Air International – a microcosm of the challenges and opportunities facing Australia's automotive industry.

A Submission to the Productivity Commission

May 10, 2002



Air International and the Productivity Commission inquiry into Post 2005 assistance arrangements for automotive manufacturing

1 Background

Air International is a young, fast growing, Australian owned supplier of HVAC and automotive interior systems to the Australian and global automotive industries. It has benefited from government assistance aimed at transforming automotive manufacturing from the 'dinosaur' it was in the late 1970s to a globally competitive Australian industry.

2 Our goal

Our goal is to convince policy makers of the worth of our efforts, their benefit to the industry and to Australia. We support the FAPM submission and want government to understand the difficulties of operating in the industry and the knife-edge between a dynamic future for the industry of growing exports and profitable Australian investment offshore on the one hand, and decline and irrelevance on the other.

3 Desired outcome – Policy

Through this we seek continued government commitment to tariff and budgetary assistance for the industry at current levels – namely 10% tariffs and an ACIS scheme stretching into the future funded at around \$500 million per annum. We also need renewed efforts to rid the industrial relations climate in our industry of disruption and unproductive demarcation issues.

4 Desired outcome – Industry

The proposed policy will translate into:

Components Sector

- A supportive environment for R&D
- A stable and growing domestic market
- Improving market access to the region and beyond

Vehicle producers

- Continued investment in strategic opportunities to replace imports and further penetrate export markets
- Growing commitment to support component internationalisation (by the adoption of voluntary market access targets)

Air International

- Increasing market presence in Australia in our chosen fields
- An increasingly close relationship with vehicle manufacturers in Australia and offshore
- An increasingly productive and valued relationship with our employees, contractors and suppliers.
- Continued moderate growth in our Australian businesses that have strong market share, and strong growth towards market dominance in new areas of business and in joint ventures offshore.



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Overview

From humble beginnings in the late 1960s, Air International has become a major supplier of automotive and transit technology in Australia and an emerging player in the international market.

Basic manufacturing operations are progressively becoming low return 'commodity' business. We focus on our strengths by providing our customers with a package of integrated services and products. These are built around world class design and engineering – sourced centrally from Australia with support services in overseas markets.

This strategy has seen rapid growth and generally good returns on investment. Over the last few years rates of return have fallen as we have sunk funds into expansion offshore. Government assistance has been critical to allowing this expansion. Return on investment will rise to very satisfactory levels in the next decade as the growth kicking in and the technology development cost is recovered from volume sales.

Air International's products

| 9 3 , , , | Interior Systems – supplied to the domestic market until (say) 2010 when supply would be internationalised on the HVAC |
|-----------|---|
| | model |

The products we supply are not easily traded because of their bulk, their inventory sensitivity and to the high degree of sequenced customisation and applications engineering required by our customers. Accordingly we are pursuing a 'multi-domestic' strategy offshore – though this should really be seen as investing in the necessary offshore facilities to export our design and engineering services from our Australian base.

We have done remarkably well given the small domestic base from which we operate. Accordingly it is critical for us that the local industry continue to provide a viable level of production volume and that it grow over time with increased export and/or import substitution.

We face very high barriers to trade in our region. Countries such as Thailand, Indonesia and Malaysia clearly have formal tariff barriers which effectively foreclose access to those markets. In markets with low formal barriers such as Korea, the market share of imported built-up vehicles has been below 2% – an effectively closed market. Informal barriers remain in much larger more open markets – for instance the UAW's protectionist activism in the United States.



Future policy

We support the FAPM submission and agree that the moderate level of tariff and budgetary assistance we receive in the current arrangements should be retained.

Below the levels already foreshadowed, it is well accepted that the benefits of further tariff reductions are very small, yet the risk of disruption and heavy adjustment costs rises. We believe the arguments for further tariff reduction are correspondingly weak.

Should the Commission wish to optimise existing budgetary assistance, we believe the highest priority should be expanding industry investment and R&D capabilities. We suggest that assistance based on *increases* rather than absolute levels of activity could elicit stronger responses from industry. The other advantage of such assistance is that it would help firms such as Air International expand, without propping up firms which should rightly be rationalised.

Particularly if ACIS funding were reduced, it would be appropriate to revisit the degree of assistance given to training. With greater support we would be prepared to invest much more heavily in training facilities of benefit to the whole of manufacturing.

Access to foreign markets remains critical. An important idea has been proposed by Lateral Economics in a communication with us which forms Appendix 4 to this report. We commend it to the Commission.

Our submission and the work of Lateral Economics also outlines some exploratory strategies for addressing trade barriers such as American union resistance to imports and the 'head office' mentality of vehicle producers, which prevents the most efficient international division of design and engineering labour.



Air International's requests of Government.

Air International supports the FAPM submission. We request that

- Tariffs not be cut below 10% without clear demonstration of reciprocation from our trading partners within APEC. (Indeed, tariffs should not be reduced below 15% without a clear and unbiased demonstration that there are national benefits of doing so.)
- Budgetary assistance for the post 2005 period remain at around the level it is now. We support the current ACIS scheme but, should the scheme be 'optimised' the highest priority is capacity building and ensuring that assistance goes to firms wishing to use it to build their capabilities.
- Particularly if ACIS assistance is reduced we believe there should be greater assistance for training.
- We should intensify our vigilance in seeking access to foreign markets and we should search for new ways of doing so.



1 Introduction

Air International is a tier one supplier to the Australia's automotive industry, specialising in systems and sub assemblies for heating ventilation and air-conditioning (HVAC), seating, steering systems, metal pressings, fabrication, modular assemblies and rail and bus HVAC systems. Air International is a dominant player in the Australian market enjoying substantial market share of around 70% in its two major activities (HVAC and seat systems). It is a small player with high aspirations on the international market. We are truly global in our HVAC activity – though we have a much larger market presence in Australia than elsewhere. We employ slightly over 1,000 people in Australia and are involved through various joint ventures in the employment of a little over 500 more people around the world in the United Kingdom, U.S.A, Thailand, India, China and Malaysia.

We thank the Commission for the opportunity to present our submission. Since the nadir of the industry in the late 1970s, the Australian automotive industry and automotive industry policy have been highly successful, in turning an inwardly oriented and (in substantial part) uncompetitive industry into a much more competitive and internationally oriented industry. This has been achieved through the 'stick' of lower tariff protection together with the 'carrot' of positive assistance for export (until recently) and since then for expansion, investment in technology and competitiveness and research and development. We believe this evolution has been a healthy process and call for a further period of fine tuning the current arrangements.

Central themes of this submission are as follows:

- Tariff policy should be governed by Australia's national interest as an open trading country within the WTO and APEC. From the perspective of Australia acting unilaterally, almost all the economic benefits from freeing up trade have already been captured with tariffs at 15%. Accordingly we should only move beyond this if it is in our economic interests and we request that the Commission investigate this independently in this review.
- If it is in our economic interests we should move to a 10% tariff on automotive products at the time foreshadowed in existing policy.
- Australia is committed to fully free and open trade by the year 2010 within APEC. In this regard it should be noted that this commitment is not a unilateral one. It is consequent on other members doing the same (in some cases) or meeting somewhat differentiated commitments. It is frustrating that our own commitment to free trade



- in these circumstances is so frequently discussed as if it were an unconditional and unilateral commitment, when it is surely neither.
- Air is entirely untroubled by the date 2010 which is to say we and Australia's automotive industry in general has much to gain and nothing to fear from fully free trade in automotive whenever that freedom is reciprocated within APEC whether it be before or after 2010.
- By the same token, we regard the current 'unilateralism by stealth'
 as a most unfortunate development in a region with fierce
 competitors for investment. Unilateral policy should be conducted on
 its merits, not by reference to a multilateral document which other
 signatories are treating with a grain of salt.
- A positive assistance scheme such as ACIS should continue. ACIS has been of profound benefit to the industry as it makes the transition towards competitiveness. It should be 'fine tuned' to address long lead times in the industry. The ACIS scheme is set to expire in 2005. We believe it should operate as an ongoing forward five-year program, so that industry always had a five year period of notice of its removal. The continuity of industry policy is critical to enabling business to invest in its own competitiveness.
- No decision should be made to economise on ACIS funding until some audit of the rate of return that ACIS generates for the economy as a whole has been conducted and it has been found wanting.
- If a decision is made to economise on the scheme, we believe highest priority should go towards forward looking activities – investment and research and development, particularly for those firms that can demonstrate profitability and expansion.
- In this context we believe that there is also a case for a
 'discretionary' program within the scheme to provide assistance for
 projects which would offer clear strategic advances in Australia's
 integration with the global automotive industry. We have in mind
 something like the major expansion of the Holden Monaro project or
 specific developments by components producers of industry leading
 technologies.

2 History

1967 Air International Pty Ltd began as a private company operating out of the proprietor's home in Melbourne supplying the aftermarket. In 1976 it became an OEM supplier to GMH.



1982 the Air international Group listed on the Australian Stock Exchange (ASX). 1990 the Air International Group became a wholly owned subsidiary of the Futuris Corporation. Futuris is listed on the ASX with a market capitalisation just under A\$1 billion ¹ and annual turnover of A\$5.8 billion (2001).

Futuris' two core subsidiaries operations are:

- Rural services via its ownership of Elders Australia
- Automotive and transit components via Air International.

Today, Air International's manufacturing and engineering base has expanded across the globe. Air International currently employs over 1700 people through its facilities in Australia, the UK, USA, Thailand, India, China and Malaysia.

¹ After a substantial market downgrading – as at 6 May 2002.



Box 1: Timeline of milestones

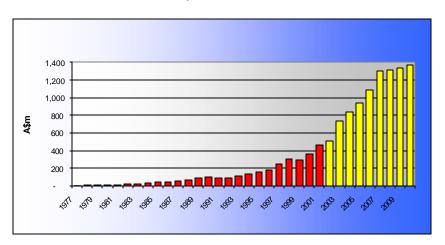
- 1967 Air International a privately owned company established in Victoria.
- 1976 First products developed for General Motors Holden Australia
- 1982 Air International group listed on the Australian Stock Exchange.
- 1990 Air International Group Limited merged with Futuris Corporation.
- 1991 Air International Metals Division established in S.A.
- 1992 OEM HVAC operations relocated to S.A.
- 1993 Steering systems established in S.A.
- 1995 Air International Shanghai in China established
- 1996 Voltas-Air International Ltd established in India
- 1996 Integration of the Coachair, Sigma & ThermAir businesses to form Air International Transit, based in NSW, Australia
- 1997 Commenced supply of seat frames for Holden via Lear Australia
- 1998 Air International acquired 100% ownership of ACS Ltd. In the UK, formerly a joint venture with Unipart industries.
- 1999 Joint Venture formed with Brilliance China Automotive Holdings, known as Air International Brilliance
- 1999 Air International Transit Division commissions a new manufacturing facility in Wales, U.K. for rail and automotive HVAC supply in Europe
- 1999 Several new programs secured with Ford for start of production in late 2002 seats, HVAC systems, steering & other
- 2001 Air International forms new joint venture in Chongqing China and secures new HVAC programs with Changan and Ford
- 2001 Air International takes 100% ownership of Lear-Air International joint venture, forms 'Air International Interior Systems' to support \$550m supply contracts, located at Campbellfield, Victoria
- 2002 Commenced supply of a rear HVAC system to GM Truck in North America
- 2002 Commissioning of a new Integration facility at Edinburgh Park in South Australia to supply seat systems, carpets and HVAC systems to Holden and Mitsubishi
- 2002 Commissioning of a new Integration facility at Campbellfield in Victoria to supply seat systems, steering and HVAC systems to Ford
- 2002 Commissioning of a new manufacturing facility in Chongqing China to support new business secured.



3 Contribution to the Australian economy

Air International is a significant provider of automotive and transit technology. Our sales have risen rapidly and steadily over our history.

Chart 1 - Air International Group Sales Revenue 1977-2010



Our steady growth has added hundreds of new jobs to the Australian economy, and generated revenue from offshore markets. The steadiness of our growth has been part of our story of very high retention of staff – ensuring that Air retains the skills in which it has invested.

Table 1 - Employees of Air International

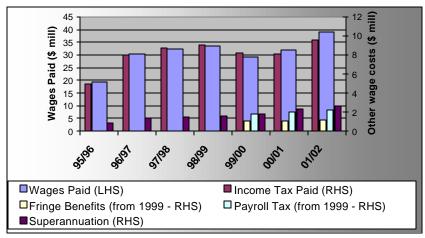
| 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|------|--|--|--|---|---|--|---|--|
| 215 | 220 | 202 | 210 | 222 | 340 | 340 | 340 | 340 |
| 263 | 220 | 200 | 205 | 257 | 322 | 322 | 322 | 322 |
| 0 | 0 | 0 | 255 | 302 | 324 | 324 | 324 | 324 |
| 0 | 0 | 0 | 0 | 0 | 40 | 131 | 131 | 131 |
| 478 | 440 | 402 | 670 | 781 | 1,026 | 1,117 | 1,117 | 1,117 |
| | | 15 | 22 | 32 | 45 | 55 | 55 | 60 |
| 306 | 306 | 326 | 328 | 328 | 400 | 450 | 450 | 450 |
| 20 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 341 | 371 | 406 | 415 | 425 | 510 | 570 | 570 | 575 |
| 819 | 811 | 808 | 1,085 | 1,206 | 1,536 | 1,687 | 1,687 | 1,692 |
| | 263 0 0 478 306 20 15 341 | 215 220 263 220 0 0 0 0 478 440 306 306 20 50 15 15 341 371 | 215 220 202 263 220 200 0 0 0 0 0 0 478 440 402 15 306 326 20 50 50 15 15 15 341 371 406 | 215 220 202 210 263 220 200 205 0 0 0 255 0 0 0 0 478 440 402 670 15 22 306 306 326 328 20 50 50 50 15 15 15 15 341 371 406 415 | 215 220 202 210 222 263 220 200 205 257 0 0 0 255 302 0 0 0 0 0 0 478 440 402 670 781 15 22 32 32 306 306 326 328 328 20 50 50 50 50 15 15 15 15 15 341 371 406 415 425 | 215 220 202 210 222 340 263 220 200 205 257 322 0 0 0 255 302 324 0 0 0 0 0 40 478 440 402 670 781 1,026 15 22 32 45 306 306 326 328 328 400 20 50 50 50 50 50 15 15 15 15 15 15 341 371 406 415 425 510 | 215 220 202 210 222 340 340 263 220 200 205 257 322 322 0 0 0 255 302 324 324 0 0 0 0 40 131 478 440 402 670 781 1,026 1,117 15 22 32 45 55 306 306 326 328 328 400 450 20 50 50 50 50 50 50 15 15 15 15 15 15 15 341 371 406 415 425 510 570 | 215 220 202 210 222 340 340 340 263 220 200 205 257 322 322 322 0 0 0 255 302 324 324 324 0 0 0 0 40 131 131 478 440 402 670 781 1,026 1,117 1,117 15 22 32 45 55 55 306 306 326 328 328 400 450 450 20 50 50 50 50 50 50 15 15 15 15 15 15 15 341 371 406 415 425 510 570 570 |



2000 1500 1000 1998 1997 1999 2000 2001 2002 2003 2004 2005 ☐ Golden Grove ■ Port Melbourne ■Salisbury/Edinburgh Park Campbellfield ■ Detroit - North America China ■Wales, United Kingdom ■ India

Chart 2 - Employees of Air International

Chart 3 - Wages and Associated Payments Made



Note: Wages paid is graphed against the left hand side Y axis, whilst all other payments are graphed against the right hand side Y axis. All payments on the right hand side axis (except income tax) are in addition to wages paid.

We have also been increasingly strong investors in the industry – a point which is covered in greater depth later in this submission.

4 The economics of automotive production, location and trade

Air International's corporate strategy takes account of the particular economic drivers in the global automotive industry. Since the disaster of import replacement, there has been much enthusiasm, both in government and within the industry about exporting Australian automotive products and the industry has risen to the challenge. That having been said, it is critical to appreciate that the logistics of automotive production dictate what can and cannot be traded efficiently.



Broadly speaking, whole vehicles and technology and design services are readily exportable, though in each case there are obstacles. Only some components lend themselves readily to substantial trade.

Trade in vehicles

All trade in goods is subject to transport costs and for vehicles this is generally substantial. Thus trade in built up vehicles tends to occur in high margin niche markets, for instance luxury and specialty vehicles, and where producers have a distinct cost advantage in the production of certain kinds of vehicle. In the market for complete vehicles, an established model is mass marketing at home to generate scale, and niche marketing abroad where the same products can appeal to specific niches at prices which cover transport costs. Marketing and the specification of vehicle options have always played an important part in this story. Vehicles being mass marketed in one country may be promoted quite differently and with different specification of options from the way they are promoted in other markets as luxuries. The European industry has always pursued this model of exporting though this is now supplemented with substantial investments into mass production and marketing in foreign markets.

Today Mitsubishi Australia is the most classic exponent of this strategy, mass marketing the Magna and niche marketing the same vehicle at much higher prices against prestige cars in the United States. Holden's vehicle export strategy is also based on unique characteristics of the Commodore into which a great deal of unique design effort has gone. Both Holden and Ford are investing in adapting Australian platforms to capture a larger slice of the Australian SUV market – with a four wheel drive on the Falcon platform from Ford and a crew cab from Holden. It is likely that the kind of design expenditure involved cannot be justified without substantial export volume.

Advantages may also arise from lower factor costs – as in the case of Korean exporting for instance, or from the fact that a global firm may choose several locations from which to manufacture similar or identical products. This strategy has been followed in the export of engines by Holden and in the export of vehicles by Toyota. This pattern was also the case in the late 1960s and 1970s when Australia was also a substantial automotive exporter.

Trade in design and engineering

In addition, in the late 1960s and early 1970s and again today, Australia is a substantial exporter of automotive design and engineering. Indeed today Australia is a super-competitive design source. Our costs are well



under those in other markets with comparably qualified and high quality personnel. Air sees itself increasingly as an exporter of design and technology to the rest of the world.

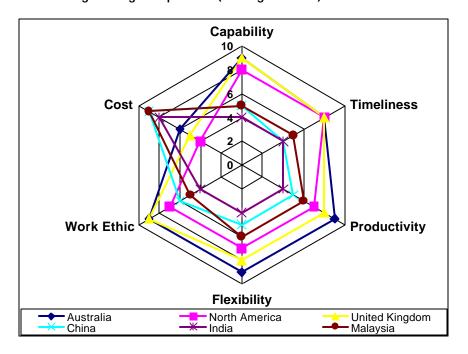
Table 2 - Average Costs Of An Average Engineer (AU\$)

| China | | China | USA Australia | | UK | India | |
|-------|----|--------|---------------|------------|---------------|-------|--------|
| | \$ | 29,426 | \$ 216,365 | \$ 105,750 | \$ 140,700 | \$ | 30,909 |

Methodology: These numbers represent the Australian dollar cost of employing an engineer. The summary numbers in this table are averages of the range of costs – from high to low – and from senior to junior.

Further, in an Air International internal survey of engineering capacity, the general consensus was that Australian and UK engineering were equal first – with slightly different strengths – with the US and then developing countries clearly inferior.

Chart 4 - Engineering Comparision (ranking out of 10)



Direct trade in components

Although Australia's direct component exports have grown dramatically in the last few years – from under 12% in 1994 to over 22% of turnover today – we believe there are strict limits to the direct exportability of components. Assemblers require just in time delivery, and trade in components generally lengthens supply lines and increases inventory



holdings substantially. This is manageable where sub-assemblies are standardised between a wide range of different car types – as in the case of engines and transmissions – and if they are not inventory sensitive – as in the case of windscreen wipers and mirrors.² However with intense and growing emphasis on 'just in time' inventory management, the trade of many other sub-assemblies over long distances becomes problematic. Accordingly Air International, like a number of other component manufacturers, has expanded its offshore base dramatically. In Air's case we have never been a large exporter. In the case of others we expect these new offshore investments to displace some Australian component exports. Nevertheless, they generate benefits for Australia in the form of design and development exports from our Australian base (generating jobs and building the volume base over which Australian design costs are amortised). This is in addition to intellectual property exports and dividend income. Thus, while component export growth from Australia has been very strong, we expect that growth to abate in coming years – though one would hope and expect non-inventory sensitive automotive exports will continue to arow.

5 Air International's corporate strategy

Our understanding of the economics of the industry drives our corporate strategy. We seek to focus Air International's efforts and resources on our competitive strengths and our country's comparative advantages. It is a singular fact that, amongst the world's developed automotive industries, Australia's costs for design and engineering are the lowest in the world by a large margin (See previous section). At the same time, the design and engineering costs *per unit* from Australia's automotive industry are amongst the highest!

This underscores our vision, which is to continue to develop our design and engineering capabilities to service the industry with world competitive inputs. This involves us in a substantial degree of manufacture – however this manufacture typically involves us in buying in and sub-contracting much of the manufactured value added in our outputs. Accordingly we think of our own role as being the designer, engineer, financier and packager of systems and sub-assemblies. Of the approximately \$½ billion of sales revenue this year, well over half was

² Even here however, with vehicle assembly becoming progressively more integrated components which appear to be added onto the car, may cost much more to retrofit. There may also be problems with colour matching and batch co-ordination.



purchased. This was shared between local suppliers and imports (see charts below).

Chart 5 - Air International's Purchasing From Imports and Australian Suppliers (\$ million)

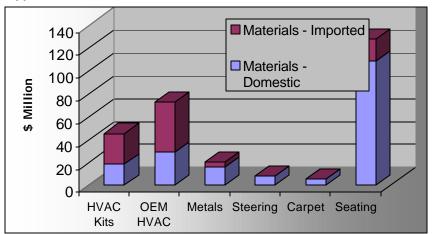
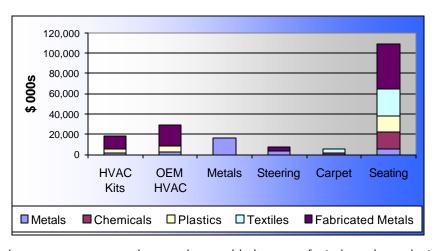


Chart 6 - Breakdown of Australian Supplies to Air International Activities (\$ 000s)



In many areas, 'low value added' manufacturing has lost competitiveness in Australia supplanted by lower cost sources of supply. As suggested in the previous section, this is not the case for the production of time critical sub-assemblies for sequenced delivery – even those that are relatively low value added. Such products are very often inventory sensitive, and here it is often the case that it will be more convenient – even if it will be sometimes higher cost – to produce them near the site of vehicle assembly. Thus in the broad market segments which we target – the supply of vehicle interior sub-assemblies – these



factors and a high degree of customisation drive us towards having our final assembly facilities physically close to our customers' assembly facilities even though we can incur cost in doing so. Further this is the case not just for our supply to our customers, but often in our organisation of supply chains to our own production (See Box 2).



Box 2 - Air International seat production – trading cost for timeliness and flexibility

Air International's fully owned subsidiary Air International Seating sequenced in-line delivery system epitomises the contemporary lean manufacturing process. Supply of production is perfectly choreographed to the needs of the assemblers. The process minimises the wastage of time, materials, labour and capital and is highly logistics intensive.

Air International holds virtually no finished goods inventory. There is a constant flow of seat sets, from the production line to the assembler, arriving in a predetermined order and – for instance in one case – 53 minutes notice from job specification to delivery on the assembly line.

At the same time Air International has few component inventories. Component supplies flow into the plant when required for production. Suppliers are highly attuned to Air International's production requirements allowing the system to work smoothly.

However, there is one exception that can cast a potential spanner in the wheel. Cut and sew (C&S) material can be sourced substantially more cheaply from Thailand than from Australia. Cost of C&S in Thailand is approximately 10-15% less than Australia. However, when duty is added to cost, it is about breakeven with local manufacture. However, even if it were at some cost disadvantage, the logistical and inventory advantages of Australian sourcing would make up for this. Supply from Thailand involves an order cycle of ten weeks. Accordingly there are approximately \$5 million in reduced inventory holdings from localising the operation as we propose to do.

Nevertheless reduced inventory holdings are not the key to this change. Where production is sourced from Thailand, some slight alteration in the production schedule of our customer can see us incur the additional costs of premium freight, line stoppage and management resources devoted to solving crises.

Air International will overcome this problem by annually sourcing an additional \$11 million of cut and sew locally. This will involve the investment of \$3 million and the generation of around 120 new jobs. When this change is finalised we will be able to alter our production output within three days, not three months. As there are a huge number of different seats supplied (over 200 combinations of seat sets with one customer alone), and material fashions change once a year, the improved flexibility and quality of output and process will greatly outweigh any potential cost increases. Subject to further investigation of viability, the project could grow to 300 jobs and \$40 million in revenue.



We know other component suppliers are seeking to emulate this strategy as it focuses firm resources on the area in which Australia has the strongest comparative advantage and enjoys the highest returns. It also reduces the risk exposure involved in large fixed investment in capital equipment. We do what manufacturing is necessary to support our role as a supplier of design and engineering services, and protect the strategic position our technology gives us (as much of our intellectual property is not patentable).



Box 3 - Global 'follow the sun' engineering



Air International spends more than four times the Australian average on R&D. We recently announced a \$44 million investment plan for a new Global Engineering and Technical Centre in Melbourne to support the company's growing global operations.

Today Air International has over 275 engineering & technical staff located across the globe in a number of countries including – Australia (Victoria and South Australia), North America (Detroit), China (Shanghai and Chongqing), India (Pune), Malaysia (Bangkok) and the United Kingdom (Wales).

Air International has invested heavily in a range of advanced engineering tools to ensure that its 'Follow The Sun' engineering concept has become a reality. At present several CAE design technologies are being ultilised by Air International, these include –

- Parametric Solid Modelling
- Kinematics analysis and design simulation
- Software tools to simulate sheet metal manufacturing
- Mouldflow Analysis for plastic parts
- Surfacing Creation, editing, rendering and analysis of 'A' class surfaces utilising ICEM SURF & 'Alias' software
- Sophisticated modelling of air & heat transference qualities
- Noise, vibration and harshness simulation

Air International's capabilities have seen it commissioned for important and urgent projects by Ford and General Motors in both the United States and in China.

While Air International teams were designing and developing in China, they were running validation tests in Australia and liaising with engineers in North America.



Our attention to leveraging our intellectual assets off very modest use of physical assets has seen us generate a very high (though volatile) return on investment throughout our history. By contrast, our return on sales has been modest, and unappealing in recent years.

Of the highest priority is growing the volume base that we can leverage off our design and engineering services. This volume base is the Australian vehicle assembly industry – involving substantial indirect exports of our components in vehicles that are assembled in Australia and exported around the world. Accordingly, it is critical for the viability of Air International for there to be a substantial automotive industry located in Australia – manufacturing for the domestic and export markets.

On top of this, since 1995 we have been increasingly focused on expanding our investments overseas. In terms of the movement of goods, this could be seen as a 'multi-domestic' strategy, as the products we make are most competitively supplied from places close to the assembly of vehicles. Nevertheless, this is a critical export strategy for us, and the exports are our design, engineering and management services. We believe it is critical for Australia to avoid the mistakes of the late 1970s and 1980s which saw greatest effort go into areas of manufacturing where we were weakest – the manufacture of smaller vehicles. Accordingly our industry must specialise in the production of vehicles which we can competitively manufacture, and in the export of design, engineering and management services where we are very competitive.

6 Strategic issues

In the following sections we outline a range of inefficiencies in the market and strategic issues for the industry and for industry policy. The problems are clear enough. However the solutions to those problems are not straightforward. Our own continuing marketplace vigour will be the most important factor. However we believe that:

- it is worthwhile raising the profile of the issues in their own right;
- that some more concerted community and industry involvement in raising awareness of the problem and working on solutions could be worthwhile and that in some circumstances;
- there may be light handed interventions with low costs and risks and so reasonable scope for generating net benefits.



7 Industrial Relations

The recent Tristar and Walker disputes have demonstrated the crippling impact that industrial disputation can have on the automotive industry in Australia. We would guess the disputes may have lowered profitability by 10% in the industry illustrating the profound effect even relatively small disturbances can have where fixed costs are so high. In the short-term, the strikes have caused considerable distress to tens of thousands of workers and in the long term undermined the industry's reputation for reliability and profitability.

JIT and sequenced delivery are absolutely vital to the competitiveness and profitability of the automotive industry. Part of the strength of JIT is that it forces businesses to search out and solve any weaknesses which generate irregularities in production. As a consequence significant time and effort has been put into adopting practices such as preventative maintenance, QS9000 (Quality System) and OHS programs by all participants in the industry to eliminate lost time. Yet we cannot have any confidence in this system while our industrial relations climate reflects another era.

The three central industrial relations issues that need urgent attention within the automotive industry are:

- 1. Industrial stoppages
- 2. Demarcations
- 3. Enterprise based bargaining

These issues are discussed in subsequent sub-sections.

Industrial disruption

Both management and employees (and their representatives) have viewed the use of strikes and lockouts as a means of applying financial pressure to the other party. But the industry cannot prosper if stakeholders cannot find a means of resolving industrial conflicts without recourse to strikes and lockouts.

One option may involve a requirement for the parties involved committing to compulsory conciliation and arbitration or some other resolution process while work within the business continues.

Demarcations

Demarcations between the various unions in the industry have caused considerable conflict and reduced productivity. We believe the industry would be better served with a single industry based union having



coverage of all employees within the industry. Industry-based unions have a strong vested interest in the success of their industries and without the industry the union would cease to exist.

We understand the difficulties associated with a change of this magnitude and therefore believe that a minimum requirement for success is the achievement of single union sites within the industry. This should eliminate enterprise-based demarcations and will simplify enterprise-based negotiations.

Air International considers that the most appropriate union for our company's operations is the AMWU (Vehicle Division) the only industry rather than craft based union available to us.³ In fact vesting industrial power with one union is by no means without its risks – particularly of pattern bargaining. However, Air has taken the view that any increase in industrial power is offset by having a cooperative relationship with an industry-based union that acknowledges the interests of its members are best served by a profitable, world competitive and secure industry.

 $^{^{3}}$ The AWU, NUW, CEPU and AMWU (Metals), who are arguably aligned to occupations or trades.



Box 4 - Air International's approach to Industrial Relations

Air International has a strong people focus and acknowledges the rights of employees to collectively bargain and to be represented by a trade union. Air International's approach to industrial relations is based on following key principles:

- a workplace culture based on flexibility, involvement and simplicity;
- single union sites with no demarcations;
- site specific Workplace Agreements based on supplier industry norms, not vehicle manufacturing industry conditions and practices.
- Air's own identity, culture & workplace practices within its sites
- Management actively involved on the shopfloor with the workforce

All our facilities are single union. The Golden Grove facility employees are represented by the Australian Workers Union ('AWU'), whilst the Edinburgh Park facility is covered by the Vehicle Division of the Australian Manufacturing Workers Union ('AMWU'). The Edinburgh Park facility amalgamated three separate operations (covered by three separate unions) under one roof, with one single union on site. Although there was some resistance, the AIRC assisted Air to achieve its objective of having only one union at the Edinburgh Park facility.

The Campbellfield facility, established in April 2002, has a 'greenfields' Certified Agreement with the AMWU (Vehicle Division).

Enterprise based bargaining

The introduction in the early 1990s of enterprise bargaining has enabled Air International to achieve essential workplace flexibilities for a sequenced-in-line, just-in-time supplier.

Across all our OE operations we have negotiated separate certified enterprise agreements to seek continuous improvement in work patterns, to achieve cost effectiveness and waste elimination and to remunerate employees for their continued commitment.

Recent moves by unions towards industry or pattern bargaining will only restrict the future performance, competitiveness and profitability of Air International and the industry. Air International supports the continuation of enterprise-level bargaining.

8 Access to capital

Though we are super-competitive in the supply of design and engineering services, these services tend to be embodied in a larger



picture that involves the supply of physical outputs to vehicle assemblers. It is a constantly difficult task to supply these outputs in an industry in which very large players, under substantial financial pressure, have substantial bargaining strength and short term financial imperatives when dealing with their suppliers.

Air International's cost of capital fell when we were absorbed into Futuris – a much larger firm than we were. As a result we were able to grow rapidly after the merger. We have also been able to purchase other smaller companies and inject capital, management expertise and better risk exposure into their operations.

Where a smaller firm supplies a much larger firm and must undertake product specific investment to make this supply, it makes good sense for the funding of that investment to access the larger firm's (lower) cost of capital. Historically it has generally been the case that vehicle manufacturers have funded a substantial portion of the capital investment taking place within supplier firms.

However firms also have a desire to fund their capital 'off balance sheet', and this desire has intensified as investment managers have focused on short term company returns in the global industry. This pressure to produce short-term returns sees the vehicle assemblers use their market power to pass on much of their capital investment to suppliers.

Yet any improvement in the vehicle assemblers' short-term costs from avoiding the initial capital expenditure must ultimately be outweighed by increased longer term costs. The vehicle manufacturer avoids incurring the heavy up-front costs on its own balance sheet. However this cost is more than paid for over the life of the supply contract as the unit price must reflect the supplier's cost of capital – which is typically higher than the vehicle manufacturer's. The same may be said for cancellation risk and volume risk both of which are now much higher for component suppliers, and both of which would be more efficiently (not to mention equitably) borne by the assembler because it has greater control of these issues.

The following charts illustrate the dramatic shift taking place as it impacts on Air International. Like most parameters of Air's growth, investment growth has shown strong growth throughout our life reflecting our growth in output. Some 'lumpiness' reflects model cycles and also particular asset management decisions – for instance the sale and leasing back commercial property to focus limited available funds of the development and growth of the core business via product R&D, technology acquisition and international market development. Nevertheless, the changes currently underway are impacting on Air in a



dramatic fashion. As is illustrated by the charts below, our plant and equipment investment quadrupled in 2001. This will fall back somewhat in the next few years, before rising once more, but the financing requirement has placed heavy cash burdens on Air and its parent Futuris.

Chart 7 - Plant and equipment investment – by year 1997 – 2005 (AU\$000s)

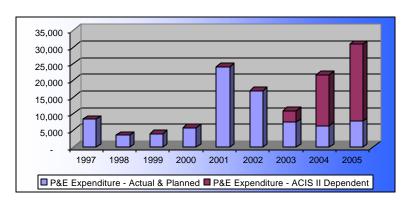
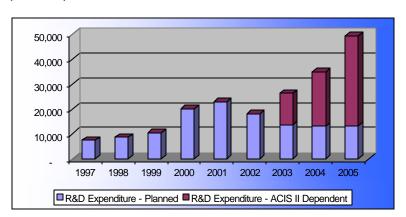


Chart 8 - Research and development investment – by year 1997 – 2005 (AU\$000s)





After a sustained, strong growth in net operating assets of around 20% per annum since 1995, our net operating assets are more than doubling (rising by \$40 million) this calendar year. They will then rise by a further 30 million next year before gradually falling as depreciation of new tooling comes to dominate for a time investment in new projects.

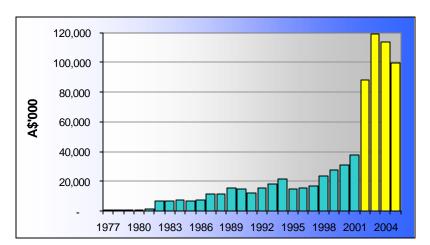


Chart 9 - Net operating assets 1977 - 2005 (AU\$000s)

9 Market access

Market access issues are critical for the Australian automotive industry.

Formal and informal trade barriers imposed by other countries.

We have been frustrated for some time at the lack of reciprocity in trade negotiations in our region. In particular we progressively open our own market to others, while they continue to offer only token gestures towards liberalisation of their own protective regimes. We appreciate the argument that we pursue liberalisation essentially for the benefits it brings us unilaterally. But as even the Commission has conceded, the marginal additional benefits from further liberalisation are relatively small. In our view the focus should be upon new smarter approaches to securing access to other markets. With this in mind we commissioned Lateral Economics to produce some ideas on improving access in developing markets in our region. We believe the ideas produced have substantial merit and we commend them to the Commission. They are attached at Appendix 4.

Further, there seems to be a strong desire from Australian officials to meet both the spirit and the letter of the Bogor Declaration. Should we have confidence that this would be reciprocated by our trading partners, we would have no objections to Australia fulfilling its part of the bargain.



The Australian automotive industry has nothing to fear from multilateral automotive free trade – or even free trade in our region. Accordingly, we support a strong commitment to our meeting the requirements of Bogor. This commitment should be strong and unequivocal. And there is no reason to delay that commitment to 2010 if progress can be made before that. But the commitment *should not be unconditional*. That is, any recommendation emerging from the Productivity Commission's review to implement what Bogor requires of us, should not be made without reference to others keeping their side of the bargain.

If others do not likewise liberalise their markets the merits of tariff reduction should be considered from a unilateral perspective. From this perspective we believe that the appropriate tariff rate is about what we are committed to already. Any move beyond this point without strong commitment from all other participants would be naïve and against Australia's economic interests. We make some further comments on this below.

Intra-firm import barriers

Protectionist unions in the US

In addition to the problems discussed above, a large number of contracts in foreign countries – both for exports from Australia and for domestic supply from domestic firms in the foreign market owned by Australians – are quietly scuttled and leave virtually no trace on the public record. This issue is raised in the Commission's terms of reference at clause 3.

[B]y international standards, Australia is a small, mature and diverse market; for many firms, pursuing growth to achieve scale economy is a major priority. Global integration, including exports, is paramount to the future of the sector. The majority of firms in the sector are subsidiaries of overseas owned corporations, with investment decisions and the identification of potential export markets made on the basis of their global operations (rather than simply in the interest of maximising returns on their Australian operations).

In the United States, the Australian industry is routinely either excluded or constrained from supply deals for which it is the most competitive supplier. This has happened to us with major component supply projects where a major buyer has pulled out despite our being the best source of supply.

The most common obstacle to such deals is union resistance. The worst effects of this usually occur entirely within a single firm – as when, on account of union pressure, an Australian subsidiary firm is denied



access to import built up vehicles or other goods into the United States base of its parent. It is common knowledge that a few years ago, union resistance was a major factor in the failure of an Australian subsidiary of an American vehicle manufacturer to land a major order to supply around 50,000 large family sedans and station wagons per year to the United States. Such an order has the capacity to transform the economics of vehicle building in this country.

More recently it appears that Holden may be able to supply 'Monaro' based vehicles to the United States. If the project goes ahead, it will be a great achievement, but we understand that, at least initially, the volume of the order was substantially constrained by protectionist unionist pressures in the United States.

Exporting services and the 'head office' mentality in foreign markets

In addition to the obstacles to the export of goods, there remain powerful impediments to the export of technology and design services – even though there are effectively no tariff or transport barriers. These might best be summarised as the 'head office' mentality. Some of this makes good economic sense. More and more firms see design and technology as their core strategic assets, and are accordingly wary of outsourcing them. There are also now, as there have always been confidentiality concerns where new designs and technologies are concerned. There are also some problems where different parts of a design team are a long way away, although the Internet is clearly mitigating these problems very substantially. On the other hand, vehicle assemblers have come to trust their suppliers – as they must – with advance design information. And there is much contract design, with relatively low proprietary value that is nevertheless kept in house at considerable cost compared with the alternatives. And where part of a European or American design team is located in Australia, critical projects can be progressed around the clock with Australians working while Americans and Europeans sleep.

Concerning Australian design and engineering services, as stated above, we believe Australia has strong advantages – of cost, quality and time complementarity. In the age of the Internet, design and engineering can also be done very effectively at a great distance. Nevertheless there are important obstacles in the 'head office' mentality in a number of large automotive firms.

Solutions?

These are difficult issues to crack, but they are of immense importance for the prosperity and long term viability of the Australian industry. We



do not have all the answers, but believe that a start can be made if we both recognise the existence of the problems and avoid a fatalistic approach to them. Over time we should be able to change things, since all our efforts are directed towards more efficient and equitable solutions. We are not trying to get others to bear the costs of our inefficiency, but rather trying to remove obstacles to making the most of our advantages.

A range of exploratory strategies might be envisaged all of which generate little risk and all of which may assist us to make breakthroughs. Voluntary export targets could be useful. We would hope that, in return for the assistance they receive under automotive industry policy, the vehicle manufacturers would voluntarily commit to take what measures were reasonable to ensure that, where they were competitive, Australian suppliers were given a fair opportunity to tender for any business within their global network. We consider that there is merit in the country seeking to address the issues of exporting design and engineering services in a national strategy. Perhaps, through the auspices of Austrade, Commonwealth and state government agencies and industry could pool their experiences and resources to explore and overcome the obstacles to greater export of design services and to market Australia as an internationally competitive source of automotive design and development.

Lateral Economics have also suggested a possible strategy for tackling the UAW problem. The consultants do not give it a huge chance of major success, but then it would cost very little to try. Given this we believe it is worthy of consideration by the Commission.

10 Post 2005 assistance

Air International has made great headway in the last five years as a direct result of the supportive policy environment: 15 per cent tariff assistance coupled with budgetary assistance capped at 5 per cent of sales. This support has both been at a much lower rate than the assistance offered the industry in the 'bad old days' of high protection, and also much more focused on assisting firms build their capabilities for the future.

Between the time the existing arrangements were announced in 1997 to the end of 2002, we will have invested more than \$175 million dollars in new plant and equipment and research and development – a massive increase on the six years before the announcement. This would simply not have been possible had we not benefited from specific government programs for the industry. In this section we offer some observations about automotive tariffs, as well as commending the comments of



Lateral Economics to the Commission. We then discuss the future of the ACIS scheme.

Tariffs

As we understand it, the Commission will be providing the government with options for the post 2005 period. We imagine that one of those options will be 'tariff only' assistance of the same magnitude as other assisted manufacturing – namely 5% tariff assistance phasing down with any general phase-down of tariff assistance to manufacturing. Subject to the comments made above in the context of genuine regional commitment to free trade, we believe this would be unwarranted in the case of the automotive industry. We make this claim on the grounds of the strength of the claim that there are sharply diminishing benefits from unilateral tariff reform beyond (perhaps) 15%, and certainly beyond 10% compared to the potential adjustment costs.

We refer the Commission to the comments of Lateral Economics on the tariff issue. In the light of those comments we look forward to a 'position paper' and ultimate report from the Commission that explains how:

- only small allocative efficiency gains can arise from tariff cuts below 15%. Over half of these gains will be captured in the move from 15% to 10%;
- productivity gains from tariff reductions are ambiguous. They
 could be positive, but loss of domestic industry volume would be
 negative and would be the result of a model of the industry and
 the economy in which large import subsidies would generate
 greater gains than free trade;
- lower tariff assistance raises the risk of major labour market disruption if an assembler were to pull out;
- revenue lost from lower tariff revenue would need to be raised using other (distorting) revenue raising devices; and
- Australia must provide some negotiating coin for future multilateral trade negotiations, even though negotiations are formally in terms of the 'bound' rate of tariff to which parties agree.

While we accept the Government policy of reducing tariff assistance to 10% from 15%, we explicitly request that the Commission model what economic gains and losses can reasonably be expected from such moves. The Government should not reverse course as a result of industry lobbying, but it should certainly do so if maintaining the current policy generates costs and risks which outweigh its benefits. In any



event we would value an independent inquiry into the matter from a body that prides itself on its independence.

ACIS and assistance to production, and investment in physical and intellectual assets

We also believe there are strong reasons to support ACIS. The automotive industry has not been a strongly profitable industry in Australia over the last five years. As a share of value added, the profitability of the industry has consistently been well below profitability in the economy at large. Imports of automotive products have doubled to around twice domestic production over the last five years.

Yet, ACIS has generated very strong investment and expansion. As one might expect, the greatest investment growth has occurred within those participants with the greatest capacity to tap into huge networks and resources of offshore parents particularly the vehicle manufacturers.

Table 3 - ACIS credits and plant and equipment expenditure by MVPs

| Calendar Year | Expected Eligible ACIS Plant and Equipment Investment by MVPs | Growth in investment | Expected ACIS P&E Credits Earned by MVPs |
|--------------------|---|----------------------|--|
| 1999 | 227 | | 0 |
| 2000 | 262 | 15% | 0 |
| 2001 | 457 | 74% | 34 |
| 2002 | 628 | 37% | 48 |
| 2003 | 554 | -12% | 61 |
| 2004 | 848 | 53% | 64 |
| 2005 | 397 | -53% | 55 |
| Source Ausindustry | | | |

As can be seen, investment growth is lumpy but very strong.

Component suppliers have also responded with very strong domestic investment growth in the early years of the plan, particularly to the investment assistance in ACIS. In our own case, we have endeavoured to look backwards and ask which projects in the last few years would have got board sign off with and without ACIS and the results were striking. In the years 2001 through to 2005, the figure is consistently that between 39% and 45% of projects would not have been proceeded with. Research conducted by Deloittes also indicates that for every \$1 spent within the supplier sector, approximately the same amount is also spent by suppliers to us.

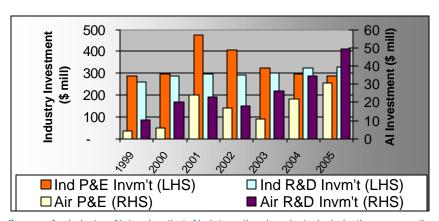


In the industry, future plans suggest that this investment will tail off. Three possible causes for this tailing off could be the model cycle, component suppliers' moving offshore to service overseas markets and the uncertainty of what will succeed ACIS. Nevertheless, it seems unlikely that there will be a fall in expected investment of the magnitude foreshadowed in the following table. ABS reports a tendency across all business to underestimate future capital expenditure.

Table 4 - Plant and equipment and R&D investment by automotive suppliers (\$ million)

| Year | P&E Invm't | P&E Invm't Growth | Air P&E | Air's share of sector | R&D Invm't | R&D invm't growth | Air R&D Invm't | Air's share of Sector |
|------|---------------|-------------------------|---------|--------------------------------|---------------|-------------------------|----------------------|-----------------------------|
| 1999 | 289 | | 4.1 | 1% | 262 | | 10.5 | 4% |
| 2000 | 297 | 3% | 5.8 | 2% | 289 | 10% | 20.1 | 7% |
| 2001 | 476 | 60% | 24.1 | 5% | 296 | 2% | 22.9 | 8% |
| 2002 | 408 | -14% | 16.8 | 4% | 294 | -1% | 18.1 | 6% |
| 2003 | 324 | -21% | 10.9 | 3% | 302 | 3% | 26.3 | 9% |
| 2004 | 297 | -8% | 21.7 | 7% | 322 | 7% | 34.7 | 11% |
| 2005 | 288 | -3% | 30.8 | 11% | 331 | 3% | 49.4 | 15% |

Chart 10 - Plant and equipment and R&D investment by automotive suppliers (\$ million)



Source: Ausindustry. Note also that Air International projects include those currently dependent on some scheme comparable to ACIS being available after 2005.

What can be said with little fear of contradiction is that, despite increasing import penetration, domestic production has been rising due largely to substantial investment for export. Without ACIS, the industry would have contracted and would be beginning a long slide below critical mass.



For these reasons we believe that ACIS should be maintained as a spur to long term investment and upgrading the skills and capabilities of the industry. Our preference is for the scheme to continue in something like its current form.

Nevertheless, we expect that it would be appropriate for the Commission to outline the design features of a scheme similar to ACIS which focused more tightly on building capability in the sector, rather than assisting production directly. Should it be necessary to do this, we suggest the following considerations should guide the commission.

- It would seem to us more sensible to assist plant and equipment investment and R&D as activities which add to the capabilities of the industry – rather than simply maintain existing production.
- We believe the DFA should at the least be subject to the modulation arrangements (with an appropriately enlarged base from which to operate the cap). But if a choice is to be made between production and credits for investment and research and development, it should be made in favour of the latter. ACIS funds should be used to spur improved performance, capability and growth. Accordingly credits for additional investment and investment in research and development are likely to be a more efficient instrument than production credits.
- Subject to the other principles set out here, payments should generally mirror production in the industry. Currently the vehicle manufacturers' access to production credits gives them the lion's share of the ACIS pool of funds, though their suppliers provide them with around 75% of the value of the vehicle they assemble.
- If assistance is to be effective firms must be able to rely on it and to build their capabilities with the assurance that it is available into their own 'medium term' planning. For the automotive industry, this means five years.
- By the same token, it is also appropriate to minimise the extent to which ACIS funds are able to prop up firms, and so prevent appropriate mergers and acquisitions within the component sector to enable it to consolidate and improve its management of risk and access to scale. These considerations also apply at the level of vehicle producers. Assistance should go to firms making substantial investments in their own and the industry's future, not to prop up firms which are not prepared to do this.

The last of these principles would tend to ration ACIS to faster growing firms. We see this as appropriate in an industry that is still in need of rationalisation. In order to avoid ACIS being of value to a firm which



should be pursuing rationalisation and/or merger, there may be some merit in passing some of the ACIS benefit to firms in the form of a tax credit, or some other such instrument which is contingent on some level of firm profitability. If this were the case, care would need to be shown to ensure that the value of the assistance was able to be passed through to domestic shareholders, without being clawed back as lower franking credits as occurs with the current R&D tax concession.

We propose that any assistance program to replace ACIS be on a rolling five year basis – that is that it would remain until the government gave five years notice of its removal. This would ensure that the funds devoted to the exercise elicited the maximum response from industry. It is noteworthy that – at least according to existing forecasts – both the components sector and the vehicle producers' investment rises strongly in the first years of ACIS but tails off towards the end of the scheme, suggesting that the security of the scheme is an issue in firms' investment planning.

Further, while it is probably appropriate for much of the assistance to be offered according to pre-agreed formulae, there may be merit in some discretion being provided for particular projects of substantial strategic value. Some projects offer the scope for firms to substantially build their production base and to 'put down roots' in Australia in such a way that they will have an ongoing incentive to develop their Australian operations as assistance falls into the future. A classic example would be the development of unique vehicles – such as the Holden Monaro – with substantial export potential. If assistance priorities were re-ordered so that such a project received more assistance while simple production received less, we consider this would improve the efficiency with which the assistance achieved its objectives.

Another small but unambiguous improvement to the ACIS scheme could be made by allowing ACIS credits to be supplied in cash or in kind. That is, where the 'face value' – ie an amount of duty savings – of a parcel of ACIS credits was a given amount, the firm earning those credits should be able to receive them as import credits or as the equivalent amount of cash. This would eliminate a small market that must otherwise be kept – which keeps track of credits and allows firms to aggregate and trade them. In the early years of the scheme, smaller firms traded these credits at a substantial discount because of low liquidity in the market and the market power of larger firms who could use the credits. Today thanks to aggregation and brokerage, smaller firms are able to trade their credits at very low discounts – of 3% or less. Yet there is no reason why this margin should not be cut back to nothing which would occur if



the Government allowed those earning credits to take them as cash as well as kind.

Other assistance

At the same time that policy makers have sought to 'level the playing field' between industries by reducing special assistance to particular industries, policy makers have become more aware of the importance of state support for basic education and training.

Some would argue that the state has an important role to play in assisting firms climb the 'value added' ladder from commodity production towards those parts of production which require higher skill and tend to attract higher rewards in the marketplace – particularly the provision of intellectual services and the generation of intellectual property. Some of the benefits of this intellectual property can be captured by the firm in the form of patents, or tacit knowledge held within the firm. For this reason we greatly value our own ability to retain staff at Air International.

Nevertheless, even where there appears to be strong firm 'capture' of the value of its R&D effort, a great deal of benefit cannot be captured, particularly the tacit knowledge that builds up within one's workforce. There is currently talk of other international automotive firms setting up engineering centres in Australia – for instance Toyota. If this investment proceeds it will be physically close to Air International's R&D centre and we have little doubt that as a normal exercise in commercial competition, Toyota will seek to attract to its own operations, people in whom we have invested heavily.

Accordingly, particularly if the government pursues a policy of reducing assistance under ACIS or its successor scheme, we believe a great deal of the blow could be softened in a way which made a major continuing contribution to our competitiveness and to productivity and economic efficiency in Australia. Recently Robert Bosch Australia announced the establishment of a dedicated training facility at a cost of approximately \$12 million. Assistance for the investment from the Victorian Government is of the order of a little over \$1 million. This is in stark contrast to the level of government assistance involved where firms rely on the government funded education and training system. Here the state covers virtually the whole cost. In our view the level of assistance should be substantially above this given the benefits which the investment generates for parties other than Robert Bosch.

There are also other areas in which one might apply this logic. Government assistance is provided for investment in research and development for activities that will save greenhouse gas emissions.



There are no obstacles to automotive producers qualifying for these programs however. Nevertheless, there will be immense effort going into producing greener vehicles around the world in the next few years. Further such activity is probably worthy of government assistance of some kind due to the difficulty of internalising, all the benefits of such knowledge (given the way in which developing countries will avoid binding commitments for some time in the UNFCCC regime under the Kyoto Protocol). This is in addition to the usual spillovers argument for some public assistance to research and development. Accordingly, there may be some sense in providing assistance which would otherwise be provided to the industry or to greenhouse research more broadly, to capture some important global role in automotive greenhouse research and production. Perhaps another approach would be a 'modulation guarantee' which would prevent the value of R&D credits from the ACIS scheme falling below a certain figure – using funding from the AGO's budget.

Similar arguments can also be brought to bear in the area of vehicle safety. The benefits from research and development to improve vehicle safety – such as our own work on side airbags for instance – cannot be fully captured in the marketplace. Not only can R&D outputs 'spillover' in the usual ways, but better safety performance of vehicles can be expected to lower hospital costs and contribute to higher tax revenue and lower welfare expenditure by protecting people who would otherwise become injured and/or disabled for lengthy periods.

11 Recommended Policy Options

We support the FAPM submission. Further elaboration of our views is offered below.

Tariff rates for automotive products

Current policy envisages that tariffs should fall to 10% at the end of the current policy period. Air International would support this position subject to it being clear that there are net benefits to the Australian economy. We recall in the previous round of policy analysis by the Productivity Commission one of the most credible models – built by the Commission's current modeller for this inquiry – yielded 'optimal tariff' calculations given some assumptions of substantially above 10%.

If and when tariffs have been lowed to 10% we believe they should remain at this level until at least 2010 and/or when our trading partners in the region substantially lower their very substantial trade barriers.



ACIS

We support a continuing ACIS scheme at around the current level of funding and in its current form. Nevertheless, were the Commission to contemplate 'optimising' the scheme, we argue that the highest priorities are investment in capacity building – plant and equipment and research and development.

ACIS should also be delivered in such a way as to favour firms which are using the funds to expand and which are profitable. ACIS funds should be directed in such a way as to prevent their propping up firms which should rationalise their operations.

There is also room for some strategic and discretionary use of ACIS funds.

ACIS credits should also be redeemable as cash.

Market Access

Instead of near automotive autarchy, developing countries in our region should be strenuously encouraged to pursue *integration* with the international automotive industry – which can be readily accommodated with substantial assistance.

We should explore ways of tackling obstacles to exporting our design and engineering services that arise from the 'head office' mentality in other markets perhaps through a national strategy in which governments and the industry pool their experiences and resources.

We draw attention to our consultants, Lateral Economics' proposals to adopt a new approach to the issue of access to effectively closed markets within the WTO. Australia should argue that countries (perhaps excluding the very least developed countries) must achieve some minimum level of trade exposure in any sector in which they seek the principle protections of the WTO – namely 'most favoured nation' status in foreign markets. If these benchmarks were not met, the consultants argue that there should be a transitional period during which noncompliant countries would need to commit to some regime that would address this situation. Import/export links like Australia's export facilitation scheme should be permitted in transitional regimes to allow these countries (and their trading partners) to have accelerated access the huge benefits of intra-industry trade whilst they transition to lower tariff protection.

Lateral Economics also suggests we explore strategies of contact, exchange and persuasion to addressing the resistance of the UAW to



automotive imports from Australian subsidiaries of American subsidiaries.

Modelling

In any modelling which makes use of productivity improvements from the 'cold shower' effect of tariff reductions such as the modelling done for the Review of General Tariff Arrangements in 2000, the impact of import subsidies should be also modelled and the credibility of the results considered.

In any modelling which simulates tariff reductions, the costs of recovering government revenue which would otherwise have been raised from tariffs should be measured, and made part of any cost-benefit analysis of tariff reduction.

References

Banks, G., 2002. "The Productivity Commission's Automotive Inquiry",
Address to the Southern Region of the Federation of
Automotive Products Manufacturers on the public inquiry
into Post-2005 Assistance Arrangements for the
Automotive Manufacturing Sector, Melbourne, 26 March.

Costello, P., 2000, Media Release, T00/116PC, 19th December.



Appendix 1(a): Air International Plants (Domestic)

| Location | Port Melbourne Victoria | Golden Grove South Australia | Huntingwood NSW | Interiors | |
|--------------------|---|---|---|---|--|
| | | | | Edinburgh Park South Australia | Campbellfield Victoria |
| Division | Corporate Head Offices Air International Seating Pty Ltd Australian Automotive Design Centre Coachair Sales Office | Australian Automotive | Air International Transit Transit Head Office Manufacturing Operation Service Network | Air International Seating Automotive Division | Air International Seating Automotive Division |
| Products | Aftermarket Automotive HVAC systems HVAC components | Seat hardware Steering systems Suspension parts Engine cooling fans Anti-intrusion bars Pedal assemblies | HVAC systemsRailBusMiningIndustrial | SeatingHVAC systemsCarpet Sys stems | HVAC systems Steering columns |
| Major customers | HoldenFordMitsubishiIsuzuMazda | Holden Ford Mitsubishi Lear-Air International | Austral Pacific Group ADtranz Hyundai Daewoo Goninans EDI/Walkers/Clyde Siemens(USA) Mercedes-Benz | HoldenMitsubishi | • Ford |
| Employees | 217 | 200 | 220 | 324 | 131 |
| Sales | \$ A40 million | \$ A86 million | A\$38 million | A\$252 million | A\$81 million |



Appendix 1(b): Air International Plants (Offshore)

| Location | Shanghai China | Chongqing China | Voltas- Air International India | Detroit North America | Wales United Kingdom |
|------------------------|---|---|---|--------------------------------|---|
| Equity structure | 50% joint venture with Shanghai Aerospace Automobile Electromechanical Co. Ltd, a subsidiary of the Ministry of Aerospace | 60% joint venture with Chongqing Changjiang Electrical Appliances Factory, a Division of South Industry Group | 50% joint venture with Voltas, a division of the TATA Group | 100% ownership | 100% ownership |
| Divisions | Air International APO | Air International APO | Air International APO | Air Internationa I (US) Inc | Air International Transit |
| Products | HVAC SystemsHeat ExchangersHose & Pipe assembliesPTC modules | Automotive HVAC Systems Heat Exchangers Hose & Pipe assemblies PTC modules | Automotive HVAC Systems | Automotive HVAC Systems | Rail HVAC systemsAutomotive HVAC Systems |
| Major Customer s | NavecoIvecoJinbei GMShenyang AutomotiveChangzhou Bus | Changan Changan Ford | Telco | GM Truck Division | Bombardier Siemens Transportation |
| Employee s | 300 | 120 | 50 | 45 | 130 (15 automotive) |
| Sales Revenue | A\$47 million | A\$24 million | A\$13 million | A\$96 million (2003) | A\$35 million |



Confidential Appendix 2: Engineering costs – International comparisons

See separate attachment



Confidential Appendix 3: Some confidential observations

See separate attachment



Appendix 4: Correspondence from Lateral Economics



May 10, 2002

Bruce Griffiths Managing Director Air International 80 Turner St Port Melbourne, 3207

Dear Bruce,

You recently asked us to explore some ideas concerning market access for automotive products particularly in the APEC region. You also asked for a commentary on the appropriate tariff rate for the industry, looked at not principally from the perspective of the industry but from the perspective the Commission will have – an economy wide perspective.

I attach some discussion on these issues and some ideas for your consideration.

Regards,

Nicholas Gruen Lateral Economics

1. Foreign trade barriers, official and otherwise

Anne Krueger has coined a term 'identity bias' (1990) to refer to a situation where people care much more about keeping imports out of their market than they do about generating exports – despite the fact that import replacement and export are each equally valuable to an economy. In the 1960s and 70s Australian policy makers spent inordinate effort keeping imports out of the country. For instance in 1965, time in Parliamentary question time was taken up not once but twice with questions concerning the Government's purchase of 14 imported Toyota vehicles which were particularly apposite for the purpose for which they were purchased. (CPD, 30th March, 1965: 413, and CPD, 13th May 1965: 1436).

By contrast there was almost complete disregard of Australian exporting. Despite the promise shown by the industry in the 1960s and early 1970s, Australian automotive exports were being stymied at every turn by foreign protectionism. New Zealand and South Africa were developing their own industries and imposing progressively more draconian import restrictions. Likewise Asian markets were being closed. In 1961 Chrysler intended exporting about 100 Chrysler V8s to Japan but it canceled the whole operation after the Japanese suddenly imposed selective import restrictions (*Australian Financial Review*, 2nd February, 1961: 43). Apart from occasional low key references in newspaper articles, automotive protectionism in countries which were actual or potential importers of Australian automotive products left virtually no trace on Australia's public record. There were no questions asked in Parliament and, judging from the public record, no diplomatic protests or public discussion of the issues it raised for Australian trade diplomacy.

Today we have put much of this behind us, and Australia is energetically engaged on the issue of improving market access with our trading partners – at both the government and business levels. Yet there remain important echoes of the former approach. Our national approach to trade negotiation appears to focus our market access energies on 'traditional exports' particularly commodities. This is also true of our media. Thus for instance, recent impositions of constraints on exports of lamb and steel to the US have attracted a high degree of attention and energy from our media and our politicians. Yet barriers to our automotive exports receive far less attention.

There are many reasons for this. Firstly the Australian public have been fed a diet of despair about the industry for many years. Because the assembly of small cars required (and received) such massive assistance to be viable in Australia, the entire industry was tarred with the brush of inefficiency. The automotive industry was lumped in with clothing and footwear industries as inherently unsuited to our economy, which is high wage by the standards of our regional trading partners. And it was thought that car making could never be competitive in our small market. In fact our market is of adequate size to support



several world scale plants. And where our wage costs impose strong disadvantages on our clothing manufactures, Australia actually has a substantial wage cost *advantage* against most developed market competitors. In addition those low wage countries which make cars tend to make smaller cars than we do and have access to much poorer professional and management labour markets than our firms do.

Yet there are two areas in which there are critical obstacles to automotive exports. Neither is easily dealt with. Original thinking may help, but the long-standing nature of the problems suggests that even if bright ideas are brought to bear – and even if they are worthwhile – progress is likely to be slow.

Excessive barriers in near trading partners4

Countries within the WTO are able to use tariffs against the imports of other WTO countries (provided they are non-discriminatory between countries). However there are some practices which are clearly outside the spirit of the WTO if not its letter. Countries such as Thailand, Indonesia and Malaysia clearly have formal automotive tariff barriers which are of such a magnitude as to operate to effectively close off access to those markets. The current level of Chinese formal barriers is well above the 25% automotive tariffs to which the Chinese committed by 2006 as part of their accession to the WTO. Other countries such as Korea maintain import regimes that are relatively liberal in a formal sense. However when one looks closer at the trade patterns which emerge in their presence it is quite clear that trade barriers are extremely strong. The market share of imported built up vehicles in Korea has been consistently below 2% and stories abound from credible sources about harassment of those who buy imported cars – such as tax audits.

An important WTO issue is at stake here. The WTO has always provided a degree of leniency to countries at a lesser level of development. It is because of this that countries are allowed access to regimes that effectively prohibit any reasonable access for imports. Yet one can admit such a generous principal without accepting that it is good for any participants in the WTO to be effectively granted 'carte blanche' with regard to import barriers to important sectors of their economies whilst having most favoured nation status in much more open markets.

Further we know the most efficient and effective means of gradual reform in this regard – as we have pioneered it ourselves. These countries' aspirations to host substantial automotive production facilities can be accepted. But the inefficiency of these 'national car plans' – both for the host country and its trading partners – the extent of the productive opportunities to which they put paid – violates the spirit of the WTO very clearly.

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⁴ We would like to acknowledge comments made on an earlier draft by Professor Chris Findlay.

We already know how to accommodate those aspirations in a very cost effective manner. Instead of arrangements verging on automotive autarchy, these countries should be strenuously encouraged to pursue *integration* with the international automotive industry. And the policies to enable them to move from automotive autarchy to integration are the kind of intra-industry trade facilitation policies that were pioneered in Canada in the 1960s and 70s and by Australia in the 1980s and 1990s. Australian intra-industry trade facilitation took place through the export facilitation program. Indeed most of the countries with heavy automotive production have already adopted policies that are similar to the export facilitation scheme in order to facilitate the importation of components to accelerate the growth of their automotive industries. Thus for instance Korea has been a strong importer of Australian engines for many years now. However, in the countries in which they exist, those mechanisms typically operate with extensive bureaucratic supervision thus robbing them of much of their liberalising potential.

Accordingly we propose that Australia adopt a new approach to this sector within the WTO. We propose that Australia argue that countries (perhaps excluding the very least developed) must achieve some minimum (relatively low) level of trade exposure in any sector in which they seek the principle protections of the WTO – namely 'most favoured nation' status in foreign markets. Such trade exposure would be demonstrated by the reduction of trade barriers below some (relatively high) figure *and* the presence of some reasonable market share of imports.

Where these benchmarks were not met, there should be a transitional period during which non-compliant countries would need to commit to some regime that would address this situation. Such countries would also have access to intraindustry trade facilitation instruments for some transitional period including immunities from WTO disciplines – subject to safeguards that levels of assistance were declining. Given the very high levels of assistance and automotive industries in the countries in question, intra-industry trade facilitation policy is by far the least disruptive course, and so by far the most viable in terms of domestic political pressures. Countries would need to demonstrate the effectiveness of their liberalisation not only with formal liberalisation but also with measured increases in import market share.

Where countries did not commit to such strategies and disciplines, they should be subject to WTO disciplines via disputes panels etc, and ultimately to losing their most favoured nation status in the industry in which the problem exists. Their trading partners would then be free to take action against their imports as a last resort in seeking to bring home to countries in breach the costs of their very illiberal regimes, both to themselves and their trading partners. Of course in doing so the trading partners of the non-compliant country would be doing some harm to themselves as well as to the non-compliant country. However this is the logic of trade negotiation.



Countries trade 'concessions' which are generally of benefit to each other unilaterally, and so when they withdraw those concessions, in general both parties suffer. However such a response is well targeted to the specific domestic political conditions driving the protectionism in the first place. If a number of countries upon whom the non-compliant countries are depending were to withdraw most favoured nation status in the sector in question, they would transform the politics and economics of protectionism within the relevant sector in the non-compliant country. It would not be long before a more liberal trading regime was adopted by the non-compliant country.

Union resistance to Australian imports – particularly in the United States

Of its nature, the issue of union resistance to Australian imports is an immensely difficult one to deal with. It is extremely difficult for pressure to be brought to bear – outside of 'export targets'. Mandatory export targets would generally be economically inefficient – as they would be essentially arbitrary. In any event (and in most circumstances rightly) are regarded as unacceptable within the WTO and the TRIMs code.

Further in any circumstance in which union pressure has been the source of resistance to Australian imports, it would always be possible for the firm involved to argue that there were other factors involved – for instance the capabilities of the Australian firm. It would be exceedingly difficult for government officials to have any confidence in their own judgement in deciding who was right and who was wrong in such a dispute. Accordingly we propose something below which should be seen for what it is – simply an attempt to stay on the 'front foot' and to do whatever is possible. We do not hold out any great hope that it will work, but the costs of attempting it are small. Accordingly given what is at stake, it may be worth trying it, even it its chances of success are also limited.

We could assist our own unionists and employees to encourage a more cosmopolitan approach amongst their fellow unionists and employees in the United States. Indeed the trade exposure of the automotive industry in Australia is very similar to that of the United States. Both have a large automotive trade deficit, both have had growing import penetration at the same time as strongly growing exports. Closer links might be forged with arrangements such as sister cities, sister suburbs or sister plants either within union structures or more broadly with exchanges taking place and the object being to foster a less defensive posture in the United States.

It is also desirable to lift the profile of the issue at the government to government level and more generally with people of influence in the United States. The UAW is a well established lobbyist on Capital Hill, and we should explore the worth of funding some of our own lobbying on these issues.



2. Tariffs

In many respects many of the critical issues in this area have been well rehearsed in the previous PC (then Industry Commission) inquiry into automotive manufacturing and in the more recent 2000 report into general tariff arrangements.

As a rule of thumb, under normal assumptions, the allocative efficiency cost of a tariff is proportional to the square of the tariff. Thus eight-ninths of the allocative efficiency gains of moving from a tariff of 45% to zero have been captured by the time one gets to a 15% tariff. The remaining gains are relatively small. In its last inquiry in 1997 the Commission estimated them at a GDP gain of \$165 million per annum and a \$76 million gain in real consumption per annum without taking account of economies of scale (p. XL)

As Chairman Banks has already said in his recent speech to the FAPM.

A number of participants argued at the 1997 inquiry that any improvements in efficiency across the wider economy from further proportionate assistance reductions would be smaller than when assistance disparities were higher. One implication is that the adjustment costs associated with further reductions in assistance may loom larger in the overall policy calculus (Banks, 2002, p. 5).

These issues were addressed more recently by the Commission in its recent review of our general tariff arrangements. The report made it clear that the remaining allocative efficiency gains from further lowering tariffs are small.

Further there are some other factors that militate against cutting tariffs. Production gains from tariff reform are typically larger than consumption gains – yet it is consumption which ultimately underpins economic welfare and provides the more widely accepted yardstick for comparison.

As acknowledged by the PC Chairman above, adjustment costs are a far larger concern and far more concentrated regionally than was the case with the inquiry into general tariff arrangements. Many industry employees would find it difficult to find alternative work and most automotive work is in regions where the unemployment rate is unusually high.

The Commission has taken on board many of these issues since its last automotive inquiry. Thus in its inquiry into general tariff arrangements the Commission estimated that without productivity gains from tariff reform, the gain in real GDP of further reduction of tariffs below 5% would be .02%. with a .06% loss in real household consumption.



| Real GDP | 0.02 |
|----------------------------|-------|
| Real household consumption | -0.06 |
| Real investment | 0.39 |
| Export volumes | 0.55 |
| Import volumes | 0.54 |
| Terms of trade | -0.13 |
| Pre-tax real wage | 0.55 |
| Post-tax real wage | -0.22 |

Source: PC estimates based on MONASH model dynamic simulations.

The Commission then showed that this small loss would be converted into a small gain if it were assumed that the 'cold shower' of tariff reduction forced firms to improve their productivity according to the following table.

Table 1.1 Estimated national effects of manufacturing productivity improvements induced by the removal of tariffs under reference

(percentage deviations from base case values in 2010)

| | Excluding productivity growth | Including productivity growth |
|----------------------------|-------------------------------|-------------------------------|
| Real GDP | 0.02 | 0.08 |
| Real household consumption | -0.06 | 0.04 |
| Real investment | 0.39 | 0.49 |
| Export volumes | 0.55 | 0.49 |
| Import volumes | 0.54 | 0.59 |
| Terms of trade | -0.13 | -0.11 |
| Pre-tax real wage | 0.55 | 0.60 |
| Post-tax real wage | -0.22 | -0.10 |

Source: PC estimates based on MONASH model dynamic simulations.

Automotive tariff cuts so far have certainly been accompanied by strong productivity growth so there seems to be something to this 'cold shower' effect. However there are two important considerations against relying on the 'cold shower' effect as a generally reliable phenomenon.

The first is that it is very difficult to justify theoretically. If it were true that firms respond to squeezed profits with improved productivity then rather than a cold shower we could give them a 'refrigerated shower'. As the Australian Industry Group argued in the Commission's inquiry into general tariff arrangements, the logical implication of the 'cold shower' argument seems to be that import subsidies are superior to free trade. More generally the efforts we have been making over the last two decades to reduce costs to firms could have been misguided. The logical extension of the AIG's arguments is that the 'cold shower' case for tariff reduction is also a case for increases in business tax.

Secondly economies of scale play an ambiguous role in the story of adjustment to lower assistance. In a closed economy, the most of the volume met by an



exiting firm would be met by other producers within the domestic industry (with some leakage into other industries if prices rose or variety contracted at the same time). However this effect is diluted by two phenomena. In the absence of a closer examination, it seems reasonable to assume that the volume yielded by a withdrawing manufacturer will be taken up by other products *in proportion to their existing domestic market share*. So the greater existing import share, the less the 'consolidation' effect on the volume of the remaining producers. The import share of Australian manufactured vehicles has been falling steadily for a decade and a half.

These effects are further complicated by the fact that the withdrawing manufacturer is not a withdrawing marketer. They will already have a substantial dealer network and will be keen to sustain their position in the market with imports. Further, past withdrawals from production have been in the presence of relatively high levels of protection. Other things being equal, the lower protection is, the easier it is for an exiting firm to satisfy its existing customer base from offshore. This and the lower market share of Australian manufactured vehicles today suggests that the positive volume effect of the withdrawal of a manufacturer would be substantially more diluted than it was at the time of Nissan's withdrawal. This is because the Australian industry's domestic market share has fallen substantially since Nissan's withdrawal.

Against this positive (albeit more diluted) per platform 'consolidation' effect has to be put the *negative* 'industry wide' scale economy effects of the withdrawal of a manufacturer – namely the lower total volume for the Australian industry and particularly for Australian components suppliers. It is by no means clear which effect would predominate. However other things being equal, the lower protection gets, and the lower the market share of the domestic industry, the smaller would be the influence of the former (positive) effect and the larger would be the influence of the latter (negative) effect.

Approximately 75% of the value of the vehicle is attributable to components – though a substantial portion of component suppliers' sales is 'bought in' outputs of other industries. If this is taken into account the value that each sector adds in the industry is about the same.⁵ The withdrawal of a single assembler amongst four – particularly in Adelaide – could have a substantial impact on the economies of scale available to component suppliers. The withdrawal of two, which seems quite likely over a period of time with negligible tariffs, would surely have substantial effects on the economics of Australian manufacture of some components.

Also, lower tariffs would require governments to raise additional revenue given the loss of tariff revenue.

⁵ ABS series 8221.0 indicates that, in 1999-2000 vehicle manufacturers added \$1.66 billion worth of value whilst manufacturers of 'automotive electrical and instrument equipment and automotive components added \$.348 billion and \$1.390 billion respectively.



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Further, even though negotiations within the WTO are ostensibly about bound rather than operative tariff levels, our trading partners are more interested in a lower actual tariff rate in their export markets than they are in the bound rate in those markets. Whatever scope the system of 'bindings' gives us to utilise bound rates in negotiations notwithstanding actual tariff reductions, it seems obvious that unilaterally reducing actual automotive tariffs does give away at least some – possibly most – of our negotiating coin for future trade negotiations.

The government has flagged both these considerations in its decision on the Commission's report on general tariff arrangements commenting that it would move to further reduce existing 5% tariffs at a time consistent with trade and fiscal objectives (Costello, 2000). The issue of negotiating coin has also been highlighted in the terms of reference.

Finally the Commission made some telling points in its report on general tariff arrangements on what might be called the 'end of reform administration' effect. It argued that once the tariff fell to zero, a lot of additional administrative and compliance costs fell away, not just with the administration of the tariff but also with the administration of a range of other programs such as TRADEX. The Commission suggested that the savings in administration, industry monitoring and compliance would be considerably higher than \$7 million (PC, 2000, p. 126).

The Government however decided to retain those tariffs currently at 5%. Accordingly, unless the Commission recommends zero tariffs for the industry, rather than placing it on a 'level playing field' with other tariff assisted manufacturing, these gains are not available to tariff reform in the automotive industry in this inquiry.

References

Krueger, A. O., 1990. Asymmetries in Policy between Exportables and Importcompeting Goods, in Jones, R. W. and Krueger, A. O., (eds), *The Political Economy of International Trade: Essays in Honour of Robert E. Baldwin*, Basil Blackwell, Cambridge, Massachusetts, pp. 161-178.

PC, 2000, *Review of Australia's General Tariff Arrangements:* Inquiry Report No. 12, 22nd July, Ausinfo, Canberra.

