REVIEW OF AUSTRALIA'S AUTOMOTIVE INDUSTRY 2008

DISCUSSION PAPER

TERMS OF REFERENCE FOR THE REVIEW OF THE AUSTRALIAN AUTOMOTIVE INDUSTRY

1. The Australian automotive industry plays an important role in employment, exports and innovation in the Australian economy. In particular, innovation in the automotive industry results in significant spillover effects across the economy, and particularly the manufacturing sector. In this context, the Australian Government has commissioned a high level review panel to conduct a review of the automotive sector, in consultation with a broad range of industry stakeholders. This review is to take place concurrently with a wide-ranging review of Australia's national innovation system and should have regard to the issues raised in that review.

2. The review will bear in mind the Government's desire:

   a. for an internationally competitive and globally integrated automotive manufacturing sector; and

   b. to optimise the overall economic performance of the Australian economy, including limiting price impacts on Australian consumers and businesses.

3. The review is to report on key outcomes of the current policy settings for the automotive manufacturing sector, including:

   a. an evaluation of the key outcomes of the Automotive Competitiveness and Investment Scheme (including an assessment of the impacts on each of the four categories of participants in the Scheme);

   b. an assessment of the legislated passenger motor vehicle tariff reductions, taking into account the global automotive sector and general trade environment; and

   c. an assessment of current and prospective trade obligations arising from Australia's multilateral, regional and bilateral commitments.

4. The review will evaluate the appropriateness of the Automotive Competitiveness and Investment Scheme (ACIS) in the current competitive environment in relation to:

   a. the possible retargeting of assistance within ACIS; and

   b. investigating, identifying and evaluating possible alternative assistance mechanisms, consistent with Australia's international trade obligations.

5. The review will also make an assessment of the challenges and opportunities currently facing the sector, including how those challenges and opportunities might impact on the long-term viability and sustainability of the sector. In making this assessment, the review should take account of factors such as:

   a. the strengths and weaknesses of the sector;

   b. recent developments and expected future developments and conditions in the global automotive sector, including:

i. opportunities for, and barriers to, enhanced global integration;

ii. competition for investment in the global sector; and

iii. progress on trade liberalisation (including free trade agreements) in the automotive sector in both existing and prospective export markets for Australia.

c. the impact of climate change and changing consumer preferences towards low emissions and fuel efficient vehicles; and

d. other possible hindrances to the viability of the sector on both the demand and supply sides, such as exchange rates, petrol prices, skill shortages and other environmental issues.

6. The review will make recommendations on any of the issues identified, including:

a. measures to boost innovation in the sector and to take advantage of the highly innovative nature of the automotive industry;

b. measures to ensure that suitably skilled people are available and that fair working practices are guaranteed;

c. the impact of climate change policy on the automotive industry;

d. the delivery of the Australian Government's Green Car Innovation Fund from 2011;

e. facilitating leadership among Australian automotive producers and component suppliers in developing and adapting fuel efficient technologies and know-how in the production of motor vehicles in Australia; and

f. improving Australian companies' access to global supply chains and export markets.

7. The review is to provide an interim report to the Government by 31 March 2008 and a final report by 31 July 2008.

Overview

The Australian automotive industry is an important part of the Australian economy, employing over 61,000 people and earning export income of $4.7 billion. The industry undertakes significant investment in plant and equipment and research and development. It also has extensive linkages to other parts of the economy.

The industry has undergone an extensive reform program, especially since the Button Plan in 1985 when the industry was protected by tariff quotas and a tariff of 57.5 percent. The removal of quotas and the lowering of protection led to some rationalisation of the industry and made imports more accessible to consumers. It has also seen the industry become more internationally competitive and export focused. For example, exports of automotive products have gone from virtually nothing to around $4.7 billion in 2007, making automotive one of Australia's top ten export earners (and the largest manufacturing export earner). It also places the automotive sector ahead of more traditional exports such as wine, wheat and wool. This is despite the large reductions in automotive tariffs.

The automotive industry was last reviewed in 2002 by the Productivity Commission. In response, the Australian Government confirmed the reduction in the tariff on passenger motor vehicles and parts from 15 percent to 10 percent from 2005 and legislated a further reduction to 5 percent from 2010. The Government also reaffirmed its commitment to the industry with the continuation of funding under the Automotive Competitiveness and Investment Scheme.

However, since the last Review the environment in which the industry operates has changed. The Australian dollar has appreciated significantly against major automotive producing countries, affecting the competitiveness and profitability of the local industry. Australia has also entered into several free trade agreements, including with the automotive producing countries of the US and Thailand. Changing consumer tastes have seen the market share of the local vehicle producers falling from 30 percent in 2002 to 19 percent in 2007.

In addition, there are many emerging challenges being driven by environmental concerns and the industry's need to contribute to greenhouse gas abatement. Further, climate change is high on the public policy agenda. This raises other challenges for the industry, including the use of innovative processes and technology to increase fuel efficiency.

This discussion paper highlights some of the challenges the industry faces. It also examines Australia's current automotive policy arrangements and asks whether these are appropriate to meet these challenges. The issues paper is accompanied by a background paper which provides more detail on the industry and the policy environment.

This discussion paper has been released to stimulate debate and submissions on these and other issues so as to help the Automotive Review prepare a final report to Government.

The Australian Automotive Industry

Introduction

The Australian automotive industry includes a wide range of activities including vehicle production, component production, tooling and design and engineering. It is an important part of the Australian economy, employing over 61,000 people[1] as at November 2007. Industry value added for the sector totals more than $5.6 billion[2], representing 5.6 percent of the manufacturing sector's industry value added and 0.6 percent of national gross domestic product. Exports of Australian automotive products are around $4.7 billion a year.

The Australian vehicle market is extremely competitive with over 30 producers represented. In 2007, the market recorded sales of over one million vehicles for the first time. This is a 45 percent increase in vehicle sales since 1997 and a 27 percent increase since 2002[3] and aligned with the increasing affordability of vehicles. Since the mid 1990s, real earnings have increased at a significantly higher rate than vehicle prices[4].

In addition, the number of producers represented in Australia is set to increase, with the announcement by Ateco that it expects to launch three Chinese-produced Chery models early in 2009.

Issues

Changing Consumer Preferences

There has been a significant change in the type of vehicles demanded by consumers[5]. Traditionally, the Australian vehicle market has been dominated by large passenger cars and variants. There has been a trend in Australia and internationally towards smaller, lower fuel consumption vehicles, sports utility vehicles (SUVs) and luxury cars. This trend has recently accelerated, and impacted on local vehicle producers, with the market share of Australian motor vehicle producers (MVPs) falling from 30 percent in 2002 to 19 percent in 2007.

More specifically, since 2002, domestic sales of new Australian-made vehicles have decreased for Holden (by 33 percent), Ford (by 10.5 percent), and Mitsubishi (by 53 percent). Only sales of Australian made Toyota vehicles have increased since 2002 (by 22 percent). This trend has continued into the first two months of 2008, with sales of Australian-made vehicles continuing to fall.

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[1] Australian Bureau of Statistics; *Labour Force, Australia* (Electronic, Catalogue Number 6291.0.55.003)

[2] Australian Bureau of Statistics; *Manufacturing Industry, Australia, 2005-06* (Catalogue Number 8221.0)

[3] VFacts

[4] Australian Automotive Intelligence (AAI) 2007 Yearbook, at page 51

[5] VFacts

Profitability of the MVPs

A major concern for the Australian automotive industry has been the falling profitability levels of the local MVPs. In 2006, trading losses in vehicle manufacturing for the MVPs were $705 million, or an 8 percent loss on sales. This was somewhat offset by MVPs sales of components, although net losses on all MVP activities still totalled $502 million. These significant losses can be compared to a decade earlier, when total net trading profits for the MVPs were $518 million, including $344 million profits on vehicle manufacturing. Justifying domestic production with such large trading losses presents a major challenge to the Australian MVPs.

There is also evidence component producers' profit margins are declining, as the competitiveness of imports increases due, in part, to the strong Australian dollar, and standard global platforms which allow MVPs to increase import substitution of components.

Maintaining the Middle-East Market

The Australian automotive industry is heavily dependent on export sales to the Middle-east market, which accounts for 75 percent of vehicle exports and 46 percent of the value of all exports. Threats to this market include competition from imports from economies such as China, India and Thailand. There is also a real danger that this market may shift towards small cars as has occurred domestically. The maintenance of this market is also dependent upon the export strategies of the parents of Australian MVPs.

Rising Australian Dollar

The significant appreciation of the Australian dollar has affected the international competitiveness of the local industry and more than offset any advantage the industry gains from tariff protection. For example, the Australian dollar has appreciated 77 percent against the US dollar since 2002. In addition, it has appreciated 40 percent against the Japanese Yen, 27 percent against the South Korean Won and 36 percent on a trade-weighted basis. A further appreciation of the Australian dollar would continue to erode the effectiveness of tariff protection and adversely affect the international competitiveness of the industry.

Small Scale

A number of new global automotive assembly plants have recently opened with a minimum production capacity of 300,000 units each year. This is close to the entire Australian annual production. It is generally accepted that a minimum plant capacity of 300,000 to 400,000 units per annum is necessary to help ensure profitability, especially for small and medium car production, where margins are low. Australia does not have the domestic market size to justify such scale of production. This further highlights the importance of exports in helping boost production and scales of economy.

The annual Australian production of just over 300,000 vehicles can be compared against other smaller Asia-Pacific countries such as Thailand, which produces over 1 million vehicles annually, Malaysia (over 500,000 vehicles annually) and South Korea (over 3 ½ million vehicles annually).

Increasing Global Supply Chain Integration

The Australian automotive industry is competing in an increasingly integrated global market. Cost pressures have meant that global platforms, that is the use of common vehicle designs across different production locations, have become the industry standard. This phenomenon presents both opportunities and threats to the local industry. A comparatively new and challenging aspect of this is the emergence of production in developing countries with lower cost structures than Australia.

Some industry observers note that components suppliers are becoming increasingly integrated into global supply chains. The establishment of global vehicle platforms offers both an opportunity and challenge for Australian automotive component suppliers. Component producers must now compete against overseas component producers, but also have the opportunity to diversify into foreign markets.

Reliance of the Component Producers and the Tooling Industry on Domestic MVPs

The component producers and the tooling industry are very reliant on the domestic MVPs for sales. The component producers rely on the MVPs assembling complete vehicles, even if they supply to other component producers. The tooling industry relies on capital investment by the MVPs in plant and equipment, such as assembly and sub-assembly lines. This investment is 'lumpy' in nature and centred around new model launches.

Questions

Is the Australian automotive industry sustainable in the long term?

How can Australian MVPs positively influence investment and export-destination decisions taken by their multinational parents (including competition for investment and export markets amongst international units of the same multinational company) ?

How can Australian-based producers better take advantage of export opportunities?

Given its small production capacity, how can the Australian industry continue to occupy (or expand) its global "niche" markets?

How can component producers better integrate themselves into global supply chains of multinational companies and lessen their dependence on domestic producers?

Is there a role for eminent Australian business executives with links to the CEOs of major automotive companies to act as Ambassadors for the local industry and to help them gain access to the 'decision makers' in international companies?

How can the industry address the challenges of changing consumer preferences?

Will the steady consumer drift towards smaller vehicles, evident over recent years, continue or even accelerate? What would be the impact of this trend on the local industry?

What is the export potential of vehicles other than those currently produced?

How can the tooling industry lessen its reliance on the automotive sector, especially given the lumpiness of investment by the MVPs in 'tooling up' for new vehicle models?

The Global Automotive Industry

Introduction

The production of motor vehicles comprises the largest manufacturing sector in the world, with output of the industry equivalent to the world's sixth largest economy.[6] While it is a key activity in advanced industrial nations, the industry is also of increasing significance in the emerging economies of North and East Asia, South America and Eastern Europe. It draws on a wide range of supplier industries, from raw materials (such as steel, aluminium, plastics and chemicals) through to sophisticated component assemblies, tooling, design and engineering services. The industry is also one of the largest investors in research and development (R&D), playing a key role in society-wide technological development. With its skill base and innovative practices, the automotive sector is often seen as providing an effective national training ground for many manufacturing and engineering employees in very diverse industries.

Issues

Global Production and Sales

Global production of passenger motor vehicles (PMVs) and cross utility vehicles (CUVs) grew from around 66 million in 1999 to almost 70 million in 2006. Nevertheless, this has significantly exceeded global vehicle sales, which were around 67.5 million in 2006. This has led to significant excess capacity within the industry as potential production exceeds actual sales. As a result, a large number of MVPs, particularly in the mature economies, have undertaken costly restructurings and rationalisations in order to reduce capacity and realign both their production volumes and employee numbers with often stagnant or even negative domestic sales growth.

In addition, considerable global restructuring has occurred over the last 5 years with many middle ranking producers being subsumed into the larger companies.

Rise of Emerging Markets and Geographical Dispersion of Production

Demand for vehicles has grown rapidly in developing countries, providing an incentive for the major global vehicle and component manufacturers to set up production facilities in these markets. It is estimated that emerging markets will contribute about two thirds of the growth of global light vehicle assembly between 2006 and 2014.

In particular, the group of rapidly emerging economies known as BRIC (Brazil, Russia, India and China) look set to increase their share of global light vehicle assembly from 16 percent in 2006 to 23 percent in 2014. China is now the world's second largest automotive market and produced around 9 million vehicles in 2007, up almost 23 percent from 2006.

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[6] *Organisation Internationale des Constructeurs d'Automobiles* (OICA), aka International Organization of Motor Vehicle Manufacturers, http://oica.net/category/economic-contributions/.

The competitive impact brought about by the rise of developing economies, particularly China, points to the intensification of cost cutting pressures and increasing competition for new investment in the industry. Increasingly, mature economies are battling to compete against their lower factor cost rivals, several of whom are now developing significant design, engineering and R&D capabilities.

Profits

The combination of intensified competition, ensuing cost pressures and excess capacity has placed increasing strain on MVPs' profit levels. PricewaterhouseCoopers (PWC) reported that only Porsche AG had achieved a gross profit margin of over 50 percent for FY2006. No other automaker reached 30 percent, with only Honda and Mazda getting close to that level[7].

Some companies such as Ford, GM and Mitsubishi Motors Corporation have suffered large net losses in recent years due to costs of reorganisation and other factors. This has also affected the profitability of their suppliers.

Employment

The automotive industry is a significant employer of labour in both developed and emerging economies. According to Organisation Internationale des Constructeurs d'Automobiles (OICA), about 9 million people are directly employed in the industry. This is over 5 percent of global manufacturing employment.

China now has the largest automotive industry workforce with around 1,605,000 employees, followed by USA (954,210), Germany (773,217), Russia (755,000) and Japan (725,000). Several emerging economies have, however, substantial and rapidly growing automotive employment levels; these include Brazil (289,082 employees), India (270,000), South Korea (246,900), Turkey (230,736), Thailand (182,300), Mexico (137,000) and South Africa (112,300).[8]

Automotive Components Sector

While global demand for automotive products has been growing for several years, large segments of the supply industry have been struggling. Many suppliers have closed up shop, and many others are fighting for survival. Among the problems currently faced by suppliers are soaring raw material prices and constant demands from MVPs to reduce prices and self-finance R&D. As vehicle manufacturers strive to reduce costs and achieve greater scale efficiency, they have tended to source from fewer larger component suppliers, and they have either switched supply to lower cost sources or pressured component producers to achieve lower cost targets.

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[7] PWC, Global Automotive Financial Review (2007 edition).
[8] These employment numbers are sourced from OICA (2007).

Government Support

Significant direct employment in the industry, its strong linkages to other parts of the economy and perceived technological and employment spillovers, have led many governments to provide various forms of assistance for their automotive industries. This has involved the imposition of tariffs or other import barriers, funding investment incentives and export subsidies, protection for intellectual property (IP) rights, and support for R&D and for education and training.

Over recent years, government support in the leading industrial nations (including Australia) has shifted away from import barriers and towards support for R&D, education, training and IP; but protection from imports (often of the non-tariff variety) still plays an important role in most emerging economies. Fiscal support packages, along with incentives to attract foreign investment, such as tax holidays and reduction of income tax rates for foreign companies, are also widespread, although such policies are common in both developed and developing countries.

Changes in Market Demand and Technology

Recent trends in market demand, particularly in the more industrially advanced countries, have been driven by changing community and consumer expectations in regard to vehicle quality, safety, and environmental credentials. In particular, increasing concern over CO_2 emissions and fuel economy have shaped consumer tastes and led to increasing demand for alternative fuel or hybrid vehicles, and a drop-off in demand for what are perceived as "petrol-guzzling" larger cars. As a result, technological developments are proceeding rapidly so as to keep pace with both changing consumer expectations and tighter regulations by governments striving for more environmentally-friendly and fuel-efficient cars.

Questions

How can the Australian industry compete for investment and capacity given the changes in the international environment, particularly the trend to locate production to low factor cost countries?

How will the growth in global production by the developing economies affect Australian exports?

What are the implications for providing investment assistance to the local Australian industry given the incentives offered by other economies?

What are the industry policy implications given the fact that many of these international developments reflect competitive pressures between units of the one multinational enterprise?

Is there potential for increased foreign direct investment into Australia, particularly from automotive companies located in emerging markets?

Current Automotive Policy Arrangements

Introduction

The current automotive policy arrangements were last reviewed in 2002. Since then, the industry environment has changed considerably. The Australian dollar has appreciated significantly, more than offsetting the assistance the industry receives from tariff protection. Oil prices have also risen, affecting consumer demand as well as driving up production costs. This, along with increased competition from imports is squeezing margins and affecting the profitability of local manufacturers.

The two current major mechanisms of support for the Australian automotive industry are the automotive tariff arrangements and the Automotive Competitiveness and Investment Scheme (ACIS). The industry is also supported through Government purchasing preferences and the specific tariff arrangements for second hand vehicles.

New vehicle sales are subject to the Goods and Services Tax (GST) and the Luxury Car Tax (LCT). Fringe Benefits Tax (FBT) may be payable on a vehicle provided by a business to an employee for personal use.

Issues

Tariffs

Australia's automotive tariffs are 10 percent for PMVs (and parts thereof) and 5 percent for light commercial vehicles (and parts thereof). As such, they are already low. As mentioned above, their effectiveness has been reduced by the appreciation in the Australian dollar. In addition, automotive products from two of Australia's major sources of imports enter under preferential tariff arrangements. As a result, when combined with the affect of ACIS (which provides import duty credits to the local industry) the average import weighted tariff (or nominal effective tariff) on vehicles[9] (tariff revenue/value of imports) in 2006-07 was less than six percent.

Free Trade Agreements

Export sales are becoming increasingly important to the industry, and these are greatly affected by the tariffs applying in other economies. Some of these can be very high, which can impede market access to the local industry. The successful conclusion of Australia's trade liberalisation agenda and the extension of them to important markets such as the Middle East, would have benefits for export-oriented producers, and gain an advantage for Australian exporters relative to their international competitors.

Tariff Reform and ACIS

ACIS is a transitional assistance scheme directed towards encouraging new investment and innovation in the Australian automotive industry in the context of

[9] Vehicles listed as passenger motor vehicles and light commercial vehicles (8703 and 8704) of the Customs Tariff Schedule 3.

trade liberalisation. ACIS rewards strategic investment, research and development (R&D), and the production of eligible motor vehicles through the issue of import duty credits to registered participants. These credits can be used to discharge customs duty on eligible automotive imports[10], or alternatively, can be sold or otherwise transferred.

ACIS and Trade Liberalisation

Australia has entered into several FTAs and is currently negotiating more. These act to lower the effective global automotive import tariff rate. It is not implausible that the extension of FTAs to countries including Japan, China and ASEAN/NZ could lower the tariff revenue below the level of ACIS credits issued. This has implications for ACIS in that to maintain its assistance to industry may require extending the schedule of goods against which ACIS credits can be used (Item 41E) or changing its funding structure to, say, a grant-based program.

ACIS MVP Duty Credits

Domestic sales of Australian-made vehicles are shrinking while exports (in terms of number of vehicles) are growing. However, ACIS operates to provide more assistance for the production of vehicles for domestic sale (including New Zealand). In this sense, ACIS is not neutral and discriminates between the production of vehicles for different markets.

ACIS Funding

ACIS funding is split 55:45 between the MVPs and the supply chain. The "pull through" impact of local motor vehicle production may suggest that this could be raised further in favour of the MVPs.

On the other hand, many activities, and hence costs, are being pushed through the supply chain by MVPs. This includes more assembly and R&D. All of this may require increased investment by the supply chain at a time when there is significant downward pressure on costs, suggesting the split should be changed in favour of the supply chain.

ACIS expenditure is fixed and spread across companies in the industry. Therefore, expenditure is modulated and, on average, companies receive 63 percent of what they would have received if ACIS was uncapped. In addition, ACIS may support some companies which are undertaking activities with marginal returns and keeping them from exiting the industry. This is to the detriment of companies undertaking high (or potentially high) value added activities.

Other Investment Incentives

Commonwealth and State Governments have provided incentives to companies within their jurisdictions to encourage investment in R&D and training. Many other international economies offer such incentives. The use of these incentives, however, may lead to increased competition between the States to attract investment. Such

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[10] Listed under Item 41E of the *Customs Tariff Act*.

competition allows companies to play one State off against another and lead to a sub-optimal outcome – with the incentives offered being potentially in excess of the benefits of such investment.

ACIS and R&D

Since its inception, ACIS has provided nearly $989 million in assistance for R&D (to the third quarter 2007). The industry has also received assistance through the R&D Tax Concession. The Productivity Commission[11] estimated that the industry received around $200 million of R&D assistance from these two programs in 2005-06.

Since ACIS commenced, the industry has significantly increased its business expenditure on R&D. For example, over the 5 years to 2005-06, the industry has increased its business expenditure on R&D (BERD) by 72 percent to $654.2 million per annum. It is not possible in this paper to determine whether this large increase in R&D was a result of Government support, however, this investment may have benefits, including "spillover" benefits.

Government Purchasing Preferences

Business and government fleet purchasers account for over ¾ of total domestic demand for Australian-made vehicles in 2007 (business accounting for 56.8 percent and government 18.5 percent). Government purchases are supported by local preferences applying to some government entities at the state and national level. For example, Victoria's State Government car fleet contracts are with the domestic producers. Some other States, however, are actively encouraging the purchase of more fuel efficient vehicles which are imported.

The Productivity Commission noted in 2002 that supply to governments is a low margin business and the main benefit to local producers of Government purchasing preferences "is through a significant contribution to scale economies and hence lower production costs."[12] It also noted that the cost to the community of such preferences is relatively small.

Luxury Car Tax

The bulk of LCT is collected on the sale of imported vehicles. As such, the LCT may benefit the local industry. Offsetting this, however, is the increasing number of Australian-made models now subject to the LCT as the threshold has not kept pace with price increases for upper-end vehicles. In addition, the inclusion of more safety and other features in upper and luxury vehicles is also increasing their price.

It is also argued that vehicle demand is distorted by the LCT and can result in the luxury vehicle share of the Australian market being below the international average. However, sales of luxury vehicles and people movers rose significantly in 2007 with the segment's market share also increasing.

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[11] Productivity Commission 2007, *Trade & Assistance Review 2005-06*, Annual Report Series 2005-06, Productivity Commission, Canberra, April (Table A3).
[12] Productivity Commission; *Review of Automotive Assistance* (Report Number 25, Canberra, 2002).

State and Territory Taxes

The automotive industry is subject to several state and territory taxes, including payroll taxes and stamp duties. Payroll tax is subject to different thresholds across states and territories and can add to the cost of employment. In addition, stamp duty is levied upon the sale of a vehicle and is a tax upon the top of the goods and services tax.

Questions

Should automotive-specific assistance continue? If so, are ACIS and tariffs appropriate mechanisms?

Is it appropriate to reduce the passenger motor vehicle and parts thereof tariff to 5 percent in 2010 or is it appropriate for it remain at 10 percent? Who would benefit and lose from a reduction or a freeze?

Is it appropriate to maintain ACIS support for the industry if the passenger motor vehicle tariff remains at 10 percent post-2010?

If ACIS is maintained, is the current level of funding appropriate?

Is the payment of duty credits the appropriate mechanism for providing industry support under ACIS, particularly given the possible erosion of tariff revenue under FTAs?

Is the ACIS funding allocation between the category types (ie, capped and uncapped production credits) appropriate?

Is the LCT threshold level appropriate?

Should the LCT be lowered for more fuel efficient vehicles?

Do state and territory taxes affect the costs of production and the demand for new vehicles?

Should ACIS be targeted to companies which undertake activities with the potential for sustainable returns or continue to be a broad-based program?

Should government investment incentives be better focused and coordinated across and between tiers of government? If so, how?

Does ACIS induce additional expenditure on R&D and plant and equipment? Do the benefits outweigh the costs?

Are there features of the automotive industry that warrant it receiving additional support for its R&D over other sectors?

What, if any, assistance mechanism might have better accounted for changes in the industry since 2002?

Does the modulation rate for ACIS affect the overall levels of investment in plant and equipment and R&D?

Should Australia enter into further free trade agreements to improve market access? If so, what countries should be priorities for free trade agreements?

What is the impact on the components sector of parts entering duty free under free trade agreements?

Innovation

Introduction

Innovation is critical to the automotive industry in meeting future challenges and achieving efficiency and productivity gains. While there is no one definition of what constitutes innovation it is agreed that it is much broader than R&D, and can include product and process improvements, organisational change, improvements to workforce skills and management, and technology uptake (including to achieve global catchup)[13].

The primary forms of assistance for innovation in the automotive industry is funding for R&D. This assistance is through ACIS and the R&D Tax Concession – with the definition of eligible automotive R&D under ACIS being much broader than that used for the R&D Tax Concession. The industry also receives support under the Cooperative Research Centre, Commercial Ready and Commercialising Emerging Technologies (COMET) programs.

Issues

Powertrain Developments

Current technologies, many of which are aimed at improving fuel efficiency include hybrid and clean diesel engines, cylinder deactivation, flex-fuel engines, dual-clutch transmissions, drive train improvements, common axles, improved aerodynamics and weight reduction through the use of light metals.

Investment

The industry faces increasing investment costs to fund R&D and technology uptake to meet changing consumer demands and more stringent safety and environmental standards. These costs need to be spread across the full product range which, given Australia's small domestic market, implies above-average per unit costs relative to major automotive markets. This can be partially offset through increased exports (and therefore higher production) or through leveraging into the supply chain of international companies (through the provision of innovative parts and components). Similarly, the investment costs associated with the innovations by parents of Australian companies can be diffused through Australian-made products.

Consumer Preferences and the Environment

Consumer preference for smaller and more fuel efficient vehicles, combined with moves by governments to reduce vehicle carbon emissions pose a challenge to the local industry which currently produces large vehicles. Current technologies to improve fuel efficiency are noted above. However, the challenges required to develop new vehicles and technologies to meet more stringent environment and safety measures continues to rise. As such, it will require the industry to continue to invest

[13] This definition includes R&D as well as those innovation activities used by the OECD; *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, Third Edition* (2005).

in R&D or in the purchase of such technologies to remain competitive in various international markets.

Geographic Dispersion of Production

Australia, as elsewhere, has seen offshore production of many components and parts being manufactured offshore. This trend may continue with low value-added and low transport cost activities taking place in countries which offer low labour costs. In contrast, the manufacture of high value-added and low transport cost activities, such as design and engineering, the manufacture of intelligent functions or roles can take place in high labour cost economies, including Australia. Establishing a niche in such functions and roles provides an opportunity for the industry to move up the value chain.

There is also a challenge arising from some emerging automotive producing countries (eg, China) moving up the value chain.

Design and Engineering

Australia has become a centre of excellence for the design and engineering of some global platforms, such as for rear wheel drive architecture. This has benefits in not only creating profits but also increased export income. It may also have "spillover" benefits. The continuation and expansion of this role is a challenge for the industry and for others wanting to integrate themselves in this part of the supply chain. To meet this challenge may also require the domestic development of skilled staff or the attraction of skilled staff from overseas.

Green Car Innovation Fund

The Government has announced that it will establish a Green Car Innovation Fund worth up to $500 million over the five years from 2011 to provide incentives for R&D and innovation, to support the use of new engineering solutions and advanced materials to improve fuel efficiency in Australian made vehicles. The Fund will help the industry meet a range of challenges such as climate change and the environment and consumer demand for more fuel-efficient vehicles.

Questions

Are the current levels of innovation by the industry appropriate, particularly to meet future challenges?

If innovation in the industry is high, what scope exists to raise this higher?

Are automotive-related programs, such as ACIS, appropriate and effective in funding and promoting innovation in the automotive industry, and are the types of innovation encouraged by these programs also appropriate?

How can the Green Car Innovation Fund best assist the automotive industry address the development and manufacture of low emission technologies?

Are there any "new frontier" technologies that the Green Car Innovation Fund could assist the development of?

Is the Australian market and the automotive industry of a scale to be able to fund the development or uptake of new technologies? Can ACIS or other Government programs facilitate this?

To what extent are "spillover" benefits from automotive-related innovation and manufacturing benefiting other manufacturing sectors?

Is there an identifiable "category changing" initiative such as attracting the building of an existing smaller or alternative technology vehicle to an established manufacturer's plant?

Is there scope for the automotive sector to benefit through greater collaboration within the sector or with other entities in Australia's innovation system?

Is there a niche in the component sector in which appropriately targeted assistance for investment in research and development might enhance a global position?

Is there a means of identifying prospective areas of technology in which Australia may have or be able to carve out and defend a niche, eg in weight reduction technologies, lightweight materials, and techniques?

Does Australia have prospective advantages in the design, engineering or manufacture of segments of (developments in) powertrain technologies?

In the past, automotive developments have flowed from the aftermarket sector (eg, GPS automotive systems). As such, what is the potential for further innovations in this sector to make there way into mainstream vehicle assembly? If so, how are these identified and fostered?

Environment

Background

The "Australian transport sector accounts for around 76 million tonnes of Australia's total net greenhouse gas emissions, representing 13.5 per cent of Australia's total emissions"[14]. This figure has increased by around 30 percent since 1990. Private vehicle use accounts for around 60 percent of all road transport emissions.
This figure is likely to increase given the expected growth in the Australian vehicle fleet, and "it is predicted that levels in 2010 will be 47 percent higher than 1990 levels"[15].

Issues

International Treaties and Commitments

On 3 December 2007, Prime Minister Rudd signed the instrument of ratification of the Kyoto Protocol to the United Nations Framework Convention on Climate Change. As part of this agreement, Australia has set a target to reduce greenhouse gas emissions by 60 per cent on 2000 levels by 2050[16]. A 60 percent reduction in emissions, applied uniformly across the transport sector, implies PMV emissions of 14 million tonnes of CO_2 in 2050 - a challenging 70 percent reduction over current levels.

Vehicle Emissions Targets

In 2003, agreement was reached between the Federal Chamber of Automotive Industries (FCAI) and the Government for the industry to reduce fleet average fuel consumption for passenger cars by 18 percent by 2010 (to 6.8 litres per 100 kilometres), based on the fuel consumption of the 2002 vehicle fleet. This target is voluntary. It has been estimated that the actual national average carbon emissions for all new light vehicles in Australia was around 250 grams per kilometre in 2002.

This target is high in comparison to the targets being developed in several overseas economies. For example, the European Commission recently adopted a proposal to reduce average emissions of CO_2 from new passenger cars to 120 grams per kilometre by 2012, down from the current average emissions of around 160 grams per kilometre.

Emissions Standards

The Australian Design Rules (ADRs) set the standards that each vehicle model is required to meet. In the environmental context, the ADRs set standards for emissions, noise and fuel consumption labelling. Australia has a commitment to harmonise with the vehicle standards developed by the UN Economic Commission for Europe (UNECE) wherever possible. Notwithstanding this, Australian lags behind Europe in

[14] http://www.greenhouse.gov.au/fuelguide/environment.html (2008).
[15] http://www.aaa.asn.au/issues/technology.htm
[16] http://www.greenhouse.gov.au/international/kyoto/index.html

the introduction of some standards, which can deprive the benefits of advanced technologies to Australian consumers. It can also mean that Australian vehicles may not meet the requirements of some overseas markets and, hence, constrain their export potential.

Fuel Standards

There is a strong relationship between fuel quality and vehicle emissions technology. The *Fuel Quality Standards Act 2000* provides a legislative framework for setting national fuel quality and fuel quality information standards for Australia. The standards address fuel properties that are considered important in facilitating the adoption of emerging vehicle engine and emission control technologies, and in managing ambient levels of pollutants identified as posing health and environmental problems. Fuel quality standards have been made for petrol, diesel, biodiesel and autogas. Fuel quality standards are currently being considered for diesohol and ethanol. Notwithstanding this, Australia lags Europe in the introduction of more stringent standards.

Vehicle Excises

A number of countries impose excises on the sale of new passenger vehicles based on engine capacity while others, such as the UK, impose vehicle excise duties on car registration. Australia places a tax on cars based on value (refer the LCT above).

End-of-Life Vehicle (ELV) Recycling

The disposal of a vehicle at its end of life can have a detrimental impact on the environment in terms of land fill usage and environmental releases (including through incineration). Factors such as these led to the EU issuing a directive on end-of-life vehicle recycling which stipulated that by 1 January 2006 a minimum of 85 percent (on average) of ELVs by weight must be recycled and recovered, and a minimum of 80 percent by weight on average must be reused or recycled. Manufacturers are responsible for achieving these goals. This measure does, however, add costs to manufacturers which produce vehicles for sale in the EU.

Fringe Benefits Tax

Fringe benefits tax (FBT) is levied on vehicles provided by an employer for an employee's private use, including those used by an employee under a novated lease arrangement. The statutory formula used to levy FBT decreases as the distances travelled increases. It should be noted that the FBT does not act as a disincentive to purchasers of more fuel efficient vehicles.

Questions

What are the appropriate fuel quality standards required for the adoption of the latest vehicle emission abatement technologies?

Should Australia adopt more stringent CO_2 *emission targets for new vehicles and should these be voluntary or mandated?*

What would be the impact on the industry of the adoption of more stringent emission targets?

What would be the impact on consumers and the automotive industry of ELV targets?

Are there ways of reducing greenhouse gas emissions through changes to Government taxation arrangements and other policies?

Should Australia consider taxes and charges based on, for example, kilometres travelled and vehicle emissions? What would be the impact on the industry of such arrangements?

Should government procurement policies encourage the purchase of low emissions vehicles?

Can Australia produce small fuel efficient vehicles?

Do Australia's fuel standards and the Australian Design Rules inhibit imports of fuel efficient vehicles?

Employment, Skills and Workplace Relations

Introduction

The automotive industry is a major employer in Australia. However, the industry is facing international and domestic competitive pressures which will continue to shape its size, structure and workplace practices.

Cost pressures in manufacturing generally are driving an international trend towards moving production to lower labour cost centres such as Asia. Indeed, lower overseas labour costs have been cited as the issue which has most affected the competitiveness of the Victorian automotive components industry[17]. At the same time, a strong labour market in Australia has placed upward pressures on domestic costs across a range of in-demand skill categories.

Issues

Employment

As at November 2007, the automotive industry employed 61,200 people, a drop of nearly 16 percent (or 11,000 employees) from November 2006[18]. More significantly, there was a drop of over 25 percent (or nearly 21,000 persons) from a peak in November 2005 to November 2007[19]. In that period, a number of closures occurred in the automotive component sector. There are no guarantees that employment levels have "plateaued", and employment adjustment and transition will be continuing themes. The long term employment outlook "will be largely influenced by domestic and international demand (for both locally produced vehicles and components), developments in the exchange rate and, importantly, productivity growth"[20].

Skills Development

Higher wages and salaries in the automotive industry in part reflect a higher level of skills in the automotive industry – particularly in motor vehicle manufacturing where there is a greater reliance on high end engineering and trades skills. However, the potentially lower emphasis on developing skills in on-the-job training could constrain the long term development, adaptability and competitiveness of the automotive sector.

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[17] Australian Industry Group (AiG) and Federation of Automotive Products Manufacturers (FAPM), *The Victorian Components Industry, competitiveness, profitability, and future strategies*, http://www.aigroup.asn.au/aigroup/pdf/economics/surveys_and_reports/2838_VicAutoReport_KPMGv2.pdf, 2005, p.17.

[18] Australian Bureau of Statistics; *Labour Force, Australia* (Electronic, Catalogue Number 6291.0.55.003)

[19] Australian Bureau of Statistics; *Labour Force, Australia* (Electronic, Catalogue Number 6291.0.55.003)

[20] DEWR, Submission No.11 to the HoR Inquiry into Employment in the Automotive Component Manufacturing Sector, http://www.aph.gov.au/house/committee/ewrwp/automanufacturing/subs/sub11.pdf, 2006, p.17.

Productivity/Workplace Reform

The industry could look for innovative ways to compete effectively which, for example, could partly derive from the higher skills base of its workforce. To do this, the industry needs to be supported by a workforce and workplace practices which promote innovation, productivity, up-skilling and flexibility. Improvements in these can lower unit labour costs (and increase multifactor productivity) and help offset other factors such as a rising exchange rate.

There is a window of opportunity to pursue further workplace reform in the near term, with several enterprise agreements for motor vehicle producers due to expire in 2008 or 2009. There is also scope for reforms to flow through to automotive component producers who compete in similar labour markets.

Labour Adjustment

The Australian and state governments provide support to assist labour adjustment in the automotive industry and in regions where the industry is affected. The support includes assistance to automotive workers to find alternative employment and retrain following down-sizing and plant closures.

Entitlement Costs

The rights and entitlements of an employee are rightly transferred upon the sale of a business. However, the costs associated with these entitlements may prevent the sale of a (struggling) business and result in the loss of jobs in the industry.

Questions

What measures will contribute to sufficient and suitably skilled people being available to meet current and future demand in the automotive industry?

What workplace arrangements and practices in the automotive industry could best contribute to: innovation; the long term competitiveness of the industry; and a fair working environment?

Are measures to support labour adjustment in the automotive sector achieving their aims?

What will be the key drivers of enhanced productivity in the industry over the medium to long term and how best can productivity improvements be accelerated?

Vehicle Safety

Background

Consumer demand for safer vehicles and by government for reduced road trauma has led to increases in the safety features of vehicles and more stringent vehicle safety standards. Such safety features over the past decades have included the introduction of seat belts, frontal crumple zones, air bags and traction control.

Issues

Safety Standards

Government responsibility for road safety is shared, with the states and territories responsible for road traffic regulation and enforcement through to driver training and licensing. The Australian Government administers the *Motor Vehicle Standards Act*, which requires vehicles to meet the national standards covering safety. These standards are the ADRs and cover nearly all parts of vehicle manufacture. For example, components such as head restraints, safety glass, tyres, lights, protective devices and rear vision mirrors are all covered by the standards.

Differences Between the ADRs and UNECE Regulations

Harmonisation of Australian standards with international standards, such as UNECE, can facilitate market access for Australian automotive products. Standards can also be updated to take advantage of advances in technology which improve safety. It is recognised, however, that the introduction of more stringent standards can add to the cost of manufacture and to the new car purchase price.

Differences in standards can act as a technical barrier to trade (TBTs), and there are differences between the ADRs and the UNECE Regulations. For example, "ADR 45 (“Lighting & Light-signaling Devices not covered by ECE Regulations”) impose additional requirements on manufacturers, that could have characteristics of TBTs, to the extent that they are more trade restrictive than necessary to improve vehicle safety."[21] There are also other safety-related differences, including in relation to other standards such as the physical dimensions tests for passenger car tyres.

Standards and Technology Advances

There have been many advances in vehicle safety technologies and many of these have been incorporated into the ADRs. However, many new technologies are introduced into prestige-type (and priced) vehicles first before flowing into most new models. This partly reflects the cost of new technologies, but could also be partially attributed to the ADRs (and the UNECE regulations) not changing in a timely manner to reflect the safety benefits of such technologies.

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[21] Rand Science Technology; *Measuring Economic Effects of Technical Barriers to Trade on US Exporters* (August 2004).

There has also been concern expressed by automotive groups about the lack of ADRs for technologies like those outlined above leading to "de-specification" of new cars sold in Australia. Increasing the safety features of vehicles can lead to weight increases, which can have detrimental environmental effects. They can also lead to price increases for consumers.

Coordination

Technological advances, demand by consumers and government for safer vehicles and by government for reduced road trauma, will continue to lead to increases in the safety features of vehicles. These factors may require continuous development of safety standards to ensure they adequately address such issues. On the other hand, it is also important that such standards not exceed internationally recognised norms and hence act as a barrier to trade. Similarly, there needs to be a coordinated process at the national level so that standards do not diverge at the sub-national level. The introduction of new standards may also need to take into account the costs associated with their introduction.

Question

Is the process and timeframe for changing standards appropriate in considering all stakeholder views, including those of consumers and industry?