

# **On the Design of Tariff Policy : A Practical Guide to the Arguments for and Against Uniform Tariffs**

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## **I. Introduction—The Value of an Open Trade Regime and the Role of Tariffs**

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Worldwide experience in the last 50 years demonstrates the benefits of open trade regimes: The OECD countries brought trade barriers down through successive WTO negotiations and experienced sustained growth in trade and incomes. Many developing countries governments initially felt differently and attempted to promote industrialization behind high protective barriers. But in the last ten years or so, the balance of opinion has shifted in these countries as well, as evidence accumulated that high rates of protection significantly depress economic development, and that open trade regimes are more conducive to growth.<sup>2</sup> Moreover, virtually all recent development success stories have been based on strong industrial export growth. Exporters have not been disadvantaged in these countries either because there were low barriers to imports—Chile, Hong Kong, and Singapore—or else regimes were developed to provide incentives to export comparable to import competing sectors despite the protection—the Republic of Korea and Taiwan (China), and Mauritius.<sup>3</sup>

An effective trade policy is central to the integration of developing countries into the international economic system and the growth that will generate. Trade policy, together with the exchange rate, forms the transmission mechanism through which international trade affects domestic resource allocation, the efficient and competitive restructuring of industry and agriculture, access to new and diverse technologies, improved incentives to exporters, and reduction of smuggling, rent-seeking and corruption in customs.

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<sup>2</sup>See Bhagwati and Srinivasan for a discussion of the evidence on the benefits of openness and a review of the criticism.. See Sachs and Warner (1995) and Dollar (1992) for papers that estimate the gains from openness, and Edwards (1993) for a review of the empirical literature on the link between open trade regimes and economic growth.

<sup>3</sup>In order to offset the anti-export bias of import protection, these latter regimes involve more complicated economic management (including very competitive exchange rates) and require a technically efficient government bureaucracy that is relatively immune to corrupt practices. Very few developing countries meet the conditions necessary to manage high protection regimes that provide good incentives to exporters. For these reasons, the relatively open regimes are recommended for most developing countries.

An effective trade policy is central to the integration of developing countries into the international economic system and the growth that will generate. Tariff policy is the centerpiece of trade policy in a market system. Tariffs are, with very few exceptions, the only acceptable policy tool for protection under the GATT/WTO. They are superior to alternative instruments of protection, such as non-tariff barriers (NTBs) like quotas, licenses and technical barriers to trade (TBTs), because they are less likely to lead to rent seeking and corrupt practices, and because tariffs limit the exercise of domestic monopoly power where it exists whereas NTBs do not.

This chapter examines the arguments for and against a uniform tariff structure. Arguments against uniformity are: terms of trade; "strategic," infant or restructuring industry considerations, revenue or balance of payments purposes, and tariffs as a negotiating tool at the WTO. Arguments in favor of uniformity are: political economy considerations; administrative convenience; and reduction of smuggling and corruption in customs. We maintain that tariff uniformity is the best choice in practice.

In many circumstances where tariffs are second best policy instruments, such as to raise public revenue or to cope with balance of payments problems, a uniform tariff rate is the most practical and efficient alternative. Where a country may be interested in using the tariff as a bargaining instrument in multilateral negotiations, it is immaterial whether the tariff is uniform or differentiated-- the issues have to do with its capacity to use the tariff as a bargaining instrument and what it bargains for. Differentiated tariff protection in support of infant or restructuring industries is typically ineffective at addressing the alleged market failure problem; governments are not very good at picking winners and there are serious dangers that the policy would be overwhelmed by requests for protection from vested interests irrespective of its economic merits.

A **uniform tariff** conveys a number of advantages, the most important of which is that if the tariff is uniform, the gains to industry lobbying are much smaller (and may be negative), creating a kind of free-rider problem for the lobbying industry and **dramatically reduces the incentive to lobby for protection**. Then: (1) the level of protection is likely to be lower (the recent experience of Chile is a dramatic case in point); (2) there is a direct saving of resources from the reduced lobbying; (3) the reduction to the gains from lobbying for protection provides a vastly improved signal to valuable entrepreneurial talent which will thus be encouraged to create better and cheaper products; and (4) the reduction in resources devoted to lobbying will result in less corruption in government, which may have positive spillover effects into other dimensions of government activity.

## II. Arguments for Tariffs and for Non-Uniform Tariffs

There are several arguments in favor of government intervention through tariffs. Some of these arguments support tariffs as first best policies and if these arguments are accepted would call for non-uniform tariffs. These include tariffs: (a) to exploit a monopsony position and thereby improve the terms-of-trade; and (b) to maximize benefits from a "strategic" application of protection. Often governments wish to pursue other objectives than the pursuit of real income<sup>4</sup> or there may be constraints on the use of the first best instruments to achieve those objectives. Other objectives that call for the use of tariffs include: (c) as instruments for temporary protection of a specific "infant" or restructuring

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<sup>4</sup> The precise technical term employed by economists is economic welfare. Real income and economic welfare will be used interchangeably in this paper.

industry; (d) to raise budgetary revenue; (e) to reduce imports because of balance of payments problems; and (f) as bargaining tools to extract concessions from trading partners.<sup>5</sup> First best policies in the pursuit of objectives c, d and e include, respectively, subsidies, indirect taxes, and devaluation and other macroeconomic policies. When the first best policies are not available, we argue below that low and uniform tariffs are preferred to a high and varied tariff structure.

### **Tariffs to Exploit Monopsony Power**

One generally accepted theoretical reason for a country to impose tariffs on individual products is in order to exploit its monopsony power and thereby improve its terms-of-trade. If a country is large enough that it imports a significant share of the world's supply of a particular product, a tariff on that product could lower the price it must pay to world suppliers, which would improve its terms-of-trade. Consistent with this argument, the government could impose tariffs at different levels on different products to exploit the monopsony power it possesses; and the "optimal" tariff on each product would be different.

While this theoretical argument is valid, in practice, there are very few products in which the typical developing country possesses sufficient monopsony power for this to be a relevant consideration. Even in cases where countries would attempt to impose tariffs based on this rationale, the tariffs would typically quite small (1-10%) because the share of world imports must be large for them to be large. Then, the actual tariffs for most countries are typically larger than the values optimal tariffs could reasonably be expected to take. For all practical purposes, tariff policy can be established without reference to this basically theoretical issue.

### **Tariffs to Gain Strategic Advantage**

In recent years, a number of arguments have been developed justifying tariffs based on strategic considerations in industries with excess profits that are highly concentrated on a global basis. Among others, Brander and Spencer (1985) developed models that showed that in the presence on an international oligopoly, tariffs could increase a country's welfare by enabling excess profits to be shifted from foreign to domestic firms. Krugman (1992), showed that given the existence of increasing returns to scale in the firm, protection to allow domestic firms to gain initial competitive advantage at the expense of foreign firms could be reinforced by internal economies of scale and would allow domestic firms to appropriate excess profits.

Despite its popularity among theorists in the 1980s, today strategic trade theory is not regarded as a significant policy choice. First, there is doubt whether excess profits really exist (except in the very short term) in many industries worldwide, and are not easily dissipated by new entrants or utilization of excess capacity. It has been shown by Eaton and Grossman (1986) that the policy conclusions of strategic trade policy models are completely reversed based on assumptions about which little is known. For example, whether firms compete in prices or quantities will reverse the optimal policy conclusion from subsidizing an industry to taxing the industry. Finally, one of the principal authors of this literature has concluded that the risks of following strategic trade theory far outweigh the possible gains (Krugman, 1989, 1992), since a

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<sup>5</sup> Income distribution objectives would call for higher tariffs on products with higher luxury content. Income taxes would be best for the purpose of income redistribution, but might not be available. Thus use of tariffs for income distribution purposes entails efficiency and growth losses. Commodity taxation, like a sales tax which does not discriminate by source, would also involve less efficiency loss than tariffs.

country might make small gains in some circumstances, but it is more likely to be misapplied and lead to large losses.

Moreover, it would appear that this argument for differentiated tariffs would be even less applicable to a typical developing country, which seldom has a manufacturing firm competing in international markets with only a few firms with excess profits.

### **Infant Industry and Restructuring Protection.**

The use of tariffs to effect welfare improvements over the longer run has been defended most often on *infant industry* grounds. The infant industry argument posits that certain industries are initially uneconomic but may become competitive (at world prices) in the long run because costs may decrease over time by virtue of learning-by-doing effects. Market failures, due to gains that are external to the firm, may prevent the development of such industries which exhibit positive discounted present values. For example, a firm may be unwilling to invest in technical know-how which may become freely available to other firms, i.e., the activities of an individual firm could generate externalities not capturable by the firm. (If there were no externalities the firm would be willing to make the investments and there would not be any need to depart from laissez-faire policy.)

Similar arguments have been made in the context of economies in transition where it is argued that if some firms which are in the process of *restructuring* are given protection for a time, they will be able to increase their productivity and become viable in the longer term. A firm may be faced with imperfections in its markets for inputs which raise its costs-- e.g., because of an inefficient banking sector prevents from getting credit.

It is argued that temporary tariffs may be necessary to protect these infant and restructuring industries so they can generate benefits for the economy as a whole. Under the infant industry argument for protection, the optimum tariff structure would not normally be uniform, because protection would be accorded only to specific industries affected by market failure or externalities, and protection would not be warranted for other industries.

As Baldwin (1969) has explained, however, a tariff will not typically address the market failure problem so it is not better than laissez-faire policy. Consider, for example, the case of the inability of the firm to appropriate the gains from investment in technical know-how.

A duty raises the domestic price of a product, and from the viewpoint of the domestic industry as a whole, makes some investments in knowledge more profitable. But the individual entrepreneur still faces the same externality problem as before, namely, the risk that other firms in the same industry will copy, without cost to themselves, any new technology discovered by the firm and will then drive the product's price or factor prices to levels at which the initial firm will be unable to recover the costs of acquiring knowledge [Baldwin (1969, p. 298)].

Thus, a tariff does not correct the problem. Indeed, it has been shown more generally that the best intervention is a policy that attacks the problem at the source (Bhagwati and Srinivasan, 1969). In this case, appropriate interventions directed at the source of the distortion, which could be imperfect appropriability, labor turnover, or capital market imperfections, are not tariffs, but

rather measures such as the provision of information , patent protection or more effective use of instruments to allow collateral.<sup>6</sup>

Sometimes a government may argue that the whole manufacturing sector is an infant. Although protection is unlikely the appropriate response, if any protection is offered for this purpose, a uniform tariff would be called for, not a diverse structure.

### **Revenue Considerations**

Trade taxes are not optimal instruments to achieve a revenue objective because they significantly distort production and consumption choices. Preferred instruments to raise revenue are taxes such as income taxes or commodity taxes (excise, VAT, etc.). These are preferred taxes because, since they are applied neutrally to domestically produced and imported goods, they impose less distortion or inefficiency costs. The use of tariffs to raise revenue presupposes that other trade-neutral tax instruments are not available or cannot be used beyond existing levels; in other words, domestic taxes have to be taken as given either because the tax base cannot be enlarged rapidly enough or the marginal costs of increased domestic tax collection are very high (Corden, 1974; Balassa, 1989; and Mitra, 1992).

One of the best known arguments for a non-uniform structure is the inverse elasticity rule. If the economy is characterized by only final goods (and ignoring rent-seeking, administrative and smuggling costs), the most efficient way to generate the tax revenue is to impose higher tariffs on the goods with the lower elasticity of demand (Ramsey, 1927). This causes the least distortion since it diverts the least resources. The simplicity of this rule has appeal to theoretical economists. The rule becomes exceedingly complex, however, in practice due substitution effects between goods, the presence of intermediate goods and goods that cannot effectively be taxed. Application then requires not just the own elasticities, but a complete set of cross-elasticities of demand, including the substitution elasticities with untaxed goods such as household leisure and underground economy goods. In practice this information is never available, so information requirements make the application of Ramsey type rules impractical,<sup>7</sup> and we know of no country that has actually tried to implement them.

A still more important reason to avoid Ramsey type rules for diverse tariffs, is that political lobbying will develop that will lead to the application of tariffs that will differ from uniformity in economically inefficient ways. We return to the lobbying argument below.

### **Balance of Payments Considerations.**

Tariffs are sometimes employed to deal with a balance of payments problem. Again, they are not the best instrument. A balance of payments problem is a macroeconomic problem. Then,

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<sup>6</sup> For a similar view see Krueger, 1984. If for purely political, rather than economic reasons, a government wishes to achieve a minimum output level in a given industry, the best intervention is a production subsidy, since it avoids the consumption distortion costs of the tariff. A production subsidy also has the advantage that it gears the infant industry to attain international competitiveness by avoiding discrimination between sales to the domestic and export market.

<sup>7</sup> All the own and cross-elasticities of the Slutsky substitution matrix are required; given its symmetry, the number of elasticities equals  $n(n-1)/2 + n$ , where  $n$  equals the number of tariff lines (see Atkinson and Stiglitz, 1980). If there are 1000 tariff lines (and most systems contain more than this), the required own and cross-elasticities to calculate the optimal tariffs exceeds 500,000. This is an impossibly large number since even for much smaller systems, approximation rather than estimation techniques must be employed (see Tarr, 1991).

as discussed above, the optimal response is to attack the problem directly through macroeconomic tools, i.e., a combination of actions to reduce domestic spending (expenditure reduction) and policies that encourage exports and discourage imports (expenditure switching). Expenditure reduction can be accomplished through fiscal or monetary tightening, which reduces domestic absorption for any given level of output. Expenditure switching, which is best accomplished through a depreciation of the real exchange rate, raises the domestic price of tradables relative to non-tradables thereby encouraging exports and discouraging imports. Across-the-board import surcharges are often applied for balance of payments reasons; this achieves the same impact on reducing imports as exchange rate depreciation, but it fails to achieve the beneficial effects on the export side. The optimal tariff structure, given that it is a surrogate for a devaluation (without export incentives), must be uniform inducing resources to flow into import competing industries in general rather than any particular import competing industry.

### **Tariffs as a Negotiating Tool and WTO Accession**

Finally, countries may use tariffs as a bargaining tool to extract concessions from trading partners in the context of future multilateral trade negotiations within the context of the WTO. For countries applying to accede to the WTO, the future level and structure of tariffs is an important element in negotiations for accession to the WTO. The WTO, however, does not focus on the actual level of tariffs, i.e., the "applied rate," but on the so called "bound" rate. The bound rate is the maximum legal level of the tariff for each individual tariff line which a country may not exceed without either a renegotiation or giving compensation by reducing the tariff level for other products.

For acceding countries, Michalopoulos treats this issue in some depth elsewhere in this volume. In summary, it is unwise for acceding countries to use tariffs as a bargaining tool at accession, since experience has shown that it will likely delay accession. More generally, if a country were to succeed in negotiating a structure of high bound rates, it may have gained a pyrrhic victory: By negotiating such a structure it would create an opening for domestic interests to exert political pressure for additional protection in the future. The government would lose the "political cover" the legally binding WTO commitments offer against domestic protectionist interests which may otherwise succeed in subverting the trade regime and making it far more protective, to the detriment of long term efficient industrialization. That is, the argument for high bound tariffs at the WTO is not a new argument, but the restructuring or infant industry argument in the framework of the binding commitments for tariffs at the WTO.

Regarding the use of the initial tariff offer as a bargaining tool at the WTO, the initial tariff offer could be uniform without loss of bargaining power. That is, there is no reason to believe that an initial diverse tariff offer which is based on political economy or other considerations would present a superior bargaining position at the WTO than a uniform tariff offer. Thus, the bargaining power argument is not an argument against uniformity, but an argument about the level of the tariff.

In sum, for an economy acceding to the WTO, binding tariffs at low uniform levels is likely to be helpful to the longer term development of an internationally competitive and efficient industrial structure as well as facilitate the accession process.

### **III. Arguments in Favor of a Uniform Tariff**

Most policy-oriented analyses (Harberger (1988), Balassa (1989), Thomas and Nash (1991) and Mitra (1992)) start with the assumption that if any protection is to be granted at all, it should not favor any specific industry or set of industries; in other words, uniform effective protection should be provided to all industries. The arguments supporting a uniform tariff are based on political economy considerations, lobbying, administrative and smuggling costs, and adverse experience with picking winners.

### **Political Economy Considerations**

Political pressures from constituents frequently induce governments to depart from trade policies that are preferred on grounds of economic welfare. Diverse and inefficient tariffs typically arise due to a “free-rider” problem in political lobbying. Political interests who want tariffs are typically the companies or unions in the industries because the gains are concentrated in relatively few hands and they are able to capture a sufficient amount of the gains that they will devote resources to lobbying for the tariff. On the other hand, those who lose from a tariff are the consumers of the product; although there are a great many more of these people, their costs are smaller and not sufficient to induce them to spend resources to lobby their government to avoid the tariff. They would prefer someone else do it for them and to “free-ride” on the efforts of similarly minded individuals. The result is that typically only the industry that gains from the tariff lobbies the government and governments sometimes yield to this one-sided pressure.

The advantage of a **uniform tariff** is that it makes the gains to the industry much smaller, creating a kind of free-rider problem for the lobbying industry and **dramatically reduces the incentive to lobby for protection**. If a country employs a uniform tariff, an industry would not receive concentrated gains from its lobbying, since if it succeeded in raising the uniform tariff, it would have to bear the costs of raising the tariff for all the other products. These costs would include the higher cost of imported intermediate inputs and the lower price of its exports from induced changes in the real exchange rate. Any gains from raising the tariff would be dispersed, and would have to be weighed against the dispersed costs that the higher tariff in other industries would impose.<sup>8</sup> A strong case in point is Chile, which has had a uniform tariff since 1979. In 1998, the legislature considered a progressive reduction of the uniform tariff from 11 to 6 percent, to be accomplished by one percent per year reductions through 2003. The lobbying and testimony of Chilean industry groups (including SOFOFA) supported a *reduction* of the tariff, which passed the Chilean legislature. Evidently, uniform tariffs led the industrialists to conclude a reduction was in their interest.

The fact that a uniform tariff provides reduced gains to lobbying for protection conveys several advantages: (1) most important is that the level of protection is likely to be lower for reasons discussed above.; (2) lobbying for protection is unproductive activity and a waste of resources. There is a direct saving of resources from the reduced lobbying; (3) the reduction to the gains from lobbying for protection provides a vastly improved signal to entrepreneurs. Entrepreneurs need to believe that they have more to gain by creating better and cheaper products or production processes than they do by lobbying their government. Entrepreneurial talent is quite scarce and valuable and if diverted into rent-seeking the growth rate of the economy can be adversely effected; and (4) the reduction in resources devoted to lobbying will result in less corruption in government, which may have positive spillover effects into other dimensions of government activity.

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<sup>8</sup> In addition, since some imported inputs are used by import-competing sectors, a uniform tariff leads to a lower level of lobbying since it raises the costs of the import competing sectors. See Panagariya and Rodrik (1993) for details.

## **Administrative Convenience**

Uniform tariffs convey a number of administrative advantages. First, if tariffs are uniform, there is no incentive to misclassify goods. This enables customs authorities to concentrate on assuring that the value of the imported goods is not understated, and will reduce corruption related to customs clearing. In addition, the transparency and administrative simplicity of uniformity in customs clearance procedures will lower the administrative costs of trading. For example, traders will not have to obtain information on the category under which their products will fall.

## **Reduced Smuggling**

A diverse tariff structure will provide an incentive to smuggle products which are subject to a high tariff. If the tariff is uniform, the strong incentives for smuggling that are presented by the high “outliers” of a diverse tariff structure are considerably reduced.

## **Empirical Evidence Indicates that Movements Toward Uniformity are Beneficial**

In practice, empirical evaluations using computable general equilibrium (CGE) models of actual economies have found that, while holding government revenue constant, movements toward uniformity of the tariff structure increase real income. Martinez de Prera (2000) evaluated the consequences of moving to uniform tariffs from the actual tariff structures in CGE models of 13 separate countries. She found that in all 13 countries, there would be welfare gains from tariff uniformity. Evidently, tariffs do not differ from uniformity in these economies due to Ramsey optimal reasons.

In the case of Turkey, a study by Harrison, Rutherford and Tarr (1993) found that uniformity in the incentives to importers and exporters would provide more than two-thirds of the gains to the economy of going to full free trade. That is, quantitatively the most important distortion in the trade regime of Turkey was not the overall height of the tariff, but rather non-uniform import tariff and export subsidy rates. The reason for these results is that the distortion costs to the economy increase more than proportionately with the height of the tariff, i.e., a uniform tariff of 10% is much less costly to the economy than a structure that has a 20% tariff on half the products and zero tariffs on the rest.<sup>9</sup> Turkey had succeeded in lowering its overall average tariff to under 15%, but the bulk of the distortion costs came from the relatively few sectors where tariffs or export subsidies were quite high.

Another example is the case of Chile which has a uniform tariff of 11%, and has elected to participate in a free trade area with MERCOSUR (Brazil, Argentina, Paraguay and Uruguay). Chile refused to join the MERCOSUR customs union in part because the customs union employs a common external tariff that is not uniform. Harrison, Rutherford and Tarr (1997)<sup>10</sup> have estimated that the free trade area with MERCOSUR is substantially better for Chile than the customs union because the non-uniformity of the MERCOSUR common external tariff would impose considerable distortion costs on Chile. Similar results, although not as strong, were found in the cases of the Philippines (Clarette, 1989) and India (Mitra, 1994).

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<sup>9</sup> The distortion costs of the tariff increase with the square of the tariff rate. See Morkre and Tarr (1980, chapter 2) for a derivation.

<sup>10</sup> This study showed that a movement away from uniformity for Chile would be costly.

## IV. International Experience with Tariff Uniformity

### International Experience with Tariff Uniformity

Unfortunately data do not exist that would allow precise international comparisons of either tariff uniformity or escalation. Although the MFN ad valorem tariff rates are available, estimates of the ad valorem equivalence of either specific tariffs or non-tariff barriers are not. The latter data are not available because tariff equivalence estimation is very time and data intensive, and involves thousands of tariff lines in many countries.<sup>11</sup>

We have, however, performed calculations based on the ad valorem rate--estimates which should provide a lower bound biased estimate of actual tariff dispersion when the tariff equivalence of the NTBs is taken into account. Despite the arguments in favor of relatively uniform protection, the actual experience with tariffs worldwide suggests that most countries differentiate their tariffs substantially (we discuss specific country examples below).<sup>12</sup> Typically the protection pattern involves low tariffs for unprocessed commodities and raw materials as well as capital goods, and much higher tariffs for processed final goods. The basic reason for this is the influence of vested interests in maintaining protection on the final goods produced in the country, but who also lobby for tariff free access to their inputs. When there is no domestic intermediate goods industry, or the intermediate industry is small, there is no effective opposing lobbying influence for tariffs on these intermediates; the result is low tariffs on intermediates and high tariffs on selected final goods--a situation known as tariff escalation.

The tariff escalation that characterizes many countries' trade regimes, both developed and developing, causes problems in inefficient resource allocation: This "escalating" tariff structure tends to favor final goods production at the expense of intermediates, and in the long run encourages assembling type activities. That is, intermediate goods production is discouraged because it is disfavored relative to final goods and assembling activities. Thus, because an intermediate goods industry doesn't exist today to lobby for equal protection, incentives are established which hinder its eventual creation.

Although it is well known that Chile has a uniform tariff, there are quite a few countries with tariff structures that are uniform or at least close to uniform. Two countries have uniform tariffs due to the fact they practice free trade: Estonia and Hong Kong. Another three, Bolivia, the Kyrgyz Republic and Chile have virtually uniform tariff schedules of 10, 10 and 11 percent, respectively. Singapore has a simple tariff average of 0.5% and a standard deviation of less than 3%. Azerbaijan has a 15 percent maximum tariff and Bosnia-Herzegovia is reported to be about to move towards a uniform tariff. A number of other countries, including Brunei Darussalam, Ecuador, Honduras and Mexico, have tariff averages (under 13%) with small variances (under 6 percent).

At the other end of the spectrum are countries such as Bangladesh, and India with tariff averages of 84 and 56 percent and tariff variances of 26% and 24%. Korea, Mexico, South Africa and Turkey have more than 10,000 tariff headings, while for most other countries average about 6,000 tariff heading. A large number of countries have granted exceptional levels of protection

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<sup>11</sup> We have performed estimates based on the ad valorem data.

<sup>12</sup> Based on unpublished calculations using the "TRAINS" database by Ulrich Reineke at the World Bank.

for a limited number of products. The list of these countries includes some of the poorest countries but also some of the most prominent OECD countries, i.e., Cameroon, Canada, China, Egypt, European Union, Hungary, India, Indonesia, Israel, Nepal, Nicaragua, Norway, Saudi Arabia, Solomon Islands, Turkey, United States.

## V. Conclusion—and Practical Steps

### Conclusion

The above analysis strongly suggests that there is little economic justification and many dangers in providing differentiated tariff protection to various sectors of industry and agriculture. At the practical level, the arguments for a diverse tariff structure rest on the ability of governments to: (i) “pick the winners,” that is to identify the candidates that are most likely meet the conditions justifying intervention, and choose and maintain the appropriate level for the policy variable (tariff, subsidy); (ii) be immune to the pressures from vested groups that inevitably arise once the willingness to grant special status is established; and (iii) prevent any protection granted from becoming permanent. The empirical evidence in both developed and developing countries during the past three decades casts doubt on most governments’ ability to meet these conditions. Moreover, the economy must provide its most talented members with the incentive to engage in entrepreneurial activities such as starting or expanding firms, developing new products and lowering costs. If the economy provides tariffs, subsidies, or tax exemptions that differ greatly by sector, talented people will find it more profitable to engage in the socially wasteful activity of lobbying the government for these privileges. Endorsement of a more general approach—with little differentiation in the level of assistance—thus emanates from a wider skepticism about the practical merits of *targeting* of any kind, see Westphal (1990) and Krugman (1989, 1992). Experience therefore indicates (see Lieberman, 1991) that the best industrial policy is for the government to provide a stable macroeconomic and regulatory environment conducive to business development with neutral incentives to all firms and industries.

### Practical Steps

**Concertina Approach.** If a uniform tariff structure is to be approached, sequentially, priority should be given to reducing the highest rates. The costs in the form of the inefficiencies in resource allocation rise more than proportionately with the height of the tariff. As a consequence the greatest gains will come from reductions in the maximum rates. In addition, very high tariffs may be prohibitive of imports, so that there will be revenue gains from reductions in the rates. Reductions of the high rates will also reduce smuggling, corruption and rent-seeking disproportionately.

Simultaneously raising the low rates (as suggested by Hatta, 1977) is more controversial, especially on intermediate and capital goods (see Neary, 1997). If there is no duty drawback or its equivalent in place, increasing the tariff on intermediate goods imposes a tax on the exportable goods that use the intermediate—this is bad since there are too few resources devoted to exports due to the tariffs.<sup>13</sup> Moreover, it may be argued that raising tariffs on imports of raw materials and intermediates penalizes “technology” imports that are critical for raising productivity. Against these potential costs, one must weigh the fact that permitting tariff free imports of intermediates and capital goods penalizes the development of intermediate and capital goods industries (relative

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<sup>13</sup> The “Lerner” symmetry theorem has shown that a tax on imports imposes a tax on exports. One of the principal reasons is that tariffs appreciate the real exchange rate, which makes exporting less attractive.

to final goods sectors)-- as well as represents a foregone opportunity to raise revenue. And with a diverse tariff structure, the political economy, corruption and smuggling problems persist.<sup>14</sup>

**Duty Drawback and Temporary Admission.** To reduce the added anti-export bias that raising tariffs on intermediate and capital goods imposes, many countries employ mechanisms that allow exporters duty free access to imported intermediates. This includes duty drawback procedures, temporary admission and export processing zones. Coupled with effective duty free access to imported intermediates for exporters, the welfare tradeoff from raising tariffs on intermediate and capital goods is much more likely to be positive.

The principal problem with duty drawback schemes is that the administration of these schemes can be very costly, and lead to cumbersome procedures and delays when tariffs are high. Exporters complain of delays and lack of payment in many countries. When tariffs are high there is also the risk of fraudulent claims. The empirical evidence suggests in countries without well functioning bureaucracies, duty drawback becomes ineffective and very difficult to administer at high tariff rates (in excess of 15 or 20 percent) because of leakage, delays in payment and fraudulent claims (see Mitra, 1992). Moreover, these schemes do not remove all the anti-export bias of tariffs.<sup>15</sup>

In countries where the capacity to administer duty drawback schemes is weak, given the recognized need to provide duty free access to imported inputs to exporters, “temporary admission,” should be offered (as opposed to zero tariffs on intermediates). Temporary admission guarantees duty free access to imported intermediates and to the extent that the government bureaucracy can administer the program, it imposes tariffs on imported inputs destined for the domestic market, thereby encouraging the development of domestic intermediate goods industries. That is, temporary admission and zero tariffs on intermediates both provide tariff free access to intermediates for exporters, but temporary admission diminishes tariff escalation compared to zero tariffs on intermediates.

In general, raising tariffs on intermediates presents a conflict between the need to provide balanced protection to intermediates and final goods (i.e., reduce effective protection on final goods) and the need to reduce the anti-export bias of exports. Duty drawback appears to resolve the conflict but it does so at the expense of administrative complexity. In addition, any scheme that exempts intermediates from tariffs could reduce the incentive for real import liberalization which is the first best policy choice (see Cadot et al., 2000). Low uniform tariffs, in general, are the best policy, and would be best combined with duty drawback or temporary admission depending on administrative competence and the level of the tariff. In many countries it will also be important to obtain technical assistance for institutional development of duty drawback and temporary admission mechanisms.

### **Several Tariff Bands (or Tariff Simplification) is not Tariff Uniformity**

It is sometimes argued that for administrative convenience the tariff structure should be **simplified** into 3 to 5 tariff bands. For example, with five tariff bands, tariffs could be either 0,

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<sup>14</sup> Tariffs on intermediates also convey the benefit of reducing the incentive to produce import competing products that use the intermediate--this is good because, due to tariffs, the economy allocates too many resources to these activities. A more complete treatment of this subject may be found in Panagariya (1992).

<sup>15</sup> For example, to avoid anti-export bias, duty drawback schemes would have to be extended to indirect exporters as well (i.e., firms which do not export themselves but which sell to exporters). Administration of such mechanism are quite complicated in practice and are not recommended for most countries..

10, 20, 30 or 40 percent (or 0, 5, 10, 15 or 20 percent), but values in between would be prohibited. It should be clear that tariff simplification is not tariff uniformity, and simplification will allow very high rates of effective protection. Importantly, such a system suffers from virtually all the problems of a diverse structure, including encouraging lobbying for high protection by industry groups and it will encourage misclassification at customs relative to a uniform system.<sup>16</sup>

If, on the other hand, tariff simplification is used as a vehicle to move toward low and uniform tariffs by limiting the number of tariffs, and reducing both the level and the dispersion of the tariff structure in the process, then tariff simplification is a very useful step. More generally, a tariff structure that is low and has a **small standard deviation** will convey many of the same benefits of a low uniform structure. For example, with a sufficiently small standard deviation there will be little gains from lobbying or incentive for corruption and in customs for misclassification. Tariff simplification by itself, however, without reducing the level or the dispersion of the tariff structure, will convey relatively small benefits from reducing administrative costs.

### **The Tariff Level**

The OECD countries have on average reduced their tariffs on manufactures to less than 5% -- with a few peaks, notably in textiles and leather products. The main problem in most countries is agriculture where, as a result of the tariffication following the Uruguay Round, tariff schedules are quite high -- reflecting the previously high supports and protection. If revenue from a tariff is needed, it seems appropriate to aim at a 10% uniform tariff. Anything higher, could result in significant effective rates of protection for selected industries, especially when tariff escalation is taken into account.

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<sup>16</sup> Hatta (1986), however, has shown that if commodities that are close substitutes are grouped together this would reduce distortions.

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