribution to the overall result of each of several changes in assistance by modelling them separately. For example, the following two scenarios analyse the contribution of specific assistance changes to the Reduced Automotive Assistance Scenario.

- **Half PMV Tariffs Scenario.** Under this scenario, PMV tariffs are halved. In contrast, annual ACIS funding and general tariffs remains unchanged from the 2005 level.
- **Half ACIS Scenario.** Under this scenario, ACIS funding is halved from the level that will apply from 1 January 2005.

Further, the following two scenarios, as well as the main No ACIS Scenario analyse the contribution of specific assistance changes to the No Assistance Scenario.

- **No PMV Tariffs Scenario.** Under this scenario, PMV tariffs are eliminated. Annual ACIS funding and general tariff rates remain unchanged from the 2005 levels.
- **No General Tariffs Scenario.** Under this scenario, general tariffs, currently 0 to 5 per cent, are cut to 0 per cent. PMV tariffs remain at 10 per cent and annual assistance under ACIS also remains constant at \$468 million from 2005 onwards.

**Table 2.2.1  
Main Alternative Post-2005 Assistance Arrangement Scenarios**

	Baseline	No ACIS	Reduced Auto Assist.	No Assist.
ACIS funding	\$468m	\$0m	\$234m	\$0m
PMV tariff rates	10%	10%	5%	0%
General tariffs rates	0% - 5%	0% - 5%	0% - 5%	0%

**Table 2.2.2  
Dissection Scenarios**

	50% PMV Tariffs	50% ACIS	No PMV Tariffs	No General Tariffs
ACIS funding	\$468m	\$234m	\$468m	\$468m
PMV tariff rates	5%	10%	0%	10%
General tariffs rates	0% - 5%	0% - 5%	0% - 5%	0%

### 2.3 Converting Statutory Tariff Rates to Modelled Tariff Rates

In 2005, the statutory PMV tariff rate is scheduled to fall from 15 to 10 per cent. This rate of 10 per cent is the starting point or baseline for the policy simulations conducted in this report. The baseline tariff rates for different PMV products that are actually fed into the MM600+ model are a little less than 10 per cent for two reasons related to coverage of the tariff and valuation of imports for tariff purposes.

First, using data supplied to Econtech from the Productivity Commission's Tariff and Import Database and Estimating System (TIDES), generally the PMV tariff does not apply to all of the items in a particular PMV product category. For example, because of this lack of full PMV tariff coverage, the average tariff rate for automotive transmissions in 2005 is expected to be 9.0 per cent, not 10.0 per cent.

Second, while in MM600+ imports are valued on a c.i.f. basis, tariffs are expressed as a percentage of f.o.b. import values. So for modelling purposes, tariff rates need to be adjusted to be expressed as percentages of c.i.f. import values. Tariff rates that have been adjusted for modelling purposes in this way, are slightly lower than the standard tariff rates. The Productivity Commission supplied Econtech with the information needed to convert standard tariff rates to adjusted tariff rates.

Tariffs on imports of motor vehicle transmissions again serve as an example. As stated above, the average standard tariff rate for motor vehicle transmissions is 9.00 per cent. This standard tariff rate applies to f.o.b. values. When it is re-expressed as a percentage of c.i.f. values, which unlike f.o.b. values include freight and insurance, it falls to 8.69 per cent. This reflects the fact that freight and insurance represents 3.4 per cent of c.i.f. values for imports of motor vehicle transmissions.

## 2.4 1993/94 Input-Output Tables

The economic modelling results presented in this report are based on data contained in the 1993/94 input-output tables. The latest input-output tables are for 1996/97, but both sets of tables paint a similar picture of the automotive industry. For example, imports account for 42 per cent of automotive industry supply in the 1996/97 input-output tables compared to 43 per cent in the 1993/94 input-output tables, as shown in Table 2.4.2.

Given these similarities for the broader automotive industry and PMVs, we do not anticipate that the results obtained using the 1993/94 input-output tables would be significantly different to results obtained using the 1996/97 input-output tables.

**Table 2.4.2**  
**Imports as a Share of Supply**

	PMVs	Automotive Industry
1993/94 input-output tables	43%	42%
1996/97 input-output tables	40%	41%

## 2.5 Modelling Outputs

For each scenario, we report estimates of the following:

- effects on key macroeconomic aggregates such as annual consumer living standards, gross domestic product (GDP), the real exchange rate, real after-tax wage and investment;
- production, employment and trade effects for the PMV and automotive parts industries, reporting results separately for each industry;
- employment, production and trade effects of all other industries, including the broader manufacturing industry; and
- regional production and employment effects for 23 regions, including the main motor vehicle manufacturing regions of Adelaide and Melbourne.

Detailed results for each scenario are contained in Attachment A.

### 3. No ACIS Scenario

The No ACIS Scenario abolishes the ACIS scheme. The reference point or baseline for this simulation is the ACIS scheme as it will operate in 2005. In that year, ACIS will provide assistance that is equivalent to production subsidies of 3.2 per cent for motor vehicle producers and 2.8 per cent for component producers<sup>1</sup>, as reflected in the penultimate column Table 3.1. Unlike our draft report and as shown in the table, this report also allows for the fact that ACIS applies to production of motor vehicle tyres.

The results of this scenario show that abolishing ACIS has a neutral effect on GDP. Of more importance is the estimated effects on the automotive industry, other industries and regions. Of most importance is the finding that abolishing ACIS leads to significant gross gain in consumer living standards, as considered at length in the latter part of this section. All these effects are now considered in turn.

**Table 3.1**  
**Modelled Assistance Rates: No ACIS Scenario**

	cif tariff rates:	cif tariff rates:	prod'n tax	prod'n tax
	2005	No ACIS	rates: 2005	rates: No ACIS
Passenger motor vehicles	7.7%	7.7%	-3.2%	0.0%
Buses	4.7%	4.7%	0.0%	0.0%
Chassis with engines	6.0%	6.0%	-2.9%	0.0%
Other MVs & parts	6.0%	6.0%	-2.9%	0.0%
Motor vehicle bodies	4.5%	4.5%	0.0%	0.0%
Caravans & campers	3.7%	3.7%	0.0%	0.0%
Semi-trailers	1.4%	1.4%	0.0%	0.0%
Trailers	4.6%	4.6%	0.0%	0.0%
Truck & bus body panels	4.3%	4.3%	0.0%	0.0%
MV transmissions	8.7%	8.7%	-2.8%	0.0%
Other t'port equip. & parts	1.1%	1.1%	0.0%	0.0%
MV Repairs	0.0%	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%
Rubber tyres	8.5%	8.5%	-2.8%	0.0%

#### 3.1 Detailed Automotive Industry Effects

In MM600+, the ACIS scheme is modelled as a production subsidy. At present, annual assistance under the scheme is equivalent to a production subsidy of 4.4 per cent for motor vehicle producers and 2.8 per cent for component producers.

From 2005 the PMV tariff rate drops from 15 to 10 per cent, rendering the duty-free import credits paid under ACIS to motor vehicle producers correspondingly less valuable. In turn, this reduces the equivalent motor vehicle producer subsidy to 3.2 per cent. Production subsidies for component producers remain unchanged at 2.8 per cent because this funding is based on research and development expenditure and capital investment and as such is not linked to PMV tariffs.

<sup>1</sup> These estimates are slightly different to the corresponding estimates in our draft report of 3 per cent and 2 per cent respectively. In this report we have allowed more precisely for the automatic impact on ACIS assistance of the scheduled cut in the PMV tariff from 15 to 10 per cent in 2005.

The No ACIS Scenario models the effects of abolishing ACIS, using the 2005 position as a starting point. Thus Table 3 shows production subsidies of between 2.8 and 3.2 per cent in the baseline (2005) scenario being set to zero in the No ACIS Scenario.

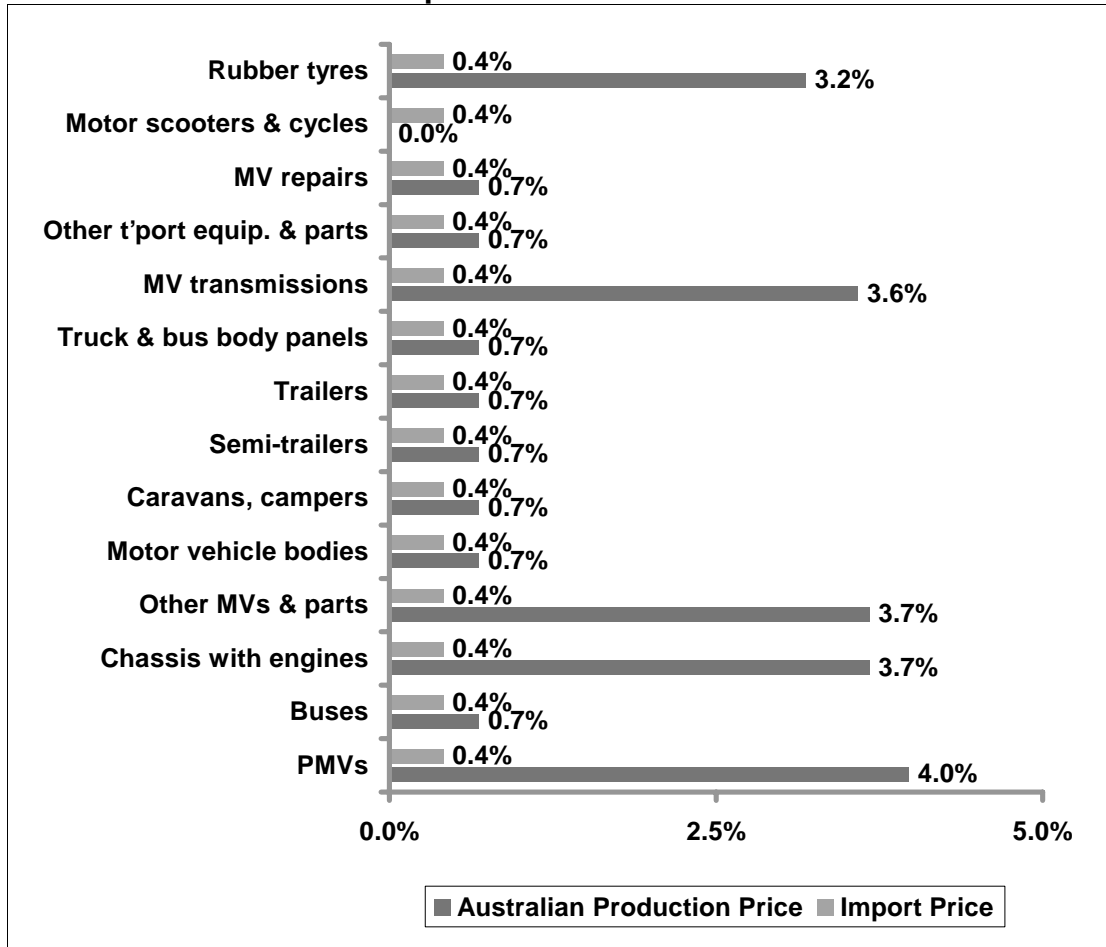
The abolition of these production subsidies increases the prices of motor vehicles and parts that are locally produced. These price effects, and the resulting volume effects, are discussed further below.

### Local Production and Import Prices

Abolishing ACIS will have varying effects on the prices of locally produced motor vehicles and parts, as shown in Chart 3.1.1. Where ACIS applies – rubber tyres, transmissions, PMVs, chassis and motor vehicles and parts – the price of local production price of these products will rise by at least 3.6 per cent as local production of these products no longer being subsidised. Where ACIS does not apply, the prices of the remaining locally produced automotive products are estimated to increase by 0.7 per cent.

The prices of all imported automotive products are estimated to be higher than in the Baseline Scenario. The price increase of 0.4 per cent across the board is the result of the depreciation of the Australian dollar, which is required to restore external balance in the face of a deterioration in the competitiveness of the local automotive industry.

**Chart 3.1.1  
Production and Import Price Effects: No ACIS Scenario**



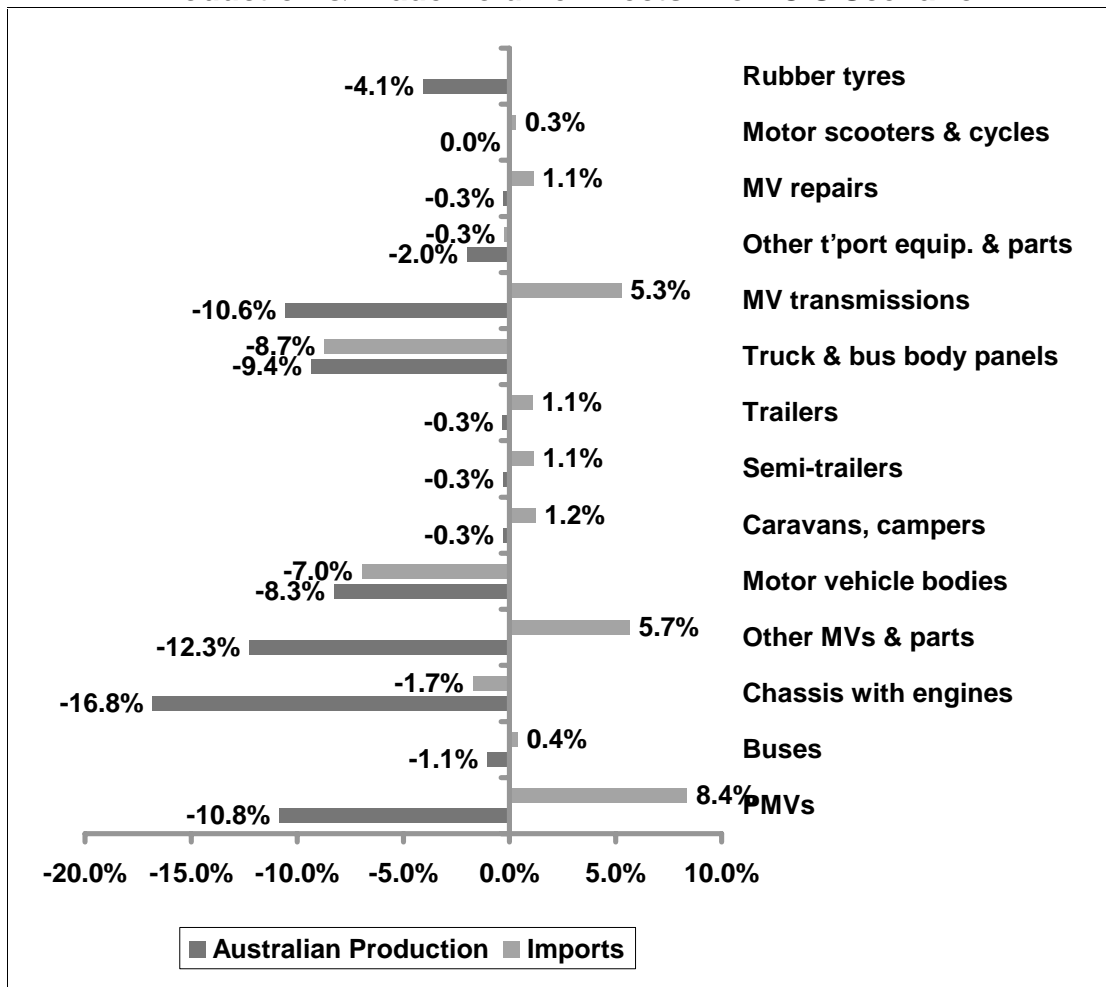
Local Production and Trade Volume Effects

The price changes for domestically produced and imported motor vehicles and parts will have implications for the volume of local production and imports of these products. In MM600+, allowances are made for substitution between imported and local sources of motor vehicles and parts. Specifically, the elasticity of substitution between imports versus local production for all motor vehicle industry products is 5.2.

For example, in the case of PMVs, the price of domestic production is estimated to be higher by 4.0 per cent than in the baseline, while the price of imports is estimated to be higher by 0.4 per cent, as shown in Chart 3.1.1. This implies a rise of 3.6 per cent in the relative price of domestic production. So applying the elasticity of substitution between imported versus locally produced motor vehicles of 5.2 to this percentage change in relative price, gives a predicted percentage change in relative volumes of 18.7 per cent.

As Chart 3.1.2 shows, the abolition of the ACIS scheme will lead to an increase in motor vehicle imports of 8.4 per cent and a fall in domestic production of 10.8 per cent, implying an actual percentage change in the relative volumes of 19.2 per cent. The minor apparent discrepancy between the predicted and actual percentage changes of 18.7 and 19.2 per cent is explained by rounding and functional form issues.

**Chart 3.1.2  
Production & Trade Volume Effects: No ACIS Scenario**



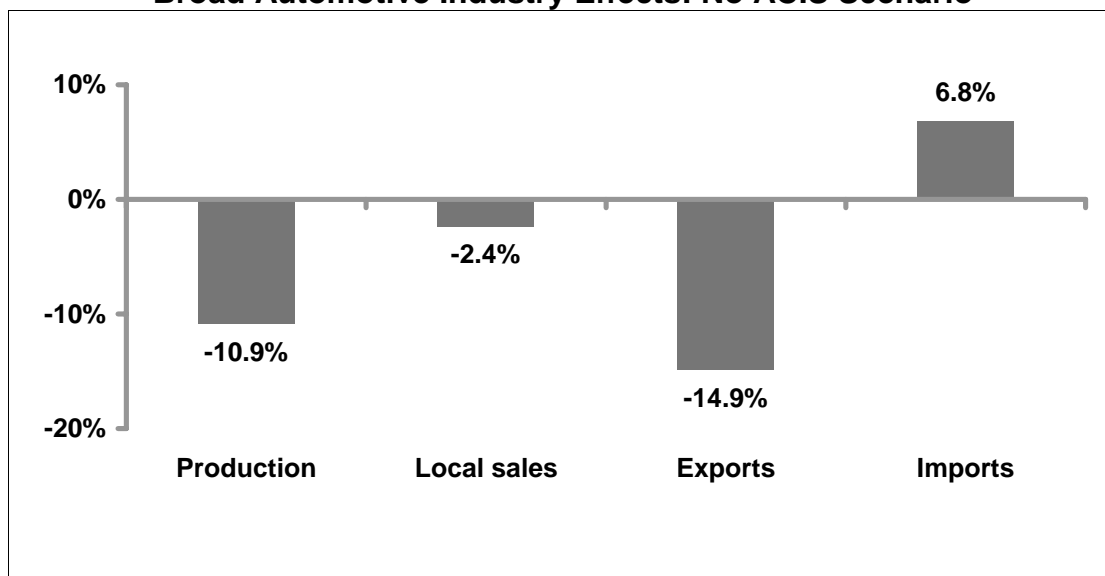
### 3.2 Broad Automotive Industry Effects

Abolishing ACIS is expected to mean that automotive industry production will be lower than in the Baseline Scenario, as shown in Chart 3.2.1. Automotive industry production is estimated to be lower than in the baseline by 10.9 per cent as imported automotive products become relatively cheaper compared to locally produced automotive products. Lower automotive industry production leads to a similar percentage effect on automotive industry employment, which means that employment is 9,300 jobs lower than in the baseline.

These results do not mean that production and employment are lower in the economy generally. Rather the reductions in automotive industry production and employment are offset by gains in other sectors of the economy. As shown later, at the national level, total production is maintained or increased, while total employment is unaffected.

The lower local production feeds through to lower local sales of the automotive industry. Although imports of automotive products are estimated to rise, the fall in Australian production more than offsets this rise in imports and local sales are estimated to fall by 2.4 per cent.

**Chart 3.2.1**  
**Broad Automotive Industry Effects: No ACIS Scenario**



### 3.3 Wider Industry Effects

While abolishing ACIS leads to lower production of the automotive industry, it leads to higher production in the rest of the economy, as shown in Chart 3.3.1. For example, the chart shows that the effect of the reducing automotive industry assistance on GDP is neutral. These other effects are discussed in turn.

The lower automotive industry production will directly effect industries downstream and upstream of the automotive industry. The lower production will also indirectly effect trade-exposed industries by affecting the exchange rate.

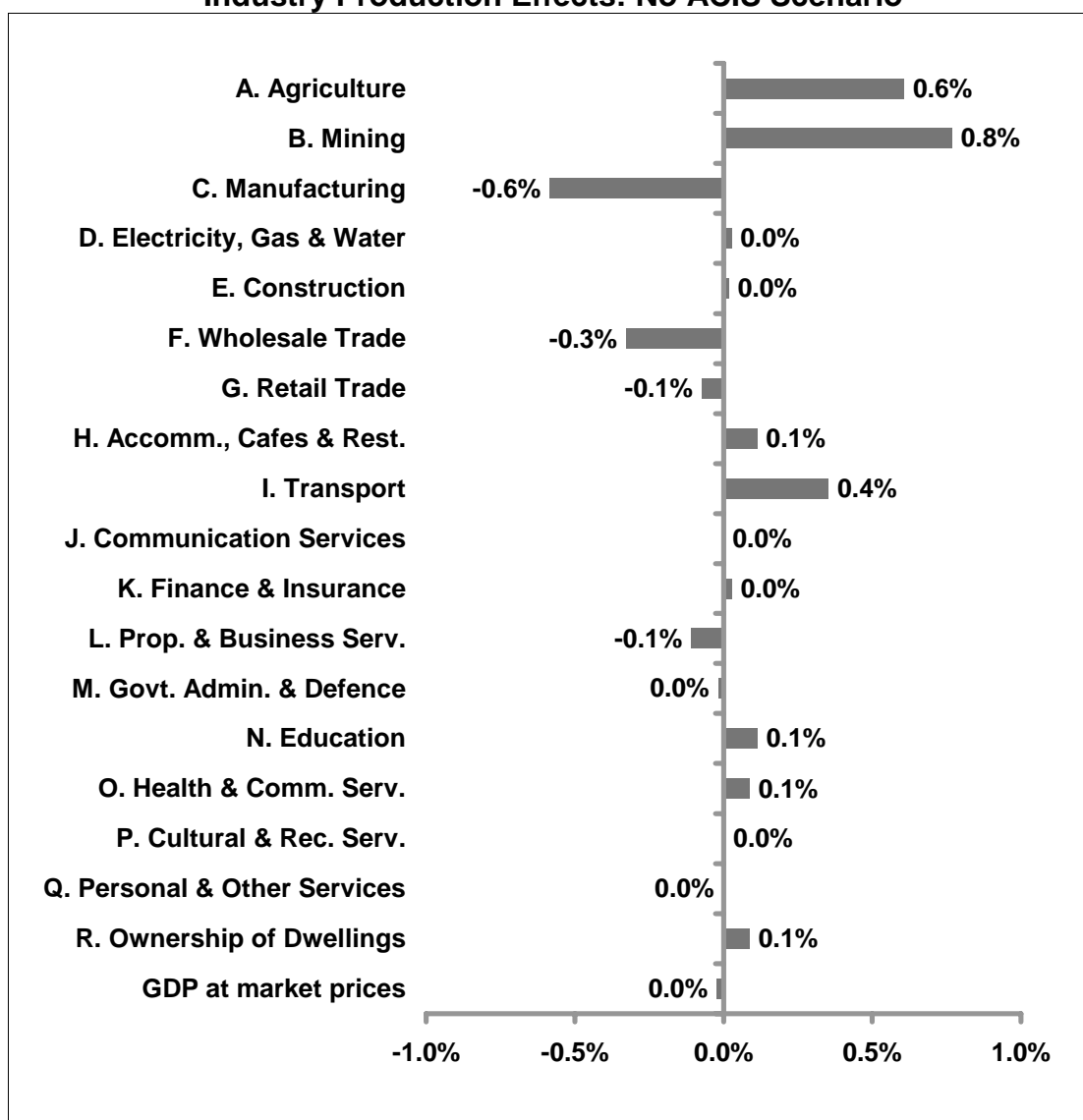
The lower automotive industry production will adversely affect downstream industries that distribute motor vehicles and parts such as the wholesale trade industry. Annual production

of this industry is estimated to be lower by 0.3 per cent than in the Baseline Scenario. This is the result of motor vehicle wholesalers feeling the adverse effects of the lower local production of motor vehicles and parts and the consequent lower level of local sales.

The lower automotive industry production will also have upstream effects on industries that supply the automotive industry. For example, the production of rubber tyres is estimated to fall by 4.1 per cent or \$54 million as the removal of ACIS and the fall in local PMV production will feed through to reduce the annual production of rubber tyres. There are also smaller effects on the production of automotive paint, windscreens and motor vehicle suspensions.

The rise in the volume of imports of motor vehicles and parts, shown in Chart 3.1.2, will reduce Australia's trade balance. To offset this and to restore the trade balance, the exchange rate is estimated to depreciate by 0.4 per cent. This depreciation of the exchange rate will make Australian exports cheaper and imports more expensive and so it will support production in export-orientated industries and import-competing industries.

**Chart 3.3.1**  
**Industry Production Effects: No ACIS Scenario**



On the export side, the lower exchange rate leads to higher agricultural exports such as wool and wheat than in the baseline. This rise will flow through to stimulate additional production from the agriculture industry. Similarly, the lower exchange rate encourages mining industry production.

The depreciation of the exchange rate also supports production of import-competing industries. Local production of textiles, clothing and footwear is estimated to be higher as competing-imports become more expensive with the lower exchange rate.

The lower automotive industry production is reflected in the lower total manufacturing industry production. Overall production of the manufacturing industry is estimated to be lower by 0.6 per cent. This is due to the lower automotive industry production, and products used to manufacture motor vehicles, more than offsetting the gains in other areas of the manufacturing industry such as textiles, clothing and footwear.

### 3.4 Regional Effects

The Australian automotive industry is concentrated in South Australia and Victoria. Specifically, the four Australian motor vehicle manufacturers, Ford, Holden, Toyota and Mitsubishi, have production facilities in either Adelaide or Melbourne.

**Table 3.4.1**  
**Regional Effects: No ACIS Scenario**

	Production	Employment
Sydney	0.1%	0.1%
Hunter - Illawarra	0.3%	0.3%
North Coast NSW	0.2%	0.3%
South Eastern NSW	0.4%	0.4%
Inland NSW	0.4%	0.5%
Melbourne	-0.6%	-0.6%
Gippsland	0.4%	0.4%
Western Vic	-0.4%	-0.4%
Murray	-0.4%	-0.3%
Brisbane	0.0%	0.1%
Moreton	0.2%	0.2%
Southern Qld	0.4%	0.4%
Central Qld	0.6%	0.6%
Far North	0.4%	0.5%
Adelaide	-1.0%	-1.1%
Balance of SA	-0.3%	-0.4%
Perth	0.3%	0.3%
Lower Western WA	0.4%	0.5%
Remainder WA	0.8%	0.9%
Hobart	0.3%	0.4%
Balance of Tasmania	0.5%	0.5%
Northern Territory	0.7%	0.7%
ACT	0.2%	0.2%
Australia	0.0%	0.0%



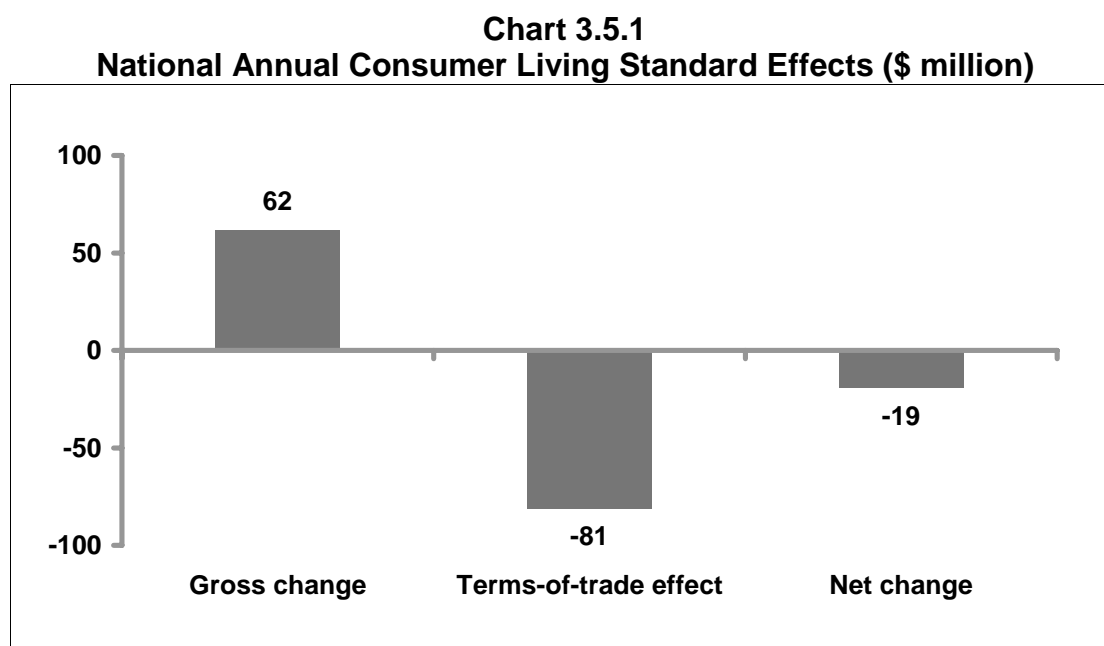
It is expected that production and employment in Adelaide and Melbourne will fall because they are directly affected by the lower production of the automotive industry. For example, total production in Adelaide is estimated to be lower by 1.0 per cent than in the baseline, while production in Melbourne is estimated to be lower by 0.6 per cent than in the baseline.

Importantly, abolishing ACIS is not expected to affect national employment, as shown in Table 3.4.1. The level of national employment depends on the overall efficiency of the national labour market, which is unlikely to be changed by abolishing ACIS.

Instead, abolishing ACIS is expected to change the regional pattern of employment, as also shown in Table 3.4.1. Job losses in Adelaide and Melbourne, where the Australian automotive industry is concentrated, are exactly offset by job gains elsewhere in Australia. That is, the combined loss of employment in Adelaide and Melbourne is part of a reallocation of fixed national employment across other regions.

### 3.5 National Macroeconomic Effects

Abolishing the ACIS scheme leads to a gross annual gain in consumer living standards, as shown in Chart 3.5.1. The gross gain of \$62 million is the result of improvements in allocative efficiency from removing the ACIS scheme. ACIS funding draws resources away from efficient uses in unprotected industries and in to a less efficient expansion of the local automotive industry. Without the assistance of the ACIS funding, these resources are reallocated across other industries such as agriculture and mining.



On the other hand, the abolition of the ACIS scheme, when viewed in isolation, leads to a fall in Australia's terms-of-trade. The rise in the supply of exports to restore trade balance leads to lower export prices in some markets. This terms-of-trade effect reduces annual national income and so consumer living standards are lower by \$81 million than in the baseline.

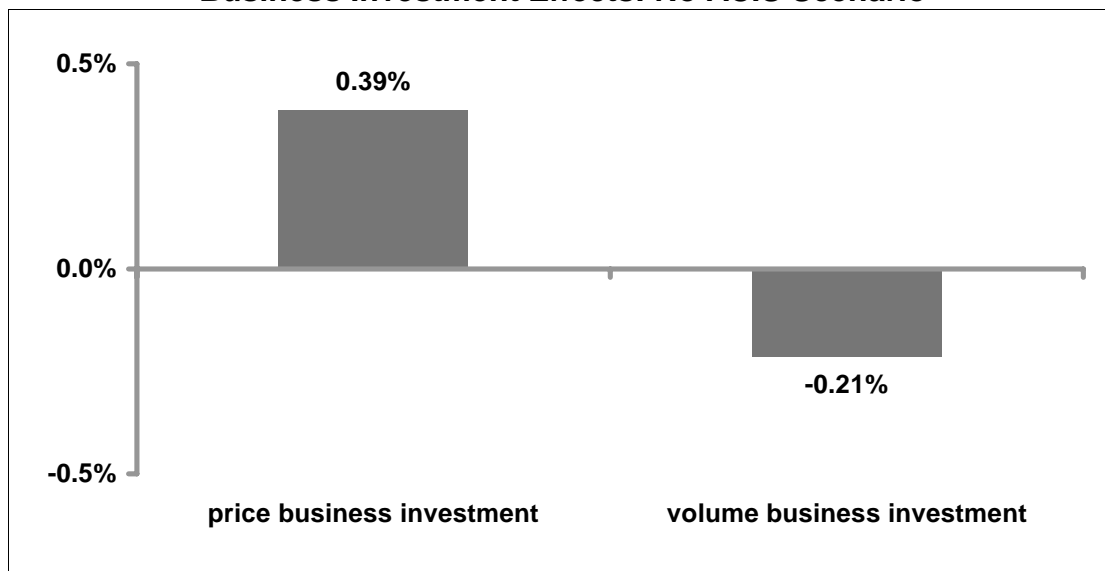
Chart 3.5.1 shows how the consumer gain from improved allocative efficiency and the consumer loss from a lower terms-of-trade balance out in the net effect on consumer living standards. Importantly, these two effects almost balance out, leaving only a marginally negative effect on consumer living standards. However, there are two reasons for putting more emphasis on the gross effect, which shows a clear gain in consumer living standards.

First, if other countries are reducing their trade barriers at the same time as Australia, there is no reason to expect a fall in our terms-of-trade. This is because reduced import protection in other countries will lift demand for Australian exports, offsetting the increase in supply. In fact, given that import protection is higher in some other countries than in Australia, a general move towards trade liberalisation is likely to raise rather than lower Australia's terms-of-trade. In that case, the terms-of-trade effect will reinforce rather than offset the gross gain in living standards from improved allocative efficiency.

Second, models such as MM600+ arguably understate export price elasticities of demand to avoid model solution complexities. With sufficiently high export demand elasticities, the terms-of-trade effect would be reduced to the point that the gross gain in living standards from reduced automotive assistance translates into a net gain.

The local production and import price increases for the automotive industry discussed above will feed through to increase the price of business investment. This change in the price of business investment depends on the extent that PMVs are capital inputs to other industries. Chart 3.5.2 shows that this rise in the price of business investment of 0.39 per cent feeds through to reduce the level of business investment by 0.21 per cent.

**Chart 3.5.2**  
**Business Investment Effects: No ACIS Scenario**



#### 4. Reduced Automotive Assistance Scenario

Under this scenario, assistance of the automotive industry is reduced. Specifically, the PMV tariff is halved from its 2005 rate of 10 per cent to a new rate of 5 per cent. ACIS funding is also halved from the level that will apply from 1 January 2005. The automotive industry assistance rates that are applied in this scenario are shown in Table 4.1. The modelled tariff rates shown in this table in the column for 2005 are less than the statutory PMV tariff rate in that year of 10 per cent for the two reasons already explained in section 2.3.

The results of this scenario show that halving automotive industry assistance has a slightly positive effect on GDP. Of most importance is the finding that halving automotive industry assistance leads to significant gross gain in consumer living standards, as considered at length in the latter part of this section.

This Reduced Automotive Assistance Scenario also turns out to result in a similar reduction in assistance to the automotive industry as did the previous No ACIS Scenario, with local automotive production down by about 10 per cent in both scenarios. However, the Reduced Automotive Assistance Scenario is achieved by halving assistance provided through both the PMV tariff and ACIS, whereas the previous No ACIS Scenario left the PMV tariff unchanged but abolished ACIS completely.

The different method of assistance reduction in the Reduced Automotive Assistance Scenario leads to different effects on prices for imported and locally-produced automotive products. This leads to different effects elsewhere in the economy.

**Table 4.1**  
**Modelled Assistance Rates: Reduced Automotive Assistance Scenario**

	cif tariff rates: 2005	cif tariff rates: 50% Auto	prod'n tax rates: 2005	prod'n tax rates: 50% Auto
Passenger motor vehicles	7.7%	4.7%	-3.2%	-1.6%
Buses	4.7%	4.7%	0.0%	0.0%
Chassis with engines	6.0%	4.1%	-2.9%	-1.4%
Other MVs & parts	6.0%	4.1%	-2.9%	-1.4%
Motor vehicle bodies	4.5%	4.4%	0.0%	0.0%
Caravans & campers	3.7%	3.7%	0.0%	0.0%
Semi-trailers	1.4%	1.4%	0.0%	0.0%
Trailers	4.6%	4.6%	0.0%	0.0%
Truck & bus body panels	4.3%	4.3%	0.0%	0.0%
MV transmissions	8.7%	4.7%	-2.8%	-1.4%
Other t'port equip. & parts	1.1%	1.1%	0.0%	0.0%
MV Repairs	0.0%	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%
Rubber tyres	8.5%	4.3%	-2.8%	-1.4%

#### 4.1 Detailed Automotive Industry Effects

##### Local Production and Import Price Effects

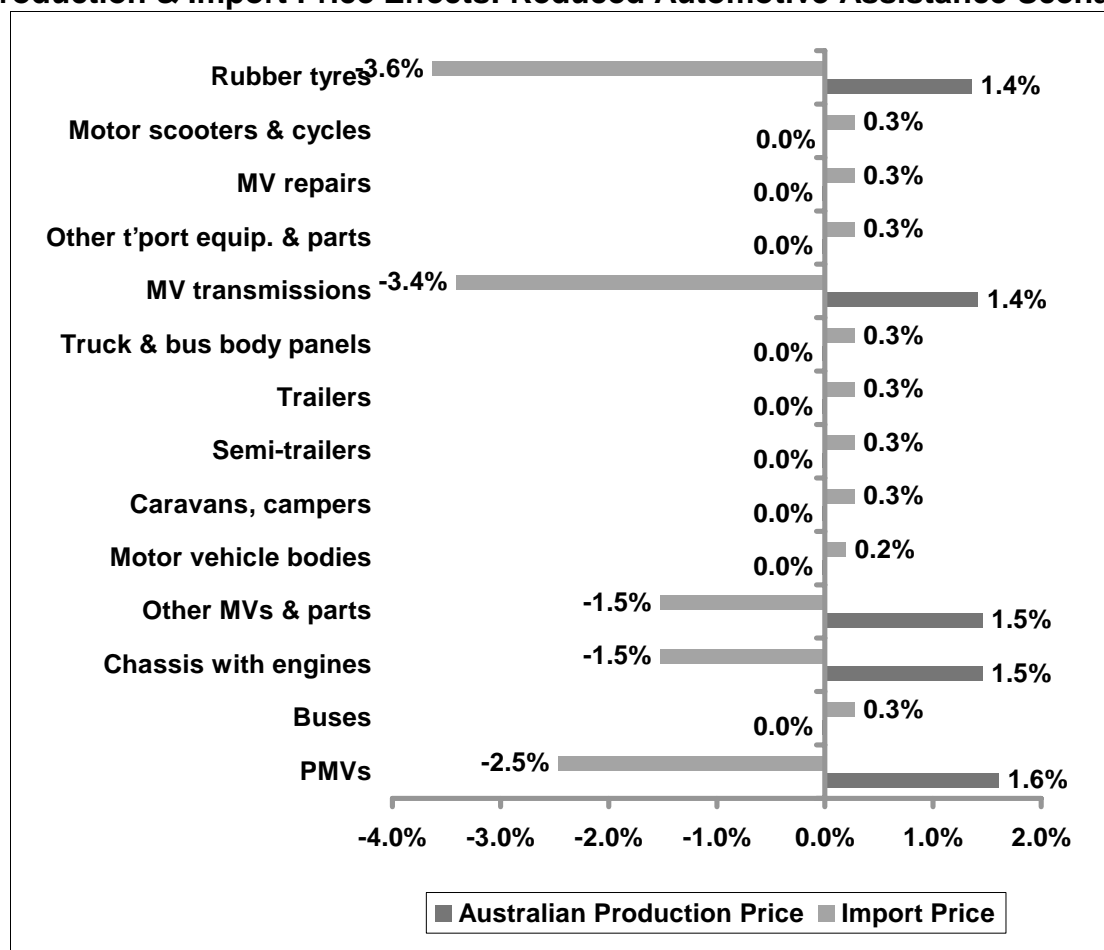
Halving assistance of the automotive industry will have varying effects on the prices of locally produced motor vehicles and parts, as shown in Chart 4.1.1. Where ACIS applies – rubber tyres, transmissions, PMVs, chassis and motor vehicles and parts – the price of local

production of these products will rise by at least 1.4 per cent. This rise is due to the cut in production subsidies from cutting ACIS funding. Where ACIS does not apply, the prices of the remaining locally produced automotive products are estimated to remain unchanged.

On the imports side, where the tariff cut applies – rubber tyres, transmissions, PMVs, chassis and motor vehicles and parts – import prices will fall. For example, the tariff cut leads to price falls of between 1.5 and 3.6 per cent and will also lead to a lower cost structure of downstream using industries.

The prices of the remaining imported automotive products that are not subject to PMV tariffs are estimated to increase. These products include truck and bus body panels, trailers, semi-trailers, caravans and campers. The price increases of 0.3 per cent are the result of the depreciation of the Australian dollar, which is required to restore external balance in the face of a deterioration in the competitiveness of the local automotive industry.

**Chart 4.1.1**  
**Production & Import Price Effects: Reduced Automotive Assistance Scenario**



The price changes under this scenario are moderately different than the price changes under the previous No ACIS Scenario for the following reasons.

- Where the tariff cut applies, the price of these imported automotive products falls by between 1.5 and 3.6 per cent. Under the No ACIS Scenario, the PMV tariff was left unchanged so import prices for these products rose by 0.4 per cent, in line with the depreciation of the exchange rate.

- Where ACIS applies, under the Reduced Automotive Assistance Scenario, local motor vehicle and component producers still receive production subsidies. This means that the change in local production prices is significantly smaller for these products than under the No ACIS Scenario.

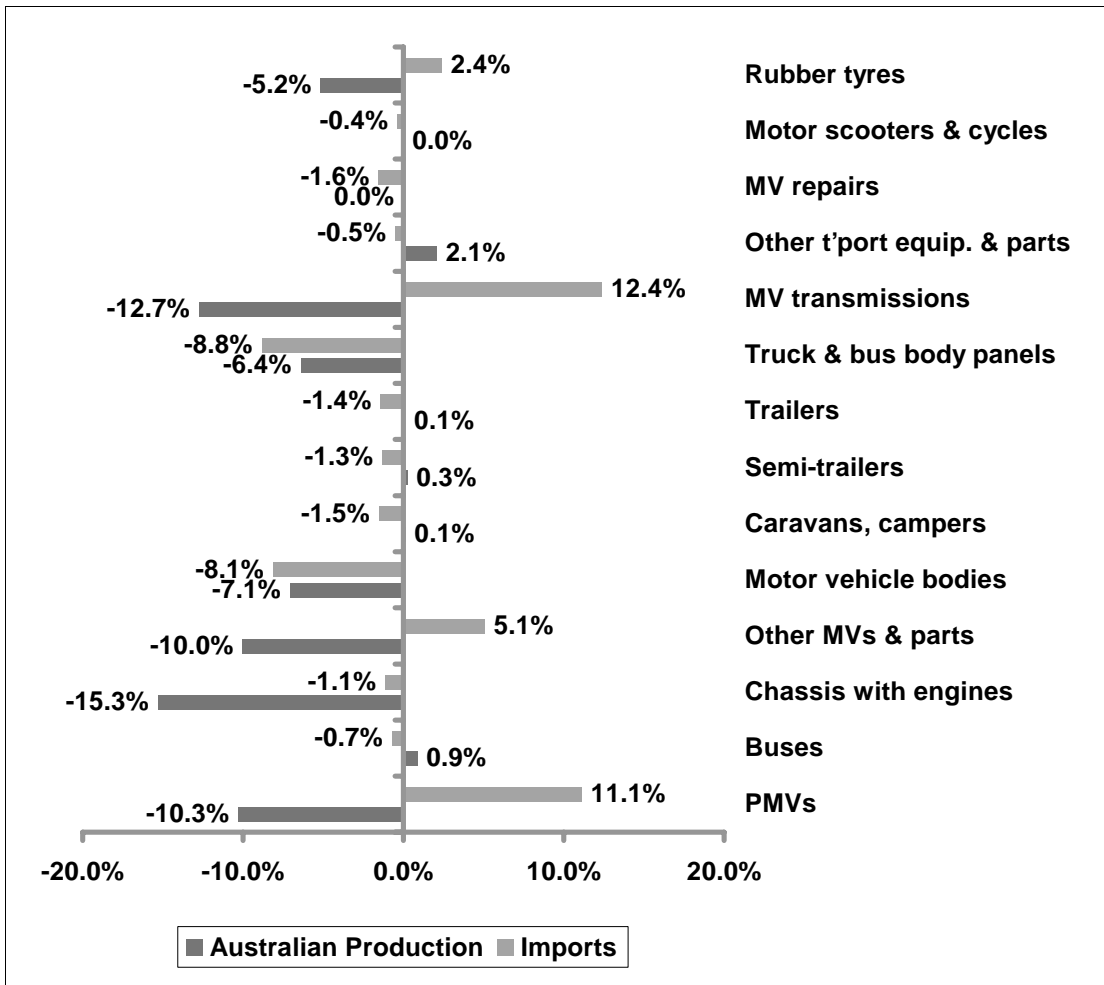
### Local Production and Trade Volume Effects

The fall in import prices of some automotive products will encourage a move away from locally manufactured automotive products toward imported equivalents.

For example, with the halving of automotive industry assistance, in the case of motor vehicle transmissions, the price of domestically produced transmissions is estimated to rise by 1.4 per cent, as shown in Chart 4.1.1. At the same time, the price of imports of automotive products is estimated to increase by 3.4 per cent. This implies a rise of 4.8 per cent in the relative price of domestic production and applying the elasticity of substitution of 5.2 to this price rise gives a predicted percentage change in relative volume terms of 25.0 per cent.

As Chart 4.1.2 shows, the volume of locally produced motor vehicle is estimate to fall by 12.7 per cent while imports are estimated to rise by 12.4 per cent, a similar difference of 25.1 per cent.

**Chart 4.1.2**  
**Production & Trade Volume Effects: Reduced Auto. Assistance Scenario**



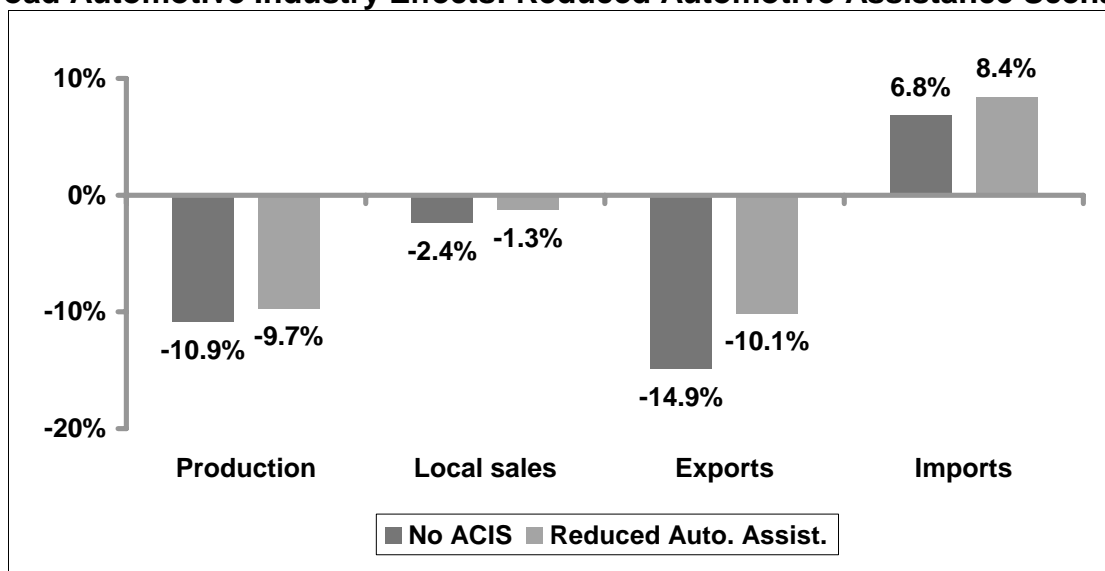
Where the tariff cut applies, the volume of imported motor vehicles and parts is estimated to increase. The tariff cut induces higher volumes of at least 5.1 per cent for other motor vehicles and parts and as high as 12.4 per cent for motor vehicle transmissions compared to the Baseline Scenario. In contrast, the volume of all other imported automotive products is estimated to be lower than in the baseline with the main products affected being truck and bus body panels and motor vehicle bodies.

Again, the effects under the Reduced Automotive Assistance Scenario are moderately different than the production effects under the No ACIS Scenario. Where the tariff cut applies under the Reduced Automotive Assistance Scenario, there are larger increases for the volume of imported motor vehicles and parts. This is due to Australian consumers and businesses buying more imported PMVs and parts as the price of these products falls.

#### 4.2 Broader Automotive Industry Effects

Halving the assistance of the automotive industry is expected to mean that automotive industry production is lower than in the baseline. Specifically, Chart 4.2.1 shows production is lower by 9.7 per cent as consumers and businesses substitute imported for locally manufactured automotive products. In turn, employment of the automotive industry is also estimated to be lower by a similar percentage, which implies a loss of 8,400 jobs. Finally, local sales of the automotive industry are estimated to fall by 1.3 per cent.

**Chart 4.2.1**  
**Broad Automotive Industry Effects: Reduced Automotive Assistance Scenario**



These results do not mean that production and employment are lower in the economy generally. Rather the reductions in automotive industry production and employment are offset by gains in other sectors of the economy. As shown later, at the national level, total production is maintained or increased, while total employment is unaffected.

Comparing the results in Chart 4.2.1, the Reduced Automotive Assistance Scenario turns out to result in a similar reduction in local automotive production as did the previous No ACIS Scenario. That is, the two alternative methods of reducing automotive industry assistance —

abolishing ACIS versus halving both ACIS and PMV tariffs — lead to a similar effect on automotive industry production, which in both cases is about 10 per cent lower than in the Baseline Scenario.

Also both methods of reducing assistance mainly impact on automotive production through trade flows, rather than through a loss of local sales. For example, halving automotive assistance leads to a larger rise in the volume of imports than abolishing ACIS. For example, halving assistance leads to a rise in the volume of imports of 8.4 per cent while abolishing ACIS leads to a rise of only 6.8 per cent. The difference is largely the result of cutting PMV tariffs, which makes imported automotive products cheaper while abolishing ACIS leads to a rise in the price of imports.

Further, there is also a significant difference between the effect on the volume of exports under each scenario. Under the No ACIS Scenario, all funding is abolished so average production (or export) subsidies for motor vehicles and parts fall to zero. The volume of exports is estimated to fall by 14.8 per cent as exports of automotive products are directly affected by this subsidy cut.

### 4.3 Wider Industry Effects

The lower automotive industry production will have wider industry effects, as shown in Chart 4.3.1. For example, the lower production leads to net higher production in other industries.

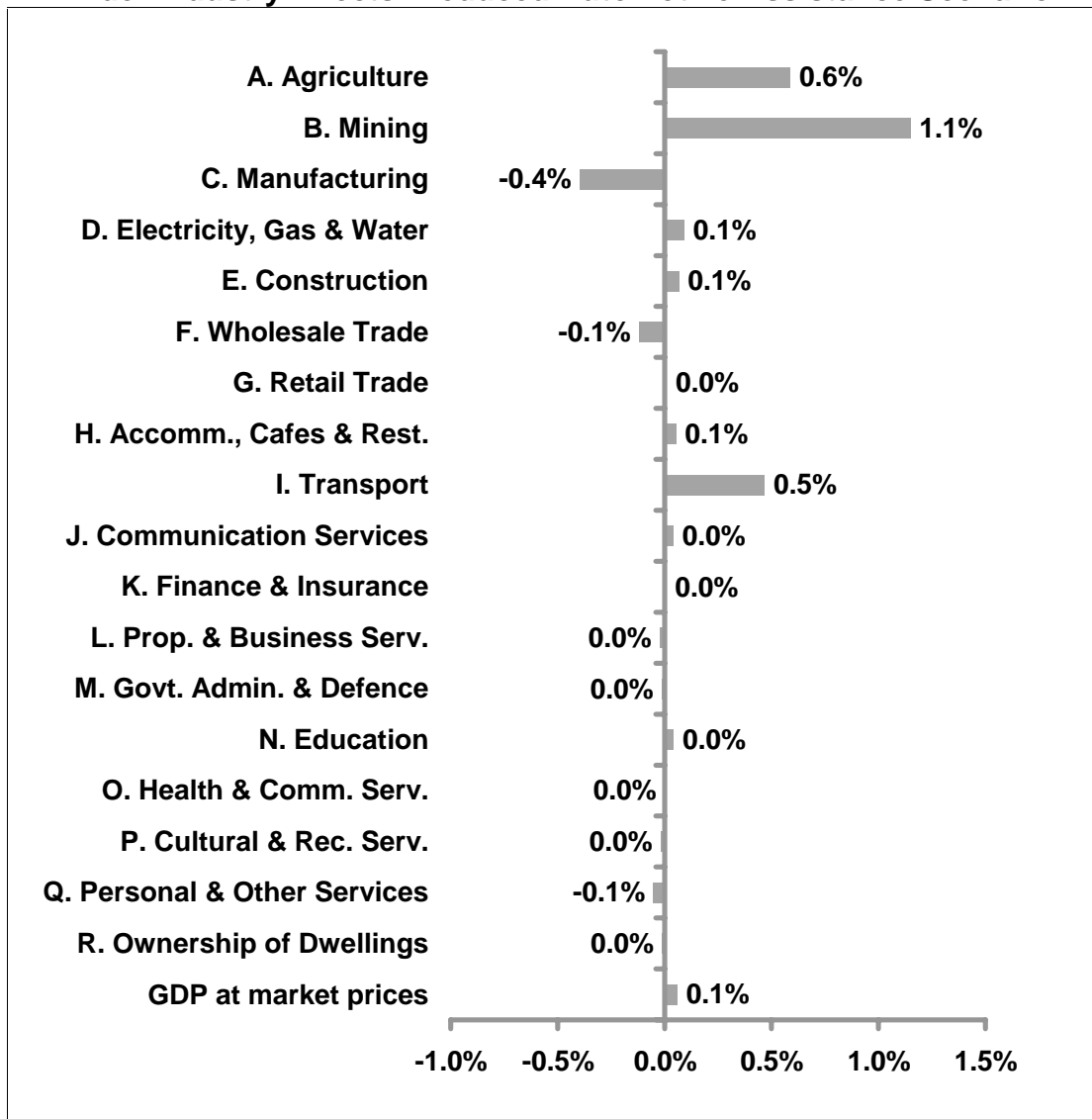
On the export side, halving the assistance of the automotive industry will benefit export-orientated industries and import-competing industries. This is the result of a depreciation of the exchange rate. For example, the lower exchange rate will make agricultural and mining industry exports cheaper and therefore lead to a rise in exports of products, and this flows through to stimulate additional industry production.

This expansion in the agriculture and mining industries flows through to downstream manufacturing industries. For example, the increase in production of the agriculture industry stimulates flow on effects in related manufacturing sectors such as food processing. The increase in production of the mining industry will have flow on effects in minerals processing industries such as iron and steel manufacturing.

Import-competing industries will also benefit from the lower exchange rate. This includes locally manufactured textiles, clothing and footwear because the price of competing imports increases with the lower exchange rate.

Overall production of the manufacturing industry is estimated to be lower by 0.4 per cent than in the baseline. This is due to the lower production of the automotive industry, and products used to manufacture motor vehicles, more than offsetting the higher production in other areas of the manufacturing industry such as food processing and textiles, clothing and footwear.

**Chart 4.3.1**  
**Wider Industry Effects: Reduced Automotive Assistance Scenario**



#### 4.4 Regional Effects

It is expected that production and employment in Adelaide and Melbourne will be lower as a result of the lower production of the automotive industry, as shown in Table 4.4.1. For example, total production in Adelaide is estimated to be lower by 0.9 per cent than in the baseline, while production in Melbourne is estimated to be lower by 0.5 per cent than in the baseline.

The table also shows that employment is lower in both regions. However, halving automotive industry assistance is not expected to affect nation employment. Instead, halving automotive industry assistance is expected to change the regional pattern of employment. So the lower employment in Adelaide and Melbourne is exactly offset by job gains elsewhere in Australia, including Perth and Hobart.



**Table 4.4.1**  
**Regional Effects: Reduced Automotive Assistance Scenario**

	Production	Employment
Sydney	0.1%	0.1%
Hunter - Illawarra	0.3%	0.3%
North Coast NSW	0.2%	0.2%
South Eastern NSW	0.4%	0.4%
Inland NSW	0.5%	0.4%
Melbourne	-0.5%	-0.5%
Gippsland	0.5%	0.4%
Western Vic	-0.3%	-0.4%
Murray	-0.3%	-0.4%
Brisbane	0.1%	0.1%
Moreton	0.2%	0.2%
Southern Qld	0.4%	0.4%
Central Qld	0.7%	0.6%
Far North	0.5%	0.4%
Adelaide	-0.9%	-1.0%
Balance of SA	-0.2%	-0.4%
Perth	0.4%	0.4%
Lower Western WA	0.6%	0.5%
Remainder WA	1.0%	1.0%
Hobart	0.3%	0.3%
Balance of Tasmania	0.5%	0.5%
Northern Territory	0.9%	0.9%
ACT	0.1%	0.1%
Australia	0.1%	0.0%

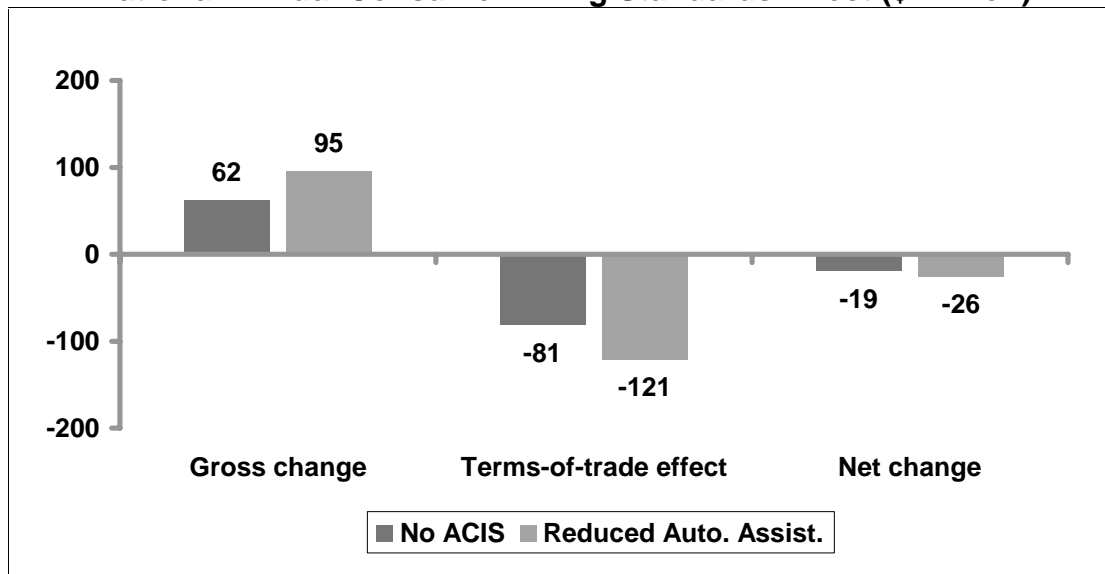
#### 4.5 National Macroeconomic Effects

Halving automotive industry assistance leads to a gross annual gain in consumer living standards. As shown in Chart 4.5.1 below, gross annual consumer living standards rise by \$95 million as a result an improvement in resource allocation. For example, labour and capital resources of the automotive industry move away from lower-valued to higher-value uses.

Halving automotive industry assistance also leads to fall in consumer living standards through a fall in the terms-of-trade. Specifically, annual consumer living standards fall by \$121 million.

Chart 4.5.1 shows how the consumer gain from improved allocative efficiency and the consumer loss from a lower terms-of-trade balance out in the net effect on consumer living standards. Importantly, these two effects almost balance out, leaving only a marginally negative effect on consumer living standards from halving automotive industry assistance. However, there are two reasons for putting more emphasis on the gross effect, which shows a clear gain in consumer living standards.

**Chart 4.5.1**  
**National Annual Consumer Living Standards Effect (\$ million)**



Comparing the consumer living standards results of the two scenarios shown in the chart, there is a larger gain in gross consumer living standards for the Reduced Automotive Assistance Scenario. This is due to halving automotive industry assistance resulting in a larger reduction in assistance than just abolishing ACIS, which leads to greater improvements in allocative efficiency.

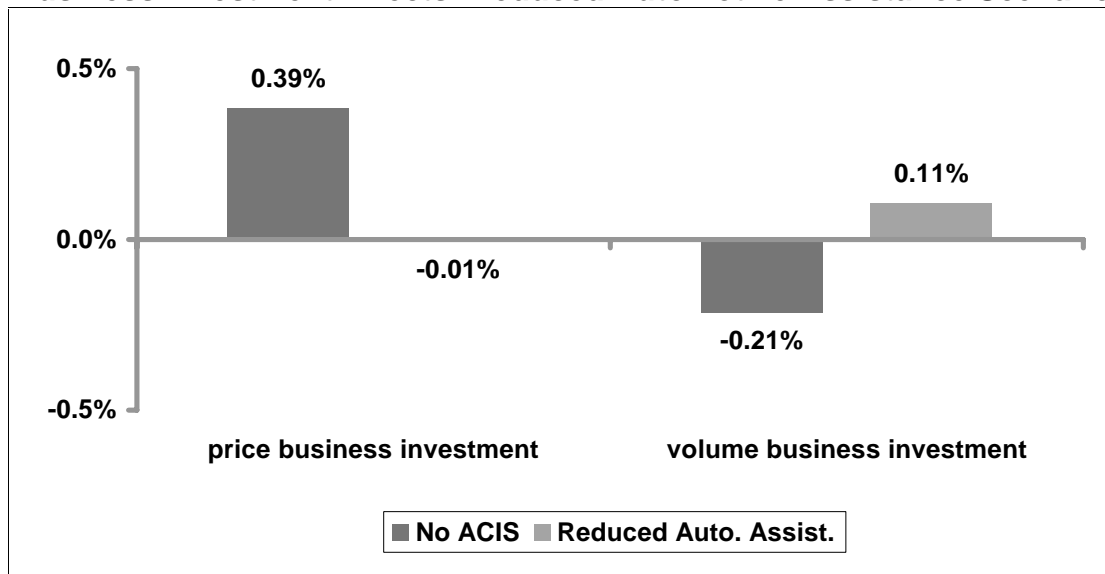
Another difference between the results of the two scenarios is the terms-of-trade effect. Specifically, there is a smaller terms-of-trade effect for the No ACIS Scenario. ACIS is effectively an export subsidy so reducing this subsidy will lead to a smaller rise in the volume of exports across the economy compared to halving automotive industry assistance. This smaller rise in exports will limit the fall in national income.

For the both scenarios, the consumer gain from improved allocative efficiency and the consumer loss from a lower terms-of-trade almost balance out, leaving only a marginally negative effect on consumer living standards.

The local production and import price changes for the automotive industry discussed above will feed through to change the price of business investment. Chart 4.5.2 shows that the overall price of business investment remains broadly unchanged. This is the result of the investment price cuts from lower PMV tariffs broadly offsetting the investment price increases from the cut in ACIS. The end result is that the level of business investment increases by 0.11 per cent as businesses purchase cheaper imported motor vehicles and parts.

The difference between the No ACIS Scenario and Reduced Automotive Assistance Scenario is due to the reduction in PMV tariffs. Specifically, the level of business investment only increases where tariff cuts apply as the price of investment items such as PMVs falls.

**Chart 4.5.2**  
**Business Investment Effects: Reduced Automotive Assistance Scenario**



### Contribution of Assistance Changes to Consumer Living Standards

The Reduced Automotive Assistance Scenario models the economy-wide effects of simultaneously halving both PMV tariffs and ACIS funding. This section analyses the separate contribution to the results of each of these two changes in assistance to consumer living standards by modelling them separately in the following two scenarios.

- **Half PMV Tariffs Scenario.** Under this scenario, the PMV tariff is halved from its 2005 rate of 10 per cent to a new rate of 5 per cent.
- **Half ACIS Scenario.** Under this scenario, ACIS funding is halved from the level that will apply from 1 January 2005.

Chart 4.5.3 shows that gross gains in consumer living standards of both measures implemented together is significantly different to the total gross gain if each measure is considered separately.

The reason for this is that there is diminishing marginal gains in allocative efficiency from reductions in automotive industry assistance. If assistance is high, resources in the assisted industry are being used highly inefficiently at the margin, and a given reduction in assistance will provide a large gain in allocative efficiency. On the other hand, if assistance is low, resources in the assisted industry are being used less inefficiently at the margin, and the same reduction in assistance will provide a smaller gain in allocative efficiency.

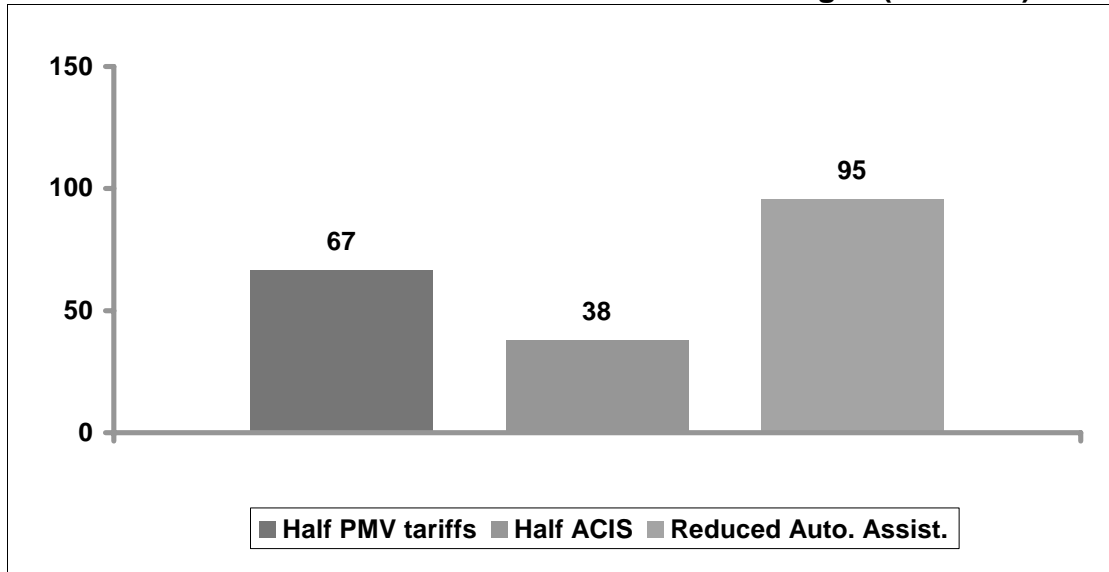
So if each measure to reduce assistance is considered from a starting point where other assistance measures are fully in place, the marginal gain in allocative efficiency will appear larger than if those other assistance measures are not in place. For example, Chart 4.5.3 shows a gain in allocative efficiency of \$105 million if the separate gains from each of the two measures to halve assistance are added together, but this shrinks to \$95 million if both measures are actually halved.

Thus measures to reduce assistance have interactive effects on allocative efficiency. This means that it is not valid to estimate the effects of a package of measures by simply adding

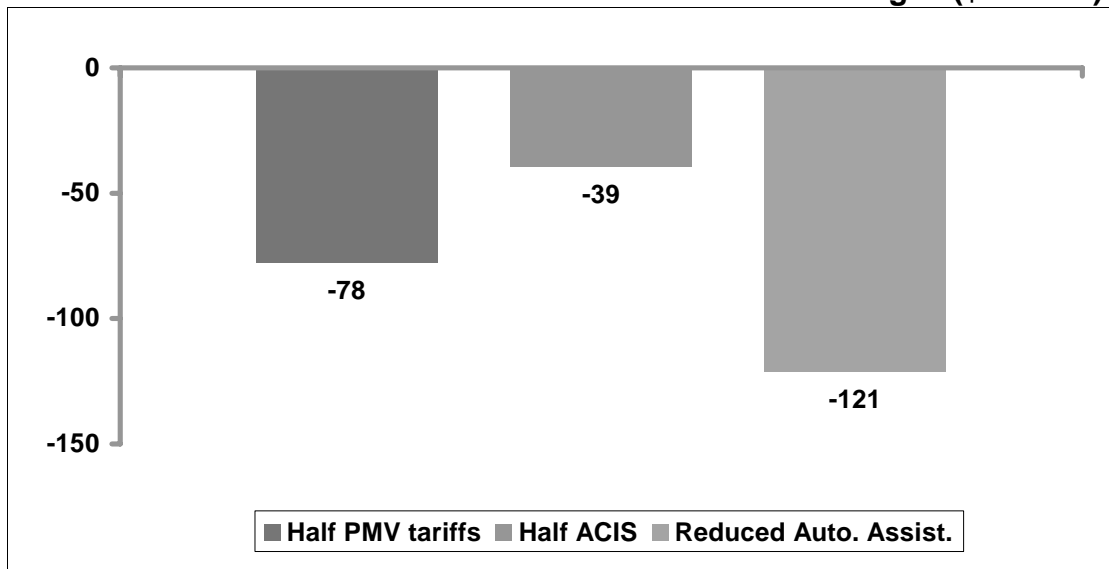
together the allocative efficiency gains of each measure considered separately. Rather, the package of measures under the Reduce Automotive Assistance Scenario needs to be modelled together in a single scenario that includes both measures in the package.

Chart 4.5.3 shows that halving PMV tariffs leads to a larger gross gain in consumer living standards than halving ACIS. This is due to the cut in PMV tariffs resulting in a larger reduction in automotive industry assistance than the cut in ACIS. So this larger reduction in assistance leads to greater improvements in allocative efficiency.

**Chart 4.5.3**  
**Gross Effects: Contribution of Assistance Changes (\$ million)**



**Chart 4.5.4**  
**Terms-of-Trade Effects: Contribution of Assistance Changes (\$ million)**

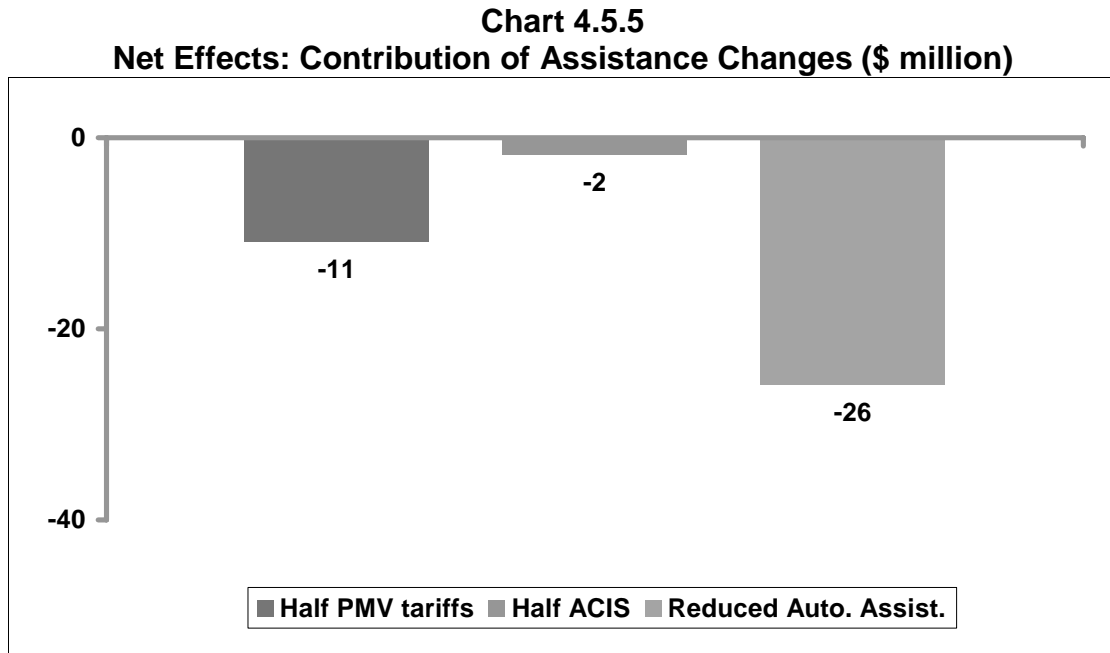


Halving PMV tariffs also leads to a larger terms-of-trade effect, as shown in Chart 4.5.4. This is mainly the result of the cut in PMV tariffs. Cutting tariffs leads to a more open economy and therefore a greater supply of exports to restore the trade balance, which in turn

leads to greater price falls for some exports. For example, halving PMV tariffs leads to an increase in the supply of exports of 0.7 per cent compared to only 0.3 per cent where ACIS funding is halved.

The chart also shows that the terms-of-trade effect of both measures implemented together is similar to the total terms-of-trade effect if each measure is considered separately.

Turning to the net effects, both measures have a broadly neutral effect on annual consumer living standards, as shown in Chart 4.5.5.



For full details of the results of these two scenarios that are used to dissect the Reduced Automotive Assistance Scenario, see Attachment B.

## 5. No Assistance Scenario

Under the No Assistance Scenario, all assistance to the automotive industry is eliminated, including both tariffs and ACIS. The assistance levels in 2005 are used as the starting point.

So in this simulation the PMV tariff rate is cut from its level in 2005 of 10 per cent to zero. Similarly, ACIS is abolished. This involves changing the production subsidies implied by ACIS for motor vehicle producers and component producers of 3.2 per cent and 2.8 per cent respectively to zero. These changes are shown in terms of model inputs in Table 5.1. The modelled tariff rates shown in this table in the column for 2005 are less than the statutory PMV tariff rate in that year of 10 per cent for the two reasons already explained in section 2.3.

In addition, in this No Assistance Scenario, general tariffs that are currently 0 to 5 per cent are abolished. This leaves TCF tariffs as the only remaining significant example of tariff protection.

This No Assistance Scenario turns out to result in a significantly larger reduction in assistance to the automotive industry as did the previous two scenarios. As such, this larger reduction leads to larger price effects for imported and locally produced automotive products. In turn, this leads to larger effects elsewhere in the economy.

**Table 5.1**  
**Modelled Assistance Rates: No Assistance Scenario**

	cif tariff rates: 2005	cif tariff rates: No Assist.	prod'n tax rates: 2005	prod'n tax rates: No Assist.
Passenger motor vehicles	7.7%	0.0%	-3.2%	0.0%
Buses	4.7%	0.0%	0.0%	0.0%
Chassis with engines	6.0%	0.0%	-2.9%	0.0%
Other MVs & parts	6.0%	0.0%	-2.9%	0.0%
Motor vehicle bodies	4.5%	0.0%	0.0%	0.0%
Caravans & campers	3.7%	0.0%	0.0%	0.0%
Semi-trailers	1.4%	0.0%	0.0%	0.0%
Trailers	4.6%	0.0%	0.0%	0.0%
Truck & bus body panels	4.3%	0.0%	0.0%	0.0%
MV transmissions	8.7%	0.0%	-2.8%	0.0%
Other t'port equip. & parts	1.1%	0.0%	0.0%	0.0%
MV Repairs	0.0%	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%
Rubber tyres	8.5%	0.0%	-2.8%	0.0%

### 5.1 Detailed Automotive Industry Effects

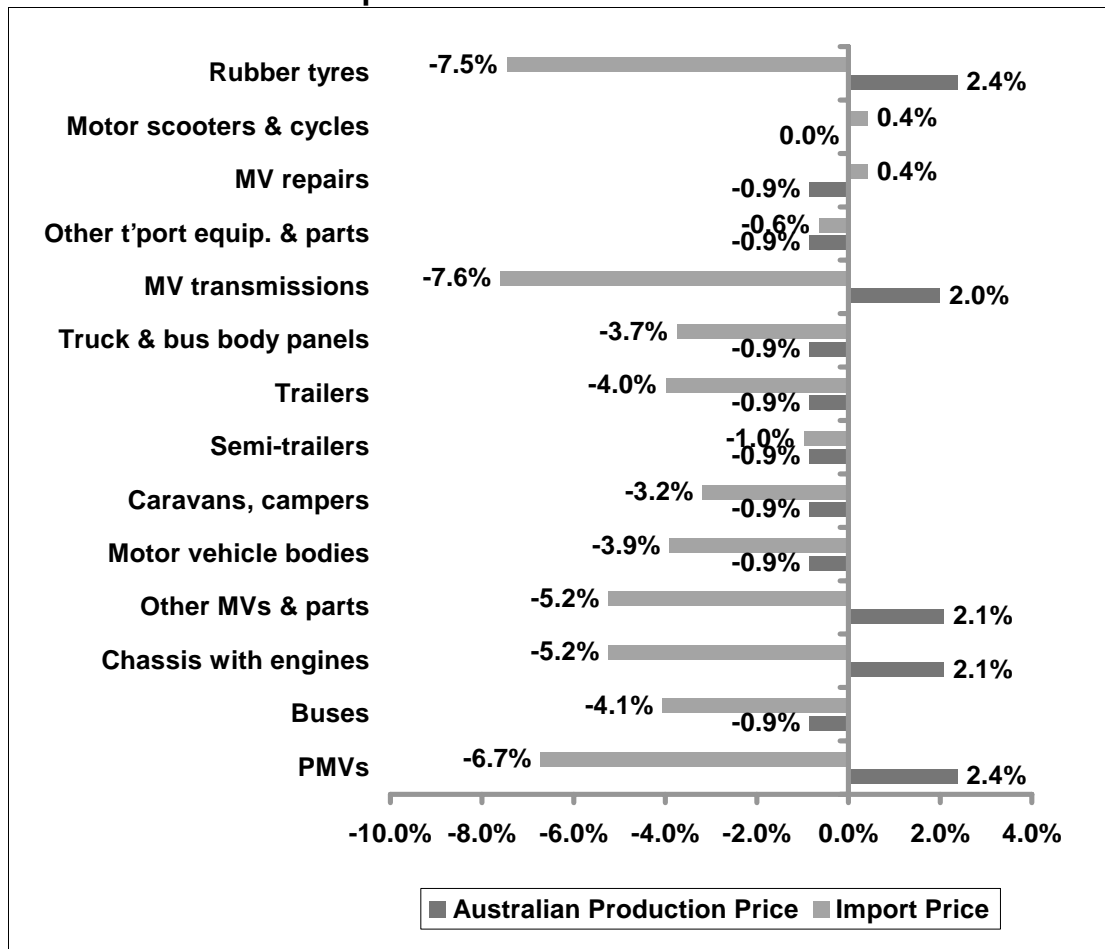
#### Local Production and Import Price Effects

Abolishing all assistance provided to the automotive industry is expected to lead production price rises for some motor vehicles and parts that are manufactured and assembled in Australia. For example, where ACIS currently applies, abolishing ACIS makes locally produced automotive products dearer as local production will no longer be subsidised. This is shown in Chart 5.1.1.

The prices of the remaining locally produced automotive products are estimated to fall. This fall is the result of the tariff cut leading to cheaper imported products for use in motor vehicle and parts production.

On the import side, where the tariff cut applies, reducing PMV tariffs makes imported automotive products cheaper. The prices of the remaining imported automotive products where the PMV tariff cut doesn't apply, are estimated to increase in line with the depreciation of the exchange rate. These products include imported motor scooters and motor cycles.

**Chart 5.1.1**  
**Production & Import Price Effects: No Assistance Scenario**



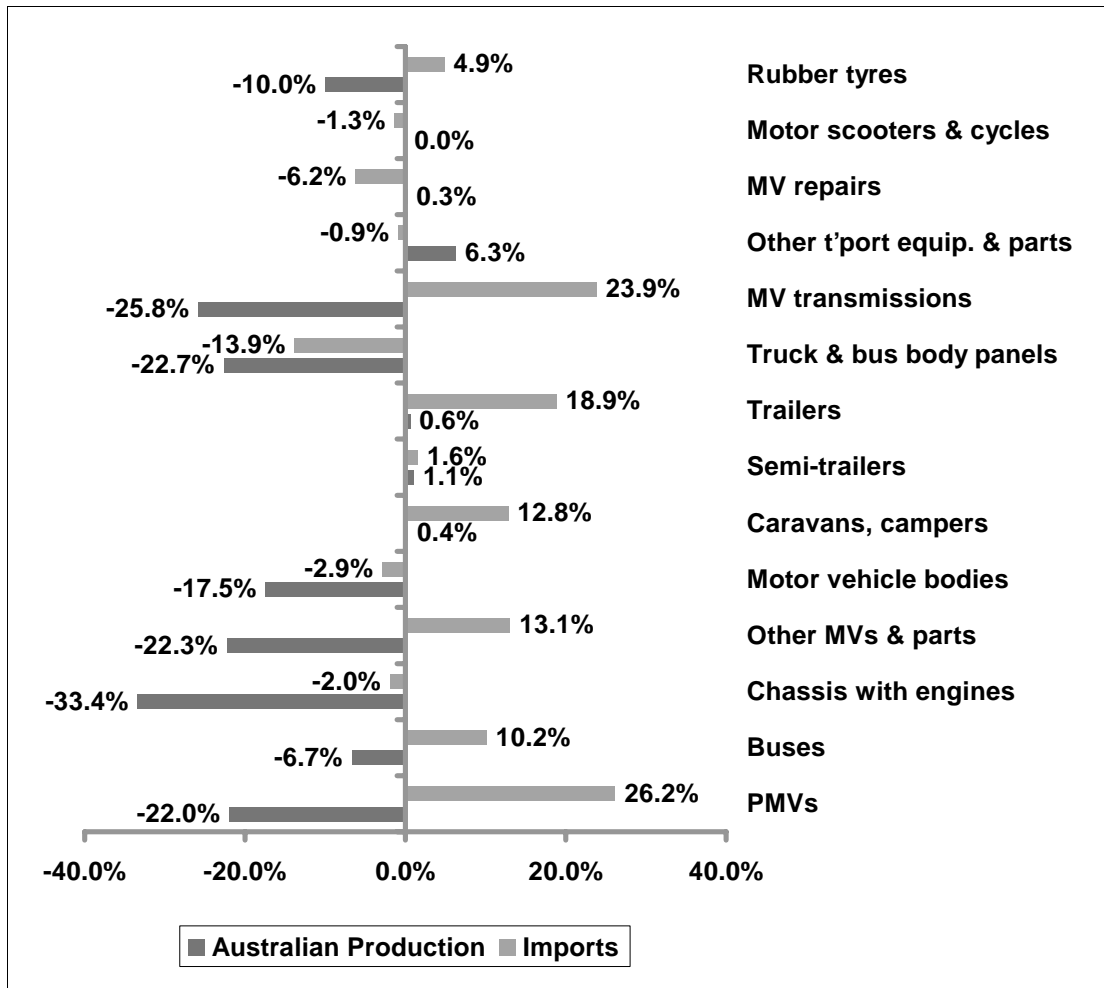
### Local Production and Trade Volume Effects

The price changes shown in Chart 5.1.1 will induce substitution between locally manufactured automotive products and imported automotive products. This rate of substitution between imported and locally produced automotive products can be used to understand the volume effects shown in Chart 5.1.2.

Using PMVs as an example, there is an implied relative price difference of 9.1 per cent for domestic production. Applying the elasticity of substitution of 5.2 to the relative price difference, gives an estimated percentage change in relative terms of 47.3 per cent. As the chart shows, there is a similar difference between the volume of PMV imports and locally

produced PMVs of 48.2 per cent. The apparent discrepancy between 47.3 and 48.2 per cent is explained by function form issues.

**Chart 5.1.2**  
**Automotive Production & Trade Volume Effects: No Assistance Scenario**



The production effects for the No Assistance Scenario are significantly larger than for the previous two scenarios. The differences are mainly due to the removal of all automotive industry assistance leading to larger rises in the relative price of local production, which stimulates a greater substitution of imports for locally produced automotive products.

## 5.2 Broader Automotive Industry Effects

### Automotive Industry

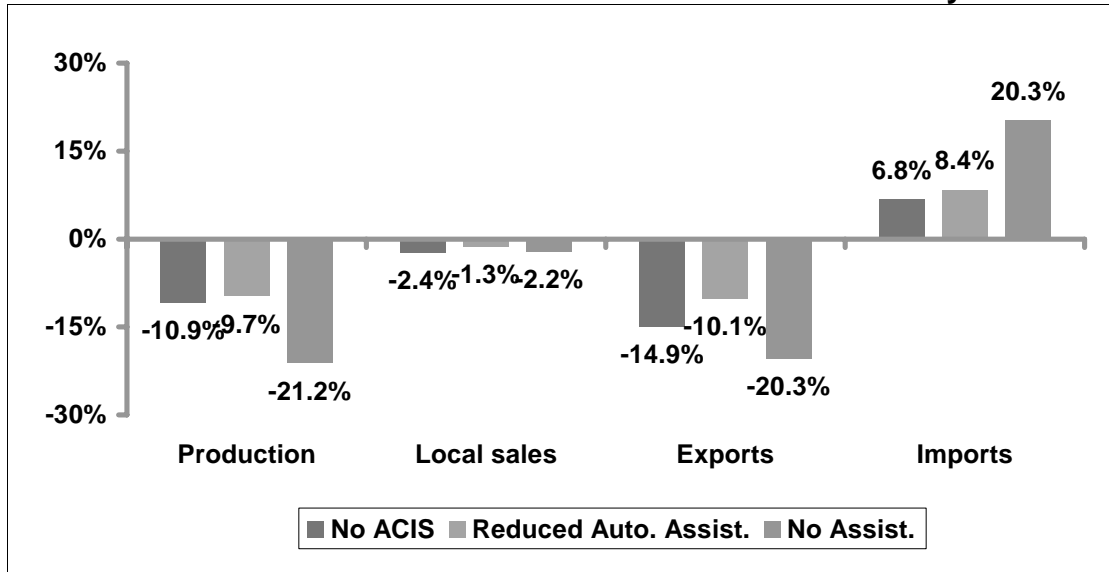
Abolishing all assistance of the automotive industry is expected to mean significantly lower automotive industry production. As seen in Chart 5.2.1, industry production is estimated to be lower by 21.2 per cent. Further, employment of the automotive industry is estimated to be lower by a similar percentage, which implies lower of 18,400 jobs in the automotive industry.

Not surprisingly, the largest effects on automotive industry production are expected if automotive industry assistance is completely eliminated. For example, while halving



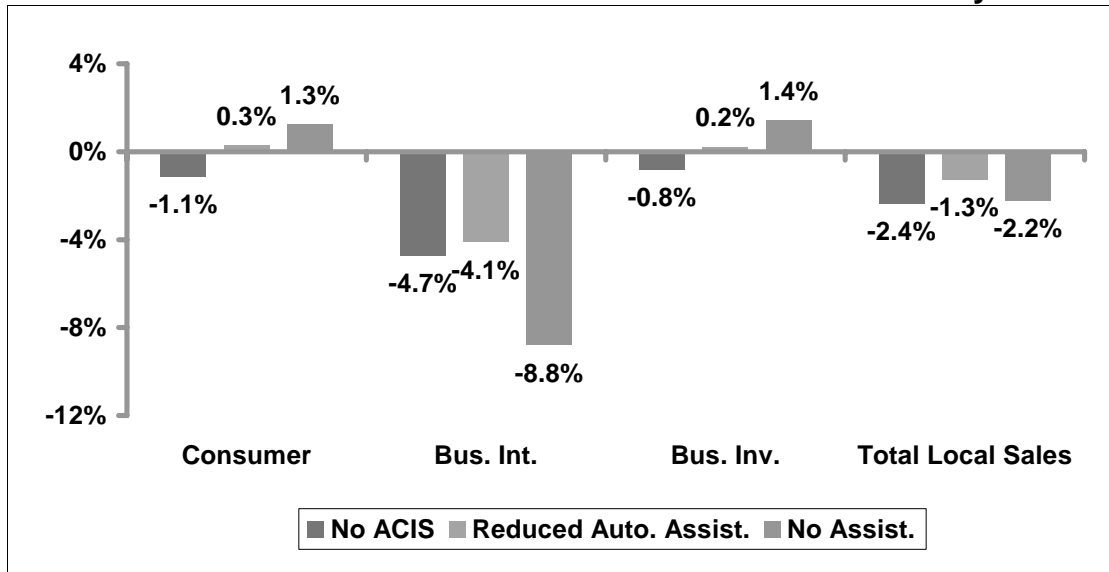
assistance is estimated to lead to a loss in production of about 10 per cent, this rises to about 21 per cent if assistance is completely eliminated.

**Chart 5.2.1  
Broader Automotive Effects: All Automotive Industry**



Local sales of the automotive industry are estimated to be lower by 2.2 per cent if all assistance of the automotive industry is eliminated. Chart 5.2.2 compares the details of the fall in local sales for all three scenarios. Importantly, all three methods of reducing assistance mainly impact on automotive production through trade flows, rather than through a loss of local sales. For example, the chart shows that local sales of the automotive industry are estimated to fall only moderately under all three scenarios.

**Chart 5.2.2  
Local Automotive Sales Effects: All Automotive Industry**



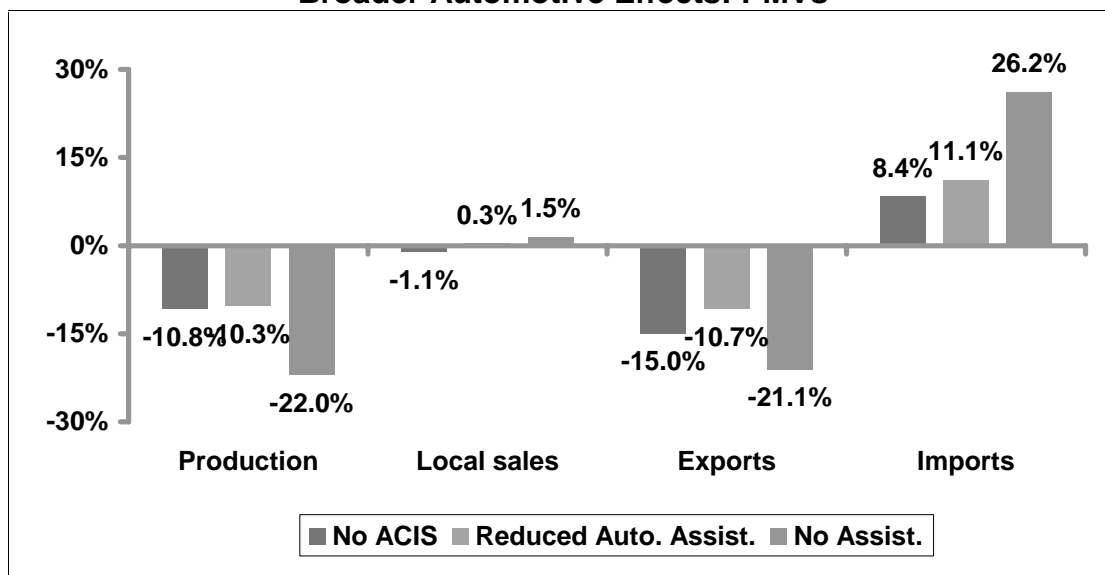
The biggest impact is on business intermediate (i.e. component) purchases: sales of original (as distinct from replacement) components are directly affected by the loss of local PMV production.

Consumer and business investment purchases are less affected than are business intermediate purchases. Nevertheless, removal of ACIS makes locally produced vehicles dearer, leading to lower consumer and business investment purchases, as seen in Chart 5.2.2. In contrast, lower PMV tariffs as part of reduced assistance makes imported vehicles cheaper, leading to higher consumer and business investment purchases, as also seen in Chart 5.2.2.

## Passenger Motor Vehicle Industry

Under the No Assistance Scenario, within the automotive industry, PMV production is estimated to lower by 22.0 per cent than in the baseline. This is the result of substitution of imported PMVs for locally manufactured PMVs. For example, imports of PMVs are estimated to increase by 26.2 per cent, as seen in Chart 5.2.3. This rise in imports is also more than enough to offset the effect of the fall in Australian production on local sales to the extent that total local sales of PMVs are estimated to increase as a result of removing all automotive industry assistance.

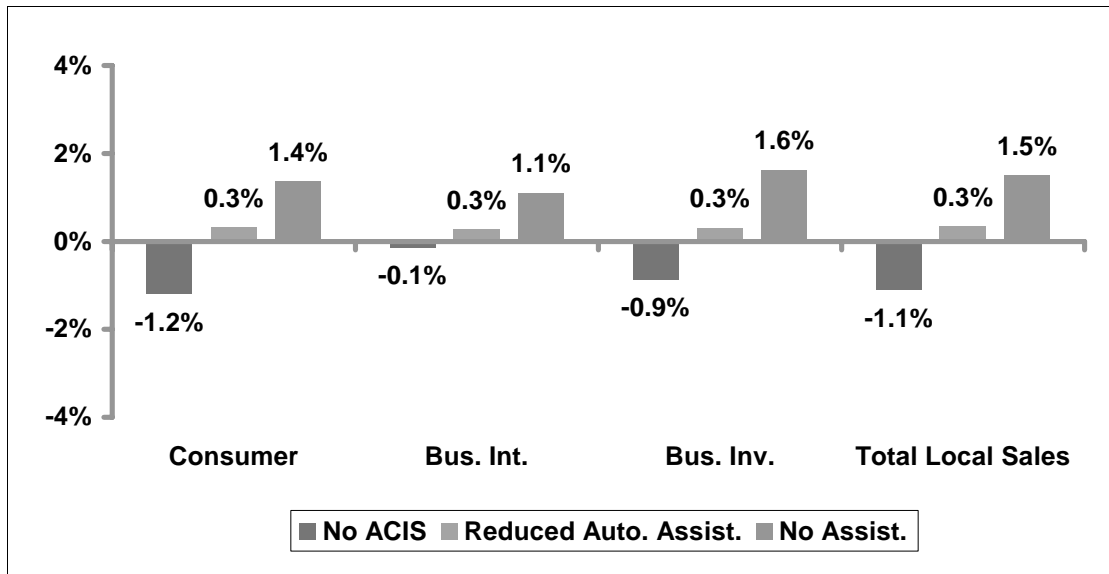
**Chart 5.2.3**  
**Broader Automotive Effects: PMVs**



This small rise in local sales is the result of an increase in purchases of PMVs by both consumers and businesses. As shown in Chart 5.2.4, purchases of PMVs by consumers for personal use and businesses for intermediate use and investment are estimated to increase by at least 1.1 per cent. This is the result of the abolition of PMV tariffs leading to a fall in the price of imported PMVs.

In contrast, under the No ACIS Scenario, there is a decrease in purchases of PMVs by both consumers and businesses. As explained previously, with the abolition of the ACIS scheme, the prices of PMVs that are either locally produced or imported are estimated to increase. These price increases will feed through to a reduction in the demand for PMVs by consumers and businesses.

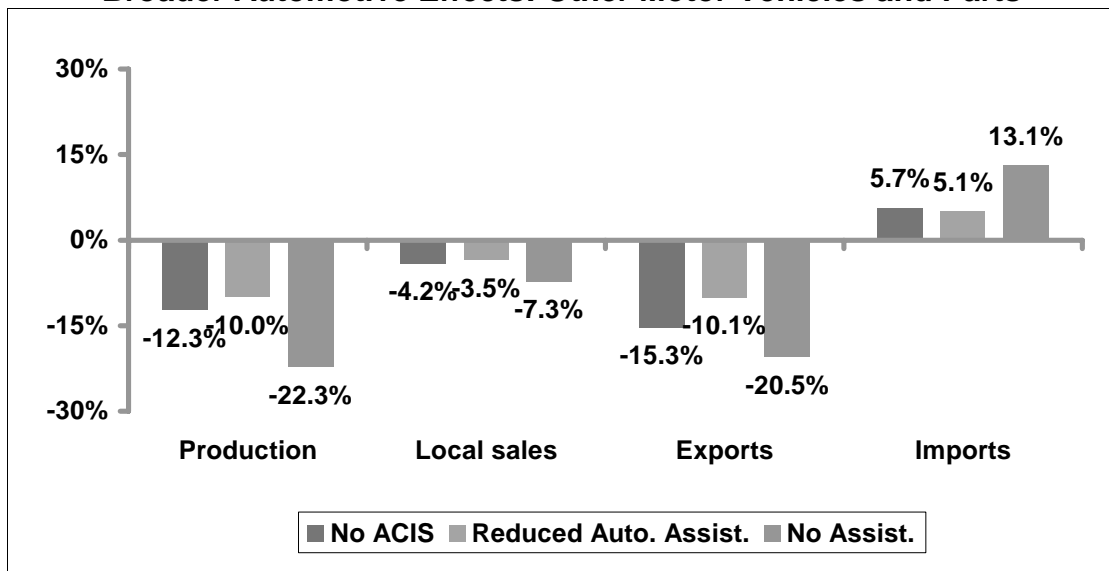
**Chart 5.2.4  
Local Automotive Sales Effects: PMVs**



**Other Motor Vehicles and Parts Industry**

With the removal of automotive industry assistance, production of other motor vehicles and parts is estimated to be lower by 22.3 per cent, as shown in Chart 5.2.5. Other motor vehicles and parts include trucks, utilities, unassembled motor vehicles, automotive air conditioners and body panels.

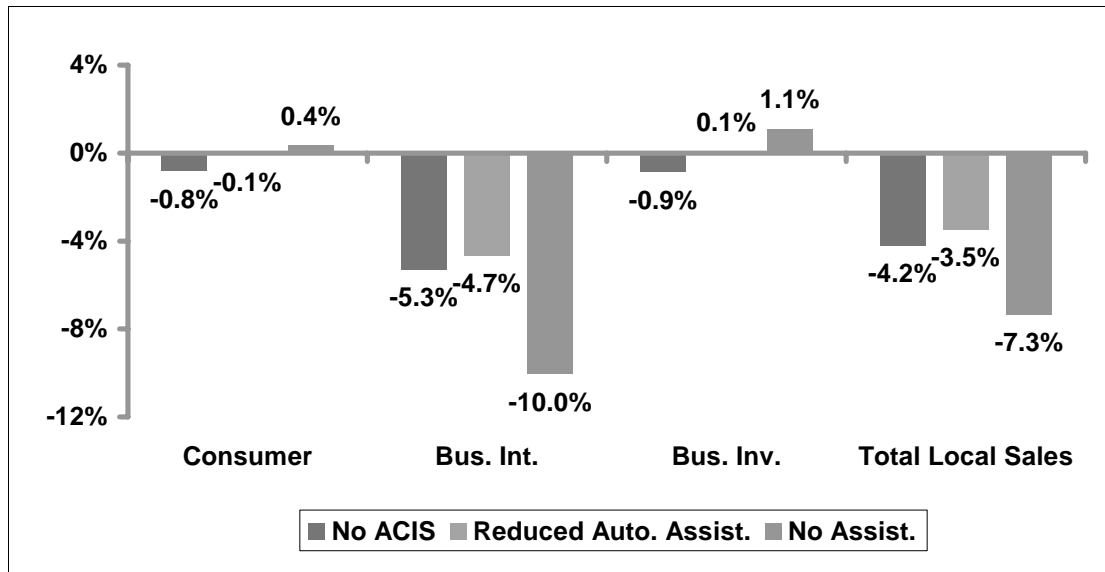
**Chart 5.2.5  
Broader Automotive Effects: Other Motor Vehicles and Parts**



Turning to local sales of other motor vehicles and parts, there are larger local sales effects for business purchases compared to consumer purchases, as shown in Chart 5.2.6. This is the result of business buying other motor vehicles and parts such as body panels and air conditioners for use as inputs in the production of PMVs. In contrast, consumers generally

don't purchase a large quantity of other motor vehicles and parts, but rather buy finished PMVs.

**Chart 5.2.6**  
**Local Automotive Sales Effects: Other Motor Vehicles and Parts**



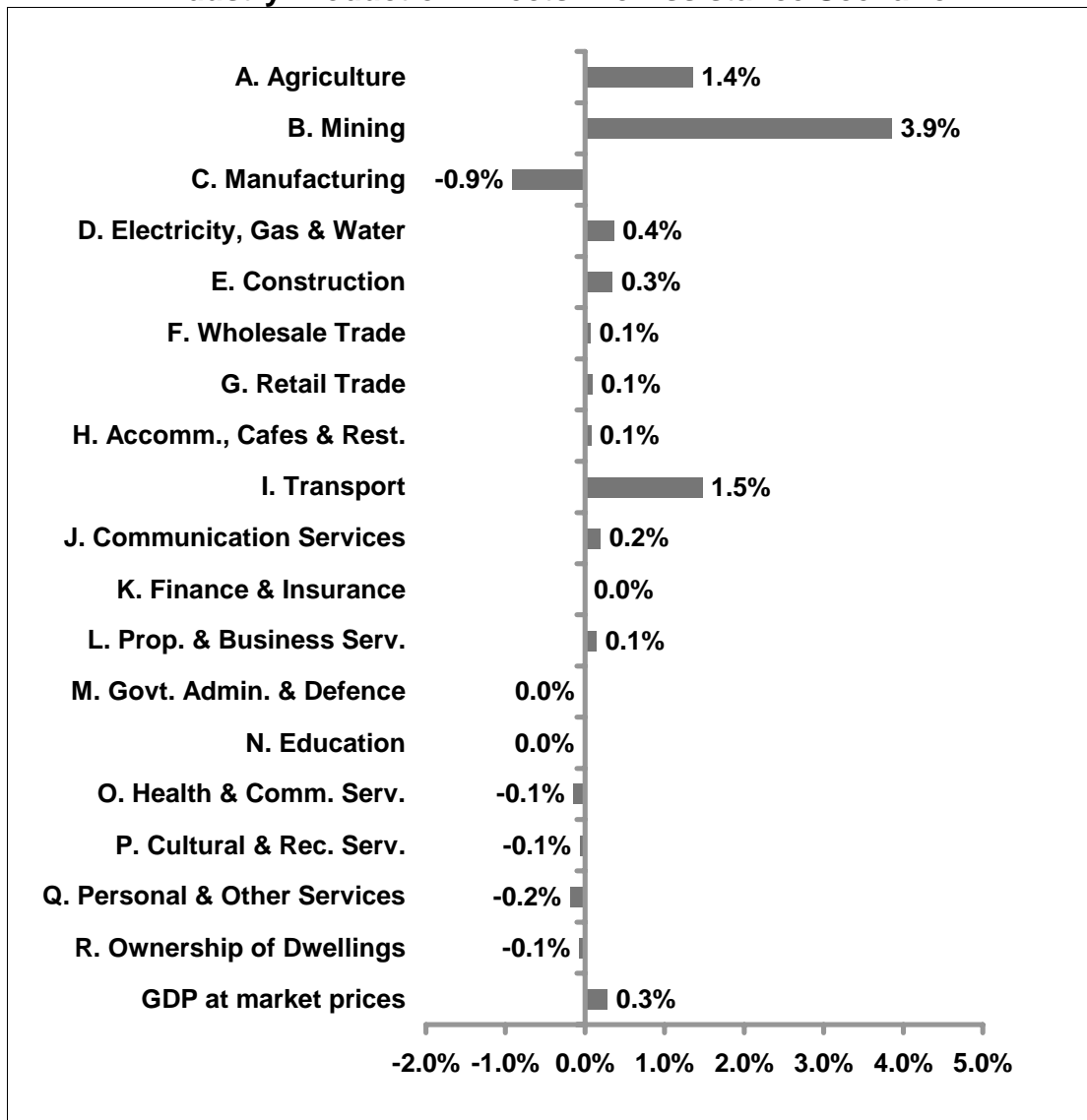
### 5.3 Wider Industry Effects

While reducing automotive assistance leads to lower production in the automotive industry, it leads to higher production in the rest of the economy. Indeed, Chart 5.3.1 shows that the effect on GDP is slightly positive, which implies that the losses in automotive industry production are being matched or more than matched by gains in production elsewhere.

The loss in automotive industry production is reflected in the loss of total manufacturing production in Chart 5.3.1. However, the fall in the net balance of exports and imports in the automotive industry leads to a lower Australian dollar, driving gains in the net balance of exports and imports, and hence in production, for other trade exposed industries.

Thus the chart shows that this depreciation will stimulate production in export-orientated industries such as agriculture and mining by improving their international competitiveness. The expansion in these primary industries will flow through to downstream manufacturing industries including food processing and iron and steel manufacturing. The depreciation of the exchange rate will also benefit import-competing industries such as textiles, clothing and footwear as competing imports become more expensive.

**Chart 5.3.1  
Industry Production Effects: No Assistance Scenario**



#### 5.4 Regional Effects

It is expected that production and employment in Adelaide and Melbourne will be lower as a result of the lower production of the automotive industry, as shown in Table 5.4.1. For example, total production in Adelaide is estimated to be lower by 2.0 per cent than in the baseline, while production in Melbourne is estimated to be lower by 1.0 per cent than in the baseline.

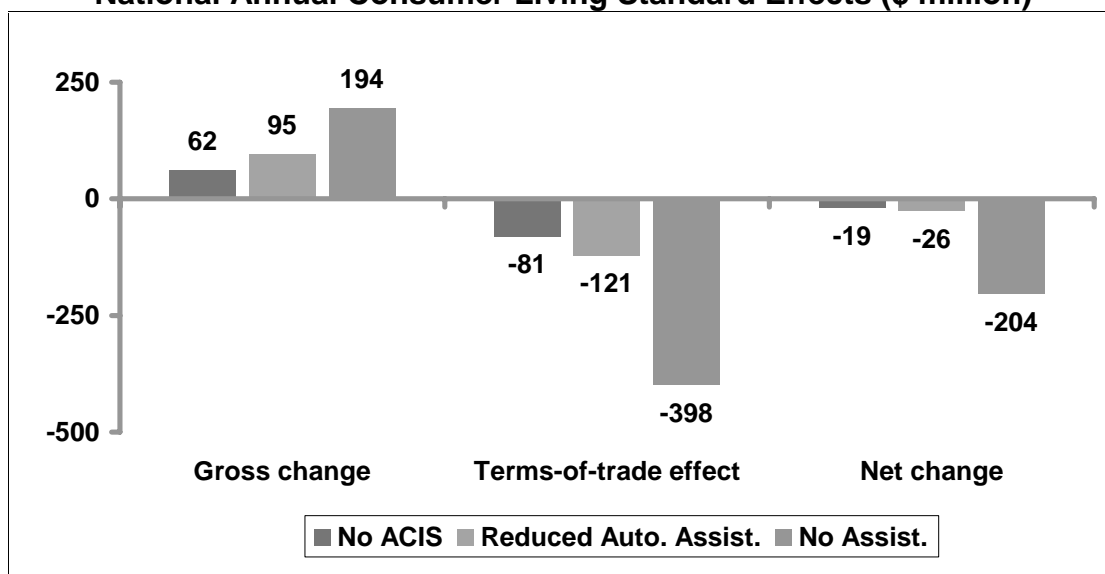
Eliminating all automotive industry assistance is not expected to affect nation employment. Instead, it is only expected to change the regional pattern of employment. So the lower employment in Adelaide and Melbourne is exactly offset by job gains elsewhere in Australia.

**Table 5.4.1**  
**Regional Effects: No Assistance Scenario**

	Production	Employment
Sydney	0.3%	0.1%
Hunter - Illawarra	1.0%	0.6%
North Coast NSW	0.4%	0.3%
South Eastern NSW	0.9%	0.7%
Inland NSW	1.2%	0.9%
Melbourne	-1.0%	-1.3%
Gippsland	1.5%	1.0%
Western Vic	-0.7%	-1.0%
Murray	-0.8%	-1.0%
Brisbane	0.3%	0.1%
Moreton	0.6%	0.4%
Southern Qld	1.0%	0.8%
Central Qld	2.1%	1.7%
Far North	1.3%	1.1%
Adelaide	-2.0%	-2.3%
Balance of SA	-0.4%	-0.9%
Perth	1.4%	1.1%
Lower Western WA	1.6%	1.3%
Remainder WA	3.3%	3.1%
Hobart	0.7%	0.6%
Balance of Tasmania	1.4%	1.1%
Northern Territory	2.8%	2.6%
ACT	0.4%	0.2%
Australia	0.3%	0.0%

## 5.5 National Macroeconomic Effects

**Chart 5.5.1**  
**National Annual Consumer Living Standard Effects (\$ million)**



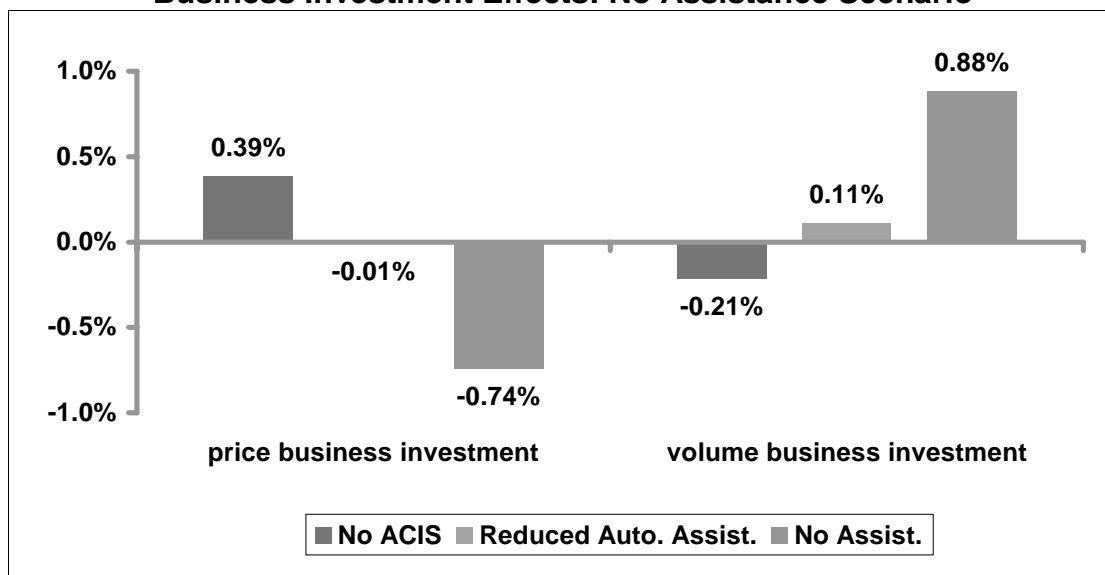
The removal of all automotive industry assistance is expected to lead to higher gross annual consumer living standards, as shown in Chart 5.5.1. The gain of \$194 million is the result of improved allocative efficiency from elimination all assistance of the automotive industry.

The removal of all automotive industry assistance, when viewed in isolation, reduces Australia's terms-of-trade. As a result of this fall, annual national income falls, which leaves consumers worse off by \$398 million compared to the Baseline Scenario.

In net terms, annual consumer living standards are lower by \$204 million compared to the Baseline. So the benefits from eliminating all automotive assistance are less clear if there is no move towards trade liberalisation in other countries. However, as noted previously, there are two reasons for putting more emphasis on the result of a gross gain in consumer living standards.

Comparing scenario results, the terms-of-trade effect is also the largest for the No Assistance Scenario. Under this scenario, all PMV tariffs and general tariffs are abolished. At the present, general tariffs are applied to traditional import-competing industries such as the iron and steel, fruit and vegetable and processed foods industries. As such, there is additional scope under this scenario for a more open economy and therefore a greater supply of exports on to the world market. As a result, the volume of exports across the economy is estimated to increase by 3.6 per cent, which is substantially larger than the corresponding increases under the previous two scenarios.

**Chart 5.5.2**  
**Business Investment Effects: No Assistance Scenario**



Under the No Assistance Scenario, the price changes for the automotive industry will feed through to reduce the price of business investment. Chart 5.5.2 shows that the overall price of business investment falls by 0.74 per cent. The end result is that the level of business investment increases by 0.88 per cent as businesses purchase cheaper imported motor vehicles and parts.

This large increase in the volume of business investment is also partly the reason for the large increase in the volume of exports under the No Assistance Scenario. With a more open

economy, the level of foreign-owned capital increases. To service this increase in foreign-owned capital, the level of exports increases to raise national income.

### Contribution of Assistance Changes to Consumer Living Standards

The No Assistance Scenario models the economy-wide effects of simultaneously abolishing ACIS funding, PMV tariffs and general tariffs. This section analyses the separate contribution to the results of each of these three changes in assistance to consumer living standards by modelling them separately in the following three scenarios.

- **No ACIS Scenario.** Under this scenario, only ACIS is eliminated.
- **No PMV Tariffs Scenario.** This scenario models the abolition of all PMV tariffs in isolation.
- **No General Tariffs Scenario.** Under this scenario, all general tariffs, currently at rates of between 0 and 5 per cent, are eliminated.

Chart 5.5.3 shows that gross gains in consumer living standards of the three measures implemented together is significantly different to the total gross gain if each measure is considered separately for reasons explained previously.

This means that measures to reduce assistance have interactive effects on allocative efficiency. This means that it is not valid to estimate the effects of a package of measures by simply adding together the allocative efficiency gains of each measure considered separately. Rather, the package of measures under the No Assistance Scenario needs to be modelled together in a single scenario that includes all three measures in the package.

**Chart 5.5.3**  
**Gross Effects: Contribution of Assistance Changes (\$ million)**

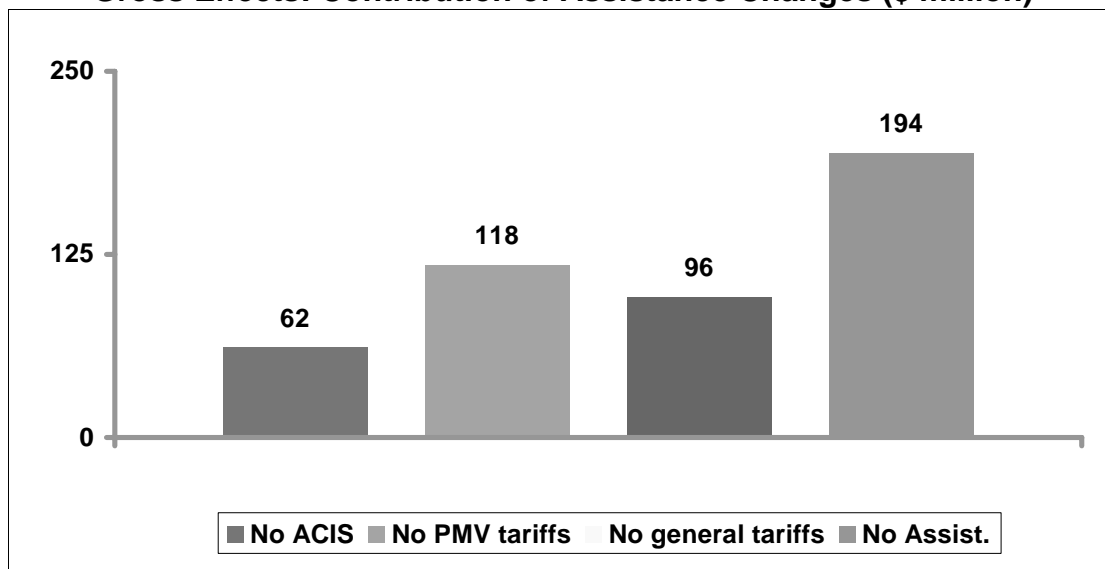
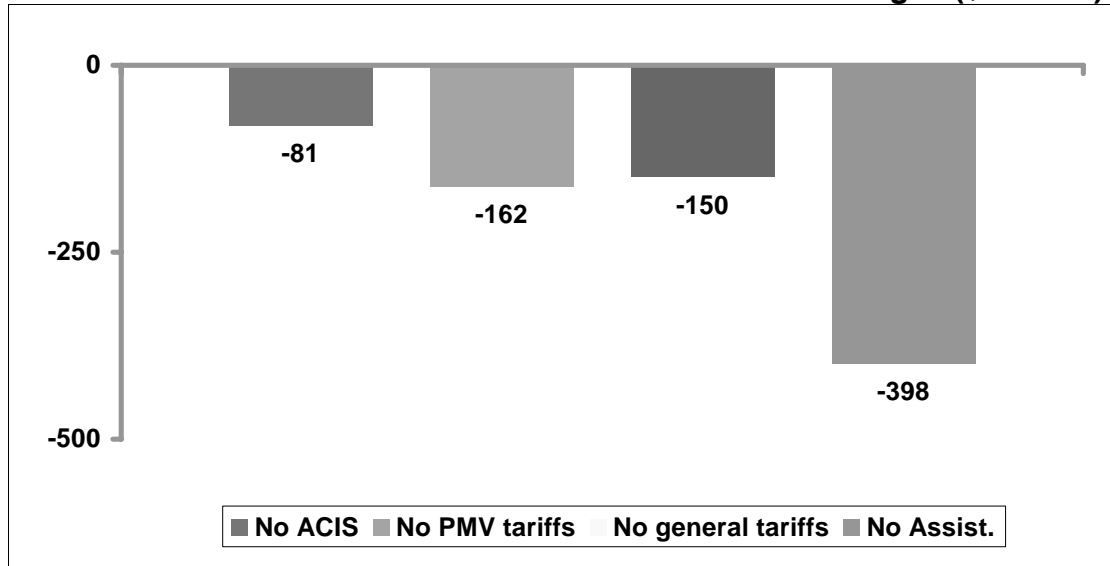


Chart 5.5.3 shows that there are broadly similar gross gains in consumer living standards for both the No PMV Scenario and the No General Tariffs Scenario. This is due to the removal of PMV tariffs and the removal of general tariffs resulting in a similar reduction in assistance and so contribute a similar allocative efficiency gain to the overall gross gain under the No Assistance Scenario.



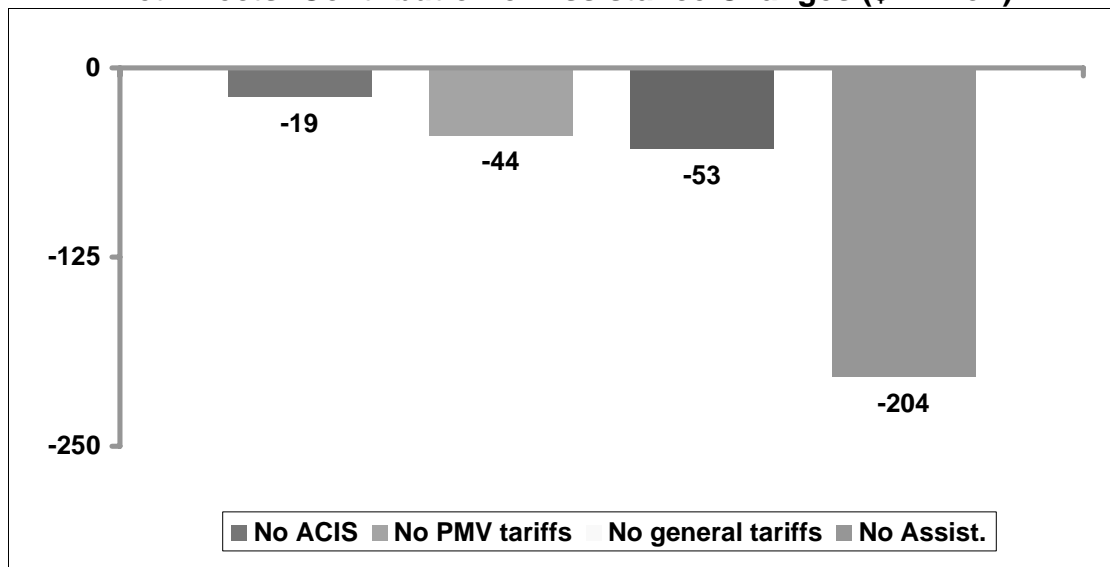
Abolishing PMV tariffs and abolishing general tariffs are expected to make similar contributions to the terms-of-trade effect under the No Assistance Scenario. Both measures lead to a comparable increases in the supply of Australian exports onto world markets. With this similar rise, abolishing PMV tariffs leads to a similar annual fall in consumer living standards, as shown in Chart 5.5.4.

**Chart 5.5.4**  
**Terms-of-Trade Effects: Contribution of Assistance Changes (\$ million)**



Both measures also lead to larger terms-of-trade effects than abolishing ACIS. ACIS is effectively an export subsidy so that reducing this subsidy will lead to a smaller rise in the volume of exports across the economy compared to abolishing PMV tariffs and general tariffs. This smaller rise in exports will limit the fall in consumer living standards resulting from the fall in Australia's terms-of-trade.

**Chart 6.5.5**  
**Net Effects: Contribution of Assistance Changes (\$ million)**



All three scenarios contribute a small net fall in consumer living standards. For each scenario, the two effects on consumer living standards almost balance out, leaving only a marginally negative effect on consumer living standards, as shown in Chart 5.5.5. However, there are two reasons for putting more emphasis on the result of a gross gain in consumer living standards under each scenario.

For full details of the results of these three scenarios that are used to dissect the No Assistance Scenario, see Attachment C.

Overall, the modelling results in this report suggest significant long-term benefits from reducing automotive assistance further to below its 2005 level, especially in the context of a move by other countries towards trade liberalisation. The benefits from going further still and completely abolishing automotive assistance are less clear if there is no move towards trade liberalisation in other countries.

## Attachment A – Detailed Model Simulation Results

This attachment contains detailed model simulation results for the No ACIS Scenario, Reduced Automotive Assistance Scenario and No Assistance Scenario. These tables expand the results presented in the tables and charts of the preceding sections.

**Table 1A**  
**Detailed Automotive Industry Assistance Rates**

	Current average rates	1 January 2005 rates	No ACIS	Reduced Auto. Assist.	No Assist.
<b><i>Tariff Rates:</i></b>					
Passenger motor vehicles	10.6%	7.7%	7.7%	4.7%	0.0%
Buses	4.7%	4.7%	4.7%	4.7%	0.0%
Chassis with engines	7.9%	6.0%	6.0%	4.1%	0.0%
Other MVs & parts	7.9%	6.0%	6.0%	4.1%	0.0%
Motor vehicle bodies	4.6%	4.5%	4.5%	4.4%	0.0%
Caravans & campers	3.7%	3.7%	3.7%	3.7%	0.0%
Semi-trailers	1.4%	1.4%	1.4%	1.4%	0.0%
Trailers	4.6%	4.6%	4.6%	4.6%	0.0%
Truck & bus body panels	4.3%	4.3%	4.3%	4.3%	0.0%
MV transmissions	12.7%	8.7%	8.7%	4.7%	0.0%
Other t'port equip. & parts	1.1%	1.1%	1.1%	1.1%	0.0%
MV Repairs	0.0%	0.0%	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%	0.0%
Rubber tyres	12.8%	8.5%	8.5%	4.3%	0.0%
<b><i>Production Tax Rates:</i></b>					
Passenger motor vehicles	-4.4%	-3.2%	0.0%	-1.6%	0.0%
Buses	0.0%	0.0%	0.0%	0.0%	0.0%
Chassis with engines	-3.4%	-2.9%	0.0%	-1.4%	0.0%
Other MVs & parts	-3.4%	-2.9%	0.0%	-1.4%	0.0%
Motor vehicle bodies	0.0%	0.0%	0.0%	0.0%	0.0%
Caravans & campers	0.0%	0.0%	0.0%	0.0%	0.0%
Semi-trailers	0.0%	0.0%	0.0%	0.0%	0.0%
Trailers	0.0%	0.0%	0.0%	0.0%	0.0%
Truck & bus body panels	0.0%	0.0%	0.0%	0.0%	0.0%
MV transmissions	-2.8%	-2.8%	0.0%	-1.4%	0.0%
Other t'port equip. & parts	0.0%	0.0%	0.0%	0.0%	0.0%
MV Repairs	0.0%	0.0%	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%	0.0%
Rubber tyres	-2.8%	-2.8%	0.0%	-1.4%	0.0%

**Table 2A**  
**Automotive Industry Production Price and Import Price Effects**

	No ACIS	Reduced Auto Assist.	No Assist.
<b><i>Production Prices:</i></b>			
PMVs	4.0%	1.6%	2.4%
Buses	0.7%	0.0%	-0.9%
Chassis with engines	3.7%	1.5%	2.1%
Other MVs & parts	3.7%	1.5%	2.1%
Motor vehicle bodies	0.7%	0.0%	-0.9%
Caravans, campers	0.7%	0.0%	-0.9%
Semi-trailers	0.7%	0.0%	-0.9%
Trailers	0.7%	0.0%	-0.9%
Truck & bus body panels	0.7%	0.0%	-0.9%
MV transmissions	3.6%	1.4%	2.0%
Other t'port equip. & parts	0.7%	0.0%	-0.9%
MV repairs	0.7%	0.0%	-0.9%
Motor scooters & cycles	0.0%	0.0%	0.0%
Rubber tyres	3.2%	1.4%	2.4%
<b><i>Import Prices:</i></b>			
PMVs	0.4%	-2.5%	-6.7%
Buses	0.4%	0.3%	-4.1%
Chassis with engines	0.4%	-1.5%	-5.2%
Other MVs & parts	0.4%	-1.5%	-5.2%
Motor vehicle bodies	0.4%	0.2%	-3.9%
Caravans, campers	0.4%	0.3%	-3.2%
Semi-trailers	0.4%	0.3%	-1.0%
Trailers	0.4%	0.3%	-4.0%
Truck & bus body panels	0.4%	0.3%	-3.7%
MV transmissions	0.4%	-3.4%	-7.6%
Other t'port equip. & parts	0.4%	0.3%	-0.6%
MV repairs	0.4%	0.3%	0.4%
Motor scooters & cycles	0.4%	0.3%	0.4%
Rubber tyres	0.4%	-3.6%	-7.5%

**Table 3A**  
**Detailed Automotive Industry Production Volume and Employment Effects**

	No ACIS	Reduced Auto Assist.	No Assist.
<b><i>Production:</i></b>			
PMVs	-10.8%	-10.3%	-22.0%
Buses	-1.1%	0.9%	-6.7%
Chassis with engines	-16.8%	-15.3%	-33.4%
Other MVs & parts	-12.3%	-10.0%	-22.3%
Motor vehicle bodies	-8.3%	-7.1%	-17.5%
Caravans, campers	-0.3%	0.1%	0.4%
Semi-trailers	-0.3%	0.3%	1.1%
Trailers	-0.3%	0.1%	0.6%
Truck & bus body panels	-9.4%	-6.4%	-22.7%
MV transmissions	-10.6%	-12.7%	-25.8%
Other t'port equip. & parts	-2.0%	2.1%	6.3%
MV repairs	-0.3%	0.0%	0.3%
Motor scooters & cycles	NA	NA	NA
Rubber tyres	-4.1%	-5.2%	-10.0%
<b><i>Employment:</i></b>			
PMVs	-10.8%	-10.3%	-22.1%
Buses	-1.0%	0.9%	-6.9%
Chassis with engines	-16.7%	-15.3%	-33.6%
Other MVs & parts	-12.2%	-10.0%	-22.4%
Motor vehicle bodies	-8.2%	-7.1%	-17.6%
Caravans, campers	-0.2%	0.1%	0.2%
Semi-trailers	-0.2%	0.3%	0.9%
Trailers	-0.2%	0.1%	0.5%
Truck & bus body panels	-9.3%	-6.4%	-22.8%
MV transmissions	-10.5%	-12.8%	-26.0%
Other t'port equip. & parts	-1.9%	2.1%	6.1%
MV repairs	-0.2%	0.0%	0.1%
Motor scooters & cycles	NA	NA	NA
Rubber tyres	-4.1%	-5.2%	-10.1%

**Table 4A**  
**Detailed Automotive Industry Trade Volume Effects**

	No ACIS	Reduced Auto Assist.	No Assist.
<b>Exports:</b>			
PMVs	-15.0%	-10.7%	-21.1%
Buses	-1.4%	1.4%	-3.0%
Chassis with engines	-19.6%	-14.9%	-31.0%
Other MVs & parts	-15.3%	-10.1%	-20.5%
Motor vehicle bodies	-7.4%	-5.3%	-12.3%
Caravans, campers	-0.8%	0.7%	3.0%
Semi-trailers	-0.8%	0.8%	3.6%
Trailers	-0.8%	0.7%	3.3%
Truck & bus body panels	-8.3%	-4.7%	-16.9%
MV transmissions	-13.8%	-12.1%	-23.1%
Other t'port equip. & parts	-2.1%	2.4%	8.1%
MV repairs	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%
Rubber tyres	-8.2%	-6.0%	-11.2%
<b>Imports:</b>			
PMVs	8.4%	11.1%	26.2%
Buses	0.4%	-0.7%	10.2%
Chassis with engines	-1.7%	-1.1%	-2.0%
Other MVs & parts	5.7%	5.1%	13.1%
Motor vehicle bodies	-7.0%	-8.1%	-2.9%
Caravans, campers	1.2%	-1.5%	12.8%
Semi-trailers	1.1%	-1.3%	1.6%
Trailers	1.1%	-1.4%	18.9%
Truck & bus body panels	-8.7%	-8.8%	-13.9%
MV transmissions	5.3%	12.4%	23.9%
Other t'port equip. & parts	-0.3%	-0.5%	-0.9%
MV repairs	1.1%	-1.6%	-6.2%
Motor scooters & cycles	0.3%	-0.4%	-1.3%
Rubber tyres	0.5%	2.4%	4.9%

**Table 5A**  
**Broader Automotive Industry Effects**

	No ACIS	Reduced Auto Assist.	No Assist.
<b>Quantities:</b>			
Production	-10.9%	-9.7%	-21.2%
Employment	-10.8%	-9.7%	-21.3%
Exports	-14.9%	-10.1%	-20.3%
Imports	6.8%	8.4%	20.3%
<b>Prices:</b>			
Production	3.6%	1.4%	2.0%
Exports	1.8%	1.2%	2.4%
Imports	0.3%	-2.1%	-6.2%
<b>Values:</b>			
Production	-7.6%	-8.4%	-19.6%
Exports	-13.4%	-9.1%	-18.4%
Imports	7.2%	6.1%	12.8%
<b>Local Sales:</b>			
Local sales	-2.4%	-1.3%	-2.2%
Consumption	-1.1%	0.3%	1.3%
Intermediate use	-4.7%	-4.1%	-8.8%
Business Investment	-0.8%	0.2%	1.4%

**Table 6A**  
**PMV Industry Effects**

	No ACIS	Reduced Auto Assist.	No Assist.
<b>Quantities:</b>			
Production	-10.8%	-10.3%	-22.0%
Employment	-10.8%	-10.3%	-22.1%
Exports	-15.0%	-10.7%	-21.1%
Imports	8.4%	11.1%	26.2%
<b>Prices:</b>			
Production	4.0%	1.6%	2.4%
Exports	1.8%	1.2%	2.4%
Imports	0.4%	-2.5%	-6.7%
<b>Values:</b>			
Production	-7.3%	-8.9%	-20.1%
Exports	-13.5%	-9.6%	-19.2%
Imports	8.8%	8.4%	17.7%
<b>Local Sales:</b>			
Local sales	-1.1%	0.3%	1.5%
Consumption	-1.2%	0.3%	1.4%
Intermediate use	-0.1%	0.3%	1.1%
Business Investment	-0.9%	0.3%	1.6%

**Table 7A**  
**Other Motor Vehicles and Parts Industry Effects**

	No ACIS	Reduced Auto Assist.	No Assist.
<b>Quantities:</b>			
Production	-12.3%	-10.0%	-22.3%
Employment	-12.2%	-10.0%	-22.4%
Exports	-15.3%	-10.1%	-20.5%
Imports	5.7%	5.1%	13.1%
<b>Prices:</b>			
Production	3.7%	1.5%	2.1%
Exports	1.8%	1.2%	2.4%
Imports	0.4%	-1.5%	-5.2%
<b>Values:</b>			
Production	-9.0%	-8.7%	-20.6%
Exports	-13.8%	-9.0%	-18.7%
Imports	6.1%	3.5%	7.2%
<b>Local Sales:</b>			
Local sales	-4.2%	-3.5%	-7.3%
Consumption	-0.8%	-0.1%	0.4%
Intermediate use	-5.3%	-4.7%	-10.0%
Business Investment	-0.9%	0.1%	1.1%

**Table 8A**  
**Economy-wide Production Effects (1-digit ANZSIC)**

	No ACIS	Reduced Auto Assist.	No Assist.
A. Agriculture	0.6%	0.6%	1.4%
B. Mining	0.8%	1.1%	3.9%
C. Manufacturing	-0.6%	-0.4%	-0.9%
D. Electricity, Gas & Water	0.0%	0.1%	0.4%
E. Construction	0.0%	0.1%	0.3%
F. Wholesale Trade	-0.3%	-0.1%	0.1%
G. Retail Trade	-0.1%	0.0%	0.1%
H. Accom., Cafes & Rest.	0.1%	0.1%	0.1%
I. Transport	0.4%	0.5%	1.5%
J. Communication Services	0.0%	0.0%	0.2%
K. Finance & Insurance	0.0%	0.0%	0.0%
L. Prop. & Business Serv.	-0.1%	0.0%	0.1%
M. Govt. Admin. & Defence	0.0%	0.0%	0.0%
N. Education	0.1%	0.0%	0.0%
O. Health & Comm. Serv.	0.1%	0.0%	-0.1%
P. Cultural & Rec. Serv.	0.0%	0.0%	-0.1%
Q. Personal & Other Services	0.0%	-0.1%	-0.2%
R. Ownership of Dwellings	0.1%	0.0%	-0.1%
GDP at market prices	0.0%	0.1%	0.3%



**Table 9A**  
**Economy-wide Employment Effects (1-digit ANZSIC)**

	No ACIS	Reduced Auto Assist.	No Assist.
A. Agriculture	0.6%	0.6%	1.1%
B. Mining	1.0%	1.3%	4.1%
C. Manufacturing	-0.7%	-0.6%	-1.4%
D. Electricity, Gas & Water	0.2%	0.1%	0.0%
E. Construction	0.1%	0.1%	0.3%
F. Wholesale Trade	-0.3%	-0.1%	-0.1%
G. Retail Trade	0.0%	0.0%	0.0%
H. Accom., Cafes & Rest.	0.1%	0.1%	0.0%
I. Transport	0.5%	0.5%	1.3%
J. Communication Services	0.1%	0.0%	0.0%
K. Finance & Insurance	0.1%	0.0%	-0.2%
L. Prop. & Business Serv.	-0.1%	0.0%	0.1%
M. Govt. Admin. & Defence	0.0%	0.0%	-0.1%
N. Education	0.1%	0.0%	0.0%
O. Health & Comm. Serv.	0.1%	0.0%	-0.2%
P. Cultural & Rec. Serv.	0.1%	0.0%	-0.2%
Q. Personal & Other Services	0.0%	-0.1%	-0.2%
R. Ownership of Dwellings	0.0%	0.0%	0.0%

**Table 10A**  
**Regional Production Effects**

	No ACIS	Reduced Auto Assist.	No Assist.
Sydney	0.1%	0.1%	0.3%
Hunter - Illawarra	0.3%	0.3%	1.0%
North Coast NSW	0.2%	0.2%	0.4%
South Eastern NSW	0.4%	0.4%	0.9%
Inland NSW	0.4%	0.5%	1.2%
Melbourne	-0.6%	-0.5%	-1.0%
Gippsland	0.4%	0.5%	1.5%
Western Vic	-0.4%	-0.3%	-0.7%
Murray	-0.4%	-0.3%	-0.8%
Brisbane	0.0%	0.1%	0.3%
Moreton	0.2%	0.2%	0.6%
Southern Qld	0.4%	0.4%	1.0%
Central Qld	0.6%	0.7%	2.1%
Far North	0.4%	0.5%	1.3%
Adelaide	-1.0%	-0.9%	-2.0%
Balance of SA	-0.3%	-0.2%	-0.4%
Perth	0.3%	0.4%	1.4%
Lower Western WA	0.4%	0.6%	1.6%
Remainder WA	0.8%	1.0%	3.3%
Hobart	0.3%	0.3%	0.7%
Balance of Tasmania	0.5%	0.5%	1.4%
Northern Territory	0.7%	0.9%	2.8%
ACT	0.2%	0.1%	0.4%
Australia	0.0%	0.1%	0.3%

**Table 11A**  
**Regional Employment Effects**

	No ACIS	Reduced Auto Assist.	No Assist.
Sydney	0.1%	0.1%	0.1%
Hunter - Illawarra	0.3%	0.3%	0.6%
North Coast NSW	0.3%	0.2%	0.3%
South Eastern NSW	0.4%	0.4%	0.7%
Inland NSW	0.5%	0.4%	0.9%
Melbourne	-0.6%	-0.5%	-1.3%
Gippsland	0.4%	0.4%	1.0%
Western Vic	-0.4%	-0.4%	-1.0%
Murray	-0.3%	-0.4%	-1.0%
Brisbane	0.1%	0.1%	0.1%
Moreton	0.2%	0.2%	0.4%
Southern Qld	0.4%	0.4%	0.8%
Central Qld	0.6%	0.6%	1.7%
Far North	0.5%	0.4%	1.1%
Adelaide	-1.1%	-1.0%	-2.3%
Balance of SA	-0.4%	-0.4%	-0.9%
Perth	0.3%	0.4%	1.1%
Lower Western WA	0.5%	0.5%	1.3%
Remainder WA	0.9%	1.0%	3.1%
Hobart	0.4%	0.3%	0.6%
Balance of Tasmania	0.5%	0.5%	1.1%
Northern Territory	0.7%	0.9%	2.6%
ACT	0.2%	0.1%	0.2%
Australia	0.0%	0.0%	0.0%

**Table 12A**  
**National Macroeconomic Effects**

	No ACIS	Reduced Auto Assist.	No Assist.
<b>annual consumer living standards (\$million):</b>			
Gross Gain	62	95	194
Terms-of-Trade Effect	-81	-121	-398
Net Gain	-19	-26	-204
Terms-of-Trade Effect (% of exports)	-0.08%	-0.12%	-0.41%
<b>general effects:</b>			
Real Before-tax Wage	-0.22%	0.01%	0.45%
Real After-tax Wage	0.00%	0.00%	-0.02%
Exchange Rate	-0.41%	-0.27%	-0.43%
Consumer Price Index	0.22%	-0.01%	-0.45%
<b>national accounts:</b>			
private consumption	-0.03%	0.00%	-0.03%
gen. gov't road ext. spending	0.09%	0.07%	0.17%
other gen. gov't final dd	0.00%	0.00%	0.00%
housing investment	0.09%	-0.01%	-0.07%
business investment	-0.21%	0.11%	0.88%
exports	0.69%	1.08%	3.64%
imports	0.58%	0.84%	2.67%
GDP at market prices	-0.03%	0.06%	0.29%

## Attachment B – Dissection of the Reduced Assistance Scenario

The Reduced Assistance Scenario models the economy-wide effects of simultaneously halving both PMV tariffs and ACIS funding. This section analyses the separate contribution to the results of each of these two changes in assistance by modelling them separately in the following two scenarios.

- **Half PMV Tariffs Scenario.** Under this scenario, the PMV tariff is halved from its 2005 rate of 10 per cent to a new rate of 5 per cent.
- **Half ACIS Scenario.** Under this scenario, ACIS funding is halved from the level that will apply from 1 January 2005.

The detailed automotive industry assistance rates are shown in Table 1B.

**Table 1B**  
**Detailed Automotive Industry Assistance Rates**

	Current average rates	1 January 2005 rates	50% ACIS	50% PMV Tariffs	Reduced Auto. Assist.
<b>Tariff Rates:</b>					
Passenger motor vehicles	10.6%	7.7%	7.7%	4.7%	4.7%
Buses	4.7%	4.7%	4.7%	4.7%	4.7%
Chassis with engines	7.9%	6.0%	6.0%	4.1%	4.1%
Other MVs & parts	7.9%	6.0%	6.0%	4.1%	4.1%
Motor vehicle bodies	4.6%	4.5%	4.5%	4.4%	4.4%
Caravans & campers	3.7%	3.7%	3.7%	3.7%	3.7%
Semi-trailers	1.4%	1.4%	1.4%	1.4%	1.4%
Trailers	4.6%	4.6%	4.6%	4.6%	4.6%
Truck & bus body panels	4.3%	4.3%	4.3%	4.3%	4.3%
MV transmissions	12.7%	8.7%	8.7%	4.7%	4.7%
Other t'port equip. & parts	1.1%	1.1%	1.1%	1.1%	1.1%
MV Repairs	0.0%	0.0%	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%	0.0%
Rubber tyres	12.8%	8.5%	8.5%	4.3%	4.3%
<b>Production Tax Rates:</b>					
Passenger motor vehicles	-4.4%	-3.2%	-1.6%	-3.2%	-1.6%
Buses	0.0%	0.0%	0.0%	0.0%	0.0%
Chassis with engines	-3.4%	-2.9%	-1.4%	-2.9%	-1.4%
Other MVs & parts	-3.4%	-2.9%	-1.4%	-2.9%	-1.4%
Motor vehicle bodies	0.0%	0.0%	0.0%	0.0%	0.0%
Caravans & campers	0.0%	0.0%	0.0%	0.0%	0.0%
Semi-trailers	0.0%	0.0%	0.0%	0.0%	0.0%
Trailers	0.0%	0.0%	0.0%	0.0%	0.0%
Truck & bus body panels	0.0%	0.0%	0.0%	0.0%	0.0%
MV transmissions	-2.8%	-2.8%	-1.4%	-2.8%	-1.4%
Other t'port equip. & parts	0.0%	0.0%	0.0%	0.0%	0.0%
MV Repairs	0.0%	0.0%	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%	0.0%
Rubber tyres	-2.8%	-2.8%	-1.4%	-2.8%	-1.4%

**Table 2B**  
**Automotive Industry Production Price and Import Price Effects**

	50% ACIS	50% PMV tariffs	Reduced Auto Assist.
<b><i>Production Prices:</i></b>			
PMVs	2.0%	-0.4%	1.6%
Buses	0.4%	-0.4%	0.0%
Chassis with engines	1.8%	-0.4%	1.5%
Other MVs & parts	1.8%	-0.4%	1.5%
Motor vehicle bodies	0.4%	-0.4%	0.0%
Caravans, campers	0.4%	-0.4%	0.0%
Semi-trailers	0.4%	-0.4%	0.0%
Trailers	0.4%	-0.4%	0.0%
Truck & bus body panels	0.4%	-0.4%	0.0%
MV transmissions	1.8%	-0.4%	1.4%
Other t'port equip. & parts	0.4%	-0.4%	0.0%
MV repairs	0.4%	-0.4%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%
Rubber tyres	1.6%	-0.2%	1.4%
<b><i>Import Prices:</i></b>			
PMVs	0.2%	-2.7%	-2.5%
Buses	0.2%	0.1%	0.3%
Chassis with engines	0.2%	-1.7%	-1.5%
Other MVs & parts	0.2%	-1.7%	-1.5%
Motor vehicle bodies	0.2%	0.0%	0.2%
Caravans, campers	0.2%	0.1%	0.3%
Semi-trailers	0.2%	0.1%	0.3%
Trailers	0.2%	0.1%	0.3%
Truck & bus body panels	0.2%	0.1%	0.3%
MV transmissions	0.2%	-3.6%	-3.4%
Other t'port equip. & parts	0.2%	0.1%	0.3%
MV repairs	0.2%	0.1%	0.3%
Motor scooters & cycles	0.2%	0.1%	0.3%
Rubber tyres	0.2%	-3.8%	-3.6%

**Table 3B**  
**Detailed Automotive Industry Production Volume and Employment Effects**

	<b>50% ACIS</b>	<b>50% PMV tariffs</b>	<b>Reduced Auto Assist.</b>
<b><i>Production:</i></b>			
PMVs	-5.6%	-4.8%	-10.3%
Buses	-0.5%	1.4%	0.9%
Chassis with engines	-8.8%	-7.0%	-15.3%
Other MVs & parts	-6.3%	-3.9%	-10.0%
Motor vehicle bodies	-4.3%	-2.9%	-7.1%
Caravans, campers	-0.2%	0.3%	0.1%
Semi-trailers	-0.2%	0.4%	0.3%
Trailers	-0.2%	0.3%	0.1%
Truck & bus body panels	-4.8%	-1.6%	-6.4%
MV transmissions	-5.4%	-7.5%	-12.7%
Other t'port equip. & parts	-1.0%	3.1%	2.1%
MV repairs	-0.1%	0.1%	0.0%
Motor scooters & cycles	NA	NA	NA
Rubber tyres	-2.1%	-3.2%	-5.2%
<b><i>Employment:</i></b>			
PMVs	-5.5%	-4.9%	-10.3%
Buses	-0.5%	1.4%	0.9%
Chassis with engines	-8.7%	-7.0%	-15.3%
Other MVs & parts	-6.3%	-3.9%	-10.0%
Motor vehicle bodies	-4.2%	-3.0%	-7.1%
Caravans, campers	-0.1%	0.2%	0.1%
Semi-trailers	-0.1%	0.4%	0.3%
Trailers	-0.1%	0.2%	0.1%
Truck & bus body panels	-4.8%	-1.7%	-6.4%
MV transmissions	-5.4%	-7.6%	-12.8%
Other t'port equip. & parts	-1.0%	3.0%	2.1%
MV repairs	-0.1%	0.1%	0.0%
Motor scooters & cycles	NA	NA	NA
Rubber tyres	-2.1%	-3.2%	-5.2%

**Table 4B**  
**Detailed Automotive Industry Trade Volume Effects**

	50% ACIS	50% PMV tariffs	Reduced Auto Assist.
<b>Exports:</b>			
PMVs	-7.8%	-3.1%	-10.7%
Buses	-0.7%	2.1%	1.4%
Chassis with engines	-10.3%	-5.0%	-14.9%
Other MVs & parts	-8.0%	-2.2%	-10.1%
Motor vehicle bodies	-3.8%	-1.6%	-5.3%
Caravans, campers	-0.4%	1.1%	0.7%
Semi-trailers	-0.4%	1.2%	0.8%
Trailers	-0.4%	1.1%	0.7%
Truck & bus body panels	-4.3%	-0.5%	-4.7%
MV transmissions	-7.2%	-5.1%	-12.1%
Other t'port equip. & parts	-1.1%	3.4%	2.4%
MV repairs	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%
Rubber tyres	-4.2%	-1.9%	-6.0%
<b>Imports:</b>			
PMVs	4.2%	6.9%	11.1%
Buses	0.2%	-0.9%	-0.7%
Chassis with engines	-0.8%	-0.1%	-1.1%
Other MVs & parts	2.9%	2.2%	5.1%
Motor vehicle bodies	-3.6%	-4.7%	-8.1%
Caravans, campers	0.6%	-2.1%	-1.5%
Semi-trailers	0.6%	-1.9%	-1.3%
Trailers	0.6%	-1.9%	-1.4%
Truck & bus body panels	-4.5%	-4.5%	-8.8%
MV transmissions	2.7%	9.8%	12.4%
Other t'port equip. & parts	-0.1%	-0.4%	-0.5%
MV repairs	0.6%	-2.1%	-1.6%
Motor scooters & cycles	0.2%	-0.5%	-0.4%
Rubber tyres	0.2%	2.2%	2.4%

**Table 5B**  
**Broader Automotive Industry Effects**

	<b>50% ACIS</b>	<b>50% PMV tariffs</b>	<b>Reduced Auto Assist.</b>
<b>Quantities:</b>			
Production	-5.6%	-4.3%	-9.7%
Employment	-5.5%	-4.3%	-9.7%
Exports	-7.8%	-2.5%	-10.1%
Imports	3.4%	4.9%	8.4%
<b>Prices:</b>			
Production	1.8%	-0.4%	1.4%
Exports	0.9%	0.3%	1.2%
Imports	0.2%	-2.3%	-2.1%
<b>Values:</b>			
Production	-3.9%	-4.6%	-8.4%
Exports	-6.9%	-2.2%	-9.1%
Imports	3.6%	2.5%	6.1%
<b>Local Sales:</b>			
Local sales	-1.2%	-0.1%	-1.3%
Consumption	-0.6%	0.8%	0.3%
Intermediate use	-2.4%	-1.7%	-4.1%
Business Investment	-0.4%	0.6%	0.2%

**Table 6B**  
**PMV Industry Effects**

	<b>50% ACIS</b>	<b>50% PMV tariffs</b>	<b>Reduced Auto Assist.</b>
<b>Quantities:</b>			
Production	-5.6%	-4.8%	-10.3%
Employment	-5.5%	-4.9%	-10.3%
Exports	-7.8%	-3.1%	-10.7%
Imports	4.2%	6.9%	11.1%
<b>Prices:</b>			
Production	2.0%	-0.4%	1.6%
Exports	0.9%	0.3%	1.2%
Imports	0.2%	-2.7%	-2.5%
<b>Values:</b>			
Production	-3.7%	-5.2%	-8.9%
Exports	-7.0%	-2.7%	-9.6%
Imports	4.5%	4.0%	8.4%
<b>Local Sales:</b>			
Local sales	-0.6%	0.9%	0.3%
Consumption	-0.6%	0.9%	0.3%
Intermediate use	-0.1%	0.3%	0.3%
Business Investment	-0.5%	0.7%	0.3%

**Table 7B**  
**Other Motor Vehicles and Parts Industry Effects**

	50% ACIS	50% PMV tariffs	Reduced Auto Assist.
<b>Quantities:</b>			
Production	-6.3%	-3.9%	-10.0%
Employment	-6.3%	-3.9%	-10.0%
Exports	-8.0%	-2.2%	-10.1%
Imports	2.9%	2.2%	5.1%
<b>Prices:</b>			
Production	1.8%	-0.4%	1.5%
Exports	0.9%	0.3%	1.2%
Imports	0.2%	-1.7%	-1.5%
<b>Values:</b>			
Production	-4.6%	-4.2%	-8.7%
Exports	-7.2%	-2.0%	-9.0%
Imports	3.1%	0.5%	3.5%
<b>Local Sales:</b>			
Local sales	-2.2%	-1.4%	-3.5%
Consumption	-0.4%	0.4%	-0.1%
Intermediate use	-2.7%	-2.0%	-4.7%
Business Investment	-0.4%	0.5%	0.1%

**Table 8B**  
**Economy-wide Production Effects (1-digit ANZSIC)**

	50% ACIS	50% PMV tariffs	Reduced Auto Assist.
A. Agriculture	0.3%	0.3%	0.6%
B. Mining	0.4%	0.8%	1.1%
C. Manufacturing	-0.3%	-0.1%	-0.4%
D. Electricity, Gas & Water	0.0%	0.1%	0.1%
E. Construction	0.0%	0.1%	0.1%
F. Wholesale Trade	-0.2%	0.0%	-0.1%
G. Retail Trade	0.0%	0.0%	0.0%
H. Accom., Cafes & Rest.	0.1%	0.0%	0.1%
I. Transport	0.2%	0.3%	0.5%
J. Communication Services	0.0%	0.0%	0.0%
K. Finance & Insurance	0.0%	0.0%	0.0%
L. Prop. & Business Serv.	-0.1%	0.0%	0.0%
M. Govt. Admin. & Defence	0.0%	0.0%	0.0%
N. Education	0.1%	0.0%	0.0%
O. Health & Comm. Serv.	0.0%	0.0%	0.0%
P. Cultural & Rec. Serv.	0.0%	0.0%	0.0%
Q. Personal & Other Services	0.0%	0.0%	-0.1%
R. Ownership of Dwellings	0.0%	-0.1%	0.0%
GDP at market prices	0.0%	0.1%	0.1%
GDP at basic prices	0.0%	0.1%	0.1%



**Table 9B**  
**Economy-wide Employment Effects (1-digit ANZSIC)**

	<b>50% ACIS</b>	<b>50% PMV tariffs</b>	<b>Reduced Auto Assist.</b>
A. Agriculture	0.3%	0.2%	0.6%
B. Mining	0.5%	0.8%	1.3%
C. Manufacturing	-0.3%	-0.3%	-0.6%
D. Electricity, Gas & Water	0.1%	0.0%	0.1%
E. Construction	0.0%	0.0%	0.1%
F. Wholesale Trade	-0.1%	0.0%	-0.1%
G. Retail Trade	0.0%	0.0%	0.0%
H. Accom., Cafes & Rest.	0.1%	0.0%	0.1%
I. Transport	0.2%	0.3%	0.5%
J. Communication Services	0.1%	0.0%	0.0%
K. Finance & Insurance	0.1%	-0.1%	0.0%
L. Prop. & Business Serv.	0.0%	0.0%	0.0%
M. Govt. Admin. & Defence	0.0%	0.0%	0.0%
N. Education	0.1%	0.0%	0.0%
O. Health & Comm. Serv.	0.1%	-0.1%	0.0%
P. Cultural & Rec. Serv.	0.0%	0.0%	0.0%
Q. Personal & Other Services	0.0%	0.0%	-0.1%
R. Ownership of Dwellings	0.0%	0.0%	0.0%
All Industries	0.0%	0.0%	0.0%

**Table 10B**  
**Regional Production Effects**

	<b>50% ACIS</b>	<b>50% PMV tariffs</b>	<b>Reduced Auto Assist.</b>
Sydney	0.1%	0.1%	0.1%
Hunter - Illawarra	0.1%	0.2%	0.3%
North Coast NSW	0.1%	0.1%	0.2%
South Eastern NSW	0.2%	0.2%	0.4%
Inland NSW	0.2%	0.2%	0.5%
Melbourne	-0.3%	-0.2%	-0.5%
Gippsland	0.2%	0.3%	0.5%
Western Vic	-0.2%	-0.1%	-0.3%
Murray	-0.2%	-0.1%	-0.3%
Brisbane	0.0%	0.1%	0.1%
Moreton	0.1%	0.1%	0.2%
Southern Qld	0.2%	0.2%	0.4%
Central Qld	0.3%	0.4%	0.7%
Far North	0.2%	0.3%	0.5%
Adelaide	-0.5%	-0.4%	-0.9%
Balance of SA	-0.1%	0.0%	-0.2%
Perth	0.2%	0.3%	0.4%
Lower Western WA	0.2%	0.3%	0.6%
Remainder WA	0.4%	0.6%	1.0%
Hobart	0.2%	0.2%	0.3%
Balance of Tasmania	0.2%	0.3%	0.5%
Northern Territory	0.4%	0.5%	0.9%
ACT	0.1%	0.1%	0.1%
Australia	0.0%	0.1%	0.1%

**Table 11B**  
**Regional Employment Effects**

	50% ACIS	50% PMV tariffs	Reduced Auto Assist.
Sydney	0.1%	0.0%	0.1%
Hunter - Illawarra	0.1%	0.1%	0.3%
North Coast NSW	0.1%	0.1%	0.2%
South Eastern NSW	0.2%	0.1%	0.4%
Inland NSW	0.2%	0.2%	0.4%
Melbourne	-0.3%	-0.3%	-0.5%
Gippsland	0.2%	0.2%	0.4%
Western Vic	-0.2%	-0.2%	-0.4%
Murray	-0.2%	-0.2%	-0.4%
Brisbane	0.0%	0.0%	0.1%
Moreton	0.1%	0.1%	0.2%
Southern Qld	0.2%	0.2%	0.4%
Central Qld	0.3%	0.3%	0.6%
Far North	0.2%	0.2%	0.4%
Adelaide	-0.5%	-0.5%	-1.0%
Balance of SA	-0.2%	-0.2%	-0.4%
Perth	0.2%	0.2%	0.4%
Lower Western WA	0.2%	0.3%	0.5%
Remainder WA	0.4%	0.6%	1.0%
Hobart	0.2%	0.1%	0.3%
Balance of Tasmania	0.3%	0.3%	0.5%
Northern Territory	0.4%	0.5%	0.9%
ACT	0.1%	0.0%	0.1%
Australia	0.0%	0.0%	0.0%

**Table 12B**  
**National Macroeconomic Effects**

	50% ACIS	50% PMV tariffs	Reduced Auto Assist.
<b>annual consumer living standards (\$million):</b>			
Gross Gain	38	67	95
Terms-of-Trade Effect	-39	-78	-121
Net Gain	-2	-11	-26
Terms-of-Trade Effect (% of exports)	-0.04%	-0.08%	-0.12%
<b>general effects:</b>			
Real Before-tax Wage	-0.11%	0.12%	0.01%
Real After-tax Wage	0.00%	0.00%	0.00%
Exchange Rate	-0.21%	-0.07%	-0.27%
Consumer Price Index	0.11%	-0.12%	-0.01%
<b>national accounts:</b>			
private consumption	-0.02%	0.02%	0.00%
gen. gov't road ext. spending	0.05%	0.03%	0.07%
other gen. gov't final dd	0.00%	0.00%	0.00%
housing investment	0.05%	-0.05%	-0.01%
business investment	-0.11%	0.21%	0.11%
exports	0.35%	0.72%	1.08%
imports	0.29%	0.54%	0.84%
GDP at market prices	-0.01%	0.07%	0.06%

## Attachment C – Dissection of the No Assistance Scenario

The No Assistance Scenario models the economy-wide effects of simultaneously abolishing ACIS funding, PMV tariffs and general tariffs. This section analyses the separate contribution to the results of each of these three changes in assistance by modelling them separately in the following three scenarios.

- **No ACIS Scenario.** Under this scenario, only ACIS is eliminated.
- **No PMV Tariffs Scenario.** This scenario models the abolition of all PMV tariffs in isolation.
- **No General Tariffs Scenario.** Under this scenario, all general tariffs, currently at rates of between 0 and 5 per cent, are eliminated.

The detailed automotive industry assistance rates are shown in Table 1C.

**Table 1C**  
**Detailed Automotive Industry Assistance Rates**

	Current average rates	1 January 2005 rates	No ACIS	No PMV tariffs	No general tariffs	No Assist.
<b><i>Tariff Rates:</i></b>						
Passenger motor vehicles	10.6%	7.7%	7.7%	1.8%	5.9%	0.0%
Buses	4.7%	4.7%	4.7%	4.7%	0.0%	0.0%
Chassis with engines	7.9%	6.0%	6.0%	2.2%	3.8%	0.0%
Other MVs & parts	7.9%	6.0%	6.0%	2.2%	3.8%	0.0%
Motor vehicle bodies	4.6%	4.5%	4.5%	4.3%	0.2%	0.0%
Caravans & campers	3.7%	3.7%	3.7%	3.7%	0.0%	0.0%
Semi-trailers	1.4%	1.4%	1.4%	1.4%	0.0%	0.0%
Trailers	4.6%	4.6%	4.6%	4.6%	0.0%	0.0%
Truck & bus body panels	4.3%	4.3%	4.3%	4.3%	0.0%	0.0%
MV transmissions	12.7%	8.7%	8.7%	0.7%	8.0%	0.0%
Other t'port equip. & parts	1.1%	1.1%	1.1%	1.1%	0.0%	0.0%
MV Repairs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rubber tyres	12.8%	8.5%	8.5%	0.1%	8.4%	0.0%
<b><i>Production Tax Rates:</i></b>						
Passenger motor vehicles	-4.4%	-3.2%	0.0%	-3.2%	-3.2%	0.0%
Buses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Chassis with engines	-3.4%	-2.9%	0.0%	-2.9%	-2.9%	0.0%
Other MVs & parts	-3.4%	-2.9%	0.0%	-2.9%	-2.9%	0.0%
Motor vehicle bodies	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Caravans & campers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Semi-trailers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Trailers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Truck & bus body panels	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MV transmissions	-2.8%	-2.8%	0.0%	-2.8%	-2.8%	0.0%
Other t'port equip. & parts	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MV Repairs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rubber tyres	-2.8%	-2.8%	0.0%	-2.8%	-2.8%	0.0%

**Table 2C**  
**Automotive Industry Production Price and Import Price Effects**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
<b><i>Production Prices:</i></b>				
PMVs	4.0%	-0.7%	-0.7%	2.4%
Buses	0.7%	-0.7%	-0.7%	-0.9%
Chassis with engines	3.7%	-0.7%	-0.7%	2.1%
Other MVs & parts	3.7%	-0.7%	-0.7%	2.1%
Motor vehicle bodies	0.7%	-0.7%	-0.7%	-0.9%
Caravans, campers	0.7%	-0.7%	-0.7%	-0.9%
Semi-trailers	0.7%	-0.7%	-0.7%	-0.9%
Trailers	0.7%	-0.7%	-0.7%	-0.9%
Truck & bus body panels	0.7%	-0.7%	-0.7%	-0.9%
MV transmissions	3.6%	-0.7%	-0.7%	2.0%
Other t'port equip. & parts	0.7%	-0.7%	-0.7%	-0.9%
MV repairs	0.7%	-0.7%	-0.7%	-0.9%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%
Rubber tyres	3.2%	-0.5%	-0.3%	2.4%
<b><i>Import Prices:</i></b>				
PMVs	0.4%	-5.3%	-1.7%	-6.7%
Buses	0.4%	0.1%	-4.6%	-4.1%
Chassis with engines	0.4%	-3.4%	-2.2%	-5.2%
Other MVs & parts	0.4%	-3.4%	-2.2%	-5.2%
Motor vehicle bodies	0.4%	0.0%	-4.2%	-3.9%
Caravans, campers	0.4%	0.1%	-3.7%	-3.2%
Semi-trailers	0.4%	0.1%	-1.5%	-1.0%
Trailers	0.4%	0.1%	-4.5%	-4.0%
Truck & bus body panels	0.4%	0.1%	-4.2%	-3.7%
MV transmissions	0.4%	-7.2%	-0.7%	-7.6%
Other t'port equip. & parts	0.4%	0.1%	-1.2%	-0.6%
MV repairs	0.4%	0.1%	-0.1%	0.4%
Motor scooters & cycles	0.4%	0.1%	-0.1%	0.4%
Rubber tyres	0.4%	-7.7%	-0.2%	-7.5%

**Table 3C**  
**Detailed Automotive Industry Production Volume and Employment Effects**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
<b><i>Production:</i></b>				
PMVs	-10.8%	-9.8%	-1.8%	-22.0%
Buses	-1.1%	2.9%	-8.7%	-6.7%
Chassis with engines	-16.8%	-13.8%	-5.4%	-33.4%
Other MVs & parts	-12.3%	-7.7%	-3.2%	-22.3%
Motor vehicle bodies	-8.3%	-5.9%	-4.1%	-17.5%
Caravans, campers	-0.3%	0.6%	0.0%	0.4%
Semi-trailers	-0.3%	0.8%	0.5%	1.1%
Trailers	-0.3%	0.6%	0.3%	0.6%
Truck & bus body panels	-9.4%	-3.3%	-11.8%	-22.7%
MV transmissions	-10.6%	-15.2%	-1.1%	-25.8%
Other t'port equip. & parts	-2.0%	6.4%	1.6%	6.3%
MV repairs	-0.3%	0.2%	0.3%	0.3%
Motor scooters & cycles	NA	NA	NA	NA
Rubber tyres	-4.1%	-6.3%	0.1%	-10.0%
<b><i>Employment:</i></b>				
PMVs	-10.8%	-9.9%	-1.9%	-22.1%
Buses	-1.0%	2.8%	-8.8%	-6.9%
Chassis with engines	-16.7%	-13.9%	-5.6%	-33.6%
Other MVs & parts	-12.2%	-7.8%	-3.4%	-22.4%
Motor vehicle bodies	-8.2%	-6.0%	-4.3%	-17.6%
Caravans, campers	-0.2%	0.5%	-0.1%	0.2%
Semi-trailers	-0.2%	0.7%	0.3%	0.9%
Trailers	-0.2%	0.5%	0.2%	0.5%
Truck & bus body panels	-9.3%	-3.4%	-11.9%	-22.8%
MV transmissions	-10.5%	-15.3%	-1.3%	-26.0%
Other t'port equip. & parts	-1.9%	6.3%	1.4%	6.1%
MV repairs	-0.2%	0.1%	0.1%	0.1%
Motor scooters & cycles	NA	NA	NA	NA
Rubber tyres	-4.1%	-6.4%	0.1%	-10.1%

**Table 4C**  
**Detailed Automotive Industry Trade Volume Effects**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
<b>Exports:</b>				
PMVs	-15.0%	-6.3%	-0.1%	-21.1%
Buses	-1.4%	4.2%	-6.0%	-3.0%
Chassis with engines	-19.6%	-9.9%	-3.2%	-31.0%
Other MVs & parts	-15.3%	-4.4%	-1.3%	-20.5%
Motor vehicle bodies	-7.4%	-3.1%	-2.2%	-12.3%
Caravans, campers	-0.8%	2.3%	1.3%	3.0%
Semi-trailers	-0.8%	2.5%	1.7%	3.6%
Trailers	-0.8%	2.3%	1.6%	3.3%
Truck & bus body panels	-8.3%	-1.0%	-8.6%	-16.9%
MV transmissions	-13.8%	-10.6%	0.4%	-23.1%
Other t'port equip. & parts	-2.1%	7.1%	2.6%	8.1%
MV repairs	0.0%	0.0%	0.0%	0.0%
Motor scooters & cycles	0.0%	0.0%	0.0%	0.0%
Rubber tyres	-8.2%	-3.8%	0.6%	-11.2%
<b>Imports:</b>				
PMVs	8.4%	14.1%	3.2%	26.2%
Buses	0.4%	-1.9%	11.8%	10.2%
Chassis with engines	-1.7%	-0.5%	2.0%	-2.0%
Other MVs & parts	5.7%	4.4%	3.2%	13.1%
Motor vehicle bodies	-7.0%	-9.3%	15.7%	-2.9%
Caravans, campers	1.2%	-4.3%	16.8%	12.8%
Semi-trailers	1.1%	-3.7%	4.6%	1.6%
Trailers	1.1%	-3.9%	22.7%	18.9%
Truck & bus body panels	-8.7%	-9.0%	4.2%	-13.9%
MV transmissions	5.3%	20.3%	-1.1%	23.9%
Other t'port equip. & parts	-0.3%	-0.8%	0.1%	-0.9%
MV repairs	1.1%	-4.2%	-2.9%	-6.2%
Motor scooters & cycles	0.3%	-1.1%	-0.5%	-1.3%
Rubber tyres	0.5%	4.5%	-0.2%	4.9%

**Table 5C**  
**Broader Automotive Industry Effects**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
<b>Quantities:</b>				
Production	-10.9%	-8.6%	-2.4%	-21.2%
Employment	-10.8%	-8.6%	-2.6%	-21.3%
Exports	-14.9%	-5.0%	-0.8%	-20.3%
Imports	6.8%	10.1%	3.1%	20.3%
<b>Prices:</b>				
Production	3.6%	-0.7%	-0.7%	2.0%
Exports	1.8%	0.6%	0.0%	2.4%
Imports	0.3%	-4.6%	-1.9%	-6.2%
<b>Values:</b>				
Production	-7.6%	-9.2%	-3.1%	-19.6%
Exports	-13.4%	-4.5%	-0.8%	-18.4%
Imports	7.2%	5.0%	1.2%	12.8%
<b>Local Sales:</b>				
Local sales	-2.4%	-0.1%	0.1%	-2.2%
Consumption	-1.1%	1.8%	0.5%	1.3%
Intermediate use	-4.7%	-3.5%	-0.9%	-8.8%
Business Investment	-0.8%	1.3%	0.8%	1.4%

**Table 6C**  
**PMV Industry Effects**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
<b>Quantities:</b>				
Production	-10.8%	-9.8%	-1.8%	-22.0%
Employment	-10.8%	-9.9%	-1.9%	-22.1%
Exports	-15.0%	-6.3%	-0.1%	-21.1%
Imports	8.4%	14.1%	3.2%	26.2%
<b>Prices:</b>				
Production	4.0%	-0.7%	-0.7%	2.4%
Exports	1.8%	0.7%	-0.1%	2.4%
Imports	0.4%	-5.3%	-1.7%	-6.7%
<b>Values:</b>				
Production	-7.3%	-10.5%	-2.5%	-20.1%
Exports	-13.5%	-5.6%	-0.2%	-19.2%
Imports	8.8%	8.0%	1.4%	17.7%
<b>Local Sales:</b>				
Local sales	-1.1%	1.8%	0.6%	1.5%
Consumption	-1.2%	1.9%	0.5%	1.4%
Intermediate use	-0.1%	0.7%	0.4%	1.1%
Business Investment	-0.9%	1.5%	0.8%	1.6%

**Table 7C**  
**Other Motor Vehicles and Parts Industry Effects**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
<b>Quantities:</b>				
Production	-12.3%	-7.7%	-3.2%	-22.3%
Employment	-12.2%	-7.8%	-3.4%	-22.4%
Exports	-15.3%	-4.4%	-1.3%	-20.5%
Imports	5.7%	4.4%	3.2%	13.1%
<b>Prices:</b>				
Production	3.7%	-0.7%	-0.7%	2.1%
Exports	1.8%	0.5%	0.0%	2.4%
Imports	0.4%	-3.4%	-2.2%	-5.2%
<b>Values:</b>				
Production	-9.0%	-8.4%	-3.9%	-20.6%
Exports	-13.8%	-3.9%	-1.2%	-18.7%
Imports	6.1%	0.8%	1.0%	7.2%
<b>Local Sales:</b>				
Local sales	-4.2%	-2.8%	-0.6%	-7.3%
Consumption	-0.8%	0.7%	0.4%	0.4%
Intermediate use	-5.3%	-4.0%	-1.1%	-10.0%
Business Investment	-0.9%	1.0%	0.8%	1.1%

**Table 8C**  
**Economy-wide Production Effects (1-digit ANZSIC)**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
A. Agriculture	0.6%	0.6%	0.2%	1.4%
B. Mining	0.8%	1.5%	1.5%	3.9%
C. Manufacturing	-0.6%	-0.2%	-0.1%	-0.9%
D. Electricity, Gas & Water	0.0%	0.2%	0.2%	0.4%
E. Construction	0.0%	0.1%	0.2%	0.3%
F. Wholesale Trade	-0.3%	0.1%	0.3%	0.1%
G. Retail Trade	-0.1%	0.1%	0.1%	0.1%
H. Accom., Cafes & Rest.	0.1%	0.0%	0.0%	0.1%
I. Transport	0.4%	0.6%	0.5%	1.5%
J. Communication Services	0.0%	0.1%	0.1%	0.2%
K. Finance & Insurance	0.0%	0.0%	0.0%	0.0%
L. Prop. & Business Serv.	-0.1%	0.1%	0.2%	0.1%
M. Govt. Admin. & Defence	0.0%	0.0%	0.0%	0.0%
N. Education	0.1%	0.0%	-0.1%	0.0%
O. Health & Comm. Serv.	0.1%	-0.1%	-0.1%	-0.1%
P. Cultural & Rec. Serv.	0.0%	0.0%	0.0%	-0.1%
Q. Personal & Other Services	0.0%	-0.1%	-0.1%	-0.2%
R. Ownership of Dwellings	0.1%	-0.1%	0.0%	-0.1%
GDP at market prices	0.0%	0.1%	0.2%	0.3%
GDP at basic prices	0.0%	0.1%	0.2%	0.3%



**Table 9C**  
**Economy-wide Employment Effects (1-digit ANZSIC)**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
A. Agriculture	0.6%	0.5%	0.0%	1.1%
B. Mining	1.0%	1.6%	1.4%	4.1%
C. Manufacturing	-0.7%	-0.5%	-0.3%	-1.4%
D. Electricity, Gas & Water	0.2%	0.0%	-0.1%	0.0%
E. Construction	0.1%	0.1%	0.1%	0.3%
F. Wholesale Trade	-0.3%	0.0%	0.1%	-0.1%
G. Retail Trade	0.0%	0.0%	0.0%	0.0%
H. Accom., Cafes & Rest.	0.1%	0.0%	-0.1%	0.0%
I. Transport	0.5%	0.5%	0.4%	1.3%
J. Communication Services	0.1%	0.0%	-0.1%	0.0%
K. Finance & Insurance	0.1%	-0.1%	-0.2%	-0.2%
L. Prop. & Business Serv.	-0.1%	0.0%	0.1%	0.1%
M. Govt. Admin. & Defence	0.0%	0.0%	0.0%	-0.1%
N. Education	0.1%	0.0%	-0.1%	0.0%
O. Health & Comm. Serv.	0.1%	-0.1%	-0.2%	-0.2%
P. Cultural & Rec. Serv.	0.1%	-0.1%	-0.1%	-0.2%
Q. Personal & Other Services	0.0%	-0.1%	-0.1%	-0.2%
R. Ownership of Dwellings	0.0%	0.0%	0.0%	0.0%
All Industries	0.0%	0.0%	0.0%	0.0%

**Table 10C**  
**Regional Production Effects**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
Sydney	0.1%	0.2%	0.1%	0.3%
Hunter - Illawarra	0.3%	0.4%	0.3%	1.0%
North Coast NSW	0.2%	0.2%	0.1%	0.4%
South Eastern NSW	0.4%	0.4%	0.2%	0.9%
Inland NSW	0.4%	0.5%	0.3%	1.2%
Melbourne	-0.6%	-0.4%	-0.1%	-1.0%
Gippsland	0.4%	0.6%	0.6%	1.5%
Western Vic	-0.4%	-0.2%	-0.1%	-0.7%
Murray	-0.4%	-0.3%	-0.1%	-0.8%
Brisbane	0.0%	0.2%	0.1%	0.3%
Moreton	0.2%	0.2%	0.2%	0.6%
Southern Qld	0.4%	0.4%	0.2%	1.0%
Central Qld	0.6%	0.8%	0.7%	2.1%
Far North	0.4%	0.5%	0.4%	1.3%
Adelaide	-1.0%	-0.8%	-0.2%	-2.0%
Balance of SA	-0.3%	-0.1%	0.1%	-0.4%
Perth	0.3%	0.6%	0.5%	1.4%
Lower Western WA	0.4%	0.7%	0.5%	1.6%
Remainder WA	0.8%	1.3%	1.2%	3.3%
Hobart	0.3%	0.4%	0.1%	0.7%
Balance of Tasmania	0.5%	0.6%	0.3%	1.4%
Northern Territory	0.7%	1.1%	1.0%	2.8%
ACT	0.2%	0.1%	0.1%	0.4%
Australia	0.0%	0.1%	0.2%	0.3%

**Table 11C**  
**Regional Employment Effects**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
Sydney	0.1%	0.1%	0.0%	0.1%
Hunter - Illawarra	0.3%	0.2%	0.1%	0.6%
North Coast NSW	0.3%	0.1%	-0.1%	0.3%
South Eastern NSW	0.4%	0.3%	0.0%	0.7%
Inland NSW	0.5%	0.3%	0.1%	0.9%
Melbourne	-0.6%	-0.5%	-0.2%	-1.3%
Gippsland	0.4%	0.4%	0.3%	1.0%
Western Vic	-0.4%	-0.4%	-0.2%	-1.0%
Murray	-0.3%	-0.4%	-0.3%	-1.0%
Brisbane	0.1%	0.1%	0.0%	0.1%
Moreton	0.2%	0.1%	0.0%	0.4%
Southern Qld	0.4%	0.3%	0.1%	0.8%
Central Qld	0.6%	0.7%	0.5%	1.7%
Far North	0.5%	0.4%	0.2%	1.1%
Adelaide	-1.1%	-0.9%	-0.4%	-2.3%
Balance of SA	-0.4%	-0.3%	-0.2%	-0.9%
Perth	0.3%	0.4%	0.3%	1.1%
Lower Western WA	0.5%	0.5%	0.3%	1.3%
Remainder WA	0.9%	1.2%	1.0%	3.1%
Hobart	0.4%	0.3%	-0.1%	0.6%
Balance of Tasmania	0.5%	0.5%	0.1%	1.1%
Northern Territory	0.7%	1.0%	0.8%	2.6%
ACT	0.2%	0.1%	0.0%	0.2%
Australia	0.0%	0.0%	0.0%	0.0%

**Table 12C**  
**National Macroeconomic Effects**

	No ACIS	No PMV tariffs	No general tariffs	No Assist.
<b>annual consumer living standards (\$million):</b>				
Gross Gain	62	118	96	194
Terms-of-Trade Effect	-81	-162	-150	-398
Net Gain	-19	-44	-53	-204
Terms-of-Trade Effect (% of exports)	-0.08%	-0.17%	-0.15%	-0.41%
<b>general effects:</b>				
Real Before-tax Wage	-0.22%	0.24%	0.40%	0.45%
Real After-tax Wage	0.00%	-0.01%	0.01%	-0.02%
Exchange Rate	-0.41%	-0.13%	0.09%	-0.43%
Consumer Price Index	0.22%	-0.24%	-0.39%	-0.45%
<b>national accounts:</b>				
private consumption	-0.03%	0.03%	0.00%	-0.03%
gen. gov't road ext. spending	0.09%	0.05%	0.04%	0.17%
other gen. gov't final dd	0.00%	0.00%	0.00%	0.00%
housing investment	0.09%	-0.11%	-0.01%	-0.07%
business investment	-0.21%	0.44%	0.61%	0.88%
exports	0.69%	1.48%	1.40%	3.64%
imports	0.58%	1.10%	0.94%	2.67%
GDP at market prices	-0.03%	0.15%	0.17%	0.29%