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INDUSTRIAL POLICY AND THE WTO

by

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I. THE ISSUE

The general objective of promoting exports and achieving rapid structural change and economic growth has been an integral part of development economics and policy-making for many decades. There has been a succession of different approaches and thinking with regard to how this objective can best be met, ranging from inward-looking or import substitution industrialization behind high protection, to outward-oriented or export orientation and promotion strategies considered to be part of the success story of East Asia. The range of instruments used for conducting industrial policy has also changed with the evolution of multilateral trading rules, as well as unilateral liberalization, the latter occurring within a framework of structural adjustment that is required in order to stay competitive and in some cases to access international finance. The combination of strategy and instruments used has been the subject of numerous studies, with mixed results on the value of interventions and their outcomes. There has also been a plethora of studies which show that industrialization behind protective walls has often extended beyond reasonable periods of “infancy” and has led to inefficiency and welfare losses, and entrenched vested interests.

Despite the strong theoretical case against activist industrial policy, it is still widely pursued in a number of countries.¹

¹ A number of countries have pursued interventionist industrial policies with some degree of success. In East Asia, the Republic of Korea, Taiwan Province of China and Japan are three examples of where government intervention in the form of activist policies was important for the pace and direction of development (Lall, 1994; Singh, 1996; Asian Development Bank, 1999: 208-210). This intervention, however, was broad-based and not confined to protection. It included aspects of

In the 1990s, however, the context in which it is pursued is different. Rapid technological change, shorter product cycles and developments in information technology have combined with privatization, and trade and foreign investment liberalization to produce a global economy that is distinctly different. In this context, developing countries are striving to ensure that their industries are competitive by using industrial policy to promote particular sectors.

It should be pointed out at the outset that the term “industrial policy” is not a well-defined one. It is ill-defined in relation to the objectives, the industries that are covered and the instruments that are used. The World Bank (1992) has provided a working definition of industrial policy as “government efforts to alter industrial structure to promote productivity based growth”.² This definition is useful since it focuses on the objective of economy-wide factor productivity growth rather than on merely changing the structure of industrial outputs.

With regard to objectives, many developing countries have in mind the potential for long-run productivity improvements. However, in most cases industrial policy is pursued with multiple objectives, including short-term employment, increased output, better

targeted technological promotion, financing and skill development. In an effort to replicate this success many developing countries have taken the position that they too should be allowed to pursue such policies and not be restricted by multilateral rules.

² A recent paper by Martin and Mitra (forthcoming) shows that the productivity growth rate in agriculture is higher both on average and for groups of countries at different stages of development.

income distribution and enhancing technological capacity. There are often also, rightly or wrongly, non-economic objectives of national pride and prestige, as well as the perceived need to promote “strategic” domestic industries.

These objectives are further confused to the extent that many developing countries have taken the view that ownership of assets matters. There is a concern that foreign ownership may not always fit in well with broader development objectives, including enhancing domestic capabilities.³ In some cases, foreign ownership could crowd out domestic firms. Thus, even if the World Bank definition is adopted and productivity-based growth materializes, the fact remains that developing countries have raised concerns about the source of growth. Growth in per capita GDP based on domestic assets seems to be preferred to growth based on foreign assets. The latter would not constitute “development” per se. Some countries may be prepared to trade off a lower rate of growth in per capita GDP combined with lower foreign ownership against a higher rate of growth with more foreign ownership.⁴

The focus of “industries” almost invariably seems to be on the manufacturing sector. This leaves out agriculture, services and mining, although these sectors raise much the same issues. Processing of agricultural and mining products occurs in the manufacturing sector, and the line between unprocessed and semi-processed products on the one hand and processed products on the other is arbitrary. Similarly, many services sector

³ For a discussion of how foreign ownership matters in the context of development see UNCTAD (1999a).

⁴ One possible reason for this could be the perception that openness would increase the vulnerability of the country to external shocks.

industries add value to manufactures, and they raise issues that parallel those of industrial development in manufacturing industries. Restriction of the discussion to manufacturing industries alone discriminates against non-manufacturing industries and leads to inefficiencies in the production allocation of the economy. Although the growth of industry output and exports in some developing countries in Asia and elsewhere is concentrated in manufactures, in others primary and services sector development is an important part of growth. In this paper, industrial policy is not restricted by sector.

With regard to instruments, the traditional focus has been on tariffs or output-based subsidies or export subsidies to industries as a way of rectifying alleged market failures due to externalities, missing markets or other failures (Lall, 1994). These have also been used to direct resources into certain sectors that may be considered more conducive to development such as those with high growth potential. Recently, however, more attention has been devoted to factor markets, especially foreign direct investment (FDI). Here the belief is that FDI is a bundle of assets that can contribute to economic development. At the same time, however, the use of these assets by affiliates of transnational corporations (TNCs) can also hinder a country’s development efforts. Government intervention is then required in order to alter the operations of foreign affiliates so as to minimize their negative effects (UNCTAD, 1999b).

In reality, developing countries have used a mix of import protection, export promotion, foreign investment restrictions and performance requirements, tax incentives and other measures to promote industrialization. The types of instruments used by developing economies have changed, especially since the 1980s,

owing to increased restrictions on their use through multilateral and regional agreements, as well as domestic regulatory reforms initiated through structural adjustment loans or domestic efforts to restructure their economies. The major changes faced by countries resulting from multilateral rules are the various GATT Codes that emerged prior to the Uruguay Round, particularly the GATT Code on Subsidies and Countervailing Duties of 1979, which restricted signatories' use of export subsidies. The multilateral trade agreements, agreed upon by WTO members as part of the Uruguay Round negotiations, have created new disciplines on the use of such policies. Meanwhile commitments under the Uruguay Round and regional agreements, and unilateral efforts to liberalize, have led to a decline in the use of tariff and non-tariff measures.

The aim of this paper is to review the objectives and instruments of industrial policy in a changing global context and multilateral rules and discipline. The remainder of this paper is divided into four sections. In the next section an analytical review is undertaken of the objective of,

and justification for, industrial policy pursued by countries. The importance of having an analytical framework is that it becomes the benchmark against which objectives, instruments and outcomes can be measured. In the third section the use of different instruments for industrial policy is reviewed. An attempt is made to assess whether changes have been due to compliance with multilateral and/or regional commitments, or due to unilateral reform efforts. This section also discusses whether new non-traditional instruments to pursue protection were needed once the use of traditional instruments became restricted. The fourth section focuses on the role of industrial policy in the post-Uruguay Round era with a view to the next round of WTO negotiations. It examines both the theoretical and the applied aspects of industrial policy before surveying the extent to which existing WTO rules affect a member's ability to pursue industrial policy objectives. The possibilities and implications of revising rules that affect the use of industrial policy instruments are discussed in the fifth section. The last section sets out a number of conclusions.

II. THEORY OF INDUSTRIAL POLICY

This section begins with a brief review of the traditional argument against infant industry protection. This argument still lurks behind most advocacy of government assistance for industrial development in developing (and developed) countries. Moreover, an examination of it highlights pitfalls in policy development which apply equally to other modern arguments since they are essentially variants of the old infant industry argument.

The traditional infant industry argument justified a tariff, or a subsidy based on the output of firms which have an equivalent effect on output, on the basis of some dynamic externality. Kemp (1964) provides probably the first careful statement of the argument. He identified learning processes such as worker learning by doing or on-the-job training as the source of cost saving and distinguished between learning processes which are internal to the firm and those that are external. The former are appropriable by the firm. Only those that are external to the firm warrant assistance, and then only if the reductions in cost over time compensate for the higher costs during the period of assistance,⁵ with all flows appropriately discounted. The tax subsidy is temporary.

This argument immediately raises a number of policy difficulties. It never provides a justification for blanket assistance to all firms in an industry or even a sub-industry since the existence of an externality and the required cost saving have to be demonstrated in every case.

⁵ If the instrument of assistance is a subsidy rather than a tariff, one should add the costs imposed by the tax that funds the subsidy costs.

Baldwin (1969) raised a second difficulty. He pointed out that a tariff (or subsidy) provides no incentive per se for a firm to acquire more knowledge, because it is an output-based intervention. A firm will increase output by the least costly method, not necessarily by acquiring more technology. The correct policy implied by the argument, supposing that it is demonstrated, calls for a subsidy related to knowledge creation, for example a subsidy on the particular workers who learn by doing. Most knowledge or skill acquisition is process-, job- or product-specific. In these cases the corrective subsidy will be confined to the process, job or product, or whatever, and based on the variable with which the externality is associated. Thus, there are substantial qualifications to the infant industry argument.

This line of argument is in fact an example of a much more general theme in the literature of government intervention. Each externality or market failure calls for a tax subsidy whose base is the variable which generates the externality or failure, and the tax-subsidy rate will be the rate that has the optimal effect. Bhagwati (1971) gives an early statement of the rule. Any tax subsidy other than the optimal tax subsidy causes what Corden (1974) called by-product effects that impose costs on the economy. Moreover, the tax-subsidy rate varies across firms in an industry if the strength of the effect justifying intervention varies across firms. Even when an intervention is called for, the choice of a suboptimal instrument with by-product effects reduces the net benefits obtainable from the optimal instrument and may in fact be welfare-reducing.

A. Second-best arguments for industry protection

There are a number of variants of the infant industry argument based on the presence of other tax subsidies or constraints that produce an argument for protection of importable goods. Instead of deriving from the presence of some externality that operates over time, these arguments derive from the presence of other distortions in the economy, such as tariffs or commodity taxes, which are considered unremovable and therefore permanent. These are applications of the theory of the second-best. In their famous article, Lipsey and Lancaster (1956) showed that if an optimization problem is modified by the addition of new constraints, the first-order conditions that characterized the first-best optimization are in general violated.

In the context of international trade, this means that the standard finding that free trade is the best policy for a small competitive economy may not be applicable. In the 1970s, a number of economists produced examples of this theory. For instance, if a subset of importable goods is subject to unremovable distortions in the form of tariffs, the second-best optimum calls for tariffs or trade subsidies for some or all of the remaining goods whose prices are not fixed. The nature of the second-best set of tax subsidies can be characterized in terms of the relationships of substitutability and complementarity between the two sets of goods (see Lloyd, 1974; Hatta, 1977). Again, as with the infant industry argument, the optimal government intervention and the associated rates of tax subsidy depend on the exact nature of the constraints. These arguments usually find that a tariff is called for on the outputs of some industries, but this applies because in the models that were used each industry

produces only one good. If there are many-good industries, the second-best tax subsidies will vary across the goods in an industry.

These models also pose major difficulties for policy makers. In the first place, it is not clear why we should consider that some tariff rates or other government tax subsidy rates are permanently totally unchangeable while others are freely changeable. Secondly, as the second-best is the solution to a complex constrained general equilibrium of an economy, the determination of the second-best requires perfect knowledge of all aspects of the economy. This includes all supply and demand parameters, in fact the determinants of the behaviour of all agents in the economy. This is grossly unrealistic. Third-best interventions made in ignorance of the true values of some behavioural parameters may be welfare-reducing.

Specific examples of this type of theory are to be found in the recent literature on protection in developing countries. Some of the authors have chosen a trade-related investment measure as the form of government intervention.⁶

One example is the use of local content programmes. Many developing countries have introduced such programmes in the automobile industry in particular – for example, India, Malaysia and the Philippines in Asia and Mexico, Brazil and Argentina in Latin America (Moran, 1998). This has been done chiefly in the belief that any policy that increases the local content of a unit of

⁶ There is an older literature which makes a similar case for export subsidies on the ground that tariffs and other policies which promote import substitution have discriminated against exports; see Harris and Schmitt (1999) for a review of this literature.

output, i.e. the proportion of domestic value added in the production of the goods, must be beneficial. This naive belief ignores the effects which encouraging the production of one industry has on other industries; the great strength of general equilibrium theory is that it brings out the economy-wide effects of intervention in one industry. This belief also ignores the volume effects within the industry. Dixit and Grossman (1982) made an elegant analysis of content plans in a general equilibrium model with a continuum of stages. Although there is no FDI in their model, the main effects of a content plan are highlighted. They show that a content plan will raise the cost of intermediates to downstream and final producers and thereby lower their effective protection. It will also increase the range of goods produced but may be anti-protective in terms of the aggregate labour employed and value added in the protected industry. Moreover, it is welfare-reducing.

There are second-best theory models that purport to show that content plans are welfare-improving for developing countries. These models introduce additional constraints due to the presence of unemployed factors generated by a fixed minimum wage or a tariff on the final good.

Chao and Yu (1993) put forward an argument in favour of protection by means of content plans. They constructed a model of a dual economy with urban unemployment. The urban sector produces a processed good and the rural sector produces an agricultural commodity. The production of the processed good requires intermediate inputs that can be imported or sourced locally. In the tradition of the Harris-Todaro model, a fixed minimum wage is set institutionally in the urban sector

giving rise to urban unemployment, while there is a flexible wage in the agricultural sector. It is easily shown that urban unemployment makes the marginal rates of transformation of the manufacture for the agricultural good exceed the relative price ratio. This gap implies an allocative inefficiency in the economy. Essentially, the agricultural output is under-produced because at the margin the social value of this good relative to that of the manufacturing good is greater than the rate of transformation.

This is a variant of the standard model of international trade with a factor market distortion which has been studied extensively as an argument for protection. The twist in favour of content protection comes from adding structure to the production sector of the model. The assumption made is that the domestic materials are produced by the agricultural sector and used in the manufacture of the urban product, and that the materials sector is an infant industry whose domestic price is higher than the world price. As in the Dixit–Grossman model, the content protection increases the content per unit but reduces the aggregate output of the protected industry. This leads to a decrease in demand for the output of the urban sector, which causes a reversal of migration to the urban sector and reduces the gap between the rate of transformation and the relative price. Chao and Yu (1993) claim that the effect is welfare-enhancing, although in their earlier paper they found that it was welfare-reducing.

Richardson (1993) examines the effects of a content plan in a second-best situation due to the existence of a tariff on a final manufacturing good. He adds FDI in both the final manufacture and its component suppliers. The content plan applies only to the foreign investor and is

therefore a trade-related investment measure (TRIM). A content plan has offsetting negative allocation effects because it increases output and reduces imports in the components sector, and positive revenue effects because it increase imports of the final manufacture and reduces payments to foreign capital which is specific to final manufactures. A domestic content policy set at low percentages is welfare-increasing in this context.

Rodrik (1987) and Greenaway (1992) have made a similar second-best case for TRIMs in the form of export share requirements. Rodrik considers an economy which is host to FDI by a multinational corporation. The prior distortions are tariffs, which induced foreign investment or oligopolistic behaviour in the industry. As is well known, foreign investment is immiserizing if the import industry is capital-intensive; it exacerbates the loss of tariff revenue. In this situation, an export requirement may partially offset the negative effect of foreign investment by lowering the profitability of the latter, reducing output and increasing imports or lowering the rate of return on foreign investment. In the case of oligopolistic interaction between the multinational corporation and the local firms, an export requirement reduces the output of the multinational and shifts profits to the local suppliers. Greenaway (1992) extends this line of argument to a range of TRIMs.

Morrissey and Rai (1995) also make a case for TRIMs based on the prior existence of a range of restrictive business practices by multinational corporations. These practices include some which restrict exports from the host country, such as international market allocation and intra-company restrictions on exports by affiliates.

All these second-best arguments are subject to the same objections as the infant industry argument. If, as in the model of Chao and Yu, the cause of the distortion is a policy-induced minimum wage, this should be abolished and no further action is required. If, as in the models of Richardson and Rodrik, the prior distortion is a tariff on the final manufacture, the first-best plan is to reduce the tariff. If, as in the models of Rodrik and Morrissey and Rai, it is an anti-competitive form of business conduct, the appropriate instrument is a competition law remedy. First-best reform avoids the by-product loss of welfare due to the increase in the price to consumers of the output of the protected sector and the distortions of the production structure of the industry. This is recognized by some of the authors, but they accept that a tariff on the final good is unchangeable while an implicit tariff on its components is feasible. Again, the performance requirements have negative effects if they are pushed too far. A content plan provides no incentive for upstream firms to acquire more knowledge. The incentive is merely to increase their outputs.

These arguments have an old-fashioned ring. They ignored the benefits of technology and management from foreign investments, and they belong to an era when there was no pressure on developing countries to lower their existing tariffs and not to introduce new trade-restricting measures.

B. Technology development

Some writers have advocated border assistance on the grounds of technology development. For example, Balasubramanyam (1991) bases his

argument for content plans on the incentives provided to multinational companies to develop technology in the materials sector of the host economy. However, the previous section makes it clear that government interventions to develop technology should be technology-based, not output-based.

With few exceptions, the technologies used by producers in developing countries are not the latest or most advanced in the world. Generally speaking, these countries can be classified as low- or middle-technology countries.⁷ When new industries or products are established they will, in most cases, use a technology already developed in some other more advanced or industrialized country.

In this context, FDI will be important as a vehicle for the transfer of technology. The literature has recognized that technology may be transferred in two ways:

- Foreign technology has a higher total factor productivity, which is transferred initially to the enterprise with foreign investment in the host economy.
- The knowledge of the enterprises with foreign investment spills over to other firms in the same industries.

Each of these effects occurs within industries (appropriately defined); that is, they are intra-industry effects. The first will be called the direct technology transfer effect and the second the spillover effect.

⁷ See section 4.4 on the role of the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) in enhancing technology transfer to developing countries.

The direct technology transfer effect derives from an old argument that foreign investors have a superior technology of production, which is transferable to foreign affiliates and domestic firms. In recent years this effect has been incorporated into a number of models of technology catch-up or technology ladders. They view the technology differences across nations as given. They are the result of past research and development (R&D) or other processes of technology acquisition and no attempt is usually made to explain these differences.

Another model has been developed since 1990 by a number of authors to endogenize technology transfer by linking FDI to technological improvement in the form of new varieties of capital input (for a textbook treatment, see Barro and Sala-i-Martin (1995, chapter 6)). In this model, an economy produces a single good, y , using a Cobb–Douglas value added technology:

$$y = AH^\alpha K^{1-\alpha} \quad (1)$$

where A is an efficiency parameter, H denotes the human capital input and K the physical capital input. The function exhibits constant returns to scale with respect to the two inputs. Physical capital is a composite of different varieties of the capital good, K_j :

$$K = \sum_{j=1}^N [(K_j^{1-a})]^{1/\alpha} \quad (2)$$

The total number of varieties of capital good, N , is produced either by domestic firms, n , or by foreign firms, n^* . Thus, $N = n + n^*$. K may be regarded as units of effective capital. With this technology, the total effective capital

stock increases as the number of varieties increases, for a given number of units of capital, e.g. machines. This is a special form of capital-augmenting technological change.

Expansion in the number of varieties occurs as a result of R&D. The cost of production of a new variety, therefore, has fixed set-up costs, F , and constant marginal costs. It is assumed that these fixed costs are a decreasing function of n^* and of n/n^* , that is $F = F(n^*, n/n^*)$ where the partial derivatives with respect to both arguments are negative. The first of these variables captures the idea that foreign firms have an advantage in producing new capital goods because of their accumulated knowledge. The second captures the idea that countries that are more backward technologically, as represented by the number of capital goods produced domestically, have an advantage in catching up. Moreover, the production function in equation (1) ensures that the marginal product of an increase in the stock of capital is an increasing function of the stock of human capital in the economy. This model yields a regression equation for the economy growth rate which contains the level of FDI and an interaction variable, $FDI \times H$, with a positive coefficient. In an empirical study of cross-country rates of growth, Borensztein, de Gregorio and Lee (1998) found that FDI itself has an insignificant effect on growth rates, but the interaction terms are significant and positive.

An alternative model introduces technological change through the capital input again but in a different way. This model assumes that there are a fixed number of capital input varieties, but each variety lies on a quality continuum and is subject to quality improvement over time (see Barro and Sala-i-Martin (1995,

chapter 7)). This yields a positive relationship between FDI and growth, again with a positive interaction with human capital.

These models are simplistic with no international trade in goods and only one sector, but they are suggestive. They introduce two key ideas. The first is a relationship between the variety of the capital inputs and output, and the second is a complementarity effect between FDI and human capital accumulation in the host economy. With international trade, the composite capital input adds new varieties through the importation of new capital goods since the foreign varieties can be supplied only by foreign producers. This is one vehicle of technology improvement.

The notion that knowledge spills over from one firm to others has become popular in recent years. Blomstrom (1989) provides an early and influential statement, although the idea was put forward much earlier by Findlay (1978), who called it “contagion”. This notion has an intuitive appeal, but it has been modelled in different ways.

One strand of the literature makes the total factor productivity of a firm a function of cumulative industry output because of learning-by-doing. Grossman and Helpman (1995, section 2) survey these models. Suppose that there are only two countries, the home (= host) country and the foreign (= source) country. Then the output of a good (= industry), industry i , in some country is given by the production function

$$Y_i = A_i(\cdot)\phi_i(v_i) \quad (3)$$

V_i is a vector of primary and intermediate inputs, and $A_i(\cdot)$ is the index of technical knowledge or know-how in

the country. The subscript for the firm is omitted on the assumption that the same value of the coefficients A_i and a_i apply to all producers of the good in one country.⁸ Knowledge is transmitted among producers by making A_i some function of cumulative outputs. The index A_i can be a function of the cumulative national output of the good or of the cumulative world output, or sometimes of the output of a group of related outputs in an industry at the national or international level; that is, $A_i = \alpha_i Y_i + \beta_i Y_i^*$ where Y denotes the cumulative output in the country, $*$ denotes the foreign country and δ_i is a constant. This generates a family of learning-by-doing spillover models.

In these models, spillovers occur as a function of cumulative aggregate industry output at some level. It does not matter whether the output in a country is produced by home or foreign firms. Alternatively, one could make the shift factor $A_i(\cdot)$ some function of FDI or of the activities of the source enterprises.

Thus, there is some factor-disembodied kind of transfer among firms but the actual mode of transfer is not specified. Van and Wan (1999) introduce the idea that much technology transfer takes place through the establishment of new domestic firms staffed by workers who were previously employed by foreign firms and acquired work and production skills and knowledge of the technology of production from this employment. The new firms may be subcontractors for the foreign firm or competitors, or even produce other goods that use a similar technology. New domestic firms have a technology that is superior to old domestic

firms. This might be called the new firms effect.

These models do not provide much support for government subsidies or other interventions to promote industrial development. In the direct technology transfer models, where the technology is assumed to be in the form of some firm-specific blueprint or asset and is transferred costlessly, the firms purchasing the new capital inputs appropriate the benefits of increased productivity. The same applies where the technology transfer occurs through the introduction of new varieties or new qualities of investment goods. The policy implication of this model is that Governments should not impose tariffs or other restrictions on imports of these capital goods.

In the spillover models, where the improvements in total factor productivity are associated with learning-by-doing, there is a kind of externality. However, the host country Government has little possibility of capturing the benefits if they are associated with the aggregate industry output in the rest of the world or of the whole world. If there are spillovers associated instead with FDI in some industries, this is an added benefit of FDI, but such benefits will be industry-specific and the Government would have to know the mechanism by which the technology is transferred in order to capture them. For example, if they are due to the new firms effect, they will happen in the markets, provided that there are no obstacles to the formation of new firms. FDI incentives will be a crude and generally ineffective way of capturing the benefits of FDI as these benefits will be firm- or process-specific, where they exist. R&D subsidies are not warranted unless there is some general uniform externality associated with R&D. The best way to maximize the benefits of technology transfers associated

⁸ In these models it has usually been assumed that labour is the only factor of production but the specification is easily generalized.

with FDI is through the adoption of generic measures aimed at improving the overall regulatory and economic environment by enhancing competition and improving human capital skills and technological capacity.

The critical question in this debate is the nature of the technology transfer. Grossman and Helpman (1995: 1334) concluded their survey of technology and trade as follows: "...what can the South do to encourage technology transfer to indigenous agents without causing the Northern innovators to take their business elsewhere? To answer these questions we will need models that pay closer attention to how knowledge is transmitted within and between firms."

C. Strategic trade policy

Strategic trade policy is a set of cases developed in the 1980s that supposedly justify government interventions. The distinguishing feature of this body of theory is that the arguments hinge on the existence of strategic interdependence among a small number of firms. Brander (1995) surveys the theory.

The standard example is a model of two duopolists, each from a different country, competing in a third-country market. If there are no home market effects, an export subsidy granted by the Government of one of them may improve national welfare by allowing the domestic producer to earn additional profits in the export market that exceed the amount of the subsidy payment. Note that in this third-country market model an output subsidy is equivalent to an export subsidy. The model can be extended to a fixed number of competitors greater than two. It can also be extended to markets in

which the firms make domestic sales, although in this case the gain is less since the increase in profits is offset by the loss of consumer surplus and the optimal intervention by one country is now a tariff.

However, the outcome is extraordinarily fragile as it is subject to a number of conditions. It requires that firms' decision variables be strategic substitutes, in that greater output by the subsidized firm reduces the profits of its competitor. It is not robust with respect to the assumptions of the model; if the conditions of entry, the choice of decision variable (Cournot or Bertrand competition, or whatever) or the presence of economies of scale or other features of the model change, the nature of the optimal intervention changes. The selection of the optimal level of the (optimal) instrument imposes substantial information requirements on the intervening Government. This kind of intervention also lends itself to political manipulation, with the possibility that the subsidies will go to producers that seek to protect themselves from foreign competitive pressures rather than to the producers who can shift profits. Finally, such strategic policy interventions may be in the interests of one country intervening alone but if the second country retaliates, there is a prisoners' dilemma – both lose. This is because the result stems from profit shifting between markets. It is not efficient from the point of view of the world economy to have any intervention.

Other strategic policy cases with different assumptions about the nature of competition are subject to the same objections. Brander (1995: 1446), himself one of the architects of strategic trade policy theory, concluded his survey with the remark that "It seems natural to expect that strategic trade policy can only expand the scope for socially wasteful transfer-

seeking...Even if free trade does not emerge as an optimal policy in normative strategic trade policy models, once political economy considerations are taken into account, perhaps it is the best we can do.”

There is, therefore, nothing in strategic trade theory to recommend it to developing countries. In most markets, these countries are price takers. If the market conditions should conform to some model of strategic trade policy intervention, developing countries do not satisfy the informational and political economy requirements for successful intervention. They would do better to take action to increase competition.

There is another even more powerful objection to the theory. It ignores completely the rules of the WTO. These exclude export subsidies for

manufactures and severely constrain the levels of tariff rates as most industrial tariffs are now bound. These rules have evolved over 50 years precisely in order to constrain national beggar-thy-neighbour policies. Moreover, as with the second-best argument for tariffs, one should not take the conditions of imperfect competition as given. The WTO has become more concerned with competition in world markets in recent years. Most small-number competition markets are the result of government-sanctioned restraints on entry (such as the tolerance of export cartels) rather than natural monopoly. Action in the WTO and other intergovernmental forums such as the Organisation for Economic Co-operation and Development (OECD) should be to remove barriers to entry and cross-border competition and thereby make markets competitive.

III. EXPERIENCE WITH INDUSTRIAL POLICY IN EAST ASIA

The purpose of this section is to provide an insight into the practical use of industrial policies. The focus is on East Asia, but this does not mean that Latin America or industrial country experience is not relevant. In the Latin American case, import-substitution policies were the hallmark of development strategy. But, as is widely recognized, the region's economic performance did not match that of East Asia. This may reflect a late adoption of liberalization policies, or possibly even difficulties in implementing the appropriate policies. Similarly, much of the development of Western Europe and other industrial countries can be attributed to interventionist policies. This section points out, through the example of East Asia, that active industrial policies were relevant. The same conclusion applies to Latin America and the industrialized countries.

A. General trends

It has always been an issue to whether government interventions using various instruments ranging from credit and export subsidies, protection and export promotion measures were effective in the spectacular growth experienced by East Asia. Some interventions were successful, and part of the success was because interventions, especially export promotion measures, were performance-based or contest-based (World Bank 1992), unlike government interventions without any performance requirements.

Table 1 summarizes the types of industrial policy pursued by countries in East Asia. These policies have evolved over the past three decades starting with import substitution, which depending on

the size of the country has evolved into export orientation.⁹ Export orientation normally begins with assembly or original equipment manufacturing (OEM) type manufacturing as well as light industries, and over time the value added of exports increases. Often, export-oriented policies will run parallel to import substitution policies as protection is only removed gradually. However, beginning in the mid-1980s, the increased need to attract FDI for technology and market access, pressures from major markets such as the United States and Europe for market opening, reducing trade surpluses, becoming signatories to codes and implementation of the Uruguay Round, and unilateral moves to reform domestic economies as the need to adjust was recognized – all these led to greater deregulation and liberalization in all the East Asian economies. The economic liberalization and deregulation trends in China and Viet Nam also provided a greater push to liberalize. Furthermore, the Republic of Korea and Taiwan Province of China have both been subject to a great deal of United States pressure to liberalize. Countries wanting to join the WTO have faced the same set of pressures.

In general, the South-East Asian countries have adopted a more liberal and market-oriented policy regime (Masuyama, Vanderbrink and Chia, 1997) compared with the North-East Asian countries at the same level of

⁹ If countries have large internal markets, for example Brazil, China and India, the import substitution programmes allow for economies of scale for the protected firms. Country size, however, does not mean that the sectors will be efficient. See Bruton (1998) for a discussion of the evolution of import-substitution policies.

development. This is evidently because the South-East Asian economies followed later in the export-oriented industrialization strategy in the late 1970s and early 1980s. For instance, Indonesia had to abandon its export-subsidy scheme in the mid-1980s. It consisted of a duty drawback provision which, because of the way it was calculated, provided both a subsidy and an export credit to exporters, the latter at interest rates below market rates. To the extent that developing countries still pursue industrial policy, the types of instruments will have to vary.

B. Industrial policy and implementation of Uruguay Round commitments

Singh (1996) provides a useful summary of the types of export promotion and import restrictions used by the Republic of Korea and Japan, which are often identified as industrial policy instruments (box 1), and analyses which ones would no longer be valid under the implementation of the Uruguay Round commitments. Table 1 provides a similar categorization for a number of Asian countries.

Many of those falling under the export promotion and import restrictions would not now be allowed under multilateral rules, and some of the other policies would violate the new Agreements, especially under TRIMs, subsidies and TRIPS. Only instruments such as government provision of information to exporters and changes in the exchange rate would still be allowed under the present rule structure. Export promotion agencies such as the Japan External Trade Organization (JETRO) are still allowed, as long as their task is only to provide information and not to provide export guarantees or insurance elements.

Indeed, all the Asian countries in table 1 have an export promotion agency, but of course its quality and effectiveness vary across countries.

Another major instrument for subsidizing interest rates and preferential credit allocation used by the Republic of Korea was ruled out when linked to exports under the GATT Code on Subsidies and Countervailing Duties, and more generally by the Uruguay Round Agreement. Foreign investment conditional on domestic content or trade balancing would be in violation of TRIMs.

A number of instruments such as general fiscal concessions, provision of subsidized R&D up to a certain level, and measures to promote corporate investment and discourage payment of dividends are still acceptable.

Since the mid-1980s most South-East Asian countries have adopted export-oriented policies maintaining competitive real exchange rates (after 1995, with sharp movements of the yen, this changed somewhat) and promoting inward FDI. Most of the countries deregulated restrictions on FDI, Indonesia being one of the boldest ones with a dramatic FDI liberalization being introduced in 1994, the year Indonesia was host to APEC. Apart from FDI, South-East Asian countries have also been more flexible and open about other factors of production such as labour. Singapore has an open policy towards employing skilled and semi-skilled labour from outside Singapore, and Malaysia has had to depend on foreign workers (many of whom are Indonesians) to meet the shortage of labour domestically (Masuyama, Vanderbrink and Chia, 1997).

Box 1
Instruments of industrial and export promotion policies:
Republic of Korea and Japan

Export promotion and import restrictions

- Import restrictions, both general and specific;
- Favouring particular sectors for export promotion, in some cases particular firms for that purpose;
- Seeking compliance for subsidies given to exporters by means of export targets for specific firms (Republic of Korea);
- Interest rate subsidies and the availability of credit and foreign exchange to favoured firms that meet export targets;
- General export promotion through JETRO (Japan) and KOTRA (Republic of Korea);
- Provision of infrastructure, including human capital, in support of exports;
- Taxation relief on imported inputs and on R&D expenditures;
- Allowing favoured conglomerates to import capital goods and foreign technology and to raise cheaper finance on international markets.

Industrial policy measures

- Lax enforcement of competition policy, including the extensive use of cartels;
- Government creation and promotion of conglomerates (Republic of Korea);
- Tax concessions to corporations to increase investment;
- Promotion of a close, long-term relationship between finance and industry which was critical to the implementation of the industrial policy;
- Labour repression to ensure labour peace in a period of structural change (Republic of Korea)
- Establishment of State industries to enhance industrial development (Republic of Korea)
- Extensive administrative guidance

Source: Singh (1996: 163).

Table 2 and other information indicate first that prior to the crisis there was a strong trend towards economic liberalization, and second that there has been a greater emphasis on complementary policies, which will push industrial restructuring. Trade and investment liberalization alone are not sufficient. A variety of policies have emerged to upgrade industrial structure. The types of policies that fall into this category include R&D, infrastructure, development of strategic industries, and policies aimed at forming industrial clusters. The Republic of Korea and Taiwan Province of China, for instance,

have emphasized government subsidies for R&D. Singapore has attempted to develop services, and then knowledge industries, by providing fiscal incentives.

C. Changes since the Uruguay Round

There has been a general decline in the use of tariffs for import protection. In the Uruguay Round, trade weighted-bound most-favoured-nation (MFN) tariff averages declined substantially for Japan (from 3.9 to 1.7 per cent), the Republic of Korea (from 18 to 8.3 per cent) and Thailand (from 37.3 to 28.0 per cent), but

only slightly for the Philippines (from 23.9 to 22.2 per cent) and Malaysia (from 10.2 to 9.1 per cent). On the other hand, they increased for Indonesia (from 20.4 to 36.9 per cent) because of binding at a much higher level than applied rates. Even though the percentage bound increased substantially, the rate at which it was bound remained high for some countries. As expected, tariffication of agriculture led to a jump in the average tariffs of the East Asian countries after the Uruguay Round.

More recent data on applied tariffs for countries of the Asia-Pacific Cooperation Forum (APEC), based on UNCTAD Trade Analysis and Information System (TRAINS) data for 13 APEC economies, show that average tariffs for APEC have come down over time apart from those in agriculture as a whole, which rose in 1995 and then fell in 1998. Average tariffs in agriculture are now higher than those in manufacturing. At the two-digit level, the agriculture-related sectors of food, beverages and tobacco, agriculture and hunting, textiles and fisheries have above average tariffs.

The incidence of core non-tariff measures (NTMs) for the APEC economies halved over the 1995-1998 period. However, the NTMs in agriculture and hunting, and in chemicals went up slightly over the full period, those sectors and are among the sectors with a high incidence of NTMs, together with the manufacture of food, and forestry and logging.

Thus, while the average use of tariffs and NTMs has decreased, every country has a sensitive sector or a sector it wishes to promote for various reasons which retains peak tariffs or core NTMs. Not all NTMs are captured; for instance, tariff quotas are not included. This sector

typically not only has high tariffs but also is subjected to other types of policy intervention. The automotive sector is a good example where tariffs are still high and there are often content requirements still in place.

Tariffs are the most transparent means of protection and, as is well known, as tariffs come down, non-tariff barriers or other measures emerge to the extent that countries wish to prolong the protection. Examples abound. The Malaysian Government has recently announced a wide range of financial incentives to promote its domestic automobile industry, justifying it on the grounds of strong linkage effects (Mody, 1999).

Typically, there has also been a corresponding increase in anti-dumping duties. Although, as is well recognized, the amount of trade subject to anti-dumping duties is not large, the simple threat of duties being imposed on a product is sufficient for there to be a substantial impact on exports. There has been an increase in the number of anti-dumping actions by both developed and developing economies since 1995, and in 1998 an estimated 300 cases were submitted compared with 225 in 1997.

The evidence on the effectiveness of export subsidies and promotion is not conclusive; East Asia is often being cited as an example of their effectiveness. Export promotion that uses incentives to encourage exports works in the same way as import protection and can be subject to the same abuses. Export subsidies can be abused through over-invoicing, false shipments, and ad hoc subsidies that do not necessarily go to the most competitive exporters. In the World Bank East Asian Miracle study (World Bank, 1992), the relative success of export promotion interventions in East Asia is because with

exports, the criteria for performance was much easier to measure. In studies that look at what determines exports, export subsidies showed little change in the years prior to the boom of East Asian exports (Rodrik (1993), as quoted in Mody (1999)). Furthermore, some of the East Asian economies, such as Indonesia, had in fact moved away from using export subsidies since the mid-1980s.

Obviously, there are other factors that influence exports. Supporting measures that complement export subsidies could be important. In the Republic of Korea, for instance, detailed sectoral and firm-specific export targets were identified and given access to export credits. There were also benefits associated with agencies that developed new markets and testing and standards organization.

With regard to TRIMs, four members of the Association of South-East Asian Nations (ASEAN) notified local content policies in their automotive sectors to the WTO.¹⁰ In addition, Indonesia submitted local content requirements for fresh milk and soybean cake production, and Thailand submitted local content requirements for manufactured goods. Notification means that they will phase out the measures in five years. However, there have been divergences in application, as is evident from the national automobile policy of Indonesia described in the Annex.

Examination of rules under the WTO and the East Asian experience so far indicate that there are many instruments that are no longer valid. However, there are still instruments that could be used,

¹⁰ See the annex for a description of Indonesia's WTO experience regarding its local content policies in the automotive sector.

and the usual caveats about specificity of policy in relation to the objective or target apply. Furthermore, the instrument must be implemented in a transparent way, have built-in performance requirements and have a clear exit point. Before the crisis there were many derogations from such basic concepts. These were compounded by a close relationship between business and government in channelling capital and credit to specific sectors.¹¹

D. Policies towards foreign investors

World FDI flows have grown at very impressive rates. Between 1986 and 1991 the annual average was US\$ 159.3 billion. In 1999 the estimated total is US\$ 800 billion, which is an increase of 25 per cent over the previous year.¹² While a significant proportion of the increase is due to the developed countries, amongst developing countries East Asia's performance has been particularly noteworthy. Between 1986 and 1997 nine developing countries¹³ in the region have accounted for more than 50 per cent of total flows to developing countries. The increase in the importance of China as a host country is particularly noteworthy.

The contribution of FDI flows to development continues to be debated; however, the focus seems to be more on degree. Without a doubt the access to external capital and the performance of foreign affiliates in East Asian host

¹¹ In the post-crisis era a number of issues regarding corporate governance and restructuring are emerging as critical for a sustainable recovery.

¹² Revised figures and more detail can be found in UNCTAD (1999a) and at www.unctad.org.

¹³ These are the four newly industrializing economies – Hong Kong (China), the Republic of Korea, Singapore and Taiwan Province of China – and China, Indonesia, Malaysia, the Philippines and Thailand.

economies have had an impact on the region's economic growth. But the success was achieved through a range of policies aimed at attracting and channelling FDI into specific sectors.¹⁴

Consider first the attraction of FDI. The approach adopted by some economies – Hong Kong (China) and Singapore – was one of liberalization. By selectively reducing equity restrictions and performance requirements they were able to attract significant quantities of FDI. These policies were complemented by an extensive array of incentives, which included duty-drawback provisions, tax holidays and subsidies. They were implemented in an aggressive and targeted manner, so much so that their goal of industrial restructuring using FDI has by and large been successful. Even the second-tier Asian countries such as Malaysia and Indonesia have been able to increase their manufacturing capacity, relative to primary industries, with some assistance from FDI. China in particular, with its State-owned enterprise system, is well aware of the role that foreign affiliates can play in helping some of its privatized industries to be competitive.

Each of the East Asian countries at one time or another made extensive use of performance requirements. These included local content, export performance targets, foreign exchange restrictions, licensing restrictions, mandatory local participation

and trade balancing. In the past decade, some countries have removed these restrictions unilaterally, but others have chosen to retain certain policies. The result is a policy landscape for FDI in East Asia that is rather mixed.

While all countries welcome FDI, there are still a range of impediments to flows and policies designed to alter behaviour (PECC, forthcoming). These impediments are distortionary and, as shown in section 3, can lead to welfare losses even if certain non-economic objectives are achieved. All the East Asian countries are members of the APEC process and have committed themselves to “free and open trade and investment” by 2010 for developed members and 2020 for developing countries. Furthermore, the members of ASEAN have signed a Framework Agreement for an ASEAN Investment Area, which includes a negative list liberalization of equity restrictions by 2010 for members and 2020 for non-members. These arrangements would seem to indicate that there is much support for investment liberalization, but some caution about including it in the WTO. The issue, then, is not liberalization, but to what extent perceived gains can be achieved through having binding rules on market access for foreign investors, including licensing, joint ventures and performance requirements. This is an issue taken up in section 5.

¹⁴ See Hill and Arthukorala (1998) for a recent survey of the contribution of FDI to development in the region.

IV. WTO RULES AND INDUSTRIAL POLICY

A number of provisions in the WTO rules deal with various measures that member States can use to protect domestic suppliers and promote exports and technology transfer. Articles I and III of GATT 1994 lay down MFN and national treatment for imported goods. However, up to the bound rate (if a tariff item has been bound), tariffs can still be used to protect infant industries and develop domestic capacity. Tariffs are often complemented by other tools of industrial policy such as subsidies, which are used to both promote particular firms and industries and to penetrate foreign markets. In this section we examine how the WTO rules have constrained the flexibility of member States in the choice of instruments that may be used to pursue industrial policy objectives.

A. Import protection

Tariffs, non-tariff measures and subsidies protect domestic firms from import competition. Although tariff protection has declined, there continue to be peak tariffs in some industries in both developed and developing countries. Also, the dispersion of protection remains high in many countries.¹⁵

One particular policy, which used to be quite common, is local content protection. This policy was the hallmark of a number of countries as they tried to develop large-scale industries with externalities. In particular, automotive

¹⁵ It is useful to distinguish between sunset and infant industries. The former are industries that are declining. The latter are industries that are expanding and, owing to market failures, require protection from competition.

industries around the world have been heavily dependent on local content protection.¹⁶ There was much discussion during the Uruguay Round as to whether local content protection had an impact on trade. Local content policies were formally included in the Multilateral Trade Agreement (MTA) through the Agreement on Trade-related Investment Measures (TRIMs). The effect of this is that such policies have to be phased out by WTO members at the latest by 1 January 2002, unless an extension can be granted.¹⁷

Import protection can also be achieved by challenging the fairness of the competition by using anti-dumping or safeguard measures. In the context of industry policy both measures have often been used in declining industries. The Final Agreement on Implementation of Article VI had a few additional provisions in favour of developing countries as they try to develop their exports. More important, there are still systemic issues in the implementation of Article VI that can frustrate legitimate attempts by developing countries to exploit export markets.¹⁸

¹⁶ Australia, for example, had a national car programme in place immediately after the end of the Second World War. The first "Australian car" rolled off the production line in 1948. However, protection in the industry only started to decline substantially in the early 1990s (Bora and Pomfret, 1995).

¹⁷ A WTO Dispute Panel decision on Indonesia's local content protection policies clearly stated that local content policies disadvantage imports. See the Annex for more details.

¹⁸ See Laird (1997) for a discussion of anti-dumping.

B. Subsidies and export promotion

The Agreement on Subsidies and Countervailing Measures (SCM) increases disciplines on the use of subsidies and countervailing measures to offset any injury caused by subsidized imports. It applies to non-agricultural products; there are separate (and more comprehensive) disciplines on agricultural products in the Agreement on Agriculture.

The SCM covers financial contributions¹⁹ made by or at the direction of a Government²⁰ that provides a benefit.²¹ It defines three areas of specificity which would bring a subsidy under its rules. These are:

- Enterprise specificity – a particular company or companies is targeted;
- Industry specificity – a particular sector is targeted;
- Regional specificity – a particular region is targeted.

If a subsidy fits the specificity definition, it is placed in one of three categories: prohibited, actionable or non-actionable. The prohibited category comprises subsidies for exports and subsidies for the use of domestic in preference to imported inputs. In addition to non-specific subsidies, the category of non-actionable subsidies includes the following exemptions:

¹⁹ The Agreement contains a list of types of measures that would be considered to be financial contributions: grants, loans, equity infusions, loan guarantees, fiscal incentives and the provision of goods and services.

²⁰ Since this is defined to include any public body within the territory of a member, sub-national Governments, public bodies and State-owned companies are covered by the Agreement.

²¹ The definition of a benefit has not been fully resolved in cases where indirect financial contributions are involved.

- Disadvantaged region initiatives;
- Research and development;
- Environment.

The bulk of the subsidies fit into the categories of actionable and non-actionable rather than prohibited subsidies. Action under the SCM relies on providing proof that subsidies are having a negative effect on the trade of another member. This is done by showing that there is harm to another member in the form of injury,²² serious prejudice²³ or impairment²⁴ and nullification of benefits. Once this has been proved, the subsidy must be removed or changed to conform to WTO regulations.

The implications of the SCM for industrial policy are considerable.²⁵ In the first instance, developing countries which did not sign the Subsidies Code during the Tokyo Round are now bound by the Agreement. Second, the SCM now extends to sub-national Governments.

However, the discipline on subsidies based on production is weak. It does not apply to agricultural and services trade. The main message of the SCM is that subsidies that have a direct effect on trade are explicitly prohibited. This rules out the possibility of developing a sector

²² Injury to a domestic industry caused by subsidized imports into the territory of the complaining member.

²³ Adverse effects in the market of the subsidizing member or in a third market.

²⁴ This can arise when improved market access due to a bound tariff reduction is undercut by the subsidy.

²⁵ Take, for example, the case of the Republic of Korea, which has been notorious for its use of targeted subsidies. Prior to 1995 it had offered 26 different types of subsidies with an annual total of 2.5 trillion won. In 1995 it reduced this to one subsidy to small and medium-sized enterprises of only 15.2 billion won (WTO, 1996b).

by unfairly taking advantage of access in a trading partner's market.

For developing countries the SCM is a two-edged sword. In the first instance, there are a number of loopholes which allow them to continue to use subsidies to promote industrial policy objectives. However, these loopholes also apply to developed countries. Thus, developing countries have no prospect of using subsidies to gain a competitive advantage vis-à-vis the developed countries.

There is a grey area with respect to the use of incentives to attract foreign investment. The competition for FDI is intense, and incentives are used widely by national and sub-national Governments of developed and developing countries. Most direct and indirect FDI incentives come within the definition of subsidies in the SCM. However, the concepts of the Agreement were developed for subsidies affecting the trade in goods and may not be easily applied to FDI incentives. Again, developing countries do not have the resources to compete with developed countries, but are in need of the assets that foreign firms have to offer. Multilateral discipline on the use of FDI incentives would be in the interests of developing countries since their own incentives distort the allocation of capital formation, and it would level the international FDI playing field. However, it would still be difficult for developing countries to develop competitiveness in a targeted industry.

C. Agreement on Trade-related Investment Measures

Although regarded as a major initiative of the Uruguay Round, the final text of the Agreement on Trade-related Investment Measures (TRIMs) did not do

much more than clarify some policies against the GATT 1947 text. In particular, the Agreement used an illustrative list to identify policies that contravened GATT Articles III:4 and XI:1. Nevertheless, the five pages of text that constitute the Agreement may very well be the lightning rod for developing country objectives in the next round. Some developing countries have firmly taken the view that the list of illustrative TRIMs should not be extended. Furthermore, the length of the transition period for developing country members should be extended. There are a number of reasons for this:

- Only developing countries have yet to phase out notified TRIMs.²⁶
- There is a perception by developing countries that the Agreement is against their development interests, since the policies included in the illustrative list have been considered important for meeting their development objectives.
- The five-year transition period (seven years for least developing countries) was not enough time for the countries to benefit from those policies.
- The 90-day notification period was not long enough for WTO members to examine their regimes for compatibility.

These difficulties arose during a recent dispute settlement case involving Indonesia (see Annex). In that case the fundamental tension between Indonesia's industrial policy objective of "self-reliance" and trade discrimination was quite clear. Policies that favour domestic goods in preference to imported goods as

²⁶ Developed countries had two years to phase out notified TRIMs.

a mechanism for promoting industrialization were held to be incompatible with the rules of the multilateral trading system. This could limit attempts to build up domestic capacity and increase the transmission and diffusion of technology.²⁷

Another concern about restricting TRIMs is the second-best argument that policies such as export restrictions and local content are needed to defend against anti-competitive practices (UNCTAD, 1999b). This argument has some supporters, but it raises a number of concerns, not the least of which is implementation. The fundamental problem is, as stated in section 2, that if it is anti-competitive practices that are the issue, effort needs to be directed towards developing national and multilateral competition rules.

D. Agreement on Trade-related Aspects of Intellectual Property Rights

The value of the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) for developing countries continues to be hotly debated. The Agreement consists of three parts: standards, enforcement and dispute settlement. It involved, perhaps more than any of the other Agreements, substantial changes in national legislation. These changes are designed to strengthen the protection of intellectual property rights (IPR) and to have a positive impact on local innovation, FDI and technology transfer. However, at the same time a number of negative impacts, at least as far

as developing countries are concerned, were predicted (UNCTAD, 1996). These included higher prices for protected technologies and products, and restricted possibilities for diffusion through reverse engineering. Also, new legislation in developing countries required further examination of the balance between the degree of protection required for innovation and the restricted diffusion of technologies.

The strengthened protection has implications for industrial policy objectives. In the case of domestic firms it means that there is an incentive to innovate and compete dynamically. The SCM allows R&D subsidies, and the output of this process can then be protected through the TRIPS Agreement. For foreign firms it means that, where permitted, market access through a commercial presence may now be viable since they have better IPR protection. Developing countries do not in general have a comparative advantage in innovation. Therefore, attempts to develop certain sectors within the context of the WTO mean that that they will have to rely heavily on the transfer and diffusion of technology from foreign countries instead of on domestic innovation.

An important provision for developing countries is Article 66.2, which requires developed countries to provide incentives to promote technology transfer to least developed countries. So far, little is known about the extent to which this provision has been implemented (UNCTAD, 1999b). It is accompanied by a transition period allowance for developing countries.

²⁷ Moran (1998) cites evidence of the policy having a positive impact on the development of local capacity. In doing so, however, he does not mention the costs of the policies.

E. General Agreement on Trade in Services

The legally enforceable rules covering the international trade in services contained in the General Agreement on Trade in Services (GATS) can also affect industrial policy initiatives. Relative to disciplines on goods trade, the Agreement as a whole is much less effective in terms of liberalization. It contains a positive listing of sectoral commitments on market access and national treatment. It allows sectoral bindings on four modes of supply: cross-border supply, consumption abroad, commercial presence and presence of natural persons.

Through the inclusion of commercial presence as a mode of supply, rules on foreign investment in services are now part of the multilateral trading system. Members, therefore, can use foreign investment liberalization as tool of industrial policy. This has happened to some extent with bindings in tourism, but not in other sectors.

As with other forms of liberalization, the effect of the GATS is twofold. First, market access makes it possible to develop export sectors. Second, bindings have the effect of inducing competition in home markets. Developing countries have an export interest in a limited range of sectors such as tourism and professional services. In these and other cases a key issue is the movement of natural persons (or mode 4). Horizontal barriers in this area make it difficult for developing countries to build export competitiveness in their comparative advantage areas.

The competition effects of liberalization in the area of infrastructure are extremely important for developing

countries. As discussed above, disciplines in the area of subsidies and performance requirements are forcing developing countries to think of more neutral ways to develop export capacity (Laird, 1997). One of these is infrastructure and, in particular, telecommunication, financial and transport services.

In addition to market access commitments, the GATS has a provision related to performance requirements. However, the prohibition of these measures relates only to a sector that has been inscribed. This means that developing countries that have taken the view that performance requirements need to be maintained in service industries, as a quid pro quo for liberalization, cannot maintain them. It is important to note the consistency of this provision with the SCM, where the quid pro quo argument has also been ignored.

F. Special and differential treatment

In GATT 1947 Article XVIII made specific mention of contracting parties in their “early stages of development” and allowed them to “maintain sufficient flexibility in their tariff structure”. Section B of that Article provided developing countries with flexibility to impose trade measures to protect their balance of payments, and Section C enabled them to take such measures for the protection of an infant industry. In 1966, Part IV was added to the GATT, and the Tokyo Round adopted an enabling clause which gave “special and differential” (S&D) treatment to developing countries. The concept of S&D allowed non-reciprocal tariff preferences as implemented through schemes, under the Generalized System of Preferences (GSP).

Prior to the Uruguay Round, little use had been made of Article XVIII, section C (infant industry), because the use of this provision requires the payment of compensation. As a result, since 1967 no country has specifically invoked it. Instead, numerous countries have made use of section B (protection for balance-of-payments reasons), which does not require compensation.

Infant industry protection, by invoking Article XVIII for infant industry or balance-of-payments protection, is still possible under the WTO, but the new procedures for balance-of-payments consultation are likely to constrain the scope and duration of such exceptions (Singh, 1996: 166). Furthermore, during the Uruguay Round a new approach to S&D developed, which essentially amounts to allowing for flexibility in nominating sectors for liberalization and in most cases an extended transition period for meeting obligations under the Agreements (Youssef, 1999).

The scope for S&D treatment in the application of industrial policy exists in each of the Agreements referred to above, for example:

- Delays in implementation (TRIMs, SCM, Safeguards Agreement, TRIPS);
- Preferential disciplines (SCM, Safeguards Agreement);
- Flexibility to increase protection (temporarily) (Article XVIII);
- Flexibility in approaching liberalization (GATS).

There is mounting concern on the part of developing countries that these provisions do not promote their interests (UNCTAD, 1999b). Two issues need to be distinguished. The first is the existence

of S&D provisions and second is their relevance. Take, for example, local content protection. The difficulties faced by developing countries in making the transition from this instrument are recognized by allowing them a longer period. However, some countries argue that this allowance is not significant.

G. Implications of WTO rules for industrial policy

The above review has identified a number of WTO rules that discipline the use of government intervention to promote particular industries. Different countries have different objectives, and would therefore require different sets of policy tools. As a result, the impact of the WTO rules on countries would differ accordingly. There are, however, some common features of the Agreements, which deserve to be highlighted.

First, each of the Agreements takes a trade, not a balance-of-payments, financing approach to disciplining policies. Since Articles I and III are the cornerstones of the rules-based system, any non-border policy that has an effect on the trade in goods and services is under discipline or has had an exemption negotiated.

Second, the rules are ownership-neutral. Apart from the GATS and TRIPS, where a national treatment standard is applied, policies such as subsidies and local content protection do not distinguish between foreign affiliates and domestic enterprises. What is important is the “trade effect” of the instrument. This means that countries seeking to apply a particular policy to foreign-owned firms must first find a provision in the Agreement that allows the use of the

policy. Then they can apply it to a foreign firm as long as there is no “trade effect”.

Third, the promotion of industries for investment and export growth is being narrowed to generic instead of specific policy instruments. This has the effect of levelling the playing field for international trade. It does little to allow countries to develop specific industries through specific policy instruments.

Fourth, the approach to S&D treatment in the Agreements has typically been in the form of transition arrangements. This means that members have a certain length of time in which to bring their policies into conformity with WTO rules. In some cases, members are exempt from these responsibilities.

V. IMPLICATIONS FOR DEVELOPING COUNTRIES

The present WTO rules have restricted the industrial policy instruments available to WTO members, as discussed above. The use of border measures has declined, and the disciplines on the use of subsidies together with contingent protection and intellectual property rules have been strengthened. The direction of any revision of WTO rules depends on the net assessment of these changes. On the one hand, there is evidence to show that a number of policies that distort trade are still allowed under existing rules. On the other hand, the added discipline imposed by the WTO rules has reduced the flexibility of national Governments to pursue development objectives. In this section we examine some of the issues arising from the possible revision of WTO rules as they relate to the pursuit of industrial policy objectives by developing countries.

A. Import protection

The scope for import protection continues to diminish. Tariffs are declining, local content protection is on the verge of being prohibited and contingent protection is now somewhat more disciplined. What scope is there for continued import protection? The answer is that it depends on the ability of developing countries to negotiate a provision that will allow for greater discretion for protection.

It is important to distinguish between import protection for the purposes of protecting a “sunset” or declining industry, and protection to promote an infant industry or newly expanding industry, which is being protected because of some perceived

externality. Efforts to develop transparent and objective rules for both types of protection are needed.

However, the issue related to industrial policy that we wish to address here concerns local content protection and rules of origin in preferential trading agreements. These are prevalent only in large-scale industries where there is scope for significant linkages with domestic industries.²⁸ There is evidence that this policy has been proved to be successful in establishing some industries in some countries. Australia, for example, used local content policies in the establishment of some manufacturing industries. However, it was an inefficient industry. The policy has recently been abandoned and tariff rates have been reduced (Bora and Pomfret, 1995). The result is an industry that is more competitive, albeit after some structural adjustment. This abandonment vindicates those who argue that the policies are not required for efficient competitive industries (Pursell, 1999).

However, it is arguable that a content-protected industry would not exist at all if local content policies had not been used in the first place. This appears to be the position of the developing countries in this regard – that as newly industrializing economies they have not had the 40-year grace period that, say, the Australian automotive industry had, nor have they had the degree of protection and market

²⁸ However, Barbados, Colombia, Cyprus, India, Indonesia, Pakistan, Peru, Romania, South Africa, Thailand and Uganda notified local content in the agriculture industries (Ministry for Trade and Industry, 1999).

access afforded to Canada through the Canada–United States Autopact.

Given these considerations, what is the best way to proceed? If developing countries have as their objective efficient national production, content plans distort the production within an industry and thereby lead to inefficiencies, as noted in section 2. If there is a dynamic learning or cost reduction process, a tariff or subsidy temporarily assisting the processes in which the cost reduction occurs is much preferable to a continuation of content plans for the whole industry.

If developing countries have as their development objective something other than efficiency, as in the case of the Indonesian automobile industry (see Annex), or as argued by Venezuela,²⁹ there will be an inconsistency with the fundamental rules of the trading system. For example, in the automobile case, when a completely built-up unit is imported for assembly it will usually be feasible to source at least 20 per cent of the products locally.³⁰ This means that in order to increase local content further imports will have to be displaced. Here, one must question whether the development objective is compatible with efficient long-run allocation of resources, or

²⁹ Venezuela argues that there are policies which “not only induce growth of their traditional flows, but also promote the structural transformation of their economies and the possibility to add more value to their exports”. It argues that they are “development policy issues” and that it may be possible to identify instruments, which could be used to promote development but which are consistent with the principles of non-discrimination (WT/GC/W/279, 29 July, 1999).

³⁰ These would be generic components for which transport costs would be high, such as tyres and oil. See the references in the Annex for details of the cost structure in the Indonesian automobiles case.

whether it favours some group at the expense of national development.

B. Export promotion

As has been seen, direct intervention by Governments to boost exports is being increasingly restricted by the WTO rules. This leaves developing countries little room for manoeuvre in the area of export subsidies for industrial products. Nevertheless, there is a wide range of alternatives that are still pursued by Governments. These include export credit and insurance schemes below market rates, concessional tax and duty provisions and export processing zones. While some of these remain WTO-consistent, developing countries need to reassess the extent to which other policies which discriminate in favour of particular producers are in their national interest. This will determine the extent to which they should negotiate further restrictions on export subsidies in the next round. Their focus, encouraged by the existing set of rules, should be on reducing fiscal and procedural constraints on exports (Laird, 1997), trade facilitation, and generic policies to make the country more competitive such as infrastructure development and an appropriate exchange rate policy. These are still allowed. Furthermore, they are supply-side-based. Human capital formation, innovation policies, joint venture agreements and infrastructure are all important for determining export competitiveness. These too are still allowed within the framework of the WTO.

C. Competition policy

One area of generic producer-neutral policies that promote efficient production is that of competition policy.

Competition policy is the set of policies which promote competition among producers in markets. Increasingly, as markets become globalized, competition is international. The aim is to make markets internationally contestable.

It has been suggested that the WTO could be the location for internationally enforceable multilateral competition law that could address anti-competitive behaviour affecting persons in other countries. At the First Ministerial Meeting of the WTO in December 1996, the members agreed to establish a Working Group to study issues relating to the interaction between trade and competition policy. In this Working Group, the major WTO members – the European Union, the United States and Japan – have exhibited fundamentally different views on the scope and approach of competition law. These views largely reflect differences in national and regional approaches to competition law. The differences cover the objectives of the law, methods of analysis and remedies, as well as the substantive provisions of the law. Given the diversity of views, it is unlikely that binding multilateral competition laws will develop in the foreseeable future.

However, the WTO still plays an important role in promoting competition. One of the most important determinants of competition in markets is the freedom of movement of goods across borders and, especially in the service industries, the freedom of movement of FDI. These are subject to WTO rules and discipline. One merit of the WTO rules in this context is that they are neutral between foreign and domestic producers (except to the extent that exceptions to national treatment are inscribed by members in their GATS schedules). This helps to ensure that domestic and foreign producers are able to compete on equal terms.

Developing countries are sometimes concerned about the restrictive business practices of multinational corporations which establish affiliates in their economies – for example, price fixing and market allocation. This has led some to introduce requirements relating to domestic and export performance in an attempt to counter these practices. However, performance requirements are an inappropriate response as they apply to foreign investors irrespective of their market power and practices; in addition, the Government of the host country has to estimate the second-best level of the requirements. Foreign investors are subject to the laws of the host economy. When, therefore, the anti-competitive practices occur in the host economy, the appropriate response is the application, and if necessary the development, of national competition laws. This addresses the source of the problem directly and without by-product effects.

D. Market access for foreign investors

Despite the progress made in extending multilateral disciplines into new areas, policies relating to FDI were not included in the Uruguay Round Agreements.³¹ The substantial growth in FDI during the past 15 years makes it an important component of the global economy. In the context of industrial policy the inclusion of FDI rules, or a General Agreement on Investment (GAI), would have major implications for developing countries.

The precise impact would, of course, depend on the nature of the

³¹ Apart from those in the GATS dealing with FDI in services and some aspects of other Agreements that impact on FDI. WTO (1996a, chapter 4) surveys WTO investment-related rules and disciplines.

agreement – its architecture, scope and provisions. Currently, there is no broad political support for a full and comprehensive multilateral agreement. However, in the context of restrictions placed on industrial policy that were reviewed in the previous section, it may be in developing countries' interests to consider the possibility of a modest achievement in this area. The reason is that with reduced government intervention developing countries will have to rely more heavily on TNCs for the skills and inputs required to assist in restructuring.³² This is not to say that they are not capable of developing competitiveness themselves. Experience has shown, especially in East Asia, that TNCs can allow a quick and easy entry into world markets.

There is scepticism on the part of many host national Governments about putting in place rules on investment. This does not mean that efforts should simply be stalled. Instead, it means investigating other avenues that simultaneously allow the achievement of rules and the advancement of developing country interests. One way to tackle this problem is to separate the contentious issue of market access for foreign investors from performance requirements. Issues related to performance requirements could be confined to the revision of the TRIMs Agreement, and market access for foreign firms could be negotiated separately. In fact, this is the current WTO architecture in a limited area. The GATS deals with market access for foreign firms in the service industries, while the TRIMs Agreement deals with certain performance requirements. A GAI could extend this concept to other sectors, thereby expanding the rules on commercial

³² For an excellent discussion of the package of assets that TNCs can contribute to host developing countries see UNCTAD (1995).

presence. Such an initiative would also allow developing countries to argue strongly that the GAI framework could be based on the positive list approach, as in the GATS, to avoid renegotiating commitments.

Within the context of industrial policy initiatives a GAI would leave the GATT rules on goods intact and provide an opportunity for developing countries to develop rules on specific foreign investment issues, including incentives to attract foreign investors, mandatory licensing and joint-venture arrangements, equity restrictions and perhaps even other elements of transnational corporate practice. GATT rules simply do not allow such possibilities. And, as shown in the Annex, unless agreements use precise language concerning their intent the application of agreements may lead to outcomes different from those originally intended.³³

E. Performance requirements for foreign investors

Developing countries feel aggrieved over the outcome of the TRIMs Agreement. There are three issues here: (i) the extent to which these instruments are related to foreign ownership; (ii) extension of the list; and (iii) whether S&D treatment should be accorded to developing countries.

On the first issue, despite claims by developing countries that the TRIMs Agreement is specifically a foreign

³³ In this paper we have not gone into the details of negotiating a GAI. However, negotiations on a GAI, if conducted within the spirit of the GATS – negative list and developing country provisions – would allow members to include rules on foreign investment policies that would enhance their prospects for development.

investment issue, a WTO dispute panel took the opposite view.³⁴ It interpreted the title literally and concluded that:

“Contrary to India’s argument, we find that nothing in the TRIMs Agreement suggests that the nationality of the ownership of enterprises subject to a particular measure is an element in deciding whether that measure is covered by the Agreement. We therefore find without textual support in the TRIMs Agreement the argument that since the TRIMs Agreement is basically designed to govern and provide a level playing field for foreign investment, measures relating to internal taxes or subsidies cannot be construed to be a trade-related investment measure” (WTO, 1999, p. 339, para. 14.73).

This means that as the TRIMs text now stands, there is no scope for implementing a performance requirement (based on the existing illustrative list) in a discriminatory fashion. Measures that are prohibited are prohibited regardless of ownership. If developing countries perceive that TRIMs on the illustrative list are required in order to meet other objectives and must be implemented in relation to foreign firms, this will need to be negotiated. The chances of success are likely to be very slim, given that a measure will be prohibited because it distorts trade.

With regard to the second issue, extending the illustrative list will involve intensive negotiations. As it now stands the list is very much a compromise in

relation to the initial negotiating positions. Furthermore, the investment provision of the North American Free Trade Agreement (NAFTA) and the draft Multilateral Agreement on Investment (MAI) contain longer lists. Some developed countries will seek to extend the list, while developing countries are likely to oppose such an initiative. The outcome of the negotiations will be difficult to predict since the negotiations, by definition, will revolve around those performance requirements that are directly to trade.

The most contentious area would be the expansion of the list to include policies relating to technology transfer beyond straightforward equity restrictions. Joint-venture laws, licensing requirements and patent requirements are all typically implemented within the context of expanding local capacity through technology transfer. These policies have an effect on the location decision of TNCs. The extent to which they are trade-related and within the framework of the current TRIMs agreement is questionable. If members want the TRIMs list to include those policies, clear evidence of their trade effect will have to be provided. At the same time, developing countries should not be complacent about the success of the policies. There may be evidence to suggest that they can achieve certain development objectives, but there is also evidence to suggest that alternative policies, namely liberalization, may result in a more efficient outcome.

Performance requirements within the context of the GATS should also not be ignored. Article XVI lists six measures that members are not allowed to maintain in sectors that they have inscribed. These measures are reasonably comprehensive, but are disciplined only if an inscription has been made in that sector. For the

³⁴ For example, see Yousef (1999: 7).

forthcoming negotiations developing countries may wish to consider to what extent they may want to delink this connection – that is, to have a stand-alone provision not allowing these measures.

With regard to the third issue, responding to developing country concerns within the context of TRIMs Agreement will not be easy. Some members have already indicated performance requirements as an important component of their development strategy. Furthermore, it is likely that some members that have notified provisions under the TRIMs Agreement may take advantage of its Article 5.3 and seek an extension of the transition period. While these are predictable and negotiable elements, the real difficulty will be attempts to allow a specific carve-out for some policies. For example, the “traffic light approach” used in the Agreement on Subsidies and Countervailing Measures could be followed in the TRIMs Agreement. Measures that directly affect trade could be prohibited (red light), and those that are critical for development, even though they affect trade directly, could be included in a permissible category (green light). The actionable category (yellow light) could include policies upon whose precise effect on trade members cannot agree.³⁵

F. Special and differential treatment

The preamble to Article XVIII of GATT 1947 recognizes both the possibility for developing countries to have protection for developing infant industries and a mechanism for allowing

³⁵ This format follows the proposal by Switzerland during the TRIMs negotiations. See Gibbs and Mashayekhi (1998) for an account of the Uruguay Round TRIMs negotiations.

such protection. This provision was complemented during later years with various other provisions. Within the context of industrial policy and S&D treatment the crucial negotiating issue will be the extent to which policies that are prohibited under WTO rules will be allowed for developing countries.

Again, consider the case of local content protection. Here, a WTO panel (see Annex) has concluded that without a doubt the Indonesian policy contravenes Article III of GATT 1947. Nevertheless, some members will take the position that the policy is critical. If this is the case, the only way to handle the issue is to examine what the optimal length of time is for a developing country to achieve its objectives with the policy.³⁶ A similar issue arises with respect to export subsidies. Developing countries maintain that, despite their disadvantage in competing with developed countries on a budget basis, export subsidies are needed in order to develop new markets.

Two other aspects of S&D treatment that need to be examined are how to determine qualification for S&D treatment and the optimal transition period.

- **Qualification.** The current approach to identifying members that would qualify for S&D treatment is to use the United Nations classification of least developed countries. In the Agreement on subsidies and Countervailing Measures, a criterion in terms of GNP per capita is used. Given the ad hoc nature of some of these measures and the specific nature of industrial policy, the new negotiations may want to consider using performance-based

³⁶ Or to conclude that it is a failure.

measures. These can be either export or import measures.

- Extensions of transition periods. This point has been repeated a number of times in this paper: the issue concerns the appropriate length. For industrial policy exemption from obligations, it may be useful to examine specific exemptions that fit the problems of developing countries. For example, the five-year period in the TRIMs Agreement does not seem to have been derived from any empirical work, nor does the gap of two years in the transition period between developing and least developing countries.

A final area of negotiation is the possibility of snap-back of protection. For example, Article XVIIIb allows for

members to bypass obligations and implement tariffs to develop certain industries. This could be another issue within the context of the Millennium Round; however, it should be reviewed carefully. Article XVIIIb has certain conditions attached to it, which have limited its use. The effect of these conditions has been to force developing countries to consider about the rationale for protection. Indeed, tariff bindings are one of the central and critical features of GATT rules. Our view is that increasing protection once it has been bound should be avoided. The focus should be on two points: the criteria for determining members that would be eligible for S&D and the duration of eligibility.

VI. CONCLUSIONS

In today's competitive environment developing countries are attempting to boost their competitiveness by selecting industries and products with the potential for high growth and high value added. The debate on the role of the Government in achieving this objective continues. The theoretical literature surveyed in this paper shows that the case for government intervention is weak. On the other hand, there is empirical evidence to show that some Governments have had a role in the export and growth success of some countries.

This paper has reviewed the extent to which the new disciplines on subsidies, local content protection, export restrictions and TRIPS reduce the flexibility of Governments. It has shown that they are playing their expected role of limiting the use of a number of policies. However, they do so in an ownership-neutral manner, in the sense that they apply to both foreign and domestic firms. Also, they are not country-neutral, as some WTO members are exempted from obligations. This is an acceptable way to provide for the needs of developing countries, but clearly more needs to be done.

The rules themselves are quite consistent with the large body of theoretical and applied work on trade and industrial policy. Only those policies that directly affect international trade by favouring domestic products over imported products are included. However, there are a number of areas where government policies that directly affect trade, such as export subsidies in agriculture and services and export performance requirements, are not included. These should be a priority for

the forthcoming negotiations either through existing agreements or, as suggested, within an investment rules framework.

The effect of WTO rules is not so much to exclude the role of government, but rather to shift its emphasis to the supply side. Policies that are related to infrastructure, human capital formation, innovation and diffusion of technology, capacity building and competition policies are now critical for export competitiveness. These policies need to be complemented by a stable exchange rate that does not penalize (or favour) exports. These are generic pro-development policies; that is, they are not confined to and do not favour particular industries or producers.

Efforts to challenge the ownership neutrality of WTO rules should not be made within the context of applying GATT rules, but within a General Agreement on Investment. Thus, specific issues relating to foreign affiliates, such as market access, and their performance and behaviour, can be addressed with specific policies.

The point on which to close is addressing the problem facing developing countries as they try to compete in a new more globalized and competitive environment. The empirical body of evidence with strong theoretical support shows that selective industrial policies result in more losers than winners. Nevertheless, the political economy of trade policy makes it difficult for developing countries to agree to bind policies within multilateral rules. The way to handle this problem is to examine ways in which special and differential

treatment can account for the diversity of developing countries, in terms of both their levels and their objectives. Clearly, a uniform 5-year transition period for all policies does not take into account the different speeds at which developing countries can adjust to a new regime. The paper has suggested that this differential should be examined further within the context of an “appropriate” transition time or perhaps even a performance-based measure such as the degree of discrimination towards imports or effective rate of assistance.

At the same time, clogging the WTO mechanism with various S&D

provisions that will never be implemented is not the way to go. Those making a case for further S&D provisions may want to consider an omnibus approach to this issue. As with a GAI, such an approach would target the specific nature of the problem, which is the difficulty that developing countries are having with respect to their WTO obligations. This would include addressing their perception that the Uruguay Round results were biased against them. It is consistent with evolution of WTO rules highlighted in this paper – ownership-neutral rules that have a direct effect on international trade.

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Table 1
Policies and measures to promote exports in Asia

TYPE OF MEASURE	India	Malaysia	Bangladesh	Philippines	Thailand	Republic of Korea	Singapore	Indonesia	Hong Kong (China)	Japan
1. MEASURES AFFECTING PRODUCTION										
Industrial development										
Policy										
General	y	y	n	y	y	y	y	n	y	y
Specific/industry targeting	y	y	y	y	y	n	y	y	n	na
- strategic/domestic	y	y	y	y	n	n	y	y	n	na
- export industry	na	na	y	y	y	n	y	n	na	na
Support measures										
- import protection	fall	y	na	y	y	n	n	y	n	n
- price controls	fall	y	na	n	na	n	n	y	n	na
- investment regulations	fall	na	na	fall	na	n	n	fall	n	na
- credit subsidies/facilities	y	y	y	na	y	y	y	y	y	y
- manpower training	na	y	y	y	na	y	y	na	y	y
Investment incentives										
Deregulation	y	y	na	na	partly	y	na	y	na	na
Tax concessions										
- holiday/exemptions	y	y	y	y	y	y	y	na	na	na
- reduced rates	y	y	y	y	y	y	y	na	na	y
- accelerated depreciation	na	y	n	n	n	y	y	na	na	y
Production subsidy										
- input subsidy	y	y	y	n	y	y	n	y	na	y
- assistance for R&D	y	y	y	y	y	y	y	y	y	y
- pricing and marketing arrangements	y	y	y	y	y	y	n	y	na	na
- regional assistance	y	y	y	y	y	y	y	n	na	y
Adjustment assistance	y	y	n	n	y	y	y	n	y	y
2. MEASURES AFFECTING EXPORTS										
Export incentives										
- duty drawback & taxes on imported inputs	y	y	y	y	y	y	y	y	y	n
- export finance	y	y	y	y	y	y	y	y	y	y
- export insurance & guarantees	y	y	y	y	y	y	y	y	y	y
- export quality management	y	n	n	y	y	n	n	y	y	n
- export processing zones	y	y	y	y	y	y	y	y	n	n
- export performance requirements	y	n	y	n	y	n	n	n	n	n
- export cash subsidies	n	n	y	y	y	n	n	n	n	n
- export cartels	n	n	n	n	n	n	n	n	n	y
- export promotion organizations	y	y	y	y	y	y	y	y	y	y
Other measures affecting exports										
- registration requirements	y	y	y	y	n	n	n	n	n	n
- export licensing	y	y	y	y	y	y	y	y	y	y
- export prohibitions	y	y	y	minimal	n	y	y	y	y	y
- export taxes/levies	y	y	y	n	y	n	n	y	y	y
- minimum export prices	y	n	y	n	on two	n	n	n	n	n
- export quotas	y	n	MFA	MFA, others	MFA, others	n	n	y	n	y
- voluntary restraints	MFA	MFA, others	MFA	MFA, others	MFA, others	n	y	y	MFA	y

Source: Singh (1996, annex II).
y=yes; n=no;

Table 2
Evolution of industrial policies in East Asia

	1950s	1960s	1970s	1980s	1990s
	1950-1958	1959-	1967-	mid-1980s	
Japan	IS	EO Trade & forex	Liberalization	Deregulation	
	1953-1957	1958-1980		1981-	1986-
Taiwan Province of China	IS	EO			Liberalization
		1961-1972	1973-1979	1980-	1990s
Republic of Korea		EO	EO IS (Heavy Industry)	Liberalization (trade, investment, finance)	Internationalization Deregulation since mid-1980s – innovation oriented
		1961-1971	1971-1986		1986-
Thailand		IS	IS (capital goods beginning 1981) Some EO		EO Technology-intensive industries
	1950-1970		1971-1985		1986-
Malaysia	Moderate IS		IS continued Added EO		Liberalization EO
		1967-1973	1974-1985		1986-
Indonesia		Stabilization Beginning IS	Strong IS		Liberalization EO
	1950-			1980s	1990s
Philippines	IS	Continued IS		Liberalization (political instability)	Continue Liberalization (strengthened political stability)
		1965-1976	1977-1978	1980s	1990s
China		Defence/Industry (heavy industrialization)	Plant Importation	Coastline Liberalization (light indus- tries)	Infrastructure High technology
	1950s	1960s			1990s
Singapore	IS (still part of Malaya)	EO			Strategic independence (high technology and services) Regionalization
	1950-			1979-	1990s
Hong Kong (China)	EO (laissez-faire, education, infrastructure, institutional support)			Improved institutional support for industry	Upgraded support for technology

Source: table 1.1 in Masuyama, Vanderbrink and Chia (1997).
IS = import substitution; EO = export orientation.

ANNEX

WTO Dispute Panel case on Indonesia: Certain measures affecting the automobile industry

The range of tools employed by countries in the name of industrial policy is so broad and comprehensive that a taxonomy of such tools against WTO rules would prove to be cumbersome. In practice, industrial policy is not pursued within the context of selecting one particular tool for one particular objective; typically, a range of tools are used.

A simple way to examine how WTO rules affect industrial policy is to examine a case where a WTO member's industrial policy has come under scrutiny from a WTO Dispute Panel ruling. Such a case has just been completed. On 2 July 1998 a Dispute Panel reported its findings on Indonesia with regard to the automobile industry.³⁷ The case is reviewed in this section in order to see how Indonesia's objectives in its automobile industry were affected by WTO rules and the Dispute Panel's interpretation of these rules. Lessons are then drawn with a view to assessing their implications for the forthcoming negotiations.

Indonesia's automobile policy

The basic issues are Indonesia's tax and tariff treatment of completely built-up units (CBUs) of motor vehicles that are imported into Indonesia. These units are subject to an import duty rate and

when the product is sold it is subject to a sales tax. While import duties and sales tax are by themselves not actionable, Indonesia had in place a scheme which allowed an exemption from these duties on the basis of the local content – the higher the local content, the greater the exemption.

The policy was complicated by the fact that the specific programme to develop the national industry relied heavily on an inter-firm agreement between an Indonesian company (PT Timor Putra Nasional) and a Republic of Korea company (Kia). The agreement included the supply of CBUs until local assembly capabilities were expanded. This was facilitated by an exemption from tariff duties.

Objectives of the national automobile programme

Indonesia's objectives for its national automobile programme can be listed as follows:³⁸

- To improve the competitiveness of local companies and strengthen overall industrial development;
- To develop the capacity of multiple-source automobile parts and components;
- To encourage the development of the automobile industry and the automotive component industry;
- To bring about major structural change in the automobile industry;

³⁷ The document is listed as WT/DS54/R; WT/DS55/R; WT/DS59/R; WT/DS64/R. It can be retrieved from the WTO document dissemination system.

³⁸ WTO (1999, p. 341, para 14.78). These are summary objectives listed by Indonesia in a submission to the Dispute Panel.

- To encourage the transfer of technology and contribute to large-scale job creation;
- To encourage automobile companies to increase their local content, resulting in a rapid growth of investment in the automobile industry.

Precise statements of the objectives can be found in the various legislative changes. They include:³⁹

- Supporting and promoting the development of the automobile industry and/or the component industry;
- Further strengthening domestic industrial development;
- Further promoting the development of the automobile industry and/or domestically produced components;
- Promoting the growth of the automobile industry;
- Development of the national automobile programme is aimed at improving the nation's self-reliance.

Interestingly enough, none of the above is consistent with the World Bank definition of industrial policy. In sum, the statements refer to the desire to expand the domestic production of an industry that is unable to compete without assistance. Of the above statements, the last one is the most telling and is at the root of much of the developing country anxiety about WTO rules. Indonesia had the intention of shifting into a large-scale industry with considerable potential for domestic linkages. The issue at stake is to what extent WTO rules can allow such a transition. One interpretation of the impact

³⁹ WTO (1999, p. 339–341). The precise references to the government decrees can be found in that document.

of WTO rules is that it is not “development-friendly” in that it does not allow members the opportunity to implement policies that may have a positive impact on industrial restructuring. We shall return to this issue below.

Policies

The policies put in place by the Indonesian Government to develop self-reliance are the standard policies required to support a weak and infant sector: subsidies to lower the cost of production, local content restrictions to force domestic sourcing of inputs, and protection to increase the market in which the product is sold.

The Indonesian Government did not document the list of subsidies. However, it asserted that there was still an issue with respect to the claims of Japan, the European Union and the United States in relation to:

- Import duty exemption and a sales tax exemption on CBUs from the Republic of Korea;
- Import duty exemptions on parts and components used or to be used in the assembly of automobiles Timor in Indonesia;
- Luxury sales tax exemption.

WTO rules affected by the national automobile programme

The three complainants (European Communities, Japan and the United States) were concerned about the total effect of the Indonesian policies. In particular, their concerns was in the following areas:

- Discrimination in favour of imports from the Republic of Korea;
- Discrimination in favour of domestic goods over imported goods;
- Bias in the tax system in favour of domestically produced automobiles.

Their concerns also applied to other areas, most notably those covered by the Agreement on Subsidies and Countervailing Measures and the Agreement on Trade-related Aspects of Intellectual Property Rights (annex table 1).

Ruling

The panel ruled on the measures in the following manner:⁴⁰

- Local content measures linked to the sales and customs duty benefits were inconsistent with Article 2 of the TRIMs Agreement.
- The sales tax discrimination under the national automobile programme violated Article III:2.
- The arrangement with the Republic of Korea violated Article I.
- The European Communities had demonstrated that the use of specific subsidies caused serious prejudice within the meaning of Article 5(c) of the SCM.
- The United States had not demonstrated serious prejudice under Article 5c.
- Indonesia had not violated Article 28:2 of the SCM.
- The United States had not demonstrated that Indonesia had

violated Articles 3, 20 or 65:5 of the TRIPS Agreement.

State of play⁴¹

On 21 October 1998 the parties informed the Director-General of the WTO that they had agreed on an arbitrator. This was after agreement could not be reached on a “reasonable time” for the implementation of the ruling. The positions on what constituted a “reasonable time” were interesting. Article 21:3 (c) states that a reasonable amount of time should not exceed 15 months. Indonesia, citing its economic difficulties, claimed that the full period of 15 months was required. In particular, it identified the hardship that compliance with the WTO rules was going to involve.

The United States and the European Union expressed particularly strong views, citing the fact that structural adjustment was a normal course of compliance with WTO rules. Hence, there was no scope for citing Indonesia’s particular circumstances as the reasons for a lengthy transition period. Indonesia also had to consider internal consultations to comply with the ruling. This meant not only abolition of the measures prohibited, but also developing a package that could meet Indonesia’s initial objectives and also be WTO-consistent. In the end, the arbitrator accepted Indonesia’s position and awarded a 12-month period.

On 15 July 1999 Indonesia informed WTO members that it had put in

⁴⁰ WTO (1999: 397).

⁴¹ This section is drawn from the following WTO documents: WT/DS54/15, WT/DS55/14 WT/DS59/13, WT/DS64/12 (7 December 1998); WT/DS54/17, WT/DS55/16, WT/DS59/15, WT/DS64/14 (4 June 1999); WT/DS54/17 add.1, WT/DS55/16 add.1, WT/DS59/15 add.1, WT/DS64/14 add.1 (15 July 1999).

place policies to comply with the ruling of the WTO Dispute Panel.

Lessons

There are a number of insights and implications for developing countries and for the forthcoming negotiations. These are set out only briefly below since they are taken up in the text.

- Local content protection is unambiguously trade-distorting, which means that any attempt by developing countries to carve out local content protection would be futile. At best, they would have to try to negotiate an extended transition period.
 - Lack of knowledge and capacity – the series of initiatives undertaken by Indonesia were nothing short of extraordinary. In the first place, some of the policies in dispute were implemented after the WTO
- was established. Second, Indonesia tried to notify these measures under the TRIMs Agreement to benefit from the transition period after the expiry of the notification period. Initiatives such as these support the argument that developing countries require technical assistance to implement the WTO multilateral trade agreements.
- An obligation is an obligation: once the Indonesian policies were found to violate WTO rules they had to be brought into line immediately. The position of the United States and the European Union was quite extreme. Both argued that “structural adjustment” was not a defence for a longer transition period. This position means that prospects for an extended transition period will in some cases depend very much on a negotiated outcome.

Annex table 1
 Alleged breaches of multilateral trade agreements by Indonesia's
 national automobile programme

GATT 94	I:1	Most favoured nation
	III:2	National treatment on internal taxation and regulation
	III:4	National treatment on like products
	X:1	Publication of national laws
	X:3(a)	
TRIMs	2	National treatment and quantitative restrictions
SCM	1	Definition of a subsidy
	2	Specificity
	3:1	Prohibition
	27	Special and differential treatment of developing country members
	28(2)	Standstill on arrangements
TRIPS	3	National treatment
	20	Other requirements
	65	Transitional arrangements

Source: WTO (1999).

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