

Australia's Experience with Local Content Programs in the Auto Industry

Lessons for India and Other Developing Countries

Garry Pursell

Australia's (and other countries') experience with local content programs—especially in the auto industry—in the 1960s and 1970s suggests that they do not serve the economic interests of India or other developing countries seeking to legitimize them at the World Trade Organization. The Trade-Related Investment Measures agreement is a useful counterweight to the influence of populist support and domestic lobbies in countries where local content schemes are politically difficult to oppose.



Summary findings

Local content programs—especially in the auto industry—accompanied many import substitution policies during the 1960s and 1970s, but most were abandoned in countries that liberalized trade in the 1980s and early 1990s. The high economic costs of these programs and their inherent incompatibility with open, nondiscriminatory international trade were recognized in the Uruguay Round Agreement on Trade-Related Investment Measures (the TRIMS agreement), which required developing countries to phase them out over five years. Despite this, a number of developing countries have introduced new local content programs and are currently pressing to relax the TRIMS rules and to extend the year 2000 phaseout deadline.

A leader in this effort at the World Trade Organization (WTO) is India, which in 1995 introduced an “indigenisation” program for its auto industry that typifies similar programs in other developing countries. Under India’s program, permission to import auto components for assembly is contingent on agreements to reach specified levels of “indigenisation,” plus enough commitments to export cars or components to cover the foreign exchange cost of imported components. The system is implemented by a *de facto* ban on the import of built-up cars, and import licensing of car components.

The United States and the European Union challenged the system as a violation of the TRIMS agreement. Since 1996, similar arrangements in Brazil, Indonesia, Mexico, and the Philippines have been the subject of WTO disputes.

Australia has a long, well-documented history of local content programs in the auto industry. Australia’s

programs started in 1948 and began to wind down only in 1985. Australia’s strongly counter-competitive programs—the administering authority was effectively cartellizing the industry—led to market fragmentation, high costs and prices, and lower national income. They retarded rather than promoted technical change and reduced rather than increased employment in auto production, distribution, and repair. Export requirements increased the scheme’s economic costs, which involved bureaucratic micromanagement of the industry and high transaction costs for the government and the private sector. Once the schemes were established, they were very difficult to remove owing to their populist appeal, their lack of transparency, and the vested interests of the international and domestic firms which relied on them, as well as other interest groups including the administering bureaucracies, auto industry trade unions, and politicians in electorate areas in which car production was concentrated.

The Australian experience, and similar experiences of developing countries with these programs during the 1960s and 1970s, suggest that they do not serve the economic interests of India and the other developing countries which are presently seeking to legitimize them at the WTO. On the contrary, the present TRIMS agreement is a useful external counterweight to the influence of domestic lobbies and populist arguments, which in Australia and elsewhere have made local content schemes politically difficult to oppose, and once established, even more difficult to remove.

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**AUSTRALIA'S EXPERIENCE WITH LOCAL CONTENT
PROGRAMS IN THE AUTO INDUSTRY**

LESSONS FOR INDIA AND OTHER DEVELOPING COUNTRIES

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AUSTRALIA'S EXPERIENCE WITH LOCAL CONTENT PROGRAMS IN THE AUTO INDUSTRY: LESSONS FOR INDIA AND OTHER DEVELOPING COUNTRIES¹

Summary findings

Local content programs, especially in the auto industry, accompanied the import substitution policies of many developing countries during the 1960s and 1970s, but most were abandoned in the countries that liberalized their trade regimes during the 1980s and early 1990s. The high economic costs of these programs and their inherent incompatibility with open, non-discriminatory international trade were recognized in the Uruguay Round agreement on Trade Related Investment Measures (the TRIMS agreement), which required developing countries to phase them out over five years. Despite this, a number of developing countries have introduced new local content programs and are currently pressing to relax the TRIMS rules and for extensions to the previously agreed phaseout deadline in 2000.

A leader of this effort at the WTO is India, which, in 1995 introduced an "indigenisation" program for its auto industry which typifies similar programs in other developing countries. Under this program, permission to import auto components for assembly is contingent on agreements to reach specified levels of "indigenisation", plus commitments to export cars or components sufficient to cover the foreign exchange cost of imported components. The system is implemented by a *de facto* ban on the import of built-up cars, and import licensing of car components. It has been challenged at the WTO by the US and the EU as a violation of the TRIMS agreement. Since 1996, similar arrangements in the Philippines, Mexico, Brazil and Indonesia have been the subject of WTO disputes.

Australia has a long and well documented history of local content programs in the auto industry. The programs started in 1948 and continued for about 40 years, until they began to be gradually wound down, starting in 1985. This experience has a number of

¹* Most of the information in this note on the Australian local content and other policies in the auto industry is from two major reports, namely: Industries Assistance Commission, July 1981. *Passenger Motor Vehicles and Components-Post-1984 Assistance Arrangements*, and : Industry Commission, May 1997. *The Automotive Industry*. A brief summary of these policies and some relevant documents are included in a book on the history of Australian trade policy between 1965 and 1997 by Snape, Gropp and Luttrell (1998). This book also provides an excellent account (see Chapter 2 especially) of the broader developments in trade policies which were the background to the motor vehicle local content story. The following commonly -used auto industry abbreviations are used throughout the paper:

cbu=completely built up (a fully assembled car)

ckd=completely knocked down (a complete kit of all the components needed to assemble a car)

skd=semi-knocked down (a kit of car components with some missing or "deleted")

oe=original equipment (components for car assembly as distinct from replacement parts)

lessons for developing countries. In Australia the programs led to market fragmentation and high costs and prices, reduced national income, and were strongly counter competitive, with the administering government authority effectively cartellizing the industry. They retarded rather than promoted technical change, and reduced rather than increased employment in auto production, distribution and repair. The addition of export requirements increased the economic costs of the schemes, which also involved extremely high transaction costs for the government and the private sector and bureaucratic micro-management of the industry. Once the schemes were established, they were very difficult to remove owing to their populist appeal, their lack of transparency, and the vested interests of the international and domestic firms which relied on them, as well as other interest groups including the administering bureaucracies, auto industry trade unions, and politicians in electorates areas in which car production was concentrated.

The Australian experience, and similar experiences of developing countries with these programs during the 1960s and 1970s, suggest that they do not serve the economic interests of India and the other developing countries which are presently seeking to legitimize them at the WTO. On the contrary, the present TRIMS agreement is a useful external counterweight to the influence of domestic lobbies and populist arguments, which in Australia and elsewhere have made local content schemes politically difficult to oppose, and once established, even more difficult to remove.

Introduction

The automobile industry worldwide is technology intensive both as regards its processes and its products and is characterized by considerable economies of scale and a high degree of specialization in component manufacture. Largely for these reasons, the world industry has increasingly become internationalized, with component production for individual models located in many countries and assembly concentrated in large domestic markets or in countries which are a base for regional exports. At the same time, consumers demand a large variety of models, and for these to be supplied at competitive prices imports of cars account for large shares of the total supply even in the largest national markets, including the markets of the United States and the EU. Despite this, economic nationalism and the belief that the car industry is a transmitter *par excellence* of the latest industrial technologies has led many countries at some stage of their recent economic history to attempt to become fully or predominantly self sufficient in car production. In pursuit of this goal, they have attempted to persuade international auto firms to establish domestic production in replacement of car imports. The most direct and widely used means of doing so has been to impose quantitative controls over car imports while at the same time offering the international car firms opportunities to establish local factories, subject to the condition that they go beyond assembly of imported ckd packs and incorporate specified levels of "local content" in the form of domestically produced components, either produced in-house or purchased from domestic suppliers.

In many countries, including especially the developing countries of Latin America², it eventually became apparent that these policies not only involved very high economic costs to consumers, government budgets and to the economy generally, but on balance were retarding rather than advancing indigenous technological capabilities. Recognizing this, as part of the general liberalization of trade and other policies which began during the 1980s, the QRs applied to car imports and the associated local content programs were either abolished or more commonly gradually phased out. The general consensus -supported by many empirical studies- on the economic inefficiency of these arrangements, combined with their inherent incompatibility with open, non-discriminatory international trade, were reflected in the Uruguay Round agreement on Trade Related Investment Measures (TRIMS)³. Under this agreement, which applies to all industries (not just the auto industry) and is binding on all members of WTO, all existing TRIMS were to be notified to the WTO and (beginning on January 1, 1995)

² Local content programs in the auto industries of Mexico, Brazil and Argentina are discussed and analysed in a paper by Bernard Munk (1969). An analysis of an auto local content program in the Philippines is in Takacs (1994), which also provides other references on content protection. Like all serious economic analyses of local content programs, these papers show that local content programs are welfare decreasing. It can also be shown that the extension of these programs to give local content credit for exports (as in India) will further reduce economic welfare.

³ The text of the TRIMS agreement together with the legal texts of the GATT and other WTO agreements, is in World Trade Organization (1995), and is also available from the WTO website.

phased out over two years (developed countries) or five years (developing countries). By implication, no new TRIMS were to be applied, except when not doing so would distort competitive conditions between a new investment and an existing investment already subject to a TRIM which is still operative during a transition period.

Despite this earlier consensus and despite signing the TRIMS agreement, during the second half of the 1990s a number of developing countries introduced new local content programs applicable to their domestic auto industries, and others have continued to implement local content programs that were supposed to expire in the year 2000. These actions are clearly inconsistent with both the spirit and the letter of the agreement, and the programs in Brazil, India, Indonesia, and the Philippines triggered consultation requests at the WTO on the part of the EU, the US and Japan. But at the Seattle Ministerial, led by India, a group of 12 developing countries effectively resurrected the original 1960s infant industry justifications for these programs by arguing that they “allow for accelerating the industrialization process in developing countries and enable these countries to maintain balance-of-payments stability”, and that the TRIMS agreement should therefore be amended to extend the transition time for their expiry in developing countries “until such time that their development needs demand”.⁴ Since Seattle, these and other developing countries have continued to push for extensions to the previously agreed 2000 deadline,⁵ and also for relaxation of the present TRIMS rules. One of the most active countries in this effort at the WTO is India, and it has also been implementing very comprehensive local content (called “indigenisation”) policies for its auto industry. India’s policies are briefly outlined below, since they typify the kinds of interventions in this industry which a number of other developing countries are also following and which they are arguing should be condoned by WTO rules. This is followed by a short history of the long and well documented Australian experience with auto local content plans, and some of the lessons from this experience that the economic policy communities in India and other developing countries might wish to ponder.

India’s new local content (“indigenisation”) policies

As part of the liberalizing reforms of industrial and trade policies undertaken in 1991 and 1992, India discontinued most existing local content programs (called “phased manufacturing programs” or PMPs) and announced that they would not be applied to

⁴ Paras 20 and 21 of a Communication received by the WTO General Council from India on behalf of Cuba, Dominican Republic, Egypt, El Salvador, Honduras, India, Indonesia, Malaysia, Nigeria, Pakistan, Sri Lanka, and Uganda. Document (WTO/GC/W/354 11 October 1999) available on the WTO website. At the same time Mexico argued that the TRIMS agreement should be revised, and in any event for the right to extend existing agreements for a further five years in order to avoid “developmental dislocations and problems in sensitive areas of their economy” (WTO document WT/GC/W/351).

⁵ For example, requests for extensions by nine countries—Argentina, Chile, Colombia, Malaysia, Mexico, Pakistan, the Philippines, Romania and Thailand—were discussed at the October 16, 2000 meeting of the WTO Council for Trade in Goods.

new projects. Most of these were in the electronics, auto component and chemical industries. Despite this, soon after the Uruguay Round agreement came into effect, during 1995 the DGFT (Directorate General of Foreign Trade in the Ministry of Commerce) started requiring “indigenisation “ commitments from foreign auto firms which began setting up joint ventures with Indian firms for car production in India. Being defined as “consumer goods”, for many years the import of cars had been subject to import licensing. As applied, for all practical purposes this was a general ban on car imports. Since consumer goods in ckd or skd form were also subject to import licensing, DGFT used the leverage derived from its power to issue these import licenses, to impose conditions on the new joint ventures in the car industry as regards the indigenisation of their production and as regards exports. Initially, the firms were required to indigenise their production up to 70 or 75 percent over a period of 5 to 7 years. In December 1997 these requirements were changed and each joint venture firm was required to sign a Memorandum of Understanding (MOU) the essentials of which are⁶: (1) Import of ckd or skd kits for “mere assembly” will not be allowed (2) New foreign majority partners must bring in at least \$50 million of equity in the first three years of the project (3) “Indigenisation of components” of at least 50 percent must be reached by the third year of production and 70 percent by the fifth year of production (4) Exports of cars and/or auto components are required to balance the cif value of imported ckd/skd/components during the MOU period, starting in the third year of production (5) No further indigenisation or export requirements once 70 percent indigenisation of components is achieved (6) The MOUs to be monitored on the basis of annual reports submitted by the joint ventures to DGFT (7) Manufacture of light or heavy commercial vehicles are not subject to these requirements : the import of ckd/skd kits is to be considered “on merits”. These firm-specific local content and export requirements operate in the context of the following general policies: a general ban on all imports of built up cars; discretionary import licensing by DGFT of ckd and skd kits which (1999-2000) were subject to a 46.4 percent tariff;⁷ import of engines free of import licensing and subject to a 33.3 percent tariff; import of most other auto components and accessories subject to a 46.4 percent tariff; availability of advance licenses allowing duty free imports of raw materials to be incorporated in exported car components, and of advance licenses for duty free import of the components of exported built-up cars. In August 1999 India finally lost out at the WTO in a long running dispute in which it had resisted removing its comprehensive import licencing system, which it had justified for many years under the GATT balance

⁶ These conditions are published in the Gazette of India, 60-PN 12.12.97. The text and a brief description of this and other aspects of the government’s auto policies is in Arun Goel (2000), pp 866-870.

⁷ These and the following import duty rates include the “Special Additional” (SAdd) duty of 4 percent which comes on top of the cumulative value of basic customs and additional duties. They are calculated from the customs tariff schedule announced with the February 1999 budget e.g. in the case of ckd/skd kits, basic duty 40%, additional (excise tax) 16%, special additional duty 4%.

of payments provision (Article XVIII. B) ⁸, and announced that it would free imports previously restricted in this way from April 1, 2001, including the *de facto* ban on built up car imports. Following this announcement, however, DGFT began planning for alternative ways of enforcing local content requirements in the absence of import licensing.⁹

In 1999 the MOUs described above were being applied to 16 passenger car production joint ventures between domestic firms and 16 foreign firms ¹⁰ which envisaged production in India of approximately 24 models. As noted above, many other countries have experimented with similar arrangements for their car industries in the past, but found them to be economically extremely expensive and have given them up. One of these countries is Australia. The details and effects of the policies it has followed have been especially well documented and analyzed. The Australian policies are first summarized below, and then a number of key lessons for India and other developing countries which can be drawn from its experience are outlined.

Local content policies in Australia: a brief history

Australian policies aimed at creating a domestic car manufacturing industry started in the mid-1930s when extra protection against competing imports and a variety of subsidies were offered to induce General Motors to produce a local car, the Holden. These efforts were interrupted by World War II, but production of “Australia’s own car” finally started in 1948. From then until 1960, production of the Holden and subsequently the production in Australia of a number of cars with substantial Australian content by British Motors and Ford, were supported by local content arrangements, concessional loans and, crucially, by the way Australia’s general system of import licensing (carried over from the war years) was applied to the car industry. In 1960, however, the general import licensing system was abolished and competition from imported cars began to

⁸ For many years India justified its general import licencing regime under the GATT balance of payments exception (GATT Article XVIII.B) and was never seriously challenged. As part of the Uruguay Round all WTO members including India signed an Understanding that they would no longer use this Article as GATT-legal cover for QRs, unless there were convincing reasons why other methods such as macro-economic policies and exchange rate management would not equilibrate the current account. Despite this, India continued its QR regime, which amounted to an import ban on practically all consumer goods. In 1997 and 1998, however, seven WTO members (USA, Canada, EU, Switzerland, Japan, Australia, and New Zealand) complained at the WTO and in negotiations India agreed to remove these restrictions in three phases, with the QRs applied to the auto sector going in the second phase during Indian fiscal years 2000/2001 and 2001/2002. However in August 1999, the WTO Tribunal found against India in a dispute between it and the US on the time when the QRs were to be removed, and following this India announced that all remaining balance-of-payments justified QRs would be removed from April 1, 2001.

⁹ *Economic Times* November 2 and 3, 2000: “New auto policy mulls entry barriers”, and “DGFT yet to finalise auto policy draft”.

¹⁰ The foreign firms are : General Motors, Peugeot, Mercedes, Daewoo, Ford, Honda, Mitsubishi, Rover (U.K.), Hyundai, BMW, Suzuki, JD/Sabre, Fiat, Amerigen (USA), Concept Industrial (UK), and Toyota. Source: *The Indian Automotive Industry*. From the website of the Secretariat for Industrial Assistance, Union Ministry of Industry, as of March 7, 1999.

threaten the market shares and profitability of the established producers. In response to intense lobbying by these producers, starting in 1965 policies were adopted which greatly increased the level and complexity of the protection and other forms of assistance to the industry over the next 20 years. A central element of these policies were a series of "Motor Vehicle Manufacturing Plans" under which local producers were provided with tariff concessions on imported components if they met specified levels of local content in the cars they produced. The first of these plans required lower levels of local content for small volume producers than for higher volume producers. This discouraged large scale production, however, and led to a proliferation of models and corresponding fragmentation of production among component suppliers. Recognizing this, in 1975 the small volume provisions were phased out and a single local content requirement of 85 percent was introduced. Despite the tariff concessions on imported inputs, the import tariff protecting the industry were not sufficient for all producers to be profitable, and it was increased from 35 percent to 45 percent in 1966. In 1975, the industry convinced the government that the 45 percent tariff was inadequate, and quantitative import restrictions were introduced which restricted imported cars to a market share of 20 percent. These import restrictions were supposed to be temporary, but in fact were extended for 13 years until April 1988. Although import controls became the main protective instrument, in 1978 the tariff on imported built up cars was increased again to 57.5 percent. In 1982 an "export facilitation" scheme was introduced. Under this scheme exports of cbu cars or of components earned credits which enabled firms to reduce their local content below the otherwise mandatory level of 85 percent, and which reduced the tariffs they paid on imported components. While this was intended to partially reverse the increasing isolation of the Australian industry from the world auto industry, as long as the industry's output was still protected by import licensing, it represented a further increase in the protection of the industry's value added i.e. in effective protection.

By 1985, after 20 years of the local content plans and the tariff and non-tariff measures that were needed to make them viable, the car industry had become one of the most highly protected industries in Australia. On average, effective protection of Australian manufacturing was then about 20 percent and had been consistently declining for almost 20 years. In the car industry, however, nominal protection was about 85 percent-i.e. ex-factory prices of locally produced cars were about 85 percent above the imported duty-free prices of imported cars. Effective protection to the value-added of the car producers which participated in the local content plans was estimated to exceed 250 percent. On average, nominal protection of local original equipment component manufacturers was estimated to be about 67 percent, and effective protection to their value added 162 percent. Profit rates in the component sector were well above the general level of the rest of Australian manufacturing, but on average were considerably lower in the producer /assembler sector, even though some large producer/assemblers consistently earned very high profits. High protection reflected and resulted in high production costs rather than high profits. One major reason was that the system

encouraged the fragmentation of the market and the loss of scale economies. In 1985 approximately 380,000 cars were produced under the local content scheme, but this production was divided between five companies operating eight manufacturing and assembly plants and producing 13 different basic car models. Small production runs by international standards for this large number of models led to small production runs and high costs for many local component suppliers. In addition, the penalties for not meeting local content commitments meant that a number of components that would otherwise have been sourced from producers in other countries were produced in Australia at very high cost and were sold to the assemblers at correspondingly high prices.

For at least 20 years economists, Tariff Board and Industry Assistance Commission reports and many others had warned that the policies being followed towards the car industry would have the consequences that in fact became very apparent by the mid-1980s. In 1985 this was finally recognized in government policies, which began a process of gradually winding down assistance to the industry which has since been consistently followed. These measures have included :

- The replacement of quantitative import controls on imported cbu cars by tariff quotas which were phased out in 1992.
- In 1986, penalties for low volume production by firms participating in the local content scheme.
- In 1989, the abolition of the local content scheme and the setting of import tariff rates on original equipment components at the same level as the tariff rates on cbu cars.
- Reducing the tariff on imported cars and on components from 57.5 to 45 percent in 1988, followed by a regular yearly reduction of 2.5 percentage points in every subsequent year. These reductions stopped at when the tariff reached 15 percent in 2000, but in principle there is to be a further reduction to 10 percent in 2005.
- The introduction of retraining arrangements for labor displaced by the reforms.

As a consequence of these reforms, protection of the industry is now much lower than in the past, although still considerably higher than the average protection of most other Australian industries, which has also declined since 1985. In 1995 average effective protection of car production for sale in the domestic market was estimated to be 31 percent, and average effective protection of auto component production for the domestic market at 55 percent. Reduced protection levels had been made possible by lower costs associated with a decline in the number of basic car models produced from 13 to 5, which were produced by four assemblers operating four plants. In 1996 average model and plant volumes had about doubled by comparison with 1985, and considerable rationalization and cost cutting had occurred in the component industry. Total car production was slightly (about 15 percent) lower, but its share of the domestic market had declined from 77 percent to 55 percent. On the other hand exports of both cars and components had increased substantially and now account for significant shares of domestic production.

The Australian attempts to become self sufficient in auto production were extremely expensive for consumers and for the economy as a whole. In 1995, after the local content plan had been abolished and tariffs had been reduced to 27.5 percent, the Industry Commission estimated that the protection of the industry was equivalent to a tax of about \$A3700 (\$US2960) on each car sold and \$A43,000 (\$US 34,400) for each person employed in the auto assembly and component sector. Using an economy -wide general equilibrium model of the Australian economy, a simulation of reducing the auto tariffs from 27.5 percent to 5 percent estimated resulting increases in real GDP of between 0.4 percent and one percent. Since protection of the auto industry had been much higher than this in the past, this suggests that the local content and other policies applied to this industry had imposed even higher costs on consumers and the economy for many years. A number of lessons of this costly Australian experience are worth noting.

Lessons from the Australian experience

Firstly, restricting car imports and attempting to force self sufficiency in production through local content programs is likely to lead to a fragmented market structure with a large number of models, most of which are produced at low volumes. In 1980 in Australia, the five major auto firms subject to the local content plan (GM, Ford, Mitsubishi, Nissan and Toyota) produced 14 different models which had annual sales ranging from 1392 to 68,204. On the fringes of the industry 3 firms (Leyland, Renault and Volvo) not subject to the local content plan assembled five models at very low volumes averaging about 1700 per model. The balance of supply was imported under a quota equivalent to 20 percent of the market, but these imports were subject to a 57.5 percent tariff and could be sold at prices which on average were approximately 85 percent above their cif prices. Without exception, all the locally produced and assembled models were produced at scales that were far less than the levels required to exhaust economies of scale in the various processes, including especially engine, transmission, and body panel manufacture.

Secondly, especially at low volumes, as local content rises the cost of the components which must be produced locally to meet these requirements also rises. In 1980 Toyota produced about 20,000 of their Corolla model. In evidence presented to the Industries Assistance Commission, they estimated that their estimated 'duty needs' against a comparable import increased in the following way as local content increased. The local content is shown first as it was defined in Australia (which includes assembly and marketing in local content) and then as an approximation of the current Indian definition (which refers to the local content of components only¹¹).

¹¹ It is assumed here that assembly and marketing costs are 25 percent of the ex-factory price of the car. The Australian definition of local content was the ex-factory price minus the cif value of imported components. The Indian definition is not clear, but appears to mean the share of local components in total component cost. 60 percent

Local content, Australian definition (%)	37	60	70	75	80	85
Local content, Indian definition (%)	16	47	60	67	73	80
Required import tariff (%)	19	41	46	51	59	60

Toyota also presented evidence of the cost disadvantage of producing various components in Australia as compared to production costs of the same components in Japan. These indicated a cost disadvantage range of about 50 percent to over 500 percent. Mitsubishi and Ford presented evidence also showing a wide ranges of cost differences, although less marked than those indicated by Toyota. The Australian experience clearly demonstrates the cost of indiscriminate local content rules, which require local sourcing of components to meet these requirements regardless of their production cost. In the Australian case, these costs were then incorporated in the cost of the finished cars and were reflected in the selling prices of the cars, so that-indirectly- the higher the cost of a component to the car assembler, the more it contributed to meeting the local content requirement. Depending on how “indigenisation” percentages are defined, the same perverse incentive whereby high cost components more easily satisfy indigenisation requirements than low cost components, is likely to be found in India and other developing countries.

A third lesson from Australia, is that the local content and other policies which supported it were strongly counter-competitive. Owing to the local content requirements, many components suppliers had captive markets and their market power was only limited by the potential ability of the assemblers to set up production in-house. For a number of years even this option was limited by a separate Car Component Manufacturing Program which provided that components produced by independent manufacturers which met a minimum specified local content (usually 85 percent) were deemed to have 100 percent local content when used by a vehicle producer under the plan, even though the same component produced in-house was subject to the general local content requirement applicable to the producer ¹². In this and various other ways the administering authority (in the Australian case the Federal Department of Business and Consumer Affairs¹³) contributed to the effective cartellization of the domestic auto industry. For example, in the 1970s the Department blocked Honda from establishing an

local content on the Australian definition is assumed to be equivalent to local components equivalent to $60-25=35$ percent of the ex-factory price, which is equivalent to $35/75= 47$ percent of total component cost.

¹² This rule deterred in-house production, since any imported parts for the component would reduce the vehicle producer’s local content as defined in the plan.

¹³ This department was responsible for the administration of the local content plans during the 1970s and 1980s. The Department of Industry and Commerce was responsible for policy aspects.

assembly plant which would have operated outside the local content plan. Decisions on the nature of the local content rules and the details of how they were applied to individual firms were crucial for the profitability and survival of the auto firms, and efforts to influence these decisions became a major activity for their managers. In the interests of "fairness", the rules were varied to take account of the particular situations of groups of firms or individual firms. As noted earlier, special reduced local content programs were applied to low volume producers between 1966 and 1975, which gave them considerable cost advantages by allowing them to import components which the larger producers were obliged to buy or produce domestically. These were replaced by provisions which allowed local content to be averaged across a number of models by individual producers. By comparison with new entrants, this gave a decisive advantage to the incumbent producers with at least one reasonably large-volume model, as regards the introduction of other small volume models. Later on, to offset this effect, special low phase-in local content arrangements were made for Toyota and Nissan when they joined the local content program and commenced production. In 1981, the Industries Assistance Commission commented on "efforts to improve their competitive position by model rationalization and cooperative arrangements between producers"¹⁴. Despite this, it noted that "manufacturers are continuing to invest in separate and parallel production facilities in what is, by international standards, already a very fragmented industry". All this was made possible by increases in tariffs to accommodate rising industry costs, and for ten years import quotas were applied to imported cars so as to ensure an 80 percent share of the market to the local industry, regardless of their production costs. The import quotas were extended to include ckd and skd packs. At first complex rules were established for the allocation of quotas, based primarily on pre-quota imports, but with numerous exceptions. Later on the quotas were auctioned, but the auction rules were themselves extremely complex and became the focus of intense lobbying.

A fourth lesson from Australia, is that contrary to the objectives of the original promoters of these schemes, they retarded rather than promoted technological change in the auto industry. A constant complaint of the local producers was that the local content requirements made it too expensive for them to introduce new components and production techniques into their local operations, and to enable them to do so they consistently lobbied for lower local content ratios while maintaining or tightening the limits on the import of built-up cars. In particular, the local content programs seriously retarded the introduction of smaller, fuel efficient vehicles into the Australian market.¹⁵ The industry only began to catch up with the rest of the world after policy reversed direction in 1985, and in particular after the local content plans were abandoned in 1989. According to a submission to the Industries Commission by Toyota in 1996:

¹⁴ *Industries Assistance Commission*, op.cit p.125.

¹⁵ *Ibid* p. 125.

“The Government’s car policy since 1984, by reducing protection, has required the car manufacturers to progressively reduce the gaps in their cost, quality and delivery performance”.¹⁶

A fifth lesson from Australia is that total employment in and associated with the auto industry was reduced rather than increased as a result of the schemes and the associated policies which supported them. In 1996 total employment in automotive and auto component manufacturing was 70,300 whereas total employment in car retailing, repair and the sale of auto replacement parts and tyres was 295,800, more than four times as great.¹⁷ The Industries Commission referred to estimates of own price elasticities of the demand for private cars in other countries, which varied from about - 0.7 to - 1.6, and its staff gave a conservative estimate for the Australian market of -0.5. Even using this lower estimate of the demand elasticity, it can be inferred that the reduction in employment in car dealerships, repair etc. consequent on the increased protection and higher car prices associated with the local content plan, over time would have far exceeded any plausible estimate of the increased employment in auto assembly and auto component production.¹⁸

A sixth lesson from the Australian experience, is that the addition of “export facilitation” increased rather than reduced the economic costs of the system. Exports gave firms credits which allowed them to reduce their local content. The benefits to them of marginal reductions in local content were extremely high, according to Toyota more than five times the cif cost of the components that could now be imported. This in turn meant that it became worthwhile to export at prices which were far below production costs. In 1981 the Industries Assistance Commission pointed out:

“...There would be little rationale for export facilitation without the inward-looking orientation and high marginal assistance associated with high local content provisions...Export facilitation will increase government direction and control of the industry and add to what is already a complex and administratively costly assistance package...There would be little gain in predicating longer term restructuring of automotive production on the development of high cost exports which would require continuing high subsidy”.¹⁹

A seventh lesson from Australia is that the transaction costs associated with schemes of this kind are likely to be extremely high, both for the government bodies involved in the formulation of policy and administering the schemes, and for the auto and component producers and the many other participants in the automobile market. Defining

¹⁶Submission by Toyota quoted in *Industry Commission*, 1997, op. cit., p. 232.

¹⁷ In 1979 employment in auto and auto component manufacturing was 62,368 while employment in motor dealerships and tyre retailing alone was 165,700.

¹⁸ In 1979, when domestic car prices were about 85 percent above world prices, a cut in protection to 20 percent would have been equivalent to a reduction in car prices of about 35 percent, and with a demand elasticity of -0.5 an increase in annual final car demand of 17.5 percent. Over a moderate time span-say five years-the employment effects from selling more new cars and servicing a larger total stock of cars quickly begins to exceed plausible reductions in employment in car and component production.

¹⁹ *Industries Assistance Commission*, 1981 op.cit., p.128. Despite the opposition of the Commission, “export facilitation” was continued by the government and is one element of the early policy package that still exists. However it lost much of its impact after the local content plan was abolished and subsequently as tariffs were reduced.

and administering local content requirements involved the Department of Business and Consumer Affairs in a great deal of micro-management of the industry and on its own was extremely time and resource intensive. To illustrate, it included:

- Examination of the detailed cost and sales records of each producer
- Frequent changes to accommodate low volume and new producers
- Setting and administering local content conditions for component production
- Adjusting local content requirements to allow for exchange rate appreciations which affected the various producers in different ways.²⁰
- Setting and administering rules on “component reversion” i.e. requests for producers to switch from local sourcing to importing particular components
- Oversight over the prices charged by component suppliers to assemblers to ensure that “local content” was not artificially inflated.
- Oversight over the import prices of components to ensure that the assemblers were not underinvoicing imported inputs to help meet local content requirements.
- Setting the rules and administering the “export facilitation” policies adopted in 1979.²¹
- Extending the general auto industry controls to car “ derivatives” (e.g. panel vans and small buses using the same engines and other major components as cars) and to four wheel drive vehicles. These were initially not subject to local content and related policies, and the import tariffs applied to them were lower than car tariffs. As a result, their prices relative to car prices declined and consumers began to substitute them for cars, and to limit this they also came under various controls.

Over the entire history of the local content plans, there were continuing conflicts between the auto producers, the component producers, the trade unions and many other groups with an interest in the industry and the policies which affected it. These were heard and reported on at length in numerous sessions of the Australian Tariff Board and its successor organizations.²² Between 1965 and 1996 there were eight major hearings and reports, most of which went on for more than a year and involved evidence presented by dozens of interested groups. For example, the July 1981 report of the Industries Assistance Commission started in March 1979 and considered evidence presented by 90 different parties, including assemblers, component producers, importers, auto distributors,

²⁰ In particular, the Japanese producers requested and received special treatment to offset the reduction in their local content ratios that resulted from appreciation of the Yen.

²¹ These rules were extremely complex and changed frequently. For example, they initially earned local content credits based on the gross value of exports, but this was soon changed to the net foreign exchange earnings from exports after deducting the cost of imported components. But this concept was further refined to deal with local components which themselves -at first, second or even further remove-used imported components or materials.

²² The Tariff Board mutated over time. In 1973 it became the Industries Assistance Commission, in 1989 the Industry Commission, and in 1998 the Productivity Commission. The changing names represent significant changes of emphasis and coverage, from tariffs and industrial protection in the beginning to policies for enhancing productivity and efficiency across all industries (including service industries) in the end.

raw material suppliers, trade unions, trade associations, professional associations, state governments, municipalities and many others. Special *ad hoc* bodies were also set up to provide advice on auto industry policies e.g. the Car Industry Council in 1983, and the Automotive Industry Authority in 1985. In response to these continuous pressures, there was not a year after 1965 in which significant changes were not made in the local content rules themselves or in the tariff and other policies which supported the system. Looking back, it is apparent that, over many years, a great deal of talent, intellectual energy and administrative and managerial resources-not least in the private sector -were wasted in first creating and building up this economically costly edifice, and subsequently in devising ways of withdrawing from it that were politically acceptable and administratively feasible.

A final lesson from the Australian experience is that once the local content programs became established and major automobile producers, component suppliers, trade unions and other groups came to rely on them, it became extremely difficult to remove them. As noted already, detailed critiques by economists and others were already being made and were well known in the 1960s, and by the early 1970s these were consistently reflected in reports on the industry by the Industries Assistance Commission and in numerous press articles. Despite all this, the system had generated its own momentum and it steadily became more protective and economically costly. In 1985 policy finally reversed course and protection began to be wound down, but it took 13 years of sustained effort to reduce it to the present much lower level, which even in 2001 is still well above the levels found in nearly all other major Australian industries.

There are various explanations for the ability of the auto industry to sustain the political support for its special treatment over such a long period. One has been the populist appeal of high national content in a such a well known and visible consumer product. A second was the distinctly non-transparent nature of the protection resulting from the local content programs. A third was the development of a strong vested interest in the continuation of the system by the government officials responsible for its administration. A fourth was the determined lobbying of the local businessmen and the large international firms allied with them, which entrenched themselves in the Australian market behind the protection of the local content programs. The international auto firms had ample resources which they used to influence the two principal Australian political parties at both the Federal and state level. General Motors, which had a history of support from local content programs going back to the mid 1930s, had a key role in this regard. Fifth, the industry's work force was unionized and influential. Sixth, most of the investment and employment in the manufacturing side of the industry came to be concentrated in a few places, in Melbourne and the nearby town Geelong, and in the outskirts of Adelaide. Even as late as 1996, the Victorian and South Australian state governments, the municipalities in which the major auto plants are located, and politicians from these places were still lobbying strongly against further reductions in protection. By contrast the consumer and general national interest in lower car prices and

a more efficient industry was diffuse and difficult to mobilize.²³ All of these political economy reasons for the staying power of the structures which the local content plans and their associated supporting policies established, are likely to be important in other countries which start along similar paths to those traversed in Australia.

What should be done in India and other developing countries?

The local content and other aspects of the new auto policies currently being implemented in India and other developing countries have obvious similarities with Australia's past local content policies, and with equally or more expensive, but mostly now abandoned local content policies that were followed as part of the import substitution regimes of many developing countries during the 1960s and 1970s. The Indian market for cars is currently about the same size (production of 411,000 cars in 1996/97 versus 490,000 in Australia in 1996) and the potential for costly fragmentation is very great, with more than 20 domestically produced models being planned under the MOUs versus five models in Australia. The new policies also involve considerable potential for detailed, complex, *ad hoc*, and non-transparent government intervention in the industry. It is perhaps not surprising that they have been initiated and are being administered by DGFT in the Ministry of Commerce and Industry with the support of SIA (the Secretariat for Industrial Assistance). In their previous incarnations these two bureaucracies, then known as CCI&E and DGTD²⁴, were central to the old "license raj" regime for the industrial sector that was cut back by India's liberalizing reforms in 1991 and 1992.

The expensive and economically damaging record of auto local content policies in Australia suggests that the present efforts of a number of developing countries at the WTO to legitimize or indefinitely extend TRIMS arrangements are not in their own economic interests, and that countries such as India that are operating such policies would be better off by reversing course and moving towards open, tariff based import policies for their auto industries²⁵. But the Australian experience also shows the strength of the

²³ After losing out for 13 years, the forces supporting special treatment of the auto industry had a victory in 1997. In a report that year, the Industry Commission recommended that the tariff reductions should continue until the tariff reached 5 percent in 2005, but the government rejected this recommendation. Instead, it decided that the reductions would stop in 2000 at 15 percent, with a provision that there would be a further reduction to 10 percent in 2005.

²⁴ CCI&E stands for Chief Controller of Imports and Exports, which administered the pre-reform import licencing system. During the 1991/92 reforms its name was changed to Directorate General of Foreign Trade. Its main responsibility is the administration of India's remaining QRs and of the special import licences and incentive schemes for exporters. DGTD stands for Directorate General of Technical Development; under the pre-reform regime it was responsible for the now-abolished system of industrial licencing and also had a key role in the administration of import licencing. The function of the Secretariat of Industrial Assistance in the reformed regime is to promote rather than restrict industrial investment, but as part of that it is still responsible for approving and issuing licenses for new investments, including especially new investments by foreign firms.

²⁵ Preferably low or moderate tariffs over which at least some import competition is possible. Very high tariffs that prevent all imports have the same effect as an import ban, and if used in conjunction with tariff reductions for specified importers satisfying conditions such as local content targets, effectively operate in the the same way as an import licencing system.

nationalist and protectionist instincts into which these policies play, and the tenacity of the interests that are created by the policies and which would oppose their removal. This is already apparent in India, where there is practically no public discussion of the economic costs and benefits of the policies, which have been initiated and are effectively being managed by a nexus of the bureaucracy with the international auto firms which have invested in India and their domestic joint venture partners and component suppliers. Fortunately, however, the international environment which allowed these policies to continue in Australia and elsewhere for so many years is now very different. Specifically, under the TRIMS agreement, all the local content arrangements in force after 2000 are in principle GATT illegal²⁶, and most will presumably be challenged and disappear fairly soon unless the present efforts to extend the phase-out dates and to water down the TRIMS agreement succeed. Secondly, the new WTO regime is much less tolerant of QRs than the pre-1995 GATT, and without QRs it becomes somewhat more difficult-although still quite possible-to provide incentives for, and to enforce local content rules²⁷. These two developments increase the hope that if there is to be protection for the auto industry, it will rely on tariffs alone, preferably low and at the same rate for components and built up vehicles. As became apparent in Australia, because of its transparency, relative simplicity and relative freedom from lobbying and administrative discretion, tariff-based protection is preferable, and it would be much more conducive to the economically efficient development of this important industry in India and other developing countries.

²⁶ The Indian auto policies appear to directly conflict with both the spirit and the letter of the TRIMS agreement (to the extent that a reading of of the Indian requirements suggest that they might have been almost directly copied from the "Illustrative List" of TRIMS that are banned!)

²⁷ Local content programs (e.g. in Australia before 1975) can be implemented without the use of QRs by allowing car assemblers that conform to the rules to import specified components and materials at preferential low tariffs. Assemblers not conforming to the rules and operating outside the schemes could in principle still import components at normal import duties, but they are unlikely to be viable and to be able to compete if the value of the benefit to the conforming assemblers is large.

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