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Optimal Tariffs: Theory and Practice

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Abstract

This paper examines the theory underpinning the design of optimal tariffs in a developing economy, and the experience of implementation of tariff reforms. A central issue is whether and when a case can be made for a uniform tariff structure. While theory advocates a differentiated tariff structure (except under a balance of payments objective), political economy considerations, inadequate information, and administrative convenience point to a minimally differentiated tariff structure. The experience of reform indicates that tariff structures are mainly influenced by income distribution and protection objectives. The ability to successfully reduce tariffs depends on measures taken to alleviate fiscal and balance of payments constraints.

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Contents

Summary

This paper examines the theory behind the design of optimal tariffs in a developing economy under various policy objectives (revenue, protection, income distribution, and balance of payments) and the experience of their implementation in a sample of six developing countries. It addresses the central question of whether a case can be made for a uniform tariff structure and, if so, under what circumstances. Theory generally advocates a differentiated tariff structure: it should be differentiated according to the price elasticity of demand for imports under a revenue objective, according to the stage of processing under a protection objective, and according to the income elasticity of demand under an income distribution objective; only under a balance of payments objective would theory call for a uniform tariff structure. In practice, however, inadequate information, administrative convenience, and political economy result in a minimally differentiated tariff structure with about three to five rates. The paper also examines the process of reform, including the revenue and welfare effects of reductions in the maximum tariff and increases in the minimum tariff. Increases in the minimum rate have favorable welfare consequences if coupled with duty drawbacks for tariffs on intermediate goods used in the production of exportables; however, there are practical problems in administering such arrangements.

The experience of reform shows that countries generally aim (1) to simplify their tariff structures by assimilating all charges applied on imports, and to reduce the number of rates, thereby reducing distortions and increasing the transparency of the tariff system; and (2) to reduce the average tariff level and dispersion in effective protection. Tariff structures, before and after reform, are mainly influenced by income distribution and protection objectives, which determine how they are differentiated. A successful reduction in tariff levels often calls for complementary measures--for example, domestic tax reforms and exchange rate action--to alleviate the impact of lower tariffs on the fiscal and external positions. The authorities' ability and willingness to overcome pressures from special interest groups are also important. Many countries are cognizant of the anti-export bias induced by tariffs and attempt to offset it through duty-drawback or similar schemes.

<u>Optimal Tariffs: Theory and Practice</u>

I. <u>Introduction</u>

Trade reform is an important component of structural adjustment programs, and aims to provide a neutral system of incentives by eliminating the biases which favor the production of importables over exportables and sales to domestic over foreign markets. The expected gains from trade policy reform are manifold (Thomas and Nash (1991)), 1/ and are enhanced if the reform is properly designed.

The purpose of this paper is to examine the theory underpinning the design of optimal tariffs in a developing economy under various policy objectives and the experience of their implementation. In recent years, policy prescriptions on tariff reform, notably under Bank/Fund-supported adjustment programs, have emphasized the need to lower the average tariff level and to reduce the dispersion of tariff rates (World Bank (1992)). A central question that is addressed in this paper is whether a case can be made, on theoretical or other grounds, for a uniform tariff structure and, if so, under what circumstances.

The paper is based on a review of the theoretical literature and the experience of tariff reform in a sample of six countries. Section II examines the theory underlying the design of an optimal tariff structure. Section III discusses other determinants of the tariff structure, such as administrative convenience, rent-seeking and political economy considerations, which in practice play an important role in tariff design. Whereas Sections II-III consider the endpoint of reform, Section IV analyzes the process of reform, and in particular the welfare and revenue consequences of piecemeal reform. Section V examines the experience with tariff reform in a sample group of six developing countries. The final section presents the summary and policy lessons. The Annex provides details of the tariff reforms in each of the sample group of developing countries.

1/ The gains include the following: distortions in resource allocation caused by misalignment of domestic and international prices are eliminated; greater openness facilitates the creation of more competitive markets; indirect costs associated with a controlled regime stemming from rent-seeking, smuggling, etc., are reduced; a liberal and open trade regime also facilitates greater innovation and absorption of foreign technology and know-how thereby increasing the equilibrium growth rate of an economy; finally, trade reform also tends to have a beneficial effect on income distribution in developing countries because benefits often accrue to labor-intensive activities.

II. Optimal Design of Tariff Structure: Theoretical Considerations

1. Optimal tariff structure in a first-best world 1/

a. Large country case

If a country is large enough to affect the world price of imports, the imposition of a tariff could improve its terms of trade and therefore welfare (Corden (1987)). The optimal tariff structure would be nonuniform, assuming that the country can affect the world prices of only some of its importables; under these circumstances, it would be optimal to impose positive tariffs on commodities for which it has such monopsony power and zero tariffs for all other commodities. 2/ The size of the tariff would be inversely related to the foreign country's elasticity of supply of the product.

b. Small country case

It is a well-known proposition in trade theory that if a country is "small", in the sense that it cannot affect the foreign currency prices of its importables, the imposition of tariffs will unambiguously worsen its welfare (Corden (1974)): with standard demand and supply functions there will be a loss in production efficiency as higher cost domestic production substitutes for imports (the production distortion), and a loss in consumer surplus because of the higher domestic prices resulting from the tariff (the consumption distortion). 3/ The optimal tariff structure would be uniform with zero tariffs across the board. 4/ Most developing countries are likely to be "small", at least on the import side, suggesting that zero tariffs across the board would be the optimal tariff structure. 5/

1/ In this paper the concept of optimality refers to the maximum welfare attainable for an individual country.

2/ Zero tariffs could still be optimal with an endogenous retaliatory response by trading partners.

3/ Losses are higher if rent-seeking activity is taken into account, and if there are endogenous capital flows in response to a tariff increase (see Neary and Ruane (1988)).

4/ Note that the infant industry argument does not provide a case for tariffs in a first-best world. See Baldwin (1969) and Krueger (1984) and the discussion below.

5/ This paper deals only with import tariffs. Developing countries that are dominant suppliers of certain commodities could be "large" on the export side. A case could be made for the levying of optimal export taxes to improve their terms of trade. Such an approach would still incur risks, because long-term elasticities tend to be high, weakening the case for export taxes (OPEC is the classic example).

2. Optimal tariff structure in a second-best world

The design of optimal tariffs becomes nontrivial in a second-best world. In this paper, a second-best world is characterized by the fact that governments wish to pursue objectives other than pure economic welfare maximization and that there are constraints on the use of first-best policy instruments to attain these objectives. Four such objectives are considered in this paper: revenue, protection, income distribution, and balance of payments. 1/ The first-best policy instruments in the pursuit of these objectives include respectively indirect taxes, subsidies, income taxes, and macroeconomic policies including exchange rate adjustment.

a. Optimal tariff structure under a revenue objective

Trade taxes are not optimal instruments to achieve a revenue objective because they distort production and consumption. Domestic measures such as lump-sum taxes, income taxes, or commodity taxes (excise, VAT, etc.) applied neutrally to domestically produced and imported goods should be the preferred instruments to raise revenue. The use of tariffs to raise revenue presupposes that other trade-neutral domestic 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)). This is often the case in many developing countries, especially for example in Africa, where domestic tax institutions may not be sufficiently developed to permit efficient collection of nontrade taxes and is reflected in the high reliance on trade taxes for revenue generation (Shalizi and Squire (1988)). 2/ The concern with designing revenue-neutral tariff reforms, so common in Bank/Fund-supported adjustment programs, is a reflection of this problem.

1/ In practice, governments might also wish to reflect other considerations relating to health, social values, security, technology development, etc., but these are not dealt with in this paper.

2/ The World Development Report (1988) reports that the average administrative costs of collection of trade and excise taxes amount to about 1 to 3 percent of revenue collected, with the corresponding figure for VAT being about 5 percent. While these are average not marginal figures, nevertheless they provide illustrative evidence for the reliance on trade taxes.

(1) Final goods

In an economy that produces only final goods, the Ramsey-Diamond-Mirrlees (RDM) approach to commodity taxation (Ramsey (1927), Diamond and Mirrlees (1971)) 1/ finds that utility is maximized for a given revenue objective if the tariff on a product as a percentage of its market price is inversely proportional to its price elasticity of demand for _imports_ (_not_ the gross demand elasticity for the product--see Dahl, Devarajan and van Wijnbergen (1989)). In this case, the optimal nominal tariff structure is not uniform--it comprises lower tariffs on products with elastic demand and higher tariffs on inelastic products. The optimal nominal tariff structure would be uniform _only if_ all import elasticities are equal--a remote possibility.

(2) Final goods and intermediate inputs

A similar rule can be derived when a distinction is made between imported intermediate and final goods, in the presence of an untaxed nontradable good. The optimal tariff structure would be characterized by higher tariffs on inputs and lower tariffs on final goods. 2/ Harberger's (1988) interpretation of the RDM approach is that optimum taxation involves taxing goods that are complementary to, or less-than-average substitutes for, the untaxed good. In general, intermediate inputs, by virtue of production relationships, are likely to be complementary in demand to the untaxed good (export or nontraded), or at least more complementary than other importable consumer goods are to the untaxed good. Hence tariffs on them should be higher than on imported consumer goods (Chambers (1989)). The optimal policy would call for uniformity of nominal tariffs only if the importable intermediates and importable final goods are equally substitutable for, or complementary to, the untaxed nontradable.

b. Optimal tariff structure under a protection objective

(1) Definition: nominal and effective protection

In discussing optimal tariffs for protection, the operational concept that will be employed is that of _effective protection_. Nominal protection measures the extent to which tariffs (or indeed other trade restrictions) increase the price of a good in the domestic market. But this does not give an accurate picture of the extent to which domestic resources are drawn towards the activity that is protected because it ignores, for example, the degree of governmental assistance (or tax) to that activity

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1/ Under this approach the problem is posed as one of choosing a set of taxes on all commodities which maximizes the utility of a representative consumer subject to attaining a target level of aggregate revenue (Atkinson and Stiglitz (1980)).

2/ The intuition is also applicable if the untaxed good is an exportable (Chambers (1989)).

arising from subsidies and tariffs on inputs used in that activity. The effective rate of protection measures the protection accorded to domestic value added and is represented as the difference between value added at domestic prices and value added at world prices expressed as a percentage of the latter. 1/

(2)   The case for nonuniformity

Section II.1.b suggested that the case for imposing tariffs as optimal policy had limited applicability to small developing countries. Nevertheless the use of tariffs to effect welfare improvements over the longer run has been defended most often on infant industry grounds. 2/ 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 may prevent the development of such industries which exhibit positive discounted present values. Similarly, the activities of an individual firm could generate externalities 3/ not capturable by the firm. In both cases, temporary tariffs may be necessary to protect these industries from competition during their development so that they can attain long run competitiveness or 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 positive protection would be accorded only to specific industries affected by market failure or externalities, and protection would not be warranted for other industries. Even if all industries were considered to be infants (for example, because of underdeveloped financial markets) and hence potential candidates for protection, the optimum tariff structure would be nonuniform as the extent

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1/ Although the concept of effective protection suffers from theoretical drawbacks (Dixit and Norman (1980) and Krueger (1984)), it remains a useful operational tool for measuring the impact of protection on domestic resource allocation.

2/ Two other arguments for protection, which have less relevance for developing countries, should be noted here. The first, based on strategic trade theory (Brander and Spencer (1985), Eaton and Grossman (1986), and Krugman (1989)), says that government intervention in the form of tariffs could increase a country's welfare by enabling excess profits to be shifted from foreign to domestic firms. The second (Krugman (1992)) is based on the existence of internal economies/increasing returns to scale and applies to high technology industries such as semiconductors, aircraft, and computers. This argument advocates protection to allow domestic firms to gain initial competitive advantage at the expense of foreign firms. The initial advantage is then naturally reinforced by internal economies of scale and allows domestic firms to appropriate excess profits.

3/ Note that the externalities should be national rather than global in scope for an intervention to augment national welfare.

of protection would need to be calibrated to the individual strength of the various infant industries; only if all industries were identical "infants", and showed identical promise as future "prodigies", would a theoretical case for uniform tariff structures be established. 1/

(3) Arguments for uniformity

The theoretical considerations discussed above call for designing a nonuniform tariff structure. Yet 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. How is this explained? Support for the recommendation of uniformity derives either from a rejection of the theoretical arguments, or from practical difficulties in identifying relevant industries or appropriate rates of protection.

The theoretical rejection is on several counts. Although arguments presented above made a case for intervention, in no case is such intervention called for in the form of a tariff. 2/ Indeed, the best intervention is either a production subsidy (if there are market failures or externalities) 3/ or appropriate interventions directed at the source of the distortion, which could be imperfect appropriability, labor turnover, or capital market imperfections (Krueger (1984)). 4/

1/ The two other grounds for protection noted in Footnote 2 on page 8 would also call for nonuniform protection.

2/ Governments may resort to tariffs rather than more efficient instruments such as direct subsidies, because they are less transparent and therefore less subject to public scrutiny.

3/ 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.

4/ The conclusions of strategic trade theory in favor of intervention in general, and tariffs in particular, are very model-specific depending on the nature of strategic interaction between firms. This includes whether firms compete in prices or quantities, what beliefs they hold about other firms' reactions to their own behavior, the timing of moves i.e., whether firms act simultaneously or sequentially, etc. (Bulow, Geanakoplos, and Klemperer (1985) and Eaton and Grossman (1986)). There is also doubt whether excess profits really exist (except in the very short term) and are not easily dissipated by new entrants or utilization of excess capacity. The positive welfare effects of both the strategic trade theory and internal economies arguments are conditioned on the absence of retaliation by trading partners. Finally, the applicability of the argument to developing countries, which seldom have firms competing oligopolistically in international markets, is questionable.

At the practical level, the preceding arguments also rest on the ability of governments to: (i) "pick the winners", that is to identify the candidates that 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. 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 <u>targeting</u> of any kind (Westphal (1990) and Krugman (1989, 1992)).

A theoretical analysis that makes a case for uniformity is contained in Panagariya and Rodrik (1993) which shows that uniform tariffs are desirable in the sense of minimizing the welfare cost in a regime where tariffs are endogenously determined as a result of lobbying by interested import competing groups. In the absence of a uniform tariff rule set by the government, lobbying for tariffs is a private activity and is undertaken until marginal costs and benefits are equalized. However, with a credible uniformity rule, lobbying becomes a public good with benefits of lobbying in one sector spilling over to all sectors. The rational <u>ex ante</u> response in this situation is the reduction of effort devoted to lobbying, leading to lower average <u>levels</u> of protection and to reduced socially wasteful lobbying activity. <u>1</u>/ A similar argument is implicit in Harberger (1988), who sees fair and equal treatment of all protected industries (i.e., uniform protection) as a means of countering the clout of powerful industries which might otherwise be able to secure greater protection.

To summarize, the case for uniformity of effective protection as a justifiable objective rests on political economy arguments. As is shown below and in Section IV, uniformity of effective protection is not inherently desirable on welfare grounds. It is the rejection of nonuniformity (or targeting), coupled with the desire or necessity to provide some protection to all importables, that provides a case for uniformity of tariff rates.

<u>1</u>/ One qualification to this argument noted by the authors is when the economy has a few large sectors for which lobbying remains attractive notwithstanding the spillover. Uniformity then transmits the fruits of successful lobbying to all sectors, resulting in higher levels of protection. On the other hand, the case for uniformity is strengthened when there is no competing domestic production of intermediates because it (i.e., the uniformity rule) forces final good producers to contend with higher input tariffs than they might otherwise have to, unless there is an export rebate.

(4) Welfare consequences of uniform effective protection

If nonuniformity is ruled out on the basis of the above-mentioned arguments, optimal tariff design would need to minimize the loss in production efficiency subject to the protection objective that all importable sectors be favored equally. 1/ To minimize production efficiency loss, there must be uniform effective protection for all importables and zero effective protection accorded to exportable and nontradable sectors. A uniform nominal structure will not satisfy all these conditions.

First, if exportables and nontradables enter as inputs into importable production, uniform nominal tariffs on all importables will create nonuniform effective protection even within the importable sector; effective protection will be greater for products which use (the untaxed) exportables and nontradables as inputs. To offset these effects and restore uniform effective protection, higher tariffs would have to be imposed on other imported inputs being used or lower tariffs imposed on the final importable good, leading to a nonuniform nominal tariff structure.

Second, exportables and nontradables could use (taxed) imported inputs, in which case zero effective protection for them would not be achieved. This could be remedied by tariff exemptions for inputs used in exportable and nontradable production (see Section IV below). Thus, even if the objective is to provide uniform effective protection for importables, the nominal tariff structure would have to be nonuniform because of the structure of production and trade.

c. Optimal tariff structure under an income distribution objective

The lack of proper income-support mechanisms, as well as inadequate institutions and high costs of collecting income taxes or general commodity taxes, often lead governments to rely on tariffs to attain income distribution policy goals. 2/ The need to rely on tariffs for income distribution objectives is greater for developing countries because trade-neutral domestic taxes, which could also serve distributional objectives, are often not available.

1/ Even if it were granted that the formulation in terms of effective protection has some merit on welfare grounds, it is still vulnerable to the criticism that it values factors of production at market rather than at shadow prices (as it ought to) in a distorted economy (see Srinivasan and Bhagwati (1978)).

2/ It is estimated by the World Bank (1988) that the average costs of collecting personal income taxes amount to approximately 10 percent of revenue collected which is about 2 to 3 times the cost of collecting other taxes.

For income distribution purposes, the optimal tax structure would be nonuniform and escalate according to the "luxury content" or the income elasticity of a product (de Wulf (1977)). 1/ Necessities or essentials would thus face very low tariffs and luxury consumer goods high tariffs. 2/

Tariffs can also be used to affect the incomes of different types of income earners (e.g., skilled and unskilled labor). If, for example, direct income taxes cannot be levied at different rates, higher tariffs on imported products using unskilled labor more intensively will lead to an increase in the demand for, and hence wages of, unskilled workers in the domestic market. While this may serve income distribution objectives, there would be an efficiency loss (see Heady and Mitra (1987)).

d.   Optimal tariff structure under a balance of payments objective

When a country faces a balance of payments problem, the optimal response is a combination of expenditure reduction and expenditure switching. The former, which can be accomplished through fiscal and/or monetary tightening, reduces domestic absorption for any given level of output; the latter, effected through a depreciation of the real exchange rate, raises the domestic price of tradables relative to nontradables thereby encouraging domestic production and discouraging consumption of tradables. Across-the-board import surcharges are often applied for balance of payments reasons, partially approximating an exchange rate depreciation. The optimal tariff structure, given that it is a surrogate for a devaluation (without, of course, the beneficial effects on the export side), must be uniform inducing resources to flow into importables in general rather than any particular importable industry. 3/

1/ The tariff should be greater (lower) on products the more they are consumed by households whose net social marginal utility is valued to be low (high) by society (see Stern (1990)).

2/ Ideally, of course, luxury excise duties applicable equally to domestic and imported goods should be used. If this were possible, tariffs would not be necessary to meet the fiscal or income distribution objective.

3/ Corden (1987) shows that tariffs may be more effective than a devaluation (in the short run) in improving the balance of payments under conditions of real wage rigidity. In order to improve the profitability of tradable goods' production, a devaluation will likely require reduction in real wages. With real wage rigidity, this cannot be accomplished as nominal wages will rise with the increase in domestic prices effected by the devaluation. In contrast, a tariff increase could lead to a smaller increase in the domestic price level than a devaluation insofar as (i) there is domestic consumption of exportables or (ii) that increases in tariff revenues allow reductions in other indirect taxes. Thus, even with real wage rigidity, relative prices of importables could increase, contributing positively to the balance of payments situation.

Under a floating exchange rate regime, a tariff increase would, in the absence of offsetting capital flows, cause the exchange rate to appreciate and thus offset the impact of the tariff increase on the balance of payments (see Corden (1987)).

III. Other Determinants of Tariff Structure

This section considers other factors which in practice affect the design of the tariff structure.

1. Multiple objectives

Typically, governments pursue more than one objective and, depending on the availability of other instruments, might use tariffs for attaining revenue, income distribution, protection, and balance of payments objectives or combinations thereof. However, it is a well-known proposition (due to Tinbergen (1952)) that in general a specified number of policy objectives cannot be attained without employing at least the same number of instruments. Thus, in practice, if there is a conflict between two objectives, either all or one of the objectives should be renounced, or, as occurs more commonly, neither is completely renounced, nor is fully attained. For example, there could well be conflicting pulls if there are both revenue and income distribution objectives: the revenue objective might, according to the RDM rule, require higher taxes on necessities because they might also be relatively price inelastic, whereas the income distribution objective would require lower taxes on necessities. It is thus possible that the need to meet, at least partially, multiple objectives will lead to compromises that result in a tariff structure that bears little resemblance to what would be optimal on theoretical grounds.

In fact, the complexity and nontransparency of tariff regimes in many developing countries is often the result of ad hoc tariff decisions made at different times to achieve conflicting objectives. In many instances, the use of tariffs for fiscal reasons combined with the desire to provide certain imported inputs "cheaply" through tariff exemptions leads to unintended high levels of effective protection in "luxury" consumption goods and encourages domestic production of those same items where importation is considered inconsistent with income distribution goals.

2. Administrative convenience/rent-seeking

A simple tariff structure can be administered more easily as it would avoid cumbersome paperwork, alleviate the need for classifying products (and hence the incentive to misclassify products) and generally relieve the burden on customs administration. Collection costs could be significantly reduced as could delays in clearing goods through customs. Acceptance of differentiated tariffs can encourage socially unproductive rent-seeking activity in the form of lobbying for exemptions, changes in tariff

classification etc., which also lead to fiscal losses. All of these factors argue persuasively against <u>complex</u> tariff structures, but not necessarily for complete uniformity (see below). In practice, the desire for administrative simplicity, and for minimizing the influence of lobbies has been very important in influencing the move toward greater uniformity in the tariff structure, especially in Latin America (e.g., Chile, Uruguay, etc.).

3. <u>Informational requirements</u>

Even if theoretical considerations call for highly differentiated tariff structures, the associated information data requirements could be daunting, especially in many developing countries with poor databases. Ramsey-type optimal tariff structures are considered impracticable to design accurately because information on the entire structure of demand (or of imports) including own and cross price elasticities would be required. Few studies have actually computed the optimal tariff structure under a revenue constraint (Dahl, Devarajan, and van Wijnbergen (1989) and Mitra (1992) are two exceptions). The conclusion to be drawn is similar to that noted above: namely that, information inadequacies rule out the design of complex tariff structures that may be theoretically optimal. In practice this has been a potent influence in designing tariff reforms.

4. <u>Nonexistence of competing domestic production</u>

The inefficiency associated with tariffs is twofold: they impose a tax on consumption and they provide an implicit subsidy to domestic producers. If, however, there are no domestic producers (or are unlikely to be in the future), tariffs serve no protection function and are tantamount to pure consumption taxes. (They could, however, introduce an anti-export bias if the taxed product is used as an input in export production.) 1/ Experience in several countries--especially in Latin America--shows that tariffs on nonlocally produced inputs are the easiest to reduce and are usually the first to be tackled under phased tariff reforms.

5. <u>International agreements</u>

The level and structure of tariffs are in some instances decided in the context of regional trading arrangements. Countries in a customs union, for example, have to decide on a structure of common external tariffs on third country imports. The agreed common external tariff structure often

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1/ Three types of anti-export bias arise from tariffs. First, and the most readily noticed by policymakers is that due to tariffs on inputs used in export production. The second, less apparent bias, arises from the mere fact of tariffs which encourages resources to move to importables at the expense of exportables. The third arises from the fact that tariffs encourage sales for the home market at the expense of sales to foreign markets.

represents compromises among different interests in the partner countries, and may well be far from uniform.

The similarities in tariff structures observed among many Latin American countries illustrate the influence of regional arrangements. Countries with different economic structures and confronting different macroeconomic problems have adopted, or plan to adopt, similar tariff structures in the context of the movement toward increasing regional integration, or simply in emulation of countries perceived to be undertaking "successful" economic reforms.

Similarly, the level and structure of tariffs may be significantly influenced by multilateral trade negotiations in the GATT (or in the context of protocols of accession to GATT). Differentiated tariff structures may reflect the outcome of a product-by-product bargaining process with multiple trading partners, which may not necessarily be based on considerations of efficiency of internal resource allocation or on uniformity principles. Countries may hold back on tariff reform for fear of losing negotiating leverage in an ongoing multilateral negotiation. 1/

For many developing countries that have embarked on tariff reforms incorporating unilateral tariff reductions in advance of the conclusion of the Uruguay Round, the concept of receiving "credit" for unilateral tariff cuts has been an important issue in the negotiations, partly reflecting the fear of loss of bargaining power (see Whalley, et al. (1989)). Some developing countries (e.g., Pakistan) have held back on tariff reform citing the strategic need to maintain high tariffs to be subsequently traded off, while others (e.g., Korea) have tied specific sectoral liberalization (e.g., agriculture) to the outcome of the GATT negotiations. In some instances (e.g., Korea, China), industrial tariff reductions have been accelerated in the face of bilateral pressures from trading partners.

Tariff reforms typically attempt to reduce dispersion by lowering maximum tariffs and in some cases raising minimum tariffs. In the latter case, due regard must be paid to avoiding breach of international obligations, for example of tariff "bindings" in the GATT. 2/ A country wishing to raise the tariff above the bound level must negotiate with its trading partners, offering them compensation for the proposed breach of the binding. There are many ways in which compensation could be provided: by

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1/ Most industrial countries have nonuniform tariff structures, reflecting predominantly strategic, political economy and protection considerations; revenue objectives are less important in influencing the tariff structure. Tariff reductions in industrial countries have most often been associated with international negotiations.

2/ A tariff "binding" is a commitment by a country not to raise the tariff above the agreed or "bound" level. (The bound level could be greater than the applied level.) The value of a binding is the certain and predictable trading environment that is provided.

increasing the number of bindings or reducing the bound rates. But the ensuing negotiation could well result in a nonuniform tariff structure. 1/ In some cases, timing problems may arise in that tariff reform may be delayed pending the satisfactory resolution of the problem with trading partners in the GATT. Delays can be minimized if appropriate procedures are initiated at an early stage. One course of action that has been followed is to obtain a temporary waiver under the GATT for the intended tariff increase, in order to provide time for compensation negotiations with trading partners.

6. Responses to unfair trading practices

Nonuniformity in the structure of protection also results from the imposition of countervailing and antidumping duties in response to "unfair" trading practices (subsidization and dumping) by trading partners.

To conform to GATT rules, such responses should be sector or firm-specific rather than across-the-board, and ex post, after demonstration of the existence of unfair practices and the extent of the resulting injury to domestic industry. (Responses to perceived unfair trade practices are currently common in several sectors, especially in steel and agriculture.) In some cases, developing countries, especially in Latin America, have resorted to the use of import variable levies 2/ and minimum import prices as a less cumbersome and more expeditious way of offsetting subsidization by the large agricultural producing countries. However, the use of these instruments may lead to unintended protection for products not affected by unfair competition, or the protection may not accurately reflect the extent of injury to domestic producers.

7. Uniformity: single rate or a few bands?

a. Number and spread

In practice, a tariff structure consisting of a few bands for broad groups of goods can serve multiple objectives while preserving simplicity and transparency and reducing incentives for rent-seeking. This proposition raises two issues: the number of bands to be chosen (i.e., the appropriate degree of differentiation), and the manner in which commodities should be assigned to the different bands (i.e., the appropriate basis of differentiation).

1/ When import surcharges are levied for balance of payments reasons, a potential GATT-inconsistency problem could arise if they affect products which are "bound" in the GATT. Trading partners would have to be compensated or else the surcharge would have to be justified under the appropriate balance of payments provisions of the GATT.

2/ It needs to be considered whether reducing domestic price instability is better accomplished through means such as buffer stock operations rather than variable levies.

Simplicity would be served by avoiding too many bands (e.g., five bands would be clearly preferable to 15). But there is no firm theoretical basis for choosing between, say, three or five bands, or choosing how far apart these bands should be. (Are nine bands with a smaller dispersion preferable to three bands with a larger dispersion?) Rules of thumb emerging from past experience suggest that a tariff structure with about three to five bands (excluding the zero rate) would be appropriate. Most industrial countries have a VAT structure with fewer than four rates (see Tait (1988)). Developing countries with relatively weaker tax institutions and less information should find it practical to adopt structures no more complicated than these.

The commodity classification in the bands would be determined by the particular policy objective. If the objective is to maximize revenue, commodities should be classified such that goods with broadly similar import price elasticities fall within a band. In other words, intra-band variation in elasticities should be smaller than inter-band variation. For achieving income distribution objectives, the classification should be based on income elasticities of demand with luxuries and necessities assigned to opposite ends of the rate structure.

When the objective is protection, targeted products (consumer or intermediate) would be assigned to the top end of the tariff structure, if targeting were considered desirable and feasible. Other products would be classified according to the stage of processing (raw materials, intermediates, and consumer goods). If raw materials and intermediates can be distinguished according to whether they are used in importables or exportables, the latter should be assigned to the lower end of the tariff structure. If this distinction is not possible, the assignment of intermediates and raw materials vis-à-vis consumer goods would depend on the feasibility of duty drawback-type schemes and on whether the anti-export bias is more important to offset than the higher effective protection for final importables (see Section IV below).

   b.   Tariff levels

Under the optimal tax-for-revenue framework, the level of tariffs applying to different sectors would vary from country to country depending on the amount of revenue that is required to be raised (or alternatively the shadow price of government revenue) and the underlying demand and supply conditions. Although these are theoretically computable, the informational requirements are prohibitive, leading to reliance on rules of thumb. 1/ When tariffs are used predominantly for protection, the choice is a response

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1/ A study for Cameroon (Dahl, et. al. (1989)) obtained highly dispersed optimal tariff rates varying from over 900 percent to -28 percent (when other taxes in the economy were taken as given) and yielding welfare that was higher than in the case of uniform tariff of 16 percent yielding the same revenue.

to the question: what is the minimum level of protection that a government
<u>has</u> to accord or can reasonably get away with? Again there are no
theoretical answers, nor is it necessary that the answer would yield the
same number for all countries. <u>1</u>/

IV. The Process of Reform

Section II considered the design of the optimal tariff structure
assuming governments had the flexibility to set tariff levels afresh. In
most cases, policymakers do not have the luxury of designing a tariff system
de novo. Existing structures have to be taken as the starting point for
moves towards the desired structure. This section will analyze the welfare
and revenue effects of partial or piecemeal tariff changes i.e., changes in
tariffs towards the notional optimum. Typically, existing structures are
highly dispersed, so that the process of reform will likely require reducing
maximum rates accompanied in some cases by the raising of low rates.

1. Reductions in maximum rates

Reducing maximum rates especially from the very high levels that often
prevail at the start of a program is acknowledged to be desirable. Often
there is a "Laffer" effect so that revenues may actually increase despite
reductions in tariff rates. This could happen for several reasons. First,
if pre-reform tariff levels are prohibitively high, tariff reductions may
well induce a significant increase in import volumes that in turn will
increase revenues. Indeed, this effect will hold as long as imports remain
elastic. Second, high tariff levels induce smuggling, evasion, and
misclassification, all of which serve to reduce revenue collection. Third,
recent work (Pritchett and Sethi (1992)) has shown that for a given value of
imports declared to customs, the proportion coming in under <u>exemptions</u> will
in practice tend to increase as the tariff rate increases, so that tariff
collection increases less than proportionally with the level of
tariffs. <u>2</u>/ The incentive to lobby for exemptions and the temptations for
abuse of the system will increase with the level of tariffs. Thus, with
exemptions endogenously determined, tariff reductions will automatically
increase (or at least decrease less proportionally) tariff revenues. The
sum of these effects will operate either to produce a "Laffer effect" over a
certain range of tariff rates, or at least to reduce revenues far less than
the reduction in rates. What this range is likely to be is difficult to say
and probably varies from country to country, but orders of magnitude can be

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<u>1</u>/ Mitra (1992) advocates a uniform tariff of 15 percent.
<u>2</u>/ The exemption effect has been quantified for Pakistan, Kenya, and
Jamaica. For Pakistan, an increase in the statutory tariff by 10 percent
increases collection by only 3.3 percent. The corresponding elasticities
for the other countries are .49 and .47 respectively (Pritchett and Sethi
(1992)).

discerned from the study by Pritchett and Sethi (1992) which shows that exemptions cause a dramatic fall in the rate of collection of duties as the nominal tariff increases. For Pakistan, the collected rate becomes negative (at the margin) at a tariff rate of 80 percent; for Jamaica, the ratio of actual revenues (based on collections) to potential revenues (based on the statutory nominal tariffs) is .43 at a nominal tariff rate below 40 percent, but falls to .11 for a nominal tariff rate above 40 percent; for Kenya, the same ratio is .58 for nominal tariff levels below 60 percent and .25 for nominal tariff levels above 60 percent.

There are two ways in which tariffs are usually reduced. Under the "concertina" method, the top rate is collapsed to the level of the next highest level (followed in Costa Rica and Guatemala); the "radial" method involves proportional reductions in all rates (used in Mexico, Brazil, and most of the Andean countries). For equal "average" reductions in tariffs, the concertina method is superior in terms of resource allocation as it reduces dispersion more than the radial method (Michaely, et. al. (1991)). This conclusion needs to be qualified in cases where the initial level of tariffs is so high (redundant tariffs) that initial reductions in tariffs will have little impact on protection. However, for the reasons spelt out above in relation to revenues, the concertina method is more likely to have a favorable fiscal impact than the radial method because it concentrates reductions on the top rates.

2. Raising low rates on intermediates

The potentially controversial issue relates to the raising of low rates. A common policy dilemma is whether or not to raise tariffs on imported intermediates. In what follows, the welfare and revenue consequences of introducing or raising tariffs on intermediate (and capital) 1/ goods, with and without duty drawback schemes is analyzed. The analysis assumes that there is an importable and an exportable good both using the intermediate as input. Other goods (nontradables and exportables not using the input) are taken into account wherever appropriate. Unless otherwise stated, the following discussion assumes that the tariff on the final importable good is given and cannot be reduced further. This lends realism to the policy debate. The analysis proceeds in stages.

a. No duty drawback

When the tariff on imported intermediate goods is raised, the distortion in the final goods importable sector is reduced (as effective protection is reduced). A necessary condition for welfare improvement is that exportables do not use the intermediate goods, or at least that importables are more intensive in the use of intermediates than exportables. If there are nontradables or other exportables using the imported

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1/ Unless explicitly distinguished, the introduction and raising of tariffs will be used interchangeably.

intermediate goods intensively, it is less likely that raising intermediate tariffs will improve welfare because additional distortions will be introduced (in the case of nontradables there will be a move away from zero effective protection for that sector). If nontradables or other exportables do not use the intermediate as input, it is still possible that welfare may increase. This could happen if the nontradable sector does not draw resources away from exportables as a result of the tariff increase.

A conclusion that can be drawn from the forgoing is that if imports of intermediate goods can be compartmentalized into those used (or used predominantly) in importables and those used in exportables and nontradables, limiting the tariff increase to the former group is likely to be welfare improving. If, however, this distinction cannot be made, i.e., if the same inputs are used in all sectors, raising tariffs would have to be based on a careful examination of the structure of production and trade.

b. Duty drawback

Raising intermediate tariffs adds an additional element of anti-export bias to the trade regime. To offset this anti-export bias, developing countries employ a variety of schemes (World Bank (1992))--duty drawback (Taiwan Province of China, India, and most Latin American countries), in-bond systems (Indonesia and Morocco), duty waivers including temporary admissions, deferred drawbacks and advance licenses, and export processing zones (Thailand, Jamaica, Brazil, Colombia, Kenya)--the net effect of which is to avoid the payment (partially or fully) of duty on imported raw materials and intermediates.

In the analysis, the raising of tariffs coupled with a duty drawback is unambiguously welfare improving because the tariff imposes a tax on importable production reducing effective protection; at the same time the duty drawback avoids or eliminates the tax on the exportable thus ensuring production and consumption efficiency in this sector. The presence of another nontradable using the imported input could modify this result because the tariff would tax this sector.

c. Revenue effects

When a tariff is raised on intermediate goods without instituting a duty drawback for exportables, the revenue effects are ambiguous because the production, and hence imports, of the final good could increase or decrease depending upon the relative intensity of imported intermediates in importables and exportables. However, if the condition that importables use intermediate inputs more intensively than exportables is satisfied, revenues are likely to go up: the input tariff increase will reduce the production, and hence increase the imports of, and revenues from, the final good; revenues from the imports of intermediates are ambiguous because resources may shift into the production of exportables while production of importables goes down. However, for small initial levels of tariffs on the intermediate input, the revenue effect could be positive.

With a duty drawback, the revenue effects will be positive even without the condition noted above having to be satisfied. This positive effect again relies on a contraction in output and hence increase in imports of the final good which will increase import revenues. Thus, raising intermediate tariffs especially in the presence of duty drawbacks is likely to have positive welfare and revenue effects.

d.   Competing domestic production of intermediates

Thus far, it has been assumed that there is no domestic competing production of intermediate inputs so that changes in their tariff did not elicit resource flows away from or into this sector (a tariff only had effects on other sectors). If this feature is incorporated, the analysis is modified marginally. With a duty drawback, an input tariff increase draws resources from the final importable sectors (and not from exportables) towards the domestic production of intermediates. This will be welfare-enhancing as long as the initial level of input tariffs is not high compared to that on final importables (so that resources move from a more "protected" to a less "protected" sector--see Panagariya (1992)). Without a duty drawback on exportables, however, resources could also be drawn from exportables which on balance may or may not improve aggregate welfare. 1/

e.   Costs of duty drawback schemes

Given that many positive welfare and revenue effects hinge on the existence of duty drawbacks for exports, it is worth examining the costs they might entail.

First, there is the danger that a duty drawback on the exports of manufactures may reduce welfare by leading to an expansion of manufactures at the expense of other (resource-based) exports (World Bank (1992)). Thus, if there are two exportables, one using intermediate inputs and the other not, a duty drawback would draw resources away from the latter to the former. The aggregate welfare implications are ambiguous in general, but the possibility of welfare deterioration remains (see Panagariya (1990)). Second, experience shows that duty drawback schemes (and to a lesser extent other similar schemes) could reduce the incentive for import liberalization if they are perceived as long-term alternatives to more wide-ranging import reform. Duty drawbacks offset partially the anti-export bias, the pressure to reduce tariffs on final goods (the other source of the anti-export bias) is correspondingly diminished. And finally, their administration can be extremely costly, lead to cumbersome procedures and delays, and where high tariffs or other restrictions exist, there is the risk of leakages and of

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1/ Note that if there is domestic competing production of intermediates but no domestic production of final importables, there would be no justification for raising intermediate input tariffs.

fraudulent claims for drawback. 1/ Furthermore, duty drawback schemes offset the anti-export bias only partially because they cover exported rather than all exportable production.

In light of these arguments, the question arises whether, in the context of piecemeal reform, a tariff increase on the intermediate input combined with a duty drawback is better than not raising the tariff from the existing level. (In the context of comprehensive tariff reform, the analogous question is whether the target tariff structure should comprise lower tariffs on intermediates than on final consumer goods.) If a domestic intermediate goods industry exists, political economy considerations might lead to the adoption of tariffs at levels close to those on final goods.

If there were no domestic intermediate goods industries to protect (as might be true in some developing countries), the question posed above would more likely confront policymakers. In raising intermediate tariffs, there is a conflict between the need to reduce effective protection and the need to avoid increasing the anti-export bias. 2/ Duty drawback schemes offset the latter partially but only if the administrative and other costs they entail do not outweigh the benefits. There is no clear empirical evidence on the net benefits deriving from such schemes, except a presumption that they are difficult to administer at high (excess of 15 to 20 percent) tariff rates because of leakages and fraudulent claims (see Mitra (1992)). 3/

3. Sequencing of tariff reform

The timing between trade reform, especially tariff reform, and supporting macroeconomic and other structural policies is critical to the sustainability and success of the process. The concern is generally about the negative effects of tariff reductions on government revenue and the balance of payments at a juncture when there is often a need to stabilize the economy. For many developing countries, tariffs represent a major

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1/ In order to avoid a pro-import bias, duty drawback schemes need to be extended also to indirect exporters namely, local producers of items on which drawback is allowed. This further complicates their administration.

2/ Note that this conflict would arise even if the tariff on intermediates was replaced, because of the lack of competing domestic production, by a matching sales tax applied to domestic and imported goods, a proposal made by Mitra (1992). The anti-export bias would then have to be offset by a drawback on the sales tax. This could also be achieved if exports were zero-rated (i.e., exempt from taxes on output and on inputs used).

3/ An alternative solution proposed by Shalizi and Squire (1988) is to refrain from raising intermediate tariffs (so that the anti-export bias is avoided) but instead to levy a domestic tax on the output of the final good to reduce the effective protection. The feasibility of this proposal (which requires taxes exclusively on domestic production) remains open (see Mitra (1992)).

source of government revenue. In the early stages of reform, it is likely
that the design of the tariff structure would be influenced predominantly by
revenue and income distribution considerations. It would be important to
announce the medium-term objectives of the reform, including the expected
level and dispersion of tariffs at the end-point of the reform. Such a
preannouncement will enable production and investment decisions to be guided
by the permanent future regime, rather than solely by current tariffs which
will be seen as temporary. During the transition, the evolution in the
structure and level of tariffs could be linked to progress on domestic tax
reform. Indeed, embarking on a tariff reform is often a trigger for a
serious assessment of the adequacy of the domestic revenue base.

V. Experience of Reform

1. Broad features of tariff reform

Certain broad features emerge from the experience of tariff reform in a
sample of six developing countries (Bangladesh, Brazil, Colombia, Egypt,
Ghana, and Korea) (Table 1; for details, including the basis for sample
selection, see the Annex). Some of these countries have completed their
reforms (Colombia), and in others they are ongoing (Bangladesh, Egypt, and
Korea). The planned pace of reform has varied from very fast to very
gradual (two years in Colombia and 16 years in Korea). The choice of pace
does not necessarily affect success in reform. Colombia and Ghana both have
been successful reformers--Colombia was an adherent of the "big bang"
approach, while Ghana's reform was more gradual (spread over 9 years).

All the sample countries simplified the tariff system by reducing the
number of tariff rates and other charges on imports. As Table 1 shows, four
countries, for which data are available, had more than 20 different tariff
rates (43 in the case of Egypt) prior to the reform. These were reduced
sharply in all cases to between 3 and 10. In the case of the successful
reformers (Ghana and Colombia) the target number of bands was about four.
Prior to reform, wide variations in effective protection also resulted from
the multiplicity of other charges levied exclusively or discriminatorily on
imports; for example, Brazil had 11 and Egypt had 5 other charges. Often
these charges were applied at different rates and had their own list of
exemptions. For example, the sales tax in Bangladesh had three rates; and
in Ghana a super sales tax was levied at rates ranging from 10 to
500 percent. Table 1 shows that in many of these countries, these other
charges were either eliminated or assimilated into the tariff, thereby
contributing to greater simplicity and transparency.

In all cases, the average level and dispersion of tariffs were
significantly reduced. Greater emphasis was placed on reducing the maximum

Table 1. Tariff Reform in Selected Countries

(In percent unless otherwise specified)

	Bangladesh	Brazil	Colombia	Egypt	Ghana	Korea
Year initiated	1986	1990	1990	1986	1983	1978
Duration (Years) 1/	7	3.5	2	7	9	16
No. of tariff rates 1/						
Initial	24	18	22	43	n.a.	n.a.
Present	7	13	4	10	3	n.a.
Final	4	9	4	n.a.	n.a.	n.a.
Other charges (number) 2/						
Initial	5 3/	11	1 4/	5	2 5/	n.a.
Present	2	11	0	1 6/	1	n.a.
Final	1	n.a. 7/	0	n.a.	0	n.a.
Other charges (Rate) 8/						
Initial	13-83 9/	6.2 10/	18 4/	22-27 1/	10-500 5/	n.a.
Present	5 12/	6.2	n.a.	n.a. 16/	10 max	n.a.
Final	2.5 13/	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum tariff						
Initial	400	85	200	160 14/	50 14/	60
Present	100 14/	65	25	80 14/	25 14/	50
Final	30	35	25	n.a.	n.a.	n.a.
Average tariff 15/						
Initial	n.a.	32.2	43.6	48 16/	n.a.	41
Present	120 17/	25.3	11	31 18/	17	10.1
Final	<30	14.2	n.a.	n.a.	n.a.	7.9
QRs reduced						
Before		✓	✓	✓		
Simultaneously	✓		✓		✓	
Pre-announcement of target structure						
Yes	✓	✓	✓		✓	
No			✓	✓		
Cascading structure						
Yes	✓	✓	✓	✓	✓	✓
No						
Structure of tariffs 19/						
Raw materials	55	n.a.	5,10,15	20	10	3.3
Intermediates	70	n.a.	5,10,15	22	10	9.3
Final	74	n.a.	20	56	20,25	9.4
Duty drawback						
Yes	✓	✓	✓	✓	✓	✓
No						
Minimum tariffs raised						
Yes	✓			✓		
No		✓	✓		✓	✓

Sources: General Agreement on Tariffs and Trade (GATT), Trade Policy Review Mechanism reports; World Bank; and IMF.

Note: Although the table covers the period until the present, tariff reform is still ongoing in some countries.

1/ Excluding the zero rate. At present, a few products have three other rates in Bangladesh.
2/ Includes charges either levied exclusively or discriminatorily on imports.
3/ Before 1991.
4/ A uniform import surcharge already included in the average tariff was levied.
5/ A special import tax on some items ranging from 10 to 40 percent, introduced in 1988, and reduced to a maximum of 10 percent in 1992. The special import tax is supposed to be abolished. A super sales tax levied on some imported luxury goods, with rates ranging from 75 to 500 percent also apply. The super sales taxes was lowered in 1991 then abolished in 1992.
6/ The new sales tax still discriminates against certain imports.
7/ Although no explicit commitment has been announced, Brazil should eliminate all surcharges and fees in order to be compatible with MERCOSUR Common External Tariff.
8/ Refers to sum of other charges.
9/ Comprises development charge (8 percent), regulatory duty (2.5-50 percent) sales tax (0, 10, and 20 percent), advance income tax (2.5 percent), and letter of credit authorization fee (2.5 percent).
10/ The most important surcharges are applied on port facility services (50 percent) and on the insurance and freight component of the imported goods (25 percent). There are also fixed fees applied on imports. None of these surcharges and fees is included in this figure.
11/ Comprises consumption tax, import deposit scheme (7 percent), statistical tax, economic development duty, and other charges (latter three amount to 15-20 percent); consumption tax rate note known.
12/ Advance income tax (2.5 percent) and letter of credit authorization fee (2.5 percent).
13/ Advance income tax (2.5 percent).
14/ Higher rates apply to some selected products. The Government of Bangladesh has not yet announced the target maximum tariff rate.
15/ Simple average of nominal tariffs, except for Bangladesh and Egypt.
16/ Weighted average.
17/ Simple average statutory rate of duty.
18/ Figures are for May 1991 and are simple averages of applied tariffs.
19/ In the case of Bangladesh, the classification is: primary, semi-processed, and processed products. In the case of Bangladesh and Egypt, figures are simple averages of applied tariffs; for Korea, figures are for industrial tariffs.

rate and on reducing or eliminating exemptions 1/ than on raising minimum taxes (the latter occurred only in two out of the six sample countries-- Bangladesh and Egypt). In all cases the basic cascading structure (i.e., higher tariffs applied to goods at more advanced stages of processing) was maintained both before and after the reform process. This implies that effective protection for final goods was, and remained, greater than that for intermediate and capital goods. Nevertheless, it can be inferred that because pre-reform maximum rates applied to final goods and that these were reduced more than the average, effective protection for final goods relative to intermediates and raw materials did come down.

Maximum tariff rates have been substantially reduced, often from very high initial levels (400 percent in Bangladesh, 200 percent in Colombia, and 160 percent in Ghana) to 25 percent in the case of Ghana and Colombia; Brazil has set a target maximum rate of 35 percent. (Latin America tends to show striking similarity in the number of bands and the level and spread of tariffs.) Average tariff levels have been reduced in all the sample countries, with Colombia, Ghana, and Korea having among the lowest levels-- 10 to 17 percent. These averages understate the true extent of the reduction in taxes on imports as they do not take into account the reduction or elimination of the other charges on imports. Current average tariff levels of even Ghana and Colombia are still higher than those in the major industrial countries (EC, Japan, and the United States) which are less than 10 percent (below 5 percent for manufactured goods).

All six countries in the sample appeared to be cognizant of the anti-export bias of high tariffs and took measures to offset this partially by instituting a system of duty drawbacks (or a variant) for exports using imported intermediates.

In three of the six countries, the reform of quantitative restrictions (QRs) preceded tariff reform, and in the remaining three, both reforms took place simultaneously. Both the successful reformers undertook QR reform before tariff reform. Four out of the six countries preannounced their target structure.

2. Impact of policy objectives on tariffs

   a. Tariff structure

It will be recalled that for the attainment of the fiscal objective, theory calls for differentiation in the tariff structure based on the import elasticity of demand for a product (and should also lead to higher tariffs on intermediates). In practice, in none of the sample countries did differentiation accord with this criterion, and tariffs on intermediates were lower than those on final goods (see below). The fiscal objective was

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1/ Since exemptions were to a considerable extent user-based rather than product-based, their elimination reduced distortions.

thus not the main determinant of the tariff <u>structure</u> in the sample countries; it was, however, a determinant of the <u>level</u> (see below). 1/

In almost all the sample countries, <u>income distribution goals</u> played a significant role in shaping the pre-reform and target tariff structures. In a number of countries, basic food (agricultural) items and medicines (which have low income elasticities of demand) either face very low rates or are exempted altogether from tariffs. This is especially true where there is no competing production. Colombia and Korea, however, maintain high tariffs (and in the case of Korea, quantitative restrictions) on final agricultural products <u>imports</u> for protection reasons. Luxury consumer goods generally face high tariffs, reflecting both income distribution and protection objectives.

The use of tariffs for <u>protection</u> is evident in all the cases examined. Tariff structures in the sample countries tend to cascade, so that <u>prima facie</u> there is evidence of strong (or stronger) pressure from domestic final goods producers. The influence of protection is also manifested in the quicker and deeper tariff reform for products with no domestic competing production (this is also true of tariff reforms in several Latin American countries outside the sample). Lower tariffs on intermediates could also result from a welfare-motivated concern for reducing the anti-export bias (and to a lesser extent for reducing the bias against nontradables using imported inputs) resulting from high input tariffs. The need to avoid the anti-export bias is reflected in the universal espousal of duty drawbacks or similar schemes in the sample countries. However, the question arises as to why intermediate tariffs were not set closer to final goods tariffs (which would avoid higher effective protection for the latter) while at the same time employing duty drawback schemes to offset the tax on exports. This could result from a conscious decision to accord greater protection to final goods industries, or could reflect problems of implementing an efficient duty drawback scheme at high tariff levels. 2/

In sum, the design of tariff structures under comprehensive tariff reforms in the sample countries appears to have been influenced by both income distribution and protection objectives; the universal tendency to reduce rates to a few bands reflects practical considerations, such as simplicity, administrative convenience, etc., discussed in Section III.

1/ However, the high tariffs levied on alcoholic products and tobacco, which have low price elasticities of demand, could be suggestive of a consistent application of tariff theory for fiscal purposes. Higher tariffs on these goods could also reflect concerns about the externalities and social costs associated with their consumption.

2/ In Section IV, the welfare effects of duty drawbacks were considered in the context of raising intermediate tariffs. In practice, the same issue arose only in terms of whether intermediate tariffs should be lowered more than tariffs on final goods.

b.   Tariff level

This section considers the experience of the six sample countries in terms of the impact of the fiscal, balance of payments, and protection objectives on the average level of tariffs during the reform process. Toward this end, an illustrative exercise is undertaken to compare selected macroeconomic indicators (reflecting the fiscal and balance of payments situation) in the pre-reform, reform, and, where applicable, the post-reform periods (Charts 1 and 2, and Tables 2-7 provide economic indicators for the sample countries). The pre-reform period is defined to cover the three years preceding the initiation of tariff reform. The fiscal indicators used are (i) the overall deficit to GDP ratio, and (ii) the share of customs revenue in total revenue. The balance of payments indicators are (i) the current account balance to GDP ratio, (ii) the reserve ratio, and (iii) the change in the real effective exchange rate.

The fiscal objective had a significant influence on tariff reform especially in those sample countries where reliance on tariffs as a revenue source was high and where alternative domestic revenue sources took time to develop. In the pre-reform period, tariffs accounted for between 25 percent and 35 percent of total tax revenue in Egypt, Colombia, Ghana, and Bangladesh; for Korea, the figure was about 12 percent, whereas in Brazil the contribution of tariffs was negligible (about 2 to 3 percent).

The successful tariff reformers--Colombia and Ghana--were also the most successful in alleviating the fiscal constraint. In these countries, the fiscal deficit to GDP ratio dropped significantly during the reform period compared to the pre-reform period (from 2.4 percent to 0.9 percent in Colombia, and from 6.5 percent to 0.4 percent in Ghana). In Colombia, complementary tax reform helped in reducing the dependence on tariffs as a source of fiscal revenue--from over 24 percent in the pre-reform period to less than 18 percent during the reform. In Ghana, although the share of customs revenue increased during the reform, it was attributable mainly to the depreciation of the Ghanaian cedi rather than tariff increases. In Bangladesh, tariffs accounted for a large portion of revenue, initially constraining the pace of reform. As the fiscal situation improved (with a decline in the fiscal deficit to GDP ratio) the pace of reform picked up; furthermore, with the implementation of the broader-based value added tax, the contribution of tariffs to total revenue decreased somewhat during the reform. In Korea, two interruptions in the process of tariff reform (in 1980 and 1990) were due to a deteriorating fiscal situation.

In all the sample countries, trade restrictions have been used explicitly in response to balance of payments problems. However, the implementation of macroeconomic stabilization policies (including more flexible exchange rates) helped to relieve the balance of payments constraint during or prior to the reform. In the case of Colombia, both the current account balance and reserve ratios improved significantly during the reform compared to the pre-reform period (Chart 2), aided by the depreciation of the real effective exchange rate. Similarly in Ghana, an

CHART 1
Fiscal Situation

Bangladesh

Brazil

Colombia

Egypt

Ghana

Korea

■ Fiscal Balance (% of GDP)   ⊞ Revenue (% of GDP)
▨ Expenditure (% of GDP)   ▧ Trade Taxes (% of Revenue)

Source: International Monetary Fund.

CHART 2
External Situation

Bangladesh

Brazil

Colombia

Egypt

Ghana

Korea
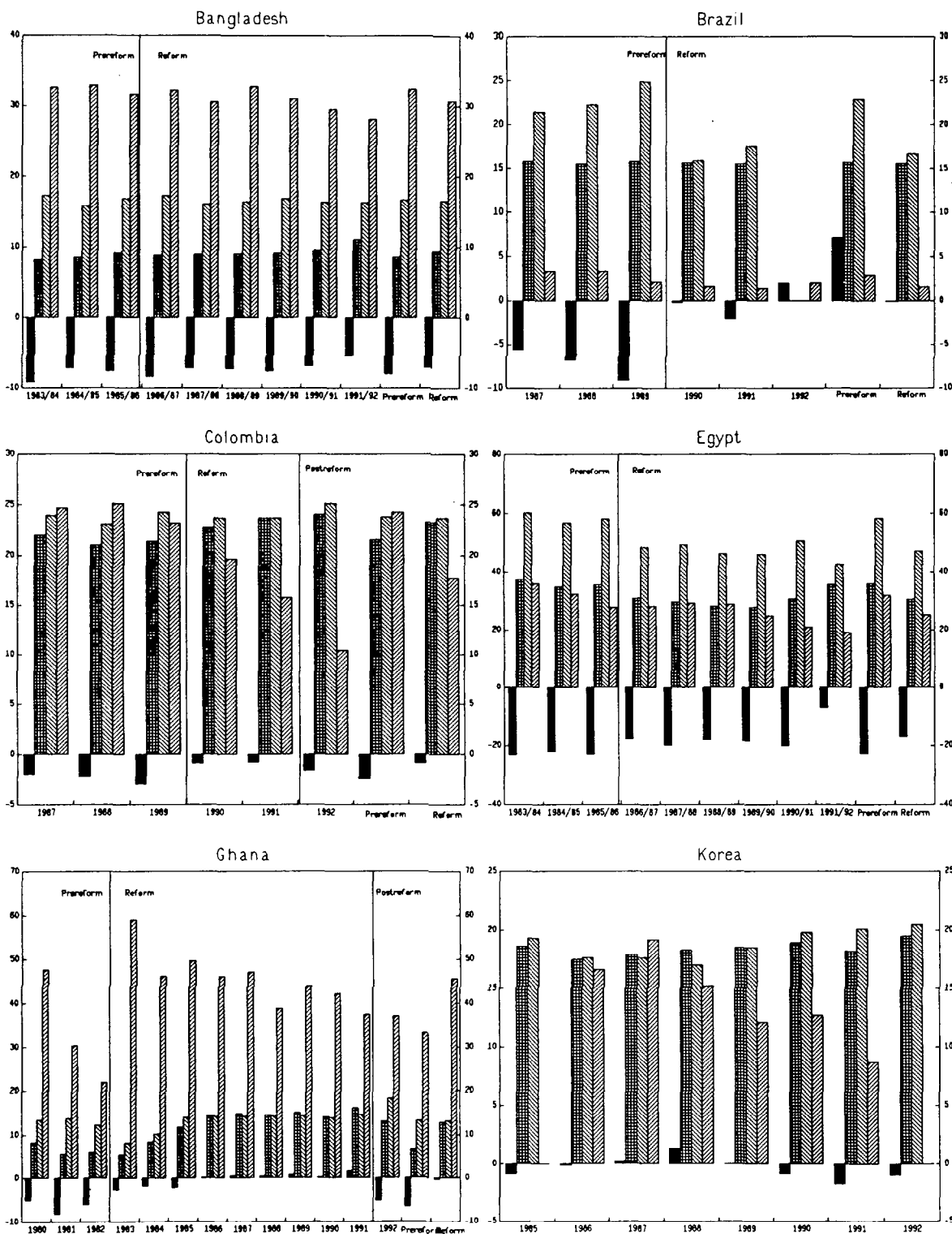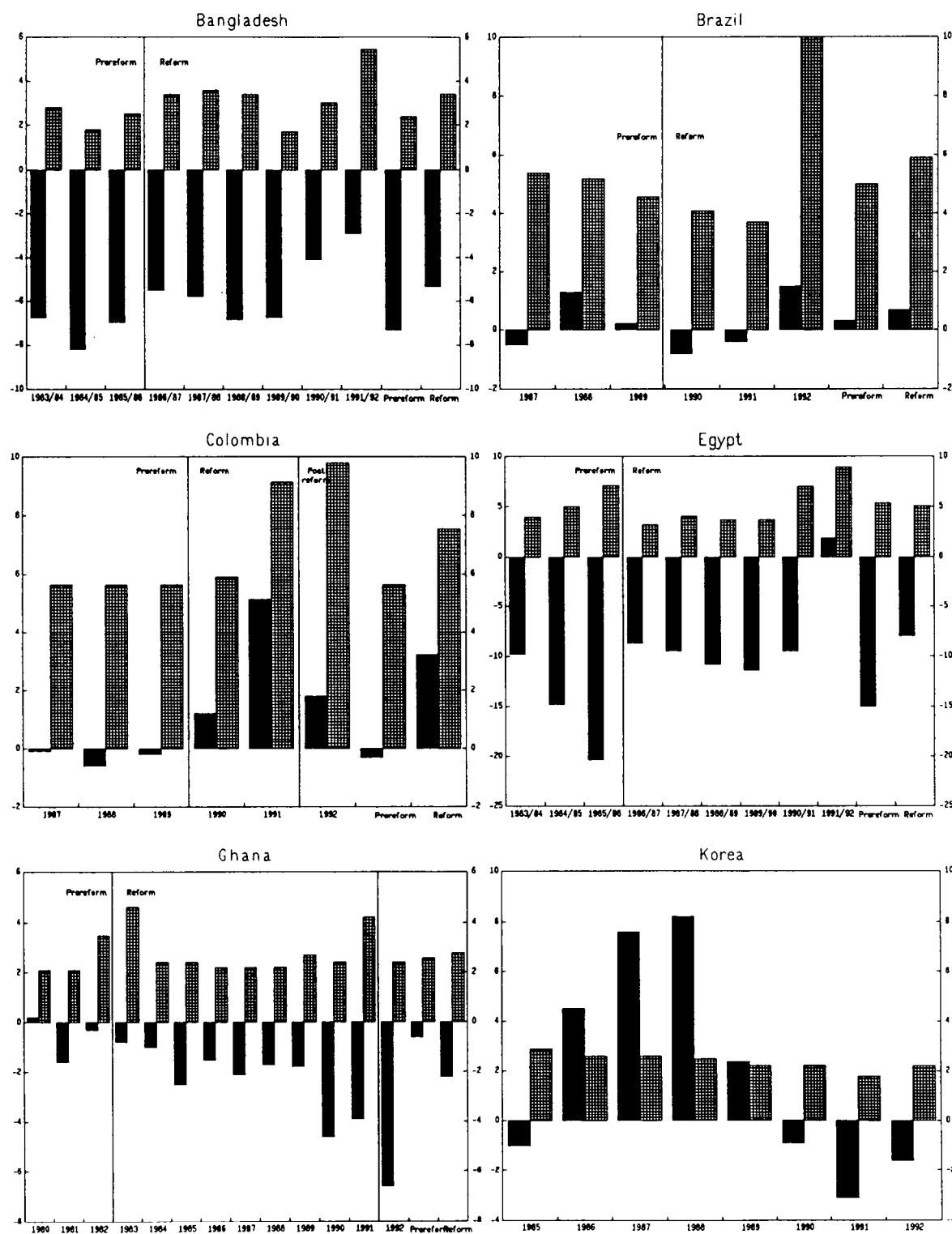
■ Current Account (% of GDP)
⊞ Reserves (months of imports)

Source: International Monetary Fund.

active exchange rate policy helped to ease the balance of payments constraint on tariff reform. In Bangladesh, too, the external indicators improved, facilitating tariff reform. The push towards trade liberalization in the sample countries was facilitated by the view of the authorities that trade restrictions (especially quantitative restrictions) contributed to balance of payments problems rather than solving them. All but two (Bangladesh and Egypt) of the sample countries have disinvoked GATT Article XVIII.B which permits temporary trade restrictions for balance of payments reasons.

The strongest evidence of resistance to reform arising from domestic protectionist pressures comes from Brazil, Egypt, and Korea. In these cases, the pursuit of import substitution policies over long periods in the past created especially strong domestic resistance to reform. Korea has attempted to deal with this issue by phasing the reform over an extended period. Brazil has attempted a much faster pace of implementation and tied it with regional integration moves (in MERCOSUR). Egypt's tariff reform has been gradual despite significant recent improvements in both the external and fiscal indicators (for example, both the current account to GDP and fiscal deficit to GDP ratios have fallen sharply during the reform period, as has the dependence on tariffs for revenue). Thus, the underlying macroeconomic climate is propitious for further tariff reform.

In the case of the more advanced developing countries (Brazil and Korea), the pace and scope of reforms have also been influenced by pressures from trading partners. Moves toward regional integration have affected significantly the nature and pace of reforms in Brazil and Colombia, as well as in many other Latin American countries.

VI. Summary and Policy Lessons

The purpose of this paper has been to examine the theory underpinning the design of optimal tariffs in a developing economy under various policy objectives, and the experience of its implementation. A central question that has been addressed in this paper is whether a case can be made, on theoretical or other grounds, for a uniform tariff structure and, if so, under what circumstances. The paper has been based on a review of the theoretical literature, and of the experience of tariff reform in a sample of six selected countries (Bangladesh, Brazil, Colombia, Egypt, Ghana, and Korea).

For a small country (that cannot influence the prices of its imports), welfare is maximized by zero import tariffs across-the-board. A case can be made for designing a nonzero optimal tariff structure when governments wish to pursue objectives other than pure economic welfare maximization, and they are constrained to use tariffs rather than other more appropriate domestic measures to attain these objectives. Four such objectives have been considered in the paper: revenue, protection, income distribution, and balance of payments.

The theoretical review indicated that with the exception of the balance of payments objective, attainment of the various objectives implies that the optimal tariff structure would be highly differentiated. To maximize revenue, the optimal tariff structure should comprise lower tariffs on products with elastic import demand and higher tariffs on inelastic products. This is often difficult to compute and is rarely attempted in practice. To keep the structure administratively simple, the target amount of revenue could be raised by a minimally differentiated (or uniform) tariff structure. The fiscal objective is often important in the early stages of reform, and generally affects the pace and extent of tariff reform rather than its structure. Over time, as alternative domestic revenue sources develop, the relative weight given to the fiscal objective should diminish and it becomes less crucial in the design of tariff reform.

To improve income distribution, the optimal tariff structure should be escalated according to the "luxury content" or the income elasticity; necessities or essentials should have the lowest tariffs and luxury consumer goods the highest. In this instance, practice has generally followed theoretical considerations. Over time, it would be desirable to develop appropriate domestic measures (taxes, and/or subsidies) to achieve income distribution goals.

By contrast, if the objective is to contain (temporarily) balance of payments pressures, and there are constraints on the use of other more appropriate instruments (such as the exchange rate), an import surcharge can be used to approximate an exchange rate change on the import side. The optimal tariff structure should be uniform, through the imposition of an across-the-board import surcharge; this would induce resources to flow into the importable goods sector in general, rather than any one particular importable industry. Of course, such a surcharge would increase the anti-export bias of the trade regime, which is likely to prolong balance of payments difficulties. Furthermore, to the extent that this surcharge affects products which are "bound" in the GATT, the country is required to compensate trading partners for the violation of its GATT obligations, unless it consults with the GATT Committee on Balance of Payments Restrictions and seeks cover under GATT Article XII or Article XVIII which deal with restrictions maintained temporarily for balance of payments reasons.

For protection, arguments for tariffs on infant industry and similar grounds imply a highly differentiated (nonuniform) tariff structure. The difficulties and pitfalls of targeting have increased support for broader based protection with relatively narrow differentiation among sectors/industries. The differentiation should distinguish commodities according to the stage of processing. The rates that should apply to raw materials and intermediates vis-á-vis consumer goods would depend on the feasibility of duty drawback schemes, and whether higher priority is accorded to offsetting the anti-export bias than to reducing the high effective protection for final importables.

In practice, governments are faced with multiple (and conflicting) objectives, and strike compromises depending on the priority assigned to each objective. The resulting tariff structure will most likely not be theoretically optimal from the perspective of any one objective, and it is unlikely to be uniform. In the past, tariff structures in many developing countries became complex and nontransparent over time as a result of ad hoc government responses to conflicting needs and pressures. In the 1980s and the 1990s, many countries are attempting to institute simpler structures.

There are other factors, apart from those related to the theory of optimal tariffs, that in practice probably have predominated tariff design. These factors have also tended to produce nonuniform tariff structures. Bilateral, regional, or multilateral negotiations influence tariff structures. For example, countries in a customs union have to agree on common external tariffs, and these usually represent compromises between different national interests. The timing and extent of tariff reforms are influenced by strategic considerations; for example, countries have held back on tariff reform in order to gain negotiating leverage in multilateral negotiations. Similarly, some countries have tied tariff reforms in specific sectors (mainly agriculture and textiles) to the outcome of multilateral negotiations.

While theoretical and negotiating considerations in most cases imply nonuniform tariff structures, a host of practical considerations argue for the opposite. Considerations of political economy, administrative convenience, and lack of information have proved to be very influential in the design of tariff structures and have also provided strong arguments against complex and differentiated structures. Perceptions of uniformity of treatment of productive activities help prevent interest groups from further lobbying to secure greater protection, and thereby minimize the costs of rent-seeking. Less complex tariff structures can be administered more easily, avoiding cumbersome paperwork and reducing the incentive to misclassify products. Furthermore, inadequacy of information on the relevant economic variables and parameters has often militated against the design of complex tariff structures even though they may be theoretically optimal. Skepticism about the feasibility (and wisdom) of targeting has increased support for broader based protection with relatively narrow differentiation among sectors/industries.

Once the structure has been designed, the appropriate number of tariff bands, their levels, and the assignment of products to these bands have to be decided. Although it is theoretically possible to determine optimum tariff levels under revenue and income distribution objectives, the lack of information militates against this in practice and hence rules of thumb are usually applied. The choice of tariff levels for protection depends, in practice, on the extent to which it is politically feasible to contain the demands of domestic producer interests. Simplicity is served by avoiding too many bands; but there is no firm theoretical basis for precisely choosing between say, three or five bands, or choosing how far apart they should be within a moderate range. Rules of thumb emerging from experience

of past implementation of tariff reform in developing countries, and VAT reform in industrial countries, suggest that it may be appropriate to aim for a tariff structure with three to five bands, with a maximum tariff preferably between 15 and 20 percent, but no greater than 25 to 30 percent. The classification and assignment of commodities could be along the lines described above.

The paper has also analyzed the process of reform, starting from the existing tariff structure. This usually involves the lowering of maximum rates and sometimes the raising of minimum rates. Theoretical and empirical work demonstrates the favorable revenue and welfare effects of reducing maximum rates (especially from the very high levels prevailing prior to reforms) because of reduced incentive for smuggling, evasion and lobbying for exemptions. There could be a "Laffer" effect over a wide range of tariff levels.

By contrast, the raising of low tariff rates on intermediate goods is a controversial issue. In general, it need not increase welfare and revenues, but is likely to do so in the presence of duty drawback-type schemes. However, the latter entail costs including the potential risk that exports under these schemes may expand at the expense of other exports, the perception that these schemes could be a surrogate for wide-ranging import liberalization, and the leakages and fraudulent claims for drawbacks that in practice pose serious implementation problems, especially when input tariffs are high. If the costs associated with duty drawback schemes are high, the case for applying uniform tariffs to intermediates and final goods would be weakened.

Other policy lessons that emerge are the need to simplify the tariff system by assimilating all charges applied on imports (including the component of domestic taxes that discriminates against imports), eliminating exemptions and converting specific to ad valorem duties. This contributes to transparency and minimizes rent-seeking.

On sequencing, the evolution of the tariff structure should be consistent with the nature of the operational objectives. Revenue and income distribution objectives will be important determinants of tariff structure initially, but as domestic tax reform and other income-support measures are put in place, these objectives should cease to influence tariff structures. 1/ In the latter stages, only the protection constraint should bear upon tariff structures. Preannouncement of target tariff levels

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1/ This is supported by findings which show that trade-neutral commodity taxes should tend towards uniformity, as income support measures are instituted to achieve distributional objectives (see Stern (1990)). It should be noted, however, that even the target tariff structure will need to be differentiated to accommodate income distribution goals. If it is decided to exempt basic consumer goods from all consumption taxes, for example, they would also have to be exempted from tariffs.

and structure, if credible, would mean that production decisions would be guided by future rather than current tariffs. This should minimize distortions during the transition.

The experience of reform in the six sample countries studied has shown that countries simplified their tariff structures by reducing the number of tariff rates and other charges on imports; and significantly reduced the average level and dispersion of tariffs, the latter being achieved mainly through reductions in the maximum rates. The tariff structure, both prior to and post-reform, reflected the operation of income distribution and protection objectives. Reductions in tariff levels have been facilitated by measures to ease fiscal and balance of payments constraints. The most successful reformers (Colombia and Ghana) reduced their fiscal deficits significantly; measures to broaden the tax base also helped the reform process. The flexible use of the exchange rate helped to relieve the balance of payments constraint. In some countries, however, protectionist pressures impeded far-reaching reform despite improvements in the fiscal and external positions.

A number of developing countries that have undertaken reform in the recent past appear to have settled at a target tariff level of about 15 to 30 percent for the maximum tariff. Attaining such tariff levels depends upon the implementation of measures that alleviate the revenue and balance of payments constraints. Once these are overcome, tariff levels should be set at the lowest possible level consistent with domestic political pressures, which may vary from country to country. To help safeguard against such pressures, a number of countries have "bound" their newly instituted tariff structures in the GATT. Maximum tariffs of 15 to 30 percent, while sharply lower than in the past, continue to provide significant protection, and remain above levels prevalent in many industrial countries. Further tariff reduction and, if necessary, their replacement by more transparent forms of budgetary assistance would be desirable and should be pursued over the longer term. The experience of industrial countries' tariff reforms has shown that very low tariff levels are attainable more easily under successive rounds of multilateral negotiations; the exchange of concessions that normally occurs in such negotiations provide the quid pro quo that is often necessary in practice to build domestic public support for liberalization.

Tariff Reform in Selected Countries

I. Introduction

This Annex provides background information on tariff reforms undertaken in each of the sample group of six countries (Bangladesh, Brazil, Colombia, Egypt, Ghana, and Korea) used to provide the comparative analysis in the main text of this paper. The choice of the sample was guided by: (i) the desire to have a wide geographical coverage, with countries at different stages of their tariff reform, and invoking (or had invoked in the past) GATT cover for trade restrictions for balance of payments reasons; and (ii) data availability, including the existence of a GATT Trade Policy Review Mechanism (TPRM) report which is a major source of detailed information on a country's trade regime. The write-up below is not intended as a comprehensive case study, but rather to highlight the salient features of the tariff reform and other related trade reform, with brief observations on supporting macroeconomic policies affecting the tariff reform. (The main results are presented in Table 1 in the text.)

II. Bangladesh

1. Characteristics and sequencing of tariff reform

In the 1980s trade reform in Bangladesh took gradual steps towards liberalizing nontariff barriers and introducing tariff reforms after years of pursuing an import substituting strategy. Decisive steps toward the elimination of quantitative restrictions (QRs) were first taken in 1985-86 with a shift from a positive to negative list of banned and restricted items. By 1989, 320 four-digit HS categories out of a total of 1,239 representing 26 percent of items, remained subject to QRs. These items were concentrated in areas--fertilizers, chemicals, textiles, metal products, and finished consumer goods--in which domestic production existed, suggesting the operation of a protection motive. Liberalized products were selected with a view to stimulating export production and reducing protection for food, paper, and wood industries. Until February 1993, about 240 four-digit product categories contained restrictions or bans, including about 75 for public safety, religious and other non-economic reasons and about 165 on protective and other trade grounds. 1/ The latter group was then cut by 100, leaving only 5 percent of all four-digit categories subject to trade-related QRs. It is envisaged that this will be reduced to 3 percent in July 1993 and almost completely eliminated a year later.

1/ Most (193) of the 230 categories were on a Control List and the rest were restricted through the text of the Import Policy. In addition to the 230, the latter included three quarantine and other non-trade safety requirements covering wide ranges of four-digit categories.

Although the first steps toward tariff reform began in 1983, a major revamping and simplification occurred in 1986 when the number of tariff rates was reduced from 24 to 11. Of the 11 rates, five were accounted for by raw materials (rates of 0 percent to 20 percent), one by intermediates (50 percent rate), one by final products (100 percent), and four by luxury consumer goods (150 percent to 400 percent).

Bangladesh undertook further rationalization in 1992 supported by expected resources from the World Bank (Industrial Section Adjustment Credit II) by reducing exemptions, reducing the maximum statutory rate to 150 percent (with 200 percent to 400 percent for 12 luxury product groups), eliminating the regulatory duty and development surcharge (see below) and replacing them with a 10 percent addition to all tariff rates below 100 percent. As of March 1993, there were seven non-zero tariff bands ranging from 7.5 to 100 percent, seven other rates covering a few items including luxuries at 125-300 percent, and specific duties on petroleum products. The simple average statutory rate of duty was 120 percent, but general and special concessions reduced the simple average operative rate to 48 percent. The collection rate in 1992/93, reflecting the composition of imports as well as the customs duty rate structure, is expected to be about 22 percent. During the second half of the 1980s the customs duty collection rate ranged between 28 and 33 percent.

The tariff structure exhibits escalation in both agriculture and industry, with processed goods facing higher duties than semi-processed goods; and raw materials, such as raw cotton used in export production, face zero or very low rates of duty. Basic consumer goods such as pharmaceuticals and certain foodstuffs also face low rates of duty. There are also a number of exemptions for capital, machinery, machine spores, electronic products, scientific instruments, etc. Most (63.5 percent) imports fall into the lowest customs band of 0 percent to 20 percent which however yields only 23 percent of total customs revenue; on the other hand the largest revenue (32 percent) is obtained from the 20 percent to 40 percent range, which accounts for 24 percent of total imports.

High tariffs on luxury goods reflect the working of the protection and income distribution objective. Textiles and clothing have the highest nominal tariff rate (average of about 250 percent) which also represents high effective protection because of the low tariff on raw cotton. The income distribution objective is reflected in high tariffs on sectors such as beverages and spirits (193 percent) and toys (152 percent), where domestic production is largely nonexistent.

Supported by a second World Bank structural adjustment credit (ISAC II), further tariff reform is envisaged which is expected to reduce the number of bands to 7 by mid-1994, reduce the maximum rate to 45 to 50 percent (with a few temporary exceptions which would have to be justified on industry assistance grounds) and to eliminate most user-based exemptions. Bangladesh is also expected to announce the long term target for the tariff level and structure which is envisaged to be attained by 1997. The target

is set in terms of matching levels of effective protection of internationally competitive developing economies which would yield a target range of between 0 percent and 30 percent.

Until 1991, five other charges were levied exclusively on imports: the development charge (8 percent), the regulatory duty (2.5 percent to 50 percent), the sales tax (0, 10 and 20 percent), the advance income tax (2.5 percent), and the import authorization fee (2.5 percent). The development surcharge was levied on the value of imports inclusive of tariffs and sales tax and the sales tax on the tariff-inclusive value. The system was thus extremely complex and rendered difficult any assessment of the protective impact (in effective terms) of the tariff structure.

In 1991, a value-added tax (VAT) was introduced on the tariff inclusive value of most imports to replace the import sales tax. This trade neutral instrument has contributed a significant reduction in protection, since its equivalent on domestic production replaced a domestic excise duty which had been levied on a much narrower range of products. In spite of exemptions for textiles and some other goods, the VAT also greatly improved the transparency of the system by virtue of its uniform rate (15 percent). Higher taxation is levied on "luxury" consumption goods, however, through a selective supplementary duty which also is levied on both imports (on the same basis as customs duty) and domestic production.

Currently, two additional charges are levied: a 2.5 percent advance income tax applicable to all taxpayer-importers and a 2.5 percent letter of credit authorization fee which is in place for fiscal reasons and is expected to be removed in 1993 or 1994.

In order to relieve exporters of the disadvantage stemming from taxes on inputs, Bangladesh employs processing zones, bonded warehousing facilities, temporary admission schemes, and schemes for refunding duties and taxes paid on imported and domestic inputs (including the newly instituted VAT). These schemes apply to direct and indirect exporters (i.e., domestic manufacturers of inputs used in export production). Exporters include actual exporters and "deemed" exporters, viz. those who meet orders from international or local tenders against foreign exchange. Successive programs including the latest supported by the World Bank's ISAC-2 credit have attempted to enlarge the scope and improve the efficiency of such schemes.

2.   Supporting macroeconomic policies

Bangladesh has adopted a gradual approach toward implementing trade reform in general and tariff reform in particular. Even if reforms were to progress in line with current expectations, it will have taken 13 years for tariffs to reach moderate levels of tariff protection. Only recently has momentum gathered toward accelerating the pace of reform.

Sustained stabilization policies, supported by use of Bank/Fund resources, have helped to reduce the external and fiscal deficits from about 10 percent to 12 percent of GDP in the early 1980s to about 7 percent to 8 percent in early 1990 (see Table 2). Despite flexible exchange rate management, the taka remained overvalued through the mid-late 1980s, reflected in the spread between the official rate and the secondary market rate. Since 1989, however, the real effective exchange rate has depreciated sharply and the spread between the official and parallel rate correspondingly narrowed, allowing unification of the exchange system in early 1992.

While recognizing the importance of trade liberalization and its contribution to efficient resource allocation and export performance, Bangladesh has been mindful of the balance of payments and fiscal constraints on tariff reform. Ever since its accession to the GATT in 1972, Bangladesh has been invoking Article XVIII:B of the GATT to justify its quantitative restrictions on balance of payments grounds. The fiscal constraint is reflected inter alia in the high reliance on customs revenue (about 30 percent to 33 percent of total revenue) (Table 2).

The improved economic situation in 1991/92, despite natural disasters, has now created the conditions for pushing ahead with faster reform. Given the recent improvement in the current account balance and reserve position, tariff reform appears to be less constrained by the external position. The fiscal constraint will also be alleviated to some extent by the tight targets for fiscal magnitudes and especially by implementation of the trade-neutral value added tax which is intended to enlarge the domestic tax base. In its first year of operation (1991/92), revenues from VAT have been so buoyant that the share of customs duties in total revenue has fallen by 3 percent (Table 2).

Another feature of the reform, current and prospective, is that time is being provided for domestic industry, sheltered for years by protective barriers, to adjust to international competition. This is reflected not only in the duration of the reform process, but also in the flexibility that is envisaged during the process to adjust upward the tariff rate where a case for industry assistance can be made. Preannouncement of the target tariff structure also helps domestic industry to plan for changed conditions. Of course, whether the protection will be strictly time-bound will depend on the credibility of, and hence the commitment to, the reform.

III. Brazil

1.   Characteristics and sequencing of tariff reform

For the last four decades, Brazil has maintained very restrictive trade policies along with extensive regulation. Both have inhibited the operation of a competitive market economy and have given governments

considerable discretionary power. These restrictions protected domestic producers in order to foster import substitution. During the 1980's, these restrictions were also motivated by balance of payments difficulties and the need to generate surpluses to service external debt. To improve the efficiency in the production and trade of goods and services through the modernization and restructuring of the industrial sector, the Government undertook a trade reform in March 1990.

The Brazilian trade reform was designed in two stages. The first one changed the form of policy intervention by shifting protection from import quotas to tariffs, by eliminating nontransparent and indiscriminate import incentives, and by reducing subsidies granted to local producers and exporters. Since March 1990, following the abolition of the restrictions implicit in the import licensing system, tariffs have become the main instrument of protection.

The second stage was designed to gradually reduce tariff protection during the three-year period from 1991 to 1993. It is envisaged to reduce the average tariff from 32 percent to 14 percent, the maximum tariff from 85 percent to 35 percent, and the standard deviation from 19.6 percent to 8.3 percent. In February 1991, the first phase of the tariff reduction went into effect. As a result, the average tariff declined to 25.3 percent, and the standard deviation went down to 17.4 percent. During 1992 the second phase was implemented. In January, the maximum tariff was cut to 65 percent, the average tariff was reduced to 21.2 percent, and the standard deviation to 14.2 percent. On that occasion, the authorities also announced that the last two rounds of tariff cuts would be accelerated. In the event, the average tariff was further reduced to 17.1 percent, the standard deviation to 10.7 percent, and the maximum tariff went down to 50 percent in October 1992. The last reduction is expected to take place in July 1993.

Despite the reduction in the level of tariffs, the protection granted to local producers is still relatively high, due to the cascading structure of tariffs. Zero tariffs are applied on raw materials, intermediate goods and parts which are not locally produced, whereas the highest tariffs (30 percent and above) are applied to textiles, to the so called "infant industries" (electronics), and to manufactured goods involved in recent import substitution projects (motor vehicles, plastic products, pharmaceutical products, and metallurgical products). A 20 percent tariff is applied to remaining import-competing goods. Currently there are 11 tariff levels (from 0 percent to 50 percent), and in 1993 these should be reduced to nine.

The Brazilian tariff structure still reflects the importance attached to import substitution and promotion of infant industries. Further progress in the transparency of the tariff structure and in the administration of foreign trade, which means less tariff dispersion, have been conflicting with the protection objective.

Liberalization in agriculture has eliminated all quantitative restrictions apart from those on sugar imports. The average tariff on agricultural products has been below the general average. Nevertheless, tariff protection remains high for a number of products, mainly tobacco and dairy products. For five basic agricultural products (beans, corn, manioc, rice and soy), a system of protection based on price bands, linking protection to international price fluctuations, has been implemented. The liberalization in agriculture reflects the greater confidence in the ability of domestic producers to withstand foreign competition, traditional Brazilian view on its agricultural sector comparative advantage, and also the Brazilian farmers' compromise to give up tariff protection in order to preserve the minimum-price program. This program was designed to give farmers the choice of selling their products to the market at the prevailing market price, or selling them to the Government Acquisition Program, at the so-called minimum price.

Brazil's tariff reductions have been influenced also by international negotiations. The faster-than-planned reduction of tariff protection on informatics and some capital goods was mainly due to bilateral pressures (mainly from the United States). Regional trade negotiations have had a more important influence on the structure as a whole; Brazil's tariff structure in 1993 (after the reform program is completed) will be similar to those currently applied by the majority of Latin American countries, although with differences related to the number of tariff levels and also to some higher tariffs applied mainly on final goods. In designing the tariff structure, an important aim has been to keep it generally in line with the regional pattern of tariff protection. This "regional pattern of tariff protection" has itself been the result of a strong tendency among Latin American countries towards tariff protection equalization, in order to reduce either trade diversion or triangulation in the conformation of free trade zones. In a free trade zone, tariff level differences would either create artificially competitive firms which divert trade from more efficient suppliers, or would encourage re-exporting similar goods with the least tariff. Besides, the successful completion of the North America Free Trade Agreement (NAFTA), has reinforced the tendency to emulate Mexico.

MERCOSUR customs union negotiations have not affected the Brazilian tariff structure yet, but member countries have already agreed in December 1992 on a common set of external tariffs. The common external tariff will be 20 percent after 1995 and a special tariff of 35 percent (falling to 20 percent over a six-year period) would apply to some specific goods, including informatics, automobile, and pharmaceutical goods.

In addition to tariffs, Brazil still applies a number of charges that affect imports and increase protection for local producers. These charges are levied in the form of fees or taxes, and the revenues used mainly to finance the modernization of the Brazilian merchant fleet and port facilities. The most important are: the merchant marine renewal tax (AFRMM), corresponding to 25 percent of the insurance and freight component of the imported good, the port fee (ATP) equals 50 percent of the cost of

port services and the syndicate fee consisting of 2.2 percent of the c.i.f. value. Brazil also applies minimum local content requirements and preference for local suppliers in government procurement bidding.

Since mid-1991, Brazil has increasingly used antidumping and countervailing measures to protect local producers. Recent antidumping investigations have been conducted against seven countries (Bangladesh, Canada, India, Mexico, Norway, South Africa, and the United States). In mid-1992, Brazil adopted a regulation to speed up antidumping measures.

On the export side, recent trade reform has improved the transparency of the export regime by eliminating the bulk of export controls and the system of minimum export prices. Subsidies and fiscal export incentives were also eliminated. As import tariffs were reduced, such export subsidies and incentives were no longer needed to neutralize the anti-export bias of the import regime. The list of products subject to export licensing requirements was gradually reduced from about 2,000 items in 1988 to the current 564 items. These items are mainly goods on consignment, steel and textiles under bilateral or multilateral agreements, and sugar. A specially designed supporting program (BEFIEX) allowing exporters to obtain tax and import duty relief on imported inputs and machinery was suspended in March 1990. The main incentive to exporters arises from the duty drawback system. The export financing scheme put in place by the Government in June 1991 (PROEX), which acts as an interest rate equalizer, contains a subsidy element to the extent that it makes export financing available at rates lower than commercial levels.

2.   Supporting macroeconomic policies

In Brazil, the transition towards a more open economy was undertaken within the context of a major stabilization effort. In March 1990, Brazil introduced a broad program of structural reforms focusing on deregulation, privatization and trade liberalization. Along with this program of structural reforms, Brazil launched three different plans to sharply reduce inflation from the 1,783 percent record registered in 1989.

Two main issues seem to have determined the relationship between macroeconomic policies and trade liberalization, both affecting the sustainability of trade liberalization: first, uncertain macroeconomic policies, characterized by alternation of periods of tight credit conditions with periods of relaxation, have sent inappropriate signals to economic agents, thereby creating uncertainty about the trade reform. Second, conflict between stabilization and trade liberalization arose, mainly in relation to the exchange rate policy. During 1990, the authorities allowed a 33 percent appreciation of the real exchange rate in order to avoid further pressures on the rate of inflation. This policy was not only detrimental to the sustainability of trade liberalization, but also brought about problems of confidence and caused the current account to shift into a deficit of about 3/4 percent of GDP (Table 3). Aiming to restore confidence and improve balance of payments, the authorities induced a 15 percent

devaluation of the cruzeiro in September 1991 and subsequently tried to stabilize the real exchange rate vis-à-vis the U.S. dollar. In the event, the real effective exchange rate of the cruzeiro appreciated during 1992 as a result of substantial capital inflows attracted by high domestic interest rates and also in part because the U.S. dollar appreciated against other major currencies.

The potential conflict between the fiscal deficit and tariff reduction has not been an important issue in the case of Brazil. Additional fiscal pressures are not expected from reducing tariffs, particularly as regards eliminating tariffs on nonlocally produced goods. This results from the small proportion of trade related taxes in total tax revenue (less than 3.0 percent) (Table 3).

IV. Colombia

1.   Characteristics and sequencing of tariff reform

In early 1990, Colombia launched an Economic Modernization Program (EMP) with a view to raising productivity and output growth over the medium term. The centerpiece of the EMP was a preannounced trade reform, phased over a period of five years, and aiming at improving the competitiveness of the economy by increasing its exposure to international competition.

Under the pre-reform import regime, about 2,000 tariff positions, (39 percent of the total) consisted of freely importable goods, while some 3,000 positions (60 percent of the total) consisted of goods subject to license requirements. Fifty four positions (about 1 percent) consisted of goods whose importation was prohibited.

The trade reform was implemented in two steps: first, most of the quantitative import restrictions (in the form of prior import licenses) were replaced by tariffs; and second, the level and dispersion of tariff were gradually reduced.

During 1990, all tariff positions whose importation was prohibited were moved to the category requiring a prior import license, while most other import licensing requirements were lifted. Only a few tariff positions (consisting of agricultural products, medical products, military and security-related items) were at that time still subject to licensing requirements. In 1991, import licensing for agricultural products was replaced by a variable tariff scheme. As a result, the share of freely importable goods rose from 39 percent of total tariff positions in 1989 to about 99 percent by the end of 1991.

As regard tariff reform, in March 1990, the number of tariff rates were reduced from 23 to 13, while the maximum rate was cut back from 200 percent to 100 percent; as a result the average tariff (excluding the import surcharge) declined to 24 percent from 27 percent. The uniform tariff

surcharge previously set at 18 percent was reduced to 16 percent. Further tariff reductions during the second half of 1990 brought the average tariff down to 21 percent, and the import surcharge to 13 percent at the end of the year.

In June 1991, noting that since the beginning of the reform, the growth of imports was slow, largely as a result of expectations of further tariff cuts, the Government decided to accelerate the schedule of tariff reductions. The average tariff was then lowered to 15.8 percent and the import surcharge was reduced from 13 percent to 10 percent. In August 1991, the reforms were further accelerated by the implementation of the tariff targets initially programmed for 1994. This resulted in: (i) a four-tier tariff structure (excluding the import surcharge), with 0 percent tariff on raw materials, intermediate and capital goods not domestically produced; 5 percent and 10 percent when these goods are produced domestically; 15 percent for final consumer goods; the only exceptions are agricultural products and automobiles for which duties (excluding the import surcharge) ranged from 20 percent to 75 percent; (ii) a reduction of the tariff surcharge from 10 percent to 8 percent, and further to 5 percent on December 31, 1991. Certain goods, mostly capital goods for the agricultural sector were exempt from the surcharge. By end-1991, the average nominal tariff was cut sharply to 14 percent, and the average effective tariff protection (including the import surcharge) declined to about 25 percent compared to 59 percent at end-1990.

In January 1992, the authorities incorporated the import surcharge into the four basic rates (thus, raising each rate by 5 percentage points) and lowered the tariff on automobiles from a single rate of 80 percent (including the import surcharge) to two rates of 35 percent and 40 percent, depending on vehicle size. 1/ As a consequence, the average import tariff dropped from over 14 percent (including the surcharge) to about 11 percent in 1992. The new tariff structure was agreed with Venezuela to be the common external tariff for the two countries. At the same time, all tariffs on reciprocal trade were eliminated. In October 1992, this agreement was extended to Ecuador and Bolivia and the authorities are discussing possible free trade agreements with other countries, including Mexico and Chile.

2. Supporting macroeconomic policies

The Colombian trade liberalization was made sustainable by the pursuit of prudent fiscal and monetary policies, together with an exchange rate policy that helped maintain the competitiveness of the economy. In addition, the strong position of the balance of payments in 1991 allowed the

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1/ In addition to the four basic rates and the special rates for automobiles, certain goods--books, printing paper and capital goods for the agricultural sector--have a zero tariff rate. Major agricultural goods continue to have a variable tariff system.

authorities to accelerate the reforms which were mostly completed in early 1992, or about three years ahead of the original schedule.

In anticipation of the trade liberalization, the Colombian authorities undertook an aggressive exchange rate policy. Thus, following substantial devaluations of the peso, the real effective exchange rate depreciated by 11.7 percent in 1990, which contributed to ease the removal of virtually all quantitative import restrictions. In addition, along with the conversion of quantitative restrictions into tariffs, a foreign exchange allocation scheme was eliminated thereby further enhancing the effectiveness of the trade liberalization.

When Colombia initiated its trade reform, the fiscal situation was a major source of concern, with a consolidated fiscal deficit of about 3 percent of GDP in 1989. The shift from quantitative restrictions to tariffs in 1990 did not generate any significant revenue increase because of the aforementioned stagnation of imports. Furthermore, the early implementation of the tariff reform was foreseen to induce revenue losses estimated at 0.2 percent of GDP in 1991, 0.9 percent of GDP in 1992, and about 0.4 percent of GDP each year in 1993-95. Therefore, in order to mitigate the adverse effects of the trade reform on the fiscal situation, the Government undertook a complementary tax reform in 1991-92. The integrated package approach allowed the authorities to cater to the detrimental effects of tariff reform on fiscal revenue, and helped to contain the combined public sector deficit to less than 1 percent in 1990 and 1991, and about 1.6 percent in 1992 (see Table 4).

Finally, an international trade law defining instruments of exports promotion (duty drawback scheme for example), and some other instruments of import policy (such as protection again illegal trade practices) was enacted in November 1990. This law, which also introduced some institutional changes, such as the creation of an international trade ministry, and the transformation of the export promotion fund, PROEXPO, into an import-export bank, contributed to make more visible the authorities' commitment to trade liberalization, thereby increasing the credibility of the process.

V. Egypt

1. Characteristics and sequencing of the tariff reform

Egypt embarked on trade reform in the mid-1980s, which has been partial in scope, sporadic in effort, and gradual in pace. The underlying reason has been the legacy of decades of inward looking import-substituting industrialization which has built up powerful vested interests resistant to liberalization. The lack of macroeconomic stability during much of this period has also militated against effective trade reform. Even today, the average level of protection is high and the outlook is for only gradual further reform.

Concerted efforts at reforming the system of QRs were initiated in 1986 when the prevailing system of import licensing was abolished and replaced by a system which enumerated a negative list of "conditionally prohibited" or banned imports. The list contained 548 products (or about 12 percent of all tariff lines), of which half were nondurable consumer goods. In 1987, imports of products on the banned list amounted to about 13 percent of the total value of imports and about 40 percent to 50 percent of the value of domestic production (agriculture and industry). Recent actions, supported by a World Bank structural adjustment loan, have brought the production coverage of the prohibitions to 11 percent in 1992. The current negative list contains items over and above those restricted on noneconomic grounds.

Egypt has in place a system of prior import approvals by individual ministries or government agencies which effectively acts as a QR. In 1987, 47 tariff lines required prior authorization; this had been reduced to 18 by 1991 and to 11 by 1992. Other measures which act as QRs, such as quality control schemes, government procurement, the right of veto on importation by the Ministry of Military Production, etc., are still in place.

The customs tariffs applied until recently were instituted in 1986. At that time tariffs were reduced by 50 percent across the board, facilitated by a 48 percent devaluation of the exchange rate used for customs valuation. The weighted average tariff rate was about 48 percent and the standard deviation about 47 percent. The number of rates was reduced to 12 from 43 and the maximum tariff rate was 160 percent with a few exceptions (alcoholic beverages). The tariff structure exhibited escalation.

Tariffs were reduced on average by 30 percent in 1989, again coinciding with a depreciation of the Egyptian pound used for customs valuation. These reductions were rolled back in 1991 as nontariff restrictions started to be lifted. As of end-February 1993, there are now nine tariff categories ranging from 5 percent to 80 percent (with a few exceptions including cars, alcoholic beverages, and tobacco products). There are exemptions for certain users and for defense and security-related products. The simple average tariff rate is about 43 percent (32 percent excluding beverages). The tariff structure provides considerable escalation with a rate of 19.7 percent on raw materials, increasing to 22 percent on semi-manufactures and 51 percent on finished goods. Exceptionally low rates apply to imports of basic foodstuffs and pharmaceutical products, and high rates are levied on alcoholic beverages, automobiles, furniture and footwear. There are also a number of user-specific exemptions.

Egypt has bound 15 percent of its tariff lines in the GATT, some of which were breached as a result of the tariff increases in 1991. In this regard, Egypt has received a temporary waiver from its GATT obligations and is engaged in tariff renegotiations with its trading partners.

Until 1991, Egypt had in place a consumption tax levied at highly disparate rates. This has been replaced by a sales tax, which is not

uniformly trade-neutral in effect and could therefore embody a protective content.

A prior deposit scheme (35 percent) which translated into an equivalent surcharge of about 7 percent was abolished in 1992. The statistical tax, economic development duty and other charges amounting to a 15 percent to 20 percent surcharge on imports were abolished in 1986.

One of the most important nontariff barriers in Egypt has been local content requirements which are employed in a wide variety of sectors-- automobiles, pharmaceuticals, household appliances. Although their scope and effect are difficult to quantify, such requirements have the effect of providing protection to intermediate goods which tends to offset the cascading nature of the tariff structure.

Egypt has a system of duty drawbacks and temporary admissions to offset the anti-export bias of the highly protectionist regime. Efforts are under way to improve and expand the scope of these schemes.

2. Supporting macroeconomic policies

In 1986, Egypt, heavily saddled with debt accumulated from years of expansionist policies, undertook a structural adjustment program with limited success. Throughout the middle and late 1980s, Egypt's fiscal deficit (see Table 5) and, consequently, monetary expansion, were high. The current account has remained in deficit leading to higher levels of debt and debt service. The real exchange rate appreciated for much of the period. In 1990/91, a more wide-ranging set of reforms was announced to rectify the macroeconomic and structural imbalances, but implementation has been irregular. Egypt's economic situation improved dramatically in 1991/92, with sharp drops in the fiscal and external deficits, associated with once- for-all inflows of foreign exchange and debt relief associated with the Gulf war. The exchange system was unified in 1991 and the real exchange rate has since appreciated consequent upon the large foreign exchange inflows.

Egypt's tariff reform too has been constrained by balance of payments, protectionist, and to a lesser extent by fiscal pressures. In the early 1980s, customs duties accounted for a large share of total revenue (about 35 percent), but this has fallen sharply since, and in 1991/92 accounted for about 11 percent of total revenue. The fiscal constraint has thus become less binding over time.

The serious macroeconomic imbalances, coupled with the choice of the authorities not to use active exchange rate management, has resulted in the use of trade (and exchange) restrictions to address the external account deficit. Egypt has invoked Article XVIII:B of the GATT since 1970 to justify most of its QRs on balance of payments grounds. The slow pace of liberalization also reflects strong protectionist pressure from domestic industry groups. This was illustrated in 1991 when earlier tariff reductions were almost entirely reversed as QRs started to be lifted. Even

the first two bouts of tariff cuts in 1986/87 and 1989, which may not have had any impact in the presence of binding QRs, were possible only after a matching exchange rate depreciation.

The improved macroeconomic circumstances in 1991/92 provide a good opportunity to accelerate the pace of tariff reform. However, if the recent exchange rate appreciation persists, it may prove difficult to overcome domestic resistance to reform.

Egypt is in the process of instituting a safeguard law which would afford protection to domestic industry adversely affected by foreign competition. This is intended to defuse resistance from protected sectors by providing for possible import relief during and after the liberalization process.

VI. Ghana

1. Characteristics and sequencing of tariff reform

Following a protracted period of economic decline, the Ghanaian authorities launched an Economic Recovery Program (ERP) in 1983. In the context of this program which was carried out through 1991, the Government has implemented far-reaching financial and structural reforms, switching away from direct intervention and controls toward increased reliance on market-based policy instruments.

Trade reform was an important component of this ERP. The rationale of trade policy reform was to reduce reliance on import substitution and administrative controls that in the past has created all sorts of distortions and inefficiencies. 1/ In addition, whereas back in 1970-71, exports and imports represented on average 20 percent and 16 percent of GDP respectively, these shares fell to about 4 percent for each in 1981-83. During the period of sharpest decline, i.e., between 1980 and 1983, export earnings declined by 60 percent from US$1.2 billion to US$0.5 billion, as was the value of imports which plummeted to US$0.6 billion from US$1.2 billion. Hence, it was important to reduce the prevailing anti-export bias in the trade and incentive system.

In 1983, when Ghana embarked on its Economic Recovery Program, imports were severely constrained by quantitative restrictions and import licensing, as well as by the discriminatory structure of indirect taxes. Thus, in mid-1985, when the monetary and fiscal situation had somewhat stabilized,

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1/ According to the World Development Report 1983, in a ranking of developing countries according to the nature and intensity of distortions that prevailed during 1970-80, Ghana was found with the top score (2.9 out of the maximum 3.0 -the higher the severity of distortions in relation to other countries the higher was the score).

Ghana started a four-year process of phasing out its extensive system of import controls and restrictions:

(i) In 1985, all quantitative restrictions were eliminated except on four items which were subject to conditional import prohibitions; and

(ii) the import cum foreign exchange licensing system was gradually relaxed, first for materials and equipments, then for consumer goods. In January 1989, the import licensing system was fully abolished, while the foreign exchange and payment regime was further liberalized.

Regarding the tariff system, the first major reform was initiated in 1983 with the reduction of the maximum rate from 50 percent to a uniform duty rate of 30 percent to be applied to most goods; some basic raw materials were taxed at a rate of 25 percent, while a few concessionary goods carried a rate of 10 or 20 percent.

In 1986, this predominantly uniform tariff structure was replaced by a four-tiered structure. The range of duties on concessionary goods was narrowed to 10 percent to 20 percent, while the rate on basic raw materials was cut sharply by 15 percent, to 10 percent. Other raw materials and capital goods were taxed at 20 percent; consumer goods and luxury goods carried the highest rates with 25 percent and 30 percent, respectively. This cascading structure was meant to increase effective protection to local substitution of consumer and luxury goods imports, but discriminate against import substitution for intermediate and capital goods. The rates in all categories have been adjusted downward over the years except in 1987, but the cascading structure remains.

In 1988, Ghana introduced a special import tax on certain items similar to an import surcharge and ranging from 10 percent to 40 percent. This surcharge was intended to provide temporary increased protection to a number of selected industries representing altogether about 50 percent of manufacturing value added. In 1992, the special import tax was reduced to a maximum of 10 percent.

In 1990, super sales taxes levied on some categories of imported luxury goods were introduced. Luxury goods so defined are not produced domestically and the taxes were therefore presumably levied for fiscal and income distribution motives. The initial rates which ranged from 75 percent to 500 percent were lowered to a range of 10 percent to 100 percent in 1991 before being abolished altogether in 1992.

Overall, nominal tariff currently range from 0 percent to 25 percent; this range is obviously narrower than the 0 percent to 50 percent range prevailing in early 1983 and much narrower if other previously discriminatory indirect taxes against import are also taken into account. Based on the 5,212 tariff lines of the Ghana Customs Tariff, the unweighted average tariff was 17 percent, 22 percent for agriculture and 16 percent for manufacturing in 1991 (including the special import tax where applicable).

2.   Supporting macroeconomic policies

The Ghanaian cedi was excessively overvalued in the early 1980's and allocation of foreign exchange was tightly controlled and rationed. Thus, between 1983 and 1986, while the quantitative restrictions were being removed, a series of major devaluations of the cedi (Table 6) helped ease the impact of trade liberalization on domestic producers of import competing goods. In addition, a gradual elimination of foreign exchange controls and the unification of the exchange system helped reduce some of the distortions that confronted the Ghanaian economy and thereby aided to the success of the trade reform program.

The realistic exchange rate policy pursued by the authorities was instrumental in maintaining the external competitiveness of the economy, as well as in increasing revenue from imports. Indeed, the successive devaluations of the cedi increased the value of imports in local currency, which in turn contributed to enhance revenue despite the tariff reductions.

Ghana in the past maintained imports restrictions for balance of payments purposes under GATT Article XVIII:B. However, following the strengthening of its balance of payments brought about by the stabilization program, it ceased invoking GATT cover.

As an accompanying measure of the trade liberalization program, price controls, including the price reference system, were removed gradually, starting with consumer goods then with producer goods. The number of goods subject to price control were reduced to 17 from 23 in 1984, to 8 in 1985 and now to only three products. Agriculture prices were also revised, with domestic prices reflecting more closely border prices.

Finally, in order to increase incentives to the export sector, in 1991, corporate tax rebates were raised from a range of 30 percent to 60 percent to a range of 40 percent to 75 percent depending on the sector and the proportion of output exported; duty drawback were also increased from 95 percent to 100 percent.

VII.   Korea

1.   Characteristics and sequencing of tariff reform

Since 1978, Korea has put in place three comprehensive trade liberalization programs addressing quantitative restrictions, tariffs, safeguards procedures and regulatory laws. Implementation has been gradual, preannounced and steady. Breaks or accelerations of the original planned program were associated with either macroeconomic disturbances or international negotiations in which Korea was involved.

The average tariff has been reduced from 41 percent in 1978 to 10.7 percent in 1992, whereas during the same period the maximum tariff was cut from 60 percent to 50 percent. Korea still maintains quantitative restrictions on imports of textiles and agricultural goods (mainly rice, beef and barley). Tariff reduction has been more important in industry than in agriculture. The current agriculture tariff average is 18.5 percent whereas in industry this average is 8.4 percent. Tariff dispersion has been reduced unevenly between sectors. The current standard deviation in the agricultural sector is 9.8 percent compared to only 2.4 percent in industry.

During the initial trade liberalization program (1979-1982), the average tariff was reduced from 41 percent to 24 percent. At the same time, imports subject to the restricted list (nonautomatic approval) were reduced by almost a half. During the second program (1984-88), the average tariff was lowered to 18 percent (it declined on agricultural goods to 25 percent from 31.5 percent and on nonagricultural products to 17 percent from 23 percent). The restricted list was further reduced to 361 items from 1,769. In December 1988, the current five-year tariff reform program was put in place. It is expected that the average tariff will drop to 7.9 percent in 1994. At end-1992, the restricted list comprised 240 items.

Korea's tariff structure presents peaks, the majority of them on agricultural products (between 30 and 50 percent). Although there are fewer peaks in industry, tariff escalation is more pronounced particularly in sectors where Korea has a fairly high self-sufficiency situation (mainly textiles and clothing, leather and footwear, fertilizer, and certain metal products). Korea's trade liberalization partly reflects the importance attached to self-sufficiency in food products, as well as the need to avoid sudden import surges that could dislocate local producers.

In addition to the gradual tariff reduction program, Korea relied on a monitoring process to temporarily protect newly liberalized industries when threats coming from competing imports were detected. Although the monitoring was eliminated in 1989, there is still a five member Trade Commission to investigate cases of possible injury resulting from imports. Korea has also relied on restructuring programs to help liberalize new industries.

In addition, Korea uses tariff quotas to stabilize domestic commodity prices. They are based on estimates of the anticipated supply and demand situation. In almost all cases, the tariff quota rate is below the nominal one. Nevertheless, tariff quotas have been used to increase protection: for bananas and soybean oil the tariff quota rates are significantly higher. Besides, if there is no domestic production of a specific good, all its imports may become eligible for the tariff quota rate in order to reduce the statutory tariff.

Pressures from trading partners have also influenced Korea's trade liberalization. Both the strong export performance and the emergence of current account surpluses have led trading partners to call for measures to

open Korean markets. As a result, trade liberalization was accelerated.
Korea has been reluctant to liberalize agricultural trade and has tied this
to the outcome of the Uruguay Round negotiations on agricultural issues. In
January 1990, Korea disinvoked Article XVIII:B of GATT on trade restrictions
for balance of payments purposes.

On the export side, export incentives and targeting have been virtually
eliminated. The remaining incentives are in line with the OECD code on
export credits (post-shipment loans, duty drawback scheme, export credit
insurance and guarantees, free trade zones). Korea provides preferential
access to credit for exporters.

2.   Supporting macroeconomic policies

Macroeconomic conditions have directly affected the pace of trade
liberalization. Two breaks have affected trade liberalization--the 1980
break was due to the authorities' commitment to fight inflation while
avoiding potential conflicts with trade liberalization objectives. The 1980
inflation rate of 32 percent was halved in the following year, and in 1982
it was reduced to 5 percent. As a result, trade liberalization was then
resumed. Furthermore, during the second half of the 1980s, a policy of
accelerated trade liberalization and exchange rate appreciation was pursued
in response to rapidly increasing current account surpluses. The second
break in 1990 deferred by one year the current five-year tariff reduction
schedule, to offset revenue shortfalls resulting from the elimination of
defence related taxes. Accordingly, the effective date for completion of
the tariff reduction program became January 1, 1994.

Korea's macroeconomic environment changed from 1990 by the shifting of
internal and external balances into deficit. Both fiscal and current
account balances showed a deficit of about 1 percent of GDP in 1990; they
further increased to 2 percent and 3.1 percent respectively in 1991 (see
Table 7). Nevertheless, the implementation of the liberalization program
has not been further altered. The moderate extent of the fiscal and trade
deficits have provided the authorities with leeway to finance them without
backtracking on the tariff reform program. In the last three years, fiscal
policy has increasingly used supplementary budgets to appropriate
expenditures not included in the original budgets. Given the buoyancy of
the tax system, this was done without an increase in tax rates. In turn,
the current account deficit has been financed by an increase in net external
borrowing and, to a lesser extent, by a drawdown in gross official reserves.

Exchange rate management has been geared to provide stability to the
economy and to support exports. In March 1990, following the introduction
of the new floating exchange rate system, the won began to depreciate.
However, most of the effects of depreciation have been reversed as inflation
accelerated from 1991.

Table 2. Bangladesh: Summary Economic Indicators

	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92 1/	Pre-Reform 2/	Reform 2/
GDP Growth	4.2	3.7	4.6	4.1	2.7	2.5	5.8	3.2	3.2	4.2	3.4
Consumer Price Inflation	9.8	10.8	9.9	10.4	11.4	8.0	9.3	8.9	5.1	10.2	8.6
Current Account Balance 3/	-6.8	-8.2	-7.0	-5.5	-5.8	-6.9	-6.8	-4.1	-2.9	-7.3	-5.3
Reserves 4/	2.8	1.8	2.5	3.4	3.6	3.4	1.7	3.0	5.4	2.4	3.4
Real Effective Exchange Rate 5/	8.5	14.5	-15.1	-4.4	-2.4	0.3	4.8	-8.3	-2.5	2.6	-2.1
Overall Fiscal Balance 3/	-9.2	-7.2	-7.6	-8.4	-7.2	-7.3	-7.6	-6.8	-5.3	-8.0	-7.1
Revenue 3/	8.2	8.6	9.2	8.9	9.0	9.1	9.2	9.5	11.0	8.7	9.5
Expenditure 3/	17.3	15.8	16.8	17.3	16.1	16.4	16.8	16.3	16.3	16.6	16.5
Customs Revenue 6/	32.7	32.9	31.7	32.3	30.6	32.8	31.1	29.5	28.1	32.4	30.7

Source: International Monetary Fund.

1/ Estimates.
2/ Prereform covers the period 1983-84-1985-86; reform covers the period 1986-87-1991-92.
3/ As percentage of GDP.
4/ In months of imports.
5/ Percentage change (-: depreciation).
6/ As percentage of total revenue.

Table 3. Brazil: Summary Economic Indicators

	1987	1988	1989	Pre-reform Average	1990	Reform 1991	1992 (Prel.)	Reform Average
GDP growth	3.6	-0.1	3.3	2.3	-4.4	0.9	-0.9	-1.8
Consumer price inflation	222.8	637.5	1,323	728	2,558	425	991.4	1,492
Current account balance 1/	-0.5	1.3	0.2	0.3	-0.8	-0.4	1.5	-0.6
Reserves 2/	5.4	6.6	5.7	5.9	5.3	5.0	10.0	5.2
Real effective exchange rate	--	7.8	23.7	15.7	18.4	-19.7	7.8	-7.0
Overall fiscal balance	-5.6	-6.7	-9.1	7.1	-0.2	-2.1	2.0	1.1
Revenue	15.8	15.5	15.8	15.7	15.7	15.5	--	15.6
Expenditure	21.4	22.2	24.9	22.8	15.9	17.6	--	16.7
Customs revenue 3/	3.3	2.4	2.2	2.6	1.7	2.1	2.0	1.9

Source: International Monetary Fund.

1/ As percentage of GDP.
2/ Months of imports.
3/ As percentage of total revenue.

Table 4. Colombia: Summary Economic Indicators

	1987	1988	1989	1990	1991	1992 Proj.	Pre-reform 1987-89	Reform 1990-91	Post-reform 1992
GDP growth 1/	5.4	4.1	3.4	4.1	2.3	2.8	4.3	3.2	2.8
Inflation (period average) 1/	23.3	28.1	25.9	29.1	30.5	25.0	25.8	29.8	25.0
Current account balance 2/	-0.1	-0.6	-0.2	1.2	5.1	1.8	-0.3	3.2	1.8
Reserves 3/	5.6	5.6	5.6	5.9	9.1	9.8	5.6	7.5	9.8
Real effective exchange rate 1/	-10.8	-3.6	-3.7	-11.7	3.3	9.2	6.0	-4.6	9.2
Overall fiscal balance 2/	-2.0	-2.2	-2.9	-0.9	-0.8	-1.6	-2.4	-0.9	-1.6
Revenue 2/	22.0	21.0	21.4	22.8	23.7	24.1	21.5	23.3	24.1
Expenditure 2/	24.0	23.1	24.3	23.7	23.7	25.1	23.8	23.7	25.1
Customs revenue 4/	24.7	25.1	23.2	19.6	15.7	10.4	24.3	17.7	10.4

Source: International Monetary Fund.

1/ Percentage change.
2/ In percent of GDP.
3/ In months of imports of goods and services.
4/ In percent of tax revenue.

Table 5. Egypt: Summary Economic Indicators

	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92 1/	Pre-Reform 2/	Reform 2/
GDP Growth	8.0	7.4	4.8	4.2	4.0	3.0	2.4	2.1	0.3	6.6	2.1
Consumer Price Inflation	18.0	14.6	15.9	25.2	14.2	20.2	21.2	14.7	21.5	16.1	19.1
Current Account Balance 3/	-9.8	-14.8	-20.4	-8.7	-9.5	-10.8	-11.4	-9.5	1.8	-15.0	-8.0
Reserves 4/	4.0	5.0	7.0	3.2	4.1	3.7	3.7	6.9	8.9	5.3	5.1
Real Effective Exchange Rate 5/	16.3	-1.3	-24.0	2.7	-24.2	-7.6	5.0	-10.9	6.8	-3.0	-4.7
Overall Fiscal Balance 3/	-23.1	-22.0	-22.8	-17.6	-19.9	-18.1	-18.4	-20.0	-7.1	-22.6	-16.9
Revenue 3/	37.2	34.8	35.5	30.9	29.5	28.1	27.8	30.6	35.4	35.8	30.4
Expenditure 3/	60.3	56.8	58.3	48.5	49.4	46.3	46.2	50.6	42.5	58.5	47.2
Customs Revenue 6/	35.8	32.2	27.7	28.1	29.2	28.8	24.8	21.0	19.1	31.9	25.2

Source: International Monetary Fund.

1/ Estimates.
2/ Prereform covers the period 1983-84-1985-86; reform covers the period 1986-87-1991-92.
3/ As percentage of GDP.
4/ In months of imports.
5/ Percentage change (-: depreciation).
6/ As percentage of total revenue.

Table 6. Ghana: Summary Economic Indicators

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Pre-reform 1980-82	Reform 1983-91	Post-reform 1992
GDP growth 1/	0.0	-1.8	-7.2	-4.6	8.6	5.1	5.2	4.8	5.6	5.1	3.3	5.0	3.9	-3.1	4.2	3.9
Inflation (period average) 1/	50.1	116.5	22.3	122.8	39.6	10.4	24.6	39.8	31.4	25.2	37.2	18.0	10.1	58.4	36.0	10.1
Current account balance 2/	0.2	-1.6	-0.3	-0.8	-1.0	-2.5	-1.5	-2.1	-1.7	-1.8	-4.6	-3.9	-6.6	-0.6	-2.2	-6.6
Reserves 3/	2.1	2.1	3.5	4.6	2.4	2.4	2.2	2.2	2.2	2.7	2.4	4.2	2.4	2.6	2.8	2.4
Real effective exchange rate 1/	31.2	125.7	25.1	-32.7	-61.4	-27.4	-42.5	-22.9	-4.8	-5.9	-0.2	3.6	-10.8	54.3	-24.7	-10.8
Overall fiscal balance 2/	-5.1	-8.2	-6.1	-2.7	-1.8	-2.2	0.1	0.5	0.4	0.7	0.2	1.6	-5.2	-6.5	-0.4	-5.2
Revenue 2/	8.3	5.7	6.1	5.6	8.4	11.7	14.4	14.9	14.6	15.1	14.1	16.2	13.1	6.7	12.8	13.1
Expenditure 2/	13.4	13.8	12.2	8.2	10.2	14.0	14.3	14.3	14.3	14.4	13.9	14.6	18.3	13.1	13.1	18.3
Customs revenue 4/	47.5	30.4	21.9	59.0	46.0	49.6	46.0	47.0	38.7	43.9	42.2	37.3	37.0	33.3	45.5	37.0

Source: International Monetary Fund

1/ Percentage change
2/ In percent of GDP
3/ In months of imports of goods and services.
4/ In percent of tax revenue.

Table 7. Korea: Summary Economic Indicators

	1985	1986	1987	1988	1989	1990	1991	1992
GDP Growth	7.0	12.9	13.0	12.4	6.8	9.3	8.4	4.7
Consumer Price Inflation	2.5	2.8	3.0	7.1	3.6	8.6	9.3	6.2
Current Account Balance 1/	-1.0	4.5	7.6	8.2	2.4	-0.9	-3.1	-1.6
Reserves 2/	2.9	2.6	2.6	2.5	2.2	2.2	1.8	2.2
Real Effective Exchange Rate	-15.9	-6.9	-1.6	19.3	7.9	3.3	0.0	-5.8
Overall Fiscal Balance 3/	-0.9	-0.1	0.2	1.3	0	-0.9	-1.8	-1.0
Revenue	18.6	17.5	17.9	18.3	18.5	18.9	18.2	19.5
Expenditure	19.3	17.6	17.6	17.0	18.5	19.8	20.1	20.5
Customs Revenue 4/	--	16.6	19.2	15.2	12.1	12.7	8.7	--

Source: International Monetary Fund.

1/ As percentage of GDP.
2/ In months of imports.
3/ Consolidated central government.
4/ As percentage of total revenue.

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