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Jagdish N. Bhagwati and T. N. Srinivasan

Trade Policy and Development

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CHAPTER ONE

Trade Policy and Development

JAGDISH N. BHAGWATI
T. N. SRINIVASAN

The interaction between international trade and development is a subject of such complexity and importance that it has rarely ceased to attract the attention of economic theorists, analysts of the world economy, and designers of the international economic system. Inevitably, therefore, it has drawn into its fold and its many controversies some of the best minds of each generation of economists: dating from Adam Smith, David Ricardo, and John Stuart Mill, down to Alfred Marshall and, in our own times, to Dennis Robertson, Ragnar Nurkse, Jacob Viner, Gottfried Haberler, and Arthur Lewis.[1]

There are far too many questions that the topic raises: witness, for example, the elegant recent review by Carlos Diaz-Alejandro.[2] We propose rather to concentrate on two sets of analyses that have currently been the focal point of theoretical, empirical, and policy discussions.

In Section I, we review the evidence that is currently available on the question that Nurkse had raised in the early 1950s regarding the optimal trade and developmental strategy for a postwar LDC (less developed country) planning to accelerate its economic growth. Arguing that the nineteenth-century mechanism of trade as "an engine of growth" (in Dennis Robertson's catching phrase) was not available to present-day LDCs for a number of reasons, he noted that a policy of "balanced growth," reflecting essentially domestic demands, was inevitable. Remarkably, he did contrast this, what we would today describe as an IS (import substitution) strategy, with the policy alternative of promoting new, manufactured exports, *à la* what we would today call the EP (export promoting) strategy:

[1] Cf., in particular, Jacob Viner (1953), Ragnar Nurkse (1959), Gottfried Haberler (1959), and W. Arthur Lewis (1969).

[2] Carlos Diaz-Alejandro (1975).

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but felt that the latter offered little promise, as it was likely to run into DC market disruption-related trade restraints, as with textiles. As it happens, the postwar period did witness both sets of policies, starting in the early 1960s, and we have the evidence of two major projects on these issues so that we can, with hindsight, see which strategy was the more successful ex post. Our analysis will not merely review these empirical results, it will also indicate the unsettled questions on which only future research can generate persuasive evidence.

Therefore, while Section I focuses principally on the trade policies of LDCs, in regard to the optimal methods of utilizing the available trade opportunities, we turn in Section II to the complementary subject of how those trade opportunities ought to be defined. In particular, we will consider two subjects of recent policy interest, namely, (i) the theoretical and policy issues raised by the problem of market disruption-related threats of trade restrictions on imports of manufactures by DCs; and (ii) the recent demands by LDCs, as part of the New International Economic Order (NIEO), for commodity agreements.

The reader should be forewarned that this chapter is therefore a selective review of the major trade-and-developmental policy issues; it is certainly not intended to be an exhaustive guide to the voluminous literature on the subject.[3]

I. PROTECTION, INDUSTRIALIZATION, EXPORT PERFORMANCE, AND ECONOMIC DEVELOPMENT

We turn now to the "foreign trade strategy" issues that were admirably, and with much prescience, raised by Ragnar Nurkse.[4] Cairncross, in an insightful review of Nurkse and Haberler, having reviewed the general argumentation couched in terms of trends in world trade and whether these justified elasticity pessimism or optimism and whether these in turn required balanced growth or not, summed up as follows:[5]

> At the end of it all, the reader may still feel that neither Nurkse nor Haberler has settled the primary issue: how far a shortage of foreign exchange (contrasted with capital, skilled labour, land, etc.) is a limiting factor in economic development. The majority of the under-developed countries are monocultures, dependent for their earnings of foreign exchange on a single commodity (or at most two or three). These earnings are highly inelastic except when exports of the principal commodity form a small fraction of the world's consumption. At the same time, nearly all the plant and machinery that they require has to be imported, so that the scale of industrial investment is limited by the foreign

[3] The many distinguished researchers whose contributions are not noted explicitly should equally take note of this fact!

[4] This section draws heavily on J. Bhagwati (1976).

[5] Cf. A. K. Cairncross (1960, chap. 12, p. 208).

exchange available to pay for it. In those circumstances, what should be the policy of a country seeking to accelerate its development? We know what most countries have done; it would be interesting if we could be told, by an economist of the standing or Nurkse or Haberler, what the results have been and what they should have done.

Modesty should prevent us from laying claim to the "standing of Nurkse or Haberler." However, we are certainly now in a position to respond to Cairncross's query, thanks principally (though not exclusively) to two major projects on foreign trade regimes and their effects on economic development: the OECD project, directed by Ian Little, Tibor Scitovsky, and Maurice Scott, whose results have been known since the early 1970s; and the NBER project, directed by Jagdish Bhagwati and Anne Krueger, whose results have now become generally available.[6]

In particular, we now have statistical evidence and economic argumentation on the following, related issues: (i) The degree and structure of protection that have been practiced in the developing countries; (ii) The analytical rationale for relating this to the pattern of industrialization and export performance of these developing countries via the effect on the relative incentives for import substitution and export promotion; (iii) The statistical evidence for the argument that such incentives affect the pattern of industrialization and export performance in the developing countries; and (iv) The question whether, and if so why, better export performance is related to better economic performance.

A. The degree and structure of protection: Concepts

In analyzing protection, one needs to distinguish among three sets of concepts: (i) Trade policy protection versus domestic policy protection:

[6] The Organization for Economic Cooperation and Development (OECD) project (organized by the OECD Development Center) covered Brazil, India, Mexico, Pakistan, the Philippines, and Taiwan; whereas the NBER project covered ten countries: Brazil, Chile, Colombia, Egypt, Ghana, India, Israel, the Philippines, South Korea, and Turkey. The NBER project (National Bureau of Economic Research [1975, 1976]) essentially takes off from the OECD project, in extending the analysis to much more systematic attention to the exchange-control aspects of the foreign trade regimes in the developing countries; it also considers dynamic aspects of the trade regimes and the problems of trade liberalization. The OECD studies (Organization for Economic Cooperation and Development [1970]) have been published in five country volumes and one overall volume: (1) Little, Scitovsky, and Scott (1970), overall; (2) Bergsman (1970), Brazil; (3) Bhagwati and Desai (1970), India; (4) Lewis (1970), Pakistan; (5) Hsing, Power, and Sicat (1970), Taiwan and the Philippines; and (6) King (1970), Mexico. The NBER studies are being published in ten-country volumes and two synthesis volumes; the following are already published: (1) Krueger (1970), Turkey; (2) Michaely (1975), Israel; (3) Baldwin (1975), the Philippines; (4) Leith (1975), Ghana; (5) Frank, Westphal, and Kim (1975), South Korea; (6) Bhagwati and Srinivasan (1975), India; (7) Hansen and Nashashibi (1975), Egypt; (8) Diaz-Alejandro (1976), Colombia; and (9) Behrman (1976), Chile. Bhagwati (1978) and Krueger (1978) have written two separate synthesis volumes, focusing on different parts of the project results.

an activity may be protected through tariffs and quotas (QRs), on the one hand, or through domestic subsidies, etc., on the other hand;[7] (ii) Tariffs versus quota protection, or alternatively, explicit versus implicit protection: within trade policy, we can distinguish between protection furnished by tariffs or by QRs; in turn, QRs may be specifically designed for protecting the activity in question or they may be a result of an overvalued exchange rate that results in the use of QRs as a technique for balancing international accounts; and (iii) nominal versus effective protection: the protection may be measured in the conventional way as on goods and services (i.e., as nominal rates) or on value added (i.e., as effective rates).

It is clear from these conceptual distinctions that, in examining protection, the international economist aims at comparing the total structure of incentives (to import-competing and other activities) as contrasted with those that would be provided under a regime of *laissez faire*, or what has been more aptly described as a regime of unified exchange rates.[8] Thus, the incentives for domestic import substitutes that would follow from overvalued exchange rates, and the attendant implicit tariffs implied by QRs, must be allowed for; and so must the use of domestic subsidies, in several forms, to domestic production. The early studies of protection in the LDC's allowed for neither the use of QRs nor the presence of domestic taxes and subsidies.[9] However, the well known IBRD (International Bank for Reconstruction and Development) studies,[10] as also the NBER studies, typically attempt to allow for implicit tariffs (i.e., QRs) and, occasionally and partially, for indirect taxes insofar as they affect domestic prices of inputs or differently affect import substitutes and imports.

The use of implicit tariffs involves, typically, the conversion of import premium data or, alternatively, data on differentials between domestic and c.i.f. prices of comparable items into equivalent tariffs. This procedure is subject to both empirical and conceptual difficulties, a few of which may be mentioned here:[11] (i) quality differences exist between imports and import substitutes, which imply that some of the differential in prices, when used for estimation, is attributable to this factor; (ii) frequently the QR regime may be so restrictive that imports are prohibited and there is, in consequence, often no easy and reliable way to get comparable c.i.f. prices;

[7] The choice between these alternative instruments of protection has, of course, been the subject matter of contributions by Meade, Bhagwati, Ramaswami, Srinivasan, Corden, Johnson, and other theorists of trade policy. We do not discuss these issues here.

[8] This phrasing was used in Bhagwati (1968).

[9] This was true of the early estimates for Pakistan, for example, by Soligo and Stern (1965).

[10] Cf. Balassa and Associates (1971).

[11] Cf. the treatment in Balassa (1971, chap. 3); also consult Bhagwati (1978, chap. 5) for a more detailed discussion.

(iii) if perfect competition in quota allocation and use, and in foreign and domestic supply and demand, cannot be assumed, the import premium cannot be meaningfully converted in general into an equivalent implicit tariff; (iv) where domestic licensing contributes to the generation of monopoly profits, the import premium will reflect this factor as well and hence is not interpretable as protection from the viewpoint of inferring resource allocational shifts; (v) in the nature of the case, QRs will be, and are, associated with fluctuating premiums, so that it is extremely difficult to arrive at one set of premiums to convert into implicit tariffs, and totally misleading to use one such set to indicate the tariff structure (which is to be taken, in turn, to indicate the structure of price incentives to domestic protection).

Given these, and other, serious shortcomings, it is best to treat the resulting estimates of the implicit tariff structure as descriptions, in varying degrees of loose approximation, of the pattern of incentives that may be appearing in the developing countries in question, thanks to QRs.[12]

Similarly, the description of the tariff structure in effective tariff, as distinct from nominal tariff, terms raises both conceptual and empirical questions.[13] In particular, it is not possible to utilize the computed effective tariff rates to indicate in an unambiguous fashion the direction of change in resource allocation that is resulting from the set of nominal tariffs that we use to compute the effective tariffs.[14]

In light of these problems, it is best perhaps to regard the effective tariff structures that have been estimated in the OECD, NBER, and IBRD studies, among many others, as also essentially descriptions that, in a very loose way, indicate the differential nature of incentives that the combination of tariffs, QRs and (in some instances) domestic subsidies and taxes seem to throw up in the economy being studied.

While the tariff structures are defined and estimated in the manner indicated above, and must be interpreted with great caution, the concept of

[12] In some of the studies, the protection granted is broken down into that resulting from explicit tariffs and the additional element due to QRs, when the implicit tariffs exceed the explicit tariffs. Cf. the Bhagwati–Desai–Panchamukhi estimates in the OECD India volume (1970), and the Leith estimates in the NBER Ghana volume (1975).

[13] For a detailed consideration of the empirical questions, see Balassa (1971, chaps. 3 and 4); for conceptual problems, see in particular the contributions by Bruno (1973) and Bhagwati and Srinivasan (1973), to the "Journal of International Economics Symposium on the Theory of Effective Protection in General Equilibrium" (1973).

[14] This point has been established, and sufficient conditions under which the direction of change in resource allocation may nonetheless be inferred, investigated, by international trade theorists recently. A good starting point for reading this literature is in the "Journal of International Economics Symposium on the Theory of Effective Protection in General Equilibrium" (1973). The statistical evidence on this question, discussed in the text above, also corroborates this theoretical skepticism, while indicating a few of the reasons for it. For fuller discussion, see Bhagwati (1978, chap. 5).

the degree of protection reflects essentially a weighted average of such tariffs.[15] In addition to such averages, some economists have also attempted to adjust the average degree of protection downward by arguing that the removal of the tariffs would generally generate a balance-of-payments deficit that would have to be eliminated by devaluing the exchange rate. The devaluation, in turn, would imply that the domestic price of the imported commodities would fall by less than the tariff removal would imply.[16] While this is a theoretically correct thing to do, if one is interested in what happens (net) to the nominal domestic price of importables as a result of the tariff imposition,[17] the practical estimation of this adjustment factor, as attempted in several of the IBRD studies, relies on procedures that can be defended only by making highly restrictive assumptions.[18]

Finally, in anticipation of the analysis in Subsection D on the interaction between protection and export performance, it may be noted that the degree of protection is often taken as a reasonable explanatory variable for export performance. Additionally, three other concepts are used frequently as explanatory variables in analyzing export performance, two relating in some fashion to protection in the broad sense defined above. First, the ratio of the effective exchange rate on exports (EER_x) to that on imports (EER_m) is taken as an index of how far the average exports are profitable relative to average import-competing production.[19] Second,

[15] The nominal tariffs may be weighted by shares in imports or in domestic production; effective tariffs may be weighted by shares in nominal value added of the activities in question.

[16] Thus a removal of an average tariff of 50 percent, resulting in a devaluation of 20 percent, would imply a net, adjusted average tariff of 30 percent; the domestic, nominal price of the imported items would fall only by 30 percent when the tariffs were removed and the balance-of-payments position left unchanged.

[17] Note that it would require, even in theory, special restrictions to infer from such a (net) effect on the average domestic (nominal) price of importables that, for example, the share of trade in national income is reduced by such a tariff.

[18] Cf. Balassa (1971, Appendix 3) for the specification of the procedures used, and an excellent theoretical survey of them in Dornbusch (1974). Aside from the theoretical objections, spelled out by Dornbusch, one might note also the general inconsistency between using less than infinitely elastic foreign elasticities of demand for exports to compute exchange rate change and constant international prices for computing effective protection (as required by the fact that the general equilibrium analyses of effective protection in the available literature universally make the assumption of constant international prices).

[19] The effective exchange rate on exports is defined as the units of domestic currency that can be obtained for a dollar's worth of exports, taking into account export duties, subsidies and surcharges, special exchange rates, input subsidies related to exports, etc. The effective exchange rate on imports (EER_m) is correspondingly defined as the units of domestic currency that would be paid for a dollar's worth of imports, taking into account tariffs, surcharges, interest on advance deposits, etc. In principle, the EER_m should include premia on import licenses; however, in the NBER studies, the EER_m was defined exclusive of them, for the simple reason that for many countries no reliable data on import premia could be obtained either directly or via suitable surveys of c.i.f. and retail prices. As stated later, the ratio EER_x/EER_m as an index of export bias dates back to before even the OECD project studies and was used, without detailed quantification, in Bhagwati (1968).

for any one activity, the effective tariff rate as applicable to production for domestic sales may be compared with the effective tariff rate as applicable to exports and the ratio thereof, when exceeding unity, would be described as the "export bias" characterizing that activity.[20] But, if the EER_x and EER_m are defined (as they were traditionally in the 1960s in India) as including the incentives and disincentives on outputs as also those related to inputs,[21] then the definition of export bias as the ratio of effective tariffs in export and domestic markets is identical with the better-known and earlier definition of export bias in terms of the ratio EER_x/EER_m.[22] Third, we may note the concept of real effective exchange rates, or what the NBER project calls the price-level deflated effective exchange rates (*PLDEER*s). In contrast to the EER_x/EER_m ratio, the $PLDEER_x$ would show the relative price of the exportables to home goods (as distinct from importables) and hence capture a different element of the total picture regarding incentives to produce for exports. Furthermore, the NBER project utilized, in some studies, the concept of purchasing-power parity effective exchange rates, *PPPEER*s, which adjust also for changes in the foreign price level.

We shall return to these concepts when we examine the relationship of protection with export performance. For the present, it is important to distinguish broadly between two basic implications of any observed tariff structure: (i) the import-competing activities are being, broadly speaking, encouraged relative to what the absence of protection would imply: this is what might be called the "degree of import substitution" aspect of the protective structure; and (ii) there are (usually) differential tariffs on, and therefore differential incentives to, different activities within the import-competing sectors: this is what could be called the "pattern of import substitution" aspect of the protective structure.[23] In an approximate fashion, we can then argue that the degree-of-protection concept corresponds to

[20] This concept was used in the International Bank for Reconstruction and Development (IBRD) studies and is used in the South Korean study of the NBER project; it was not used in the OECD project at all. However, as noted below, it reduces in effect to the (properly defined) ratio of EER_x/EER_m in any case.

[21] Thus, for example, exporters in India typically receive imported materials at international prices, so that EER_x is defined as inclusive of the implied subsidy from this scheme. See Bhagwati and Srinivasan (1975), for example.

[22] This is seen readily by stating that, for the usual notation, export bias under the former concept amounts to:

$$\frac{t_x^x - \Sigma_{a_i} t_i^x}{t_x^d - \Sigma_{a_i} t_i^d} < 1$$

where the superscripts x and d relate to export and domestic markets respectively, and the latter amounts to:

$$1 + (t_x^x - t_x^d) + \Sigma_{a_i} (t_i^d - t_i^x) < 1.$$

[23] The terminology of degree and pattern of import substitution was introduced in Bhagwati (1972).

the degree of import-substitution aspect, and the structure-of-protection concept corresponds to the pattern of import-substitution aspect, of the process of economic expansion and, in effect, of industrialization in the LDCs.

In the rest of this section we will essentially deal with both these aspects: Subsection C will consider the pattern of import substitution; whereas Subsection D, in considering export performance, will simultaneously imply consideration of the question of the degree of import substitution. Prior to these analyses, however, a brief review of the empirical studies on the degree and structure of protection is presented in the next Subsection B.

B. The degree and structure of protection: Evidence

Although both the OECD and NBER projects contain, within their more ambitious and wide-ranging framework, estimates of the protective structure, the best-known and standardized estimates for a set of developing countries are to be found in the six IBRD studies for Brazil, Chile, Malaya, Mexico, Pakistan, and the Philippines.[24]

Essentially, these estimates relate to specific dates, typically deploy the effective tariff concept, and utilize implicit tariff estimates (based largely on estimated differentials between foreign and domestic prices of imports). Net protection estimates (adjusting for exchange rate change) are also included. The studies also proceed to present effective protection by export and domestic markets, so that export bias, so defined, is also typically estimated by the authors.

The IBRD studies indicated that the manufacturing sector was protected, relative to the primary sector in nearly all the countries in question and, in the case of Chile and Philippines, the average tariff rate for manufacturing was fairly sizable.

The OECD synthesis volume by Little, Scitovsky, and Scott also contained estimates of average tariff levels for manufactures that indicated again that the degree of protection used for manufactures by developing countries was extremely high: protection being defined as nominal, explicit

[24] The OECD and NBER studies offered much more comprehensive and detailed analyses of the countries being studied than the IBRD study. In particular, most of the NBER volumes examined export performance in depth, systematically analyzed the evolution of the exchange-control regime over time, examined fully the conditions determining the outcomes of liberalization attempts (including political factors plus the role of foreign aid, etc.) and attempted (in some cases) more systematic examination of dynamic arguments relating to investment, innovation, savings formation, etc. and their interaction with the foreign trade regime. In all these respects, the NBER studies were, for the most part, more comprehensive and ambitious than other efforts, such as, for example, the IBRD project, though the latter did touch marginally on some of the issues (e.g., Balassa's brief treatment of "dynamic" effects in his introductory essays, relating however mainly to static, scale economies and competition aspects). The relationship between the NBER and the OECD projects, which were both ambitious, has been spelled out above.

tariffs alone. By contrast, they argued that most of the present DCs had used substantially lower tariffs in the course of their development.[25] This contrast was sustained by examination of the effective tariffs as well.

While the OECD project did note the "variability of protection" to different manufacturing activities, the main focus of the NBER studies has been precisely on this aspect of the overall foreign trade regime. Thus, while stressing the many difficulties in interpreting the structure of protection, the estimates were used to underline the differential-incentives-generating nature of the regime, while stressing equally the administrative-cum-allocational procedures that led to automaticity of protection, fluctuating incentives through varying import premia reflecting changing allocations and rules, and numerous other facets without whose adequate understanding the analyst of the effects of tariff structures would be making, at best, misleading inferences.[26] While using the estimated tariffs on several manufacturing activities (and, in the case of Egypt, for agricultural crops as well)[27] to show the wide dispersion in the implied incentives, the NBER project also utilized concepts and measures such as domestic resource costs (DRCs) to indicate rather the varying social rates of return to production in alternative manufacturing activities.[28]

The major conclusion of the NBER studies is that the protective structure, when inclusive of the implicit tariffs (implied by QRs) under exchange controls, is characterized by considerable dispersion and unpredictability, and that the effects are to create resource misallocation whose incidence is indicated by the DRC-dispersion observed in the empirical studies.[29]

C. Protection and pattern of industrialization

The effect of the structure of protection on the pattern of industrialization may first be noted, before proceeding to consider the effect of the degree and pattern of such protection on export performance.

[25] Cf. Little, Scitovsky, and Scott (1970, chap. 5). It should be added, however, that an unpublished NBER project-commissioned examination of Japanese tariff protection during the period of early industrialization, by Ippei Yamazawa, suggests a substantially greater role of tariffs, and other forms of protection, than the Little–Scitovsky–Scott figure indicates for Japan.

[26] For details, see Bhagwati (1978, chap. 5).

[27] Cf. Hansen and Nashashibi (1975) on Egypt.

[28] Of course, if shadow prices for domestic factors, and marginal revenues for commodities facing declining prices as exports increase, are not used to calculate DRCs, they can be reduced by a simple transformation to effective rates of protection.

[29] The stress on dispersion of incentives is to be found particularly in Leith's NBER Ghana volume (1975) and in Bhagwati and Srinivasan's NBER India volume (1975), and is spelled out overall in Bhagwati's NBER synthesis volume (1978, chap. 5). Balassa (1971) also stresses the variability of incentives in the tariff structure but needs to pay the same degree of attention to interpreting it in light of the unpredictability, built-in automaticity of future protection, and other integral aspects of QR regimes that define the context, and hence the true meaning, of these tariff estimates. More is said on this in the next subsection.

While it is true in reality that protection of the manufacturing sector, *in toto*, is supportive of industrialization in the LDCs, it should be noted that it does not follow that the pattern of manufacturing production, or import substitution, also is explainable by the pattern of protection that is being measured for the LDCs. Thus, it is tempting to argue that industries when arrayed in ascending order by their (effective or nominal) protective rates should also be ranked in ascending order by their growth rates, or their import-substitution ratios. But there is neither analytical, nor clear empirical, support for such a hypothesis; and, in fact, it is encouraging that where theory suggests there should be no such correlation, there is mixed evidence to be found in practice as well.

Among the favorable results for the hypothesis stated is that for Colombia. Thus, in the NBER study of Colombia, Carlos Diaz-Alejandro cites the earlier work of Hutcheson on Colombian protection that regresses growth rates successfully on effective protective rates.[30]

Similarly, Frank et al., in the NBER study on South Korea, report on rank correlation coefficients between various measures of effective protection, and of effective incentives (defined so as to include the effects of tax rebates, credit preferences, and such incentives) and resource-allocational indices such as import-substitution ratios (or export shares for export industries) and growth contribution.[31] Their results, however, are generally poor on the import side: the correlation between import ratios and effective incentives is significant and positive, suggesting that import substitution had progressed the least [rather than the most] in those sectors that had a high level of effective incentives on domestic sales, and the correlations between effective incentives to domestic sales and growth contributions are not significant, though they are negative.[32]

Additional cross-sectional analysis of this variety was also conducted by Jere Behrman in his NBER study of Chile, to determine whether the price structures created by the international economic regimes were associated with growth across sectors.[33] He found a positive relation between growth in value-added and in horsepower capacity between 1961 and 1967 and the implicit tariff rates (ITRs) for 1967 and also for the incremental ITRs between 1961 and 1967. But this relationship has little plausibility, as Behrman notes, and may be rationalized only by argument, such as that the ITRs "perhaps . . . served as signals, however, of the

[30] The Hutcheson estimates of effective protection use the early Balassa method for treating nontraded goods as enjoying zero protection rather than as value added *à la* Corden. Note, however, that in the case of Chile, at least, the distinction between the two measures is not empirically important. Cf. Behrman (1976) on Chile.

[31] Frank, Westphal, and Kim (1975, chap. 10) on South Korea.

[32] Ibid. (1975, chap. 10, p. 36).

[33] Cf. Behrman (1976, chap. 12) on Chile, for full details of this analysis.

government's intentions to favor particular sub-sectors."[34] Interestingly, Behrman found no evidence for a link between effective rates of protection and growth: in fact, the only significant nonzero correlation coefficient, using alternative estimates, was a negative one between effective rates and growth in production from 1953 to 1961.[35]

Going beyond the NBER studies, furthermore, we may note two successful sets of regressions: for Pakistan by Guisinger[36] and for Nigeria by Oyejide.[37] The Pakistani analysis was unsuccessful for import-substitution ratios, but successful for growth rates for a 23-industry study. The Nigerian analysis, for 42 industries, resulted in successful regressions of import-substitution ratios on effective rates of protection and changes therein.

While, therefore, the results for the different countries are fairly mixed, we also need to note that the construction of a theoretical rationale for a successful regression of import-substitution ratios or growth rates in cross-section analysis is difficult, and one may reasonably expect to find no relationships of the kinds postulated. It should be useful to spell out why this is so, taking the import-substitution ratio as the dependent variable and effective tariffs as the independent variable.

i) To begin with, effective tariffs being the independent variable, a basic difficulty arises. The effect on the import-substitution (production-to-total-supply) ratio is not uniquely determined by the effective tariff: for the same effective tariff is compatible with different combinations of nominal tariffs on output and inputs and hence with different effects on production and consumption of the output. Therefore, even if the partial-equilibrium, supply-and-demand curves were identical across the industries, the relationship postulated would not follow unless the input-output structure and the structure of nominal tariffs on each industry's outputs and inputs were identical.

ii) Once we go beyond partial into general-equilibrium analysis, furthermore, the hypothesis refuses to hold up for the further reason that the theory of general equilibrium tells us unhappily that, in an n-output ($n>2$) economy, if more than one price changes, the direction of individual output changes cannot be predicted from this fact alone: one really has to work out the full general-equilibrium solution.[38] This nihilistic conclusion carries

[34] Ibid. (1975, chap. 12).

[35] Nor, for that matter, did Behrman manage to find any significant association between DRCs and growth indicates.

[36] Guisinger (1971).

[37] T. A. Oyejide (1971).

[38] One may further be tempted to infer (as we did in the Conference paper) that, if there are n (>2) different tariffs, resulting in n prices changing, there is no theoretical presumption at all for asserting that the changes in the n activities' outputs will be *correlated* with the n tariffs. However, as noted by Alan Deardorff in his *Comment*, this would be an invalid inference.

over, of course, to a general equilibrium model with imported inputs as well.[39]

iii) Finally, while the analytical points made above relate to the effects of the tariffs vis-à-vis the free trade situation, with given resources, the exercises testing the postulated hypothesis relate often to a situation of growing resources. But, in this event, there is even less presumption theoretically in support of the hypothesis.[40]

Thus, even within the confines of conventional economic theory, one would have serious difficulties with the hypothesis that higher effective tariffs lead to higher import-substitution ratios on a cross-sectional basis. In the context of actual developing countries, these difficulties are accentuated indeed. For example, the growth of industries is likely to reflect industrial licensing and targeting; and, as noted below in the context of QRs, anticipation of tariff protection, as distinct from initial protection, once the industry has built up to size leading to an effective political pressure group,[41] may be quite important in determining growth incentives.

In fact, we must recognize many additional difficulties, specific to exchange control regimes, (where QRs typically may dominate tariffs), with the notion that observed protective structures will tell the analyst anything terribly conclusive about growth incentives. In particular, an important

[39] In fact, for predicting output changes (as one must be, if one's interest is in the import substitution ratio), as distinct from "value-added" changes, in models with imported inputs, the effective protection measures run into trouble even if we confine ourselves to *two* goods. This problem was first raised by V. K. Ramaswami and T. N. Srinivasan (1971) and is extensively analyzed in the contributions of Bruno (1973) and Bhagwati and Srinivasan (1973) to the "Journal of International Economics Symposium" (1973).

[40] Thus, take a simple two-sector example, using the standard two-by-two model of trade theory. We know from Rybczynski's theorem that the supply curves of the two commodities will shift differentially rather than identically, so that even if the supply curves were identical in the initial situation across activities, they would cease to be so with economic expansion (unless all factors expanded uniformly). And hence any effect of the tariff structure on the import-substitution ratio would be "muddied" by this additional growth effect. This is clearly a pertinent point when one is relating the import ratios for 1967, for example, to effective protection in 1962 (as in the Nigerian exercise reported above): a period over which the capital stock may have increased by nearly 30 percent (assuming a capital-output ratio of 3:1 and an average savings rate of 15 percent of GNP), and hence certainly in excess of the labor force.

[41] Thus, the causal relationship may well run from the growth and size of an industry to the magnitude of its tariff protection. In fact, it is only recently that economists have begun to concern themselves with the question of why tariff structures are what they are, as distinct from what they should be. At an institutional-analytical level, the work of Padma Desai on the criteria used by the Indian Tariff Commission in granting tariff protection represents one approach of interest and importance (cf. Desai 1970). At a statistical-econometric level, the work of Basevi (1966) on examining the factor intensity of protected industries in the United States represents a different, and equally useful, approach; for an interesting analysis of the relationship between the labor force characteristics of an industry and the degree of exemption secured by it from the across-the-board 50 percent tariff cut in the Kennedy Round, see Cheh (1974).

fact is that many developing countries have operated with rules of "automaticity" in protection: QRs were used to grant protection as soon as domestic production was started. Once this "institutional" feature of the system is taken into account, it is easy to see that any observed (implicit) tariff structure fails to incorporate the incentive effects of guaranteed, "potential" tariff protection, which is clearly a significant factor on the scene. More precisely, we should not expect the resource-allocational effects of *n* prespecified tariffs to be identical with the effects of a process of tariff-imposition that is characterized by automatic protection to any potential activity, the degree of protection, in turn, being expected by potential investors with uncertainty regarding its precise extent (this, in turn, being dependent largely on the restrictiveness of the foreign exchange situation), and which process winds up with the *n* observed tariffs in place.

It is for this set of reasons that the notion of relating tariffs, effective or nominal, to the pattern of industrial expansion—no matter how measured—seems to be lacking in sufficient rationale, especially for countries with restrictive exchange-control regimes: as, indeed, several developing countries have been for the bulk of the postwar period. This may well account for the mixed nature of the statistical results reported in this section.

On balance, therefore, we should be content to take the view, admittedly less ambitious, that the differential tariff structure among different activities merely indicates, very broadly indeed, the differential nature of the incentives that exchange-control regimes in developing countries tend to generate: a conclusion that, in itself, is sufficiently interesting and important.

Next, we may note, in this context, that the differential nature of the incentives, as indicated by the differential rates of protection to different manufacturing activities, can be shown rather to result simultaneously in differential social returns from the allocation of resources in producing these alternative items. This can be done qualitatively by showing how the actual allocational criteria used for making production and investment decisions, whether through the use of QRs or through the use of domestic licensing or via both sets of instruments (as in India and Pakistan), can hardly be expected to yield anything like an economically rational allocation of resources.[42] Quantitatively, it can be done by doing sophisticated cost-benefit analysis on a number of different activities, thereby showing the differential social returns resulting from different activities encouraged (or enabled to exist) by the entire framework of protection. It can also be done by using somewhat rough-and-ready calculations, such as those implied by DRC estimates, of the kind deployed in the NBER studies, which essentially use "illustrative" shadow prices and arrive at notions of

[42] This, in fact, was done in the India study of the OECD (Bhagwati and Desai 1970) and was also the reason for the analytical focus on methods of exchange control in the NBER studies.

differential returns produced by different activities by estimating the foreign exchange that the same value of domestic, primary factors is producing in alternative activities. Primarily using the DRC method therefore as a rough device for estimating social returns, the NBER project does show the wide variations that obtain in the restrictive foreign trade regimes that have been deployed in the LDCs studied under the project.[43]

Finally, note that the NBER studies explicitly extend the analysis of the economic consequences of protection, as generated by restrictive foreign trade regimes, to issues such as underutilization of capacity, excessive inventory holdings, etc., with findings generally adverse to the case of those who favor the use of restrictive trade regimes. They also investigate the dynamic aspects of foreign trade regimes quite explicitly, examining the effects on domestic savings formation, foreign capital inflows and efficiency thereof, quality of entrepreneurship, technical change and innovation, etc. The general conclusion from such analyses is that there is little empirical support for those who would argue that restrictive regimes generate dynamic gains that offset the static inefficiencies that are documented in the NBER studies and that, in fact, were spelled out also in the earlier OECD studies at some length.[44]

D. Protection and export performance

We turn now to the issue of the degree of import substitution that corresponds, as noted earlier, to the question of the degree of protection. Two points need to be noted at the outset. First, recalling that protection is defined here, as in the NBER studies, as inclusive of the effects of the exchange control regime via import premia etc., the analysis in this subsection will extend to the issue of whether restrictive foreign trade regimes, associated with high import premia, lead to deteriorating or inferior export performance, whereas liberalized foreign trade regimes tend to have improved export performance. Second, we should also note that the common distinction drawn between import-substituting strategy and export-promoting strategy may be made, in sharper analytical terms, by observing that the former group essentially works with a degree of protection that implies that the ratio of EERs for exports is less than unity, whereas the latter group of countries essentially has this ratio closer to unity (as export

[43] For detailed analytical and empirical discussion, see Bhagwati (1978, chap. 5).

[44] Many of these dynamic questions were dealt with explicitly for India in Bhagwati–Srinivasan (1975), in particular; they have been considered more generally, with an eye on the entire set of countries in the NBER project, in Bhagwati (1978, chaps. 6–8). Note equally that, contrary to the enthusiasm of many proponents of liberalized regimes, there is no systematic evidence on their side either of dynamic efficiencies. The facts, and for that matter, the theoretical arguments, in these dynamic areas go in both directions and no general conclusions seem warranted. Cf. Bhagwati (1978).

subsidies of various types bring the *EER* for exports much closer to that for imports).[45]

There are several different types of evidence available in the NBER studies, to suggest that restrictive foreign trade regimes, with high explicit or implicit tariffs and lower-than-unity EER_x/EER_m ratios, are associated with lower export performance and that changing the overall foreign trade regime successfully in the direction of reduced reliance on exchange control and increased liberalization pays handsome dividends in terms of higher exports.

First, there is the usual type of evidence that, after successful liberalization (normally accompanied by devaluation), exports having generally declined tend to show responsiveness. This phenomenon, known in the literature on devaluation as the *J*-curve behavior (with initial decline and later rise), has been documented for several (though by no means all) of the liberalization episodes that the NBER countries experienced and that have been studied in depth. Thus, for example, the June 1966 Indian devaluation and liberalization policy package, once adjustment was made for the exogenous decline in exports brought about by two serious agricultural droughts, showed this type of pattern of export behavior.[46] Occasionally, attention has been focused on the short-run export response, so that the medium and long-run response, which was more favorable, has been missed by earlier analysts.[47]

Second, there is a considerable amount of statistical analysis, in the NBER studies, of the responsiveness of minor exports in particular and manufactured exports in general, which (on the basis of regression analysis using mainly time series estimates) suggests strongly that the exports of these developing countries are, in general, responsive to price changes. This evidence is at the microlevel for specific commodities (including sometimes even primary products) and also for broad aggregates by sectors.[48] It should be noted that the studies do deploy different indices for their price variable; and there is, indeed, here some of the tendency

[45] In practice, the export-promoting countries do not seem to make the export *EER* identical to that for imports; but they do make it substantially closer. In theory, one should want to define export-promoting strategy as making the EER_x/EER_m ratio exceed unity, so that there is a net incentive to export rather than serve the domestic market! These issues are discussed in Bhagwati (1978, chap. 8).

[46] For a full discussion of the cross-country evidence, see Krueger (1978).

[47] For a notable exception, see Cooper (1971).

[48] This evidence would suggest that while the 2×2 trade-theoretic model, where both goods are traded, is unrealistic, the augmentation of this model with a preassigned nontraded good is also incapable of capturing reality adequately. What one needs is a model where, depending on the policy equilibrium, a good may be traded or may cease to be traded. Such a model, on Ricardian lines, was considered by Samuelson (1964) many years ago and has been recently explored by him in a joint study: Dornbusch, Fischer, and Samuelson (1977), and independently in Samuelson (1979).

among econometricians to keep shifting among alternative price variables until something works. But, with this customary *caveat* in mind, we should note that the evidence broadly supports those who contend that prices do matter.

Third, Krueger's cross-sectional analysis of the ten NBER countries in her synthesis volume also seems to underline the significance of prices in improving or inhibiting the growth of exports. In her regressions, she uses dummies to represent Phases I, II, IV, and V: these refer to different degrees of restrictiveness of the trade regime (as spelled out in the NBER studies), where Phase I primarily initiates in a simple way the QR regime, Phase II represents proliferation of QRs and increased restrictiveness, Phase III is attempted liberalization, Phase IV represents successful movement toward liberalization, and Phase V is a full shift to a liberal-payments regime.[49] The Krueger regressions indicate that *PLDEER*s on exports seem to affect both traditional and nontraditional (otherwise described as minor in many of the studies) export values, and that Phases IV and V do seem to affect export performance favorably.[50]

In this regard, note furthermore that there seems to be a general case, underlined by the detailed analysis in the NBER studies, for arguing that it is really a shift to successful liberalization and therefore continuing liberalization that is critical to improved export performance on a sustained basis: i.e., a shift to Phase IV from Phase II will show such an improved performance, but not really occasional jabs at liberalization, each resulting in eventual relapse into Phase II (from Phase III liberalization attempts). Thus, it is the sustained transition during the 1960s and later from Phase II to Phase IV by South Korea, Taiwan, and Brazil that has been attended by high rates of export growth.[51]

Additionally, it is also worth noting that it is not just the price aspects of the restrictive Phase II regimes that inhibit export performance. As has been documented in the Indian case, for example, and by contrast in the South Korean case, in the NBER studies, the whole framework of exchange controls in a Phase II situation militates against export performance. Thus, for example, the ability to expand production to fill export orders requires access to import licenses for raw materials and capacity expansion requires import (and industrial) licenses: in each case, red tape and uncertainty cloud the scene.[52]

Fourth, statistical analysis of the usual decomposition variety, where the

[49] For more systematic and careful definitions of the Phases, see any of the NBER volumes: for convenience, they are stated fully in the Appendix.

[50] Cf. Krueger (1978). *PLDEER* stands for price-level deflated *EER*s.

[51] The role of expectations ensuring that export incentives are seen to have been made favorable over continued periods is obviously critical to this result, for that is when entrepreneurs will wish to make investments in export markets.

[52] Again, this is the kind of effect on exports that only Phase-change analysis can pick up statistically, if at all.

export performance of several LDCs is decomposed into that attributable to overall growth of demand, regional composition, commodity composition, and a residual "competitive" factor effect, contrasting the 1950s when most LDCs were in Phase II and the 1960s when some had successfully shifted to Phase IV, shows that the latter group of Phase IV countries had dramatically improved export performance and that a sizable share of it could be assigned to the residual, "competitive" factor.[53] Such analysis of the "competitive" factor is not generally considered to be as persuasive as the time-series analysis deployed in many of the NBER studies. However, it has considerable suggestive value and is corroborative of the conclusions arrived at through use of other analytical approaches.

E. Protection and economic performance

We may finally address the central question of whether LDCs with superior export performance also have superior economic performance and, if so, why?

There is little doubt that, in the NBER studies for example, the countries that have managed to shift to improved export performance by reducing export bias have also managed to register acceleration in their growth rates, whereas countries that have not done so (and have remained in Phase II regimes) have had poorer growth rates. The contrast between the success of South Korea and the failure of India, in this regard, is cross-sectionally the most telling.

A recent statistical analysis of Irving Kravis also supports this conclusion.[54] Using decomposition analysis to differentiate LDCs with high export performance based on domestic policies, and taking a 39-country sample, Kravis has noted a 0.51 Spearman coefficient between ranks with respect to the index of such export performance and ranks regarding the growth rate of real national product.

That the superior-export-performance countries do better compared to both their own earlier growth performance under restrictive trade regimes and other countries with inferior export performance seems therefore to be, generally speaking, a valid assertion. The interesting question is: why? Here, we have a few answers and many questions.

1. First, it would appear that the pattern of incentives, and hence of export promotion, is less skewed in practice than the chaotic pattern of import-substituting incentives under the restrictive trade regimes. The statistical quantifications of EER_is for several activities in South Korea, for the mid-1960s, for example, suggest that the variability (including the extremes) of incentives is significantly lower than the EER_ms for several

[53] Cf. Askari and Corbo (1975). This statistical study also distinguishes between "minor" and other exports, defining the "minor" as all those exports that were below 10 percent of the total value in the initial year.

[54] Cf. Kravis (1970; pp. 868–69, in particular).

activities in the restrictive Phase II-type regimes in other countries, such as India.[55]

Similarly, the average ratio EER_x/EER_m also seems much closer to unity (at times even exceeding unity, but remaining closer to it) under the liberalized Phase IV- or V-type regimes than under the restrictive Phase II-type regimes.[56]

Thus, it would appear that, on both the degree and the pattern questions, distinguished earlier, the export-promoting countries with liberalized regimes seem to do better. For both types of allocative reasons, therefore, one could argue that the resulting reduction in allocative inefficiency must provide some of the explanation of the improved export performance that is observed for the liberalized-regime countries. But, in turn, one must ask the question as to why these incentives are less chaotic and more "neutral," by and large, under the liberalized trade regimes.

The reasons would seem to consist in the fact that the successful shift to export-promoting strategy (or Phase IV) generally takes place within the overall context of continuing exchange controls, and that the QR-caused bias against exports is offset by giving the import premia to exporters through schemes such as supply of imported materials at international prices, etc.,[57] and by using exchange rate adjustment more freely and thereby directly reducing import premia and hence the bias against exports. The result is generally (not always) to eliminate or reduce the bias against exports rather than to create excessive bias for exports. Because of budgetary considerations, cash subsidies that could conceivably create massive bias for exports are usually not substantial (though not unknown). On the other hand, the import-substituting strategy, especially via the mechanisms of import premia from QRs, can and has typically caused EER_m to get way out of line with EER_x (which was then determined almost exclusively by the exchange rate): and the costs of such a substantial rise in EER_m/EER_x above unity are generally not understood and, in any case, do not fall directly on the budget.

2. Next, the sheer improvement in export performance, following from the elimination of the bias against exports, must surely play the major role in the full explanation. The links here are possibly diverse.

i) The NBER studies suggest that there is little evidence that the export-promoting countries are technically more progressive or that they have higher savings rates because of a larger export sector.[58] The asymmetry in

[55] For a more detailed analysis, including statistical and analytical reasons for possible skepticism regarding this observation, consult Bhagwati (1978, chap. 8).

[56] In fact, Bhagwati (1978) therefore defines the export-promoting strategy as one where EER_x/EER_m is brought fairly close to unity.

[57] There is much documentation of these schemes of export promotion in the NBER studies. Cf., in particular, Bhagwati-Srinivasan (1975) on India and Frank, Westphal, and Kim (1975) on South Korea.

[58] These questions have been examined in detail, analytically and empirically, in Bhagwati (1978, chaps. 6 and 7).

the export-promoting and import-substituting countries' economic performance cannot thus be traced, at least on current evidence, to superiority of the one strategy over the other on these dynamic grounds, even though the proponents of each strategy often indulge in assertions to that effect.

ii) Part of the answer rather appears to be in the fact that a more comfortable balance-of-payments position, resulting from improved export incentives and earnings, generally eases up the excesses of the import-substituting strategy. This should be obvious from the well-known demonstration that, under a foreign exchange bottleneck (in the sense of Chenery), additional foreign exchange is more productive than under a savings bottleneck. But it is also apparent from the fact that it eases excess capacity (generated largely by the QR regime in the first place[59]), may reduce the need to hold excess inventories, and leads often to elimination of critical bottlenecks, etc. It is perhaps remarkable that these kinds of problems, attendant on economies in the restrictive Phase II, are rarely to be found in the liberalized Phase IV and V economies that have successfully transited to export-promoting strategy on a continuing basis.

iii) In regard to the general easing of the balance of payments (and hence of the losses that attend restrictive payments policies) under the export-promoting strategy, it is also worth noting that this effect is reinforced by the substantial inflow of foreign capital that can attend such a strategy. While political factors help to explain the substantial inflows of foreign private investment in South Korea, these are undoubtedly to be supplemented by economic factors. And here one probably ought to attribute to the export-promoting strategy itself the sizable magnitude of the inflow of nonaid foreign funds and its efficacy in promoting economic growth. By contrast, under import-substituting strategy, both the magnitude of the inflow and its social returns are likely to be lower. This contrast may be explained as follows.

Regarding magnitude, an export-promoting strategy, with its lack of discrimination against foreign markets, is likely to attract foreign firms essentially on the nineteenth-century pattern of factor-endowment advantages. Whereas in the nineteenth-century, this meant natural resources, today it means exploiting Heckscher–Ohlin style low wages. On the other hand, by creating artificial inducement to invest via tariffs and/or QRs, so that one gets "tariff-jumping" investments oriented to the domestic market alone, the import substituting strategy provides an artificially limited incentive to invest in the LDC. Furthermore, even the substantial official borrowings by South Korea and Brazil in the international capital markets surely must have been facilitated by the demonstration of a superior export performance (for, that would assuage fears of excessive borrowing and inability to repay).

Then again, in regard to efficiency, it is easy to show that "tariff-jumping"

[59] On this point, see the arguments in Bhagwati–Srinivasan (1975, chap. 13).

investments, induced under the import-substituting strategy, are more likely to imply social losses or (at minimum) reduced gains than investments attracted by Heckscher–Ohlinesque factors. That foreign capital inflow can be not merely less productive when inspired by QRs and/or tariffs, but actually immiserizing, has been shown elegantly by Brecher and Diaz–Alejandro in a recent paper.[60] For the traditional 2 × 2 model of trade theory, they show that social utility for the small country, having declined with the tariff, will decline further with the initial inflow of foreign capital when the importable good is capital-intensive. It will continue to decline with additional inflows of foreign capital until autarky is reached, then rise gradually to the level under free trade (a situation discussed by Mundell earlier),[61] remain at that level for further inflows and, finally, start rising after complete specialization in production is reached (a situation discussed by MacDougall earlier).[62]

While the factors noted in the preceding paragraphs would seem to be critical in defining the asymmetrical outcomes under the import-substituting and the export-promoting strategies, some additional factors may be cited that might contribute to the asymmetry, but for which no systematic evidence is yet available.

iv) Thus, one could argue that the export-promoting strategy may lead to a generally reduced reliance on direct or physical, as distinct from price, measures.[63] Direct controls have been argued with plausibility, in both the OECD and NBER studies, to be very costly in practice. It is possible that the general incidence of such direct controls may be significantly less under export promotion, because price, distribution, and other controls may make little sense to bureaucrats when firms' outputs are mainly addressed to overseas, rather than domestic, markets. A different, and perhaps more perceptive, formulation of this kind of contrast was well put by an economist familiar with both the Indian (Phase II) and the South Korean (Phase IV) trade regimes: the Indian regime consists mainly of "don'ts" whereas the Korean regime consists mainly of "do's." Whether these contrasts are, in a basic political sense, endemic to the two strategies being contrasted is not clear; but the NBER studies do suggest that they exist currently.

v) In the still more grey area, one may further argue that the export-promoting strategy must produce, through international competition, greater efficiency than the import-substituting strategy, with its sheltered markets. While this argument is plausible *a priori*, there is as yet no real

[60] Brecher and Diaz-Alejandro (1977). This possibility was noted, in the context of the same model, but less fully, in Uzawa (1969); Hamada (1974); Minabe (1974); and Bhagwati (1973).

[61] Mundell (1957).

[62] MacDougall (1958).

[63] The points in this paragraph and the next two were made, with slight differences in emphasis, in Bhagwati and Krueger (1973).

evidence at all on the subject. The issue is also complex, as the domestic competition may be sufficient to provide the incentive to efficiency under import-substitution, whereas exports may be to imperfectly competitive foreign markets or may simply be subsidized to the point necessary to offset any possible inefficiency-raised cost disadvantage.

vi) Finally, there is the factor of economies of scale, long recognized in international trade theory and policy discussions relating to customs unions, free trade areas, and similar areas where the size of the market is critical to the analysis of economic efficiency. In relation to export promoting strategy, it seems plausible to argue that the creation of incentives (or rather, the elimination of the disincentives) to enter the foreign markets augments the size of the market and hence should enable greater exploitation of economies of scale. Again, however, the issue is more complex insofar as the growth of firm size may be constrained by other policies and objectives (as in India), so that export promotion may take place from firms with constrained sizes by diversion from domestic production and/or by growth of new, licensed firms of small size. Again, therefore, the statistical evidence and analysis of this possible cause of asymmetrical advantage of the export-promoting strategy is not yet available in anything like a degree that would be reasonably compelling; but it does remain a plausible hypothesis.

It is finally important to note that once industrialization is on its way the basic difference between the two trade strategies is not in the degree of industrialization opted for; rather it is in the efficiency of the industrialization process. In fact, the export-promoting strategy merely implies a more rapid transition from import substitution to a substantial reduction of the bias against manufactured exports and, insofar as it is successful, may yield both more rapid and more substantial industrialization than the continued reliance on import-substituting strategy would. The familiar view in some developing countries and their policy-makers that the export-promoting strategy may result in reduced industrialization is therefore not based on an accurate understanding of the strategy and its precise contrast to the import-substituting strategy.

II. THE INTERNATIONAL TRADE SYSTEM: POLICY AND THEORETICAL PROBLEMS

While the preceding section underlines the developmental advantages that have accrued to the export-promoting countries, a necessary corollary to such a prescription for more than just a handful of LDCs is that the world trading system be reasonably open and accommodating to the trade needs of such a strategy. In fact, the problems that Japan has run into in regard to her international economic policy-making illustrate this point to advantage. It is thus not merely that Japan has often had an "undervalued"

Yen in the sense of generating a net surplus but also that, even if she was not building up exaggerated reserves and was instead spending all her export earnings, she would create waves because her growth rate, and the associated trade expansion, are just too great for the more sluggish rest-of-the-world to accommodate without serious disruptions of sectoral markets that lead to unceasing calls for VERs and other trade restrictions against Japanese exports.

Ragnar Nurkse, as we have seen, was quite aware of this problem for the export-promoting strategy; and the OECD project authors took the precaution also of stressing this when recommending against the import-substitution strategy. In fact, one cannot suppress the thought that the success stories of South Korea, Taiwan, Brazil, Singapore, and Hong Kong would not have been quite so impressive if they had not been built on the failures of the countries sticking overly long to import-substituting strategy and their consequent export (and associated economic) lag.

As it happens, the threats to a liberal international trade order come today from precisely the area of market disruption-related complaints in the DCs in regard to manufactures that must yield to growing imports and from the demands, in turn, from LDCs to extend restrictive arrangements to *primary commodities* as part of the New International Economic Order (NIEO). Both these threats are serious and both raise not merely policy but also theoretical issues of interest to international economists.

A. Market disruption-related threats

The political economy of tariff-making has received increasing attention recently, with empirical investigation by economists such as Cheh, Riedel, and Baldwin.[64] The result has been to focus on the nature of the adjustment costs that are likely to be imposed by shifts in trade policy or in trade environment, and therefore on the nature of the political opposition to the adoption or maintenance of open trade policies.

At the same time, trade theorists have tried to model the nature of adjustment costs. The model used by Mayer, in his recent work on the distinction between short-run and long-run equilibria, is based on the notion that, in the short run, the adjustment to commodity price change will be not along the usual transformation curve characterized by full mobility of factors but along one resulting from stickiness of capital in each activity and mobility of only labor.[65] On the other hand, we have argued recently that this notion of adjustment costs is too narrow; that the adjustment cost may exist because of, and in fact is more likely to reflect, the stickiness of real

[64] Cf. the pioneering paper of John H. Cheh (1974); James Riedel (1977); and the comprehensive and excellent paper by Robert E. Baldwin (1976).

[65] Cf. Mayer (1974). Of course, it is not the specificity of capital that causes adjustment problems, as suggested strongly by the work of Cheh (1974) and Riedel (1977), but rather the specificity of labor in the short run.

wages *à la* Brecher.[66] Equally, it may reflect stickiness of wages combined with initial unwillingness to move, with the former reducing as mobility also improves, so that the short run may well be realistically portrayed as the case where factors will not move and unemployment will ensue because of stickiness of wages.

From a theoretical standpoint, the interesting analytical issues that the threat of market disruption-related imposition of QRs and other trade restrictions poses are the following: (i) what should an exporting country that faces such a threat do by way of optimal policy intervention; and (ii) what should be the GATT rules govering the issue of market disruption-related invoking of trade restrictions? We have shown that the answer to the former question turns out to fall neatly into place in the traditional theory of distortions and welfare. Where the probability of the quota being invoked is endogenous to the level of (first-period) exports, clearly an optimal tariff argument follows: you need to take into account the increased probability of trade restraint, and hence loss of welfare, in the next period as a result of improved export performance in the first period. Moreover, if we also postulate a putty-clay model, such that first-period investments cannot be costlessly reassigned in the second period, clearly, a production tax-cum-subsidy will be required to take this additional complication into account: and this is, of course, nothing but the "adjustment costs" problem which, as just noted, may be modeled in different ways.[67] Building on this analysis, and the implied notion that the exporting country faces a loss in expected utility from the mere threat of trade restraints, Bhagwati has also suggested how the GATT Article XIX, which regulates (ineffectively, given VERs and bilateral deals) the exercise of market disruption-related invoking of trade restraints, may be revised and compensation rules be devised in regard thereto.[68]

On the other hand, the problem of revision of trade rules in regard to market disruption may be approached analytically by posing the question, not merely from the perspective of the exporting LDCs (just as the existing policies are largely reflecting only the importing DC interests *de facto*), but by considering the problem from the viewpoint of world optimality. If this is done, it is evident that the analytical problem is really one of determining the optimal assignment of adjustment costs between the country of

[66] Cf. Bhagwati and Srinivasan (1976), where the analysis of adjustment costs is general enough to embrace the different possibilities discussed in the text above. Among related papers of interest are Tolley and Wilman (1977); Mayer (1977); and Lapan (1976).

[67] Both these conclusions, of course, are consistent with the Bhagwati–Ramaswami–Srinivasan–Johnson type of conclusions that the optimal policy intervention should be in the markets where the problems arise. For details, see Bhagwati and Srinivasan (1976).

[68] For details, see Bhagwati (1977). The subject has also attracted proposals from other economists, notable among them being Hans Singer.

importation and the country of exportation, since one or the other must adjust. As such, the problem becomes analytically similar to the recent analysis of assignment of liability in the "law-and-economics" literature, with the adjustment costs, however, being spelled out by analytical specification of the nature of stickiness of wages, factor immobility, etc.[69]

B. Demands for commodity schemes

While the LDCs have been stressing the necessity to keep the DC markets open to increasing imports of manufactures from LDCs, they have simultaneously shifted recently to demanding restrictive and orderly arrangements in the markets for primary products. How is this paradox to be explained?

There are many explanations of the current LDC preference for commodity agreements, in their indexing form as distinct from their stabilization (of prices or perhaps earnings) form, but all would seem to miss the mark. Thus, it is often alleged that the commodity demands stem from the early Latin American preoccupation with the declining terms of trade of primary products, under the aegis of Prebisch and then UNCTAD (of which Prebisch was the first secretary-general). But if, indeed, this is so, one has to ask why it is only recently that such demands have come to the center of the stage: Sherlock Holmes did well to ask why the dog didn't bark! Alternatively, it has been suggested that the UNCTAD believes that economic progress is to be had by monopolistic cartelization and commodity schemes that rig prices at artificially high levels, rather than by the kinds of internal reform that attend on the economic advance in the presently developed countries. This too is a *non sequitur*. There is absolutely no contradiction between believing in the role of internal reforms (on whose dimensions, incidentally, most economists will disagree) and desiring a larger share of the gains from trade. The reasons why commodity schemes with the ultimate objective of indexing, and to be implemented by the LDCs and DCs in concerted action, have come to the forefront of the North–South negotiations have to be surely found elsewhere than in these theories.

There are, on the one hand, economic-philosophical reasons for these demands; on the other hand, there are also accidents-of-history type considerations here. Both must be understood if the demands are to be met by a reasonable response.

The economic-philosophical reasons are essentially the following. First, the LDC economists understand, what we have known with some clarity now since the developments in welfare economics since the 1940s, that the economics of the marketplace is about economic efficiency and not

[69] This has been noted in Bhagwati-Srinivasan (1976) and also happens to have been independently suggested by Gerald Meier in an undated paper.

about distributive justice. Thus, it is not intellectually foolish to argue that a price is unjust or unfair when the international income distribution that it reflects is unjust or unfair; rather, these economists know that it is naive to claim any more that opportunity cost is the touchstone of economic justice. Joan Robinson, despite her nascent radicalism, fell into the trap of calling "exploitation" the payment of a wage below the value of the factor's marginal product; she would probably burn *The Economics of Imperfect Competition* today! Second, many LDC economists find it increasingly baffling that DCs that have not been averse to resorting to indexing for their own constituencies on a massive scale—as with the U.S. agricultural price-support program—somehow find the idea to be an unacceptable violation of the principles of the marketplace when the idea is sought to be applied internationally: it seems reminiscent of the nineteenth-century English enthusiasm for free trade for the colonies and protection for domestic textiles. Finally, few LDC economists will accept the view that indexing by commodity agreements will disrupt competitive markets that currently assure economic efficiency. Here, there is room for further analysis, since it is not evident at all that the LDC economists' contention that these markets are already characterized by much intervention, willy nilly, and much monopolistic competition to the advantage of the DC's, is altogether bizarre. Thus, while the large number of oft-failing commodity agreements since World War II have been cited as evidence of the difficulty of getting such agreements designed and operated, they can equally well be cited as evidence of the considerable amount of intervention to which most commodity markets have been subjected during this period. Also, Gerry Helleiner has recently compiled the evidence on the degree to which market concentration operates in the world commodity trade and come up with what appeared to us at least to be substantially high figures of trade between related parties and of import concentration (in national markets) in the hands of a very small number of trading firms.[70] Of course, none of these latter facts automatically establish the existence of significant monopsonistic buying by DC's; we have all been sufficiently educated in the theory of entry, working competition, etc., to know that these facts are still consistent with the threat of entry by new firms and, therefore, competitive pricing may still be possible. However, in the face of this factual evidence on the existing structure of international trade in primary products, one needs to await systematic econometric analyses designed to enable us to choose among the two alternative hypotheses.

But if these factors account for why the LDCs are not persuaded that the market efficiency-based criticisms are well taken, the causes of their being wedded to the commodity schemes currently lie instead in political-economic factors that are probably the accidental results of the successes

[70] See, for example, his forthcoming paper, Helleiner (1977).

of the OPEC cartel. The OPEC cartel succeeded in unilaterally raising the price of a natural resource sevenfold in two years, against a backdrop of falling (real) aid flows from North to South and increasing sentiment that the path of moral suasion for raising the South's share in world income was unproductive. The OPEC seemed therefore to provide a new model: the LDCs, by acting jointly *qua* producers of commodities, would be able to raise their prices unilaterally. "Solidarity rather than charity" is the slogan that best captures this transition in the ethos in the South in the early post-OPEC years. Unfortunately, the LDCs were encouraged in this sentiment by DC economists who thought that this commodity power was nothing special to oil but really extended to other commodities: an argument that seems to have held only for bauxite in any significant degree. Thus, the initial shift in the South's strategy from that in the earlier UNCTAD Conferences and Group of 77 deliberations appears to have been toward the formation of producer groups to exercise unilaterally this alleged monopolistic power in individual commodities. Hence, the new-found focus on commodity schemes.

However, it was soon realized that the scope for such unilateral action was strictly limited and certainly self-destructing in the medium run because of induced-substitution possibilities. Since, however, the commodity schemes were "on" as the focal point of international negotiations, the emphasis soon shifted to making these commodity schemes joint LDC–DC, or producer-consumer, schemes, with the DC support being induced through political pressures brought from the South *en bloc* at UNCTAD, at CIEC, and so on. Thus, starting as the great new Southern weapon that would bring automatic and increased transfers of the incomes of the affluent countries to the poor ones, the commodity-scheme demands would appear to have become now the mere conduit through which transfers of resources would be made, these transfers to be induced by the exercise of political power, directly exerted by the LDCs *en bloc* at CIEC, and indirectly brought to bear on their behalf (with clearly much greater clout) by the OPEC members.

If this diagnosis is correct, the ultimate and true interest of the LDCs in commodity arrangements lies in their embodying some form of indexing (that would presumably procure higher, average terms of trade for the selected primary commodities than otherwise). This diagnosis would seem to derive additional support from two other observations: (i) the recent Group of 77 and UNCTAD documents, while carefully avoiding exclusive focus on indexing, never fail to include the notion in their proposed objectives for commodity schemes; and (ii) the commodities chosen for inclusion in the UNCTAD Integrated Plan for Commodities are not necessarily those characterized by severe (absolute or relative) instability in prices or earnings and, in fact, include items, such as tea, whose problem has always been that of low trend earnings.

It would thus appear that the alleged UNCTAD/CIEC willingness to negotiate stabilization, as against indexing, versions of commodity schemes is only tactical, designed to get some schemes going and then to make a move to indexing at an appropriate, future stage.

This judgment of LDC intentions is, of course, thoroughly compatible with the view that, by some strange quirk of coincidence, the price stabilization of commodities that are included in the UNCTAD Core Plan would yield a net transfer of resources from the stabilization *per se*: a view advanced recently by Jere Behrman on the basis of econometric analysis of the markets for these commodities.[71] Thus Behrman estimates that price stabilization for the commodities in the UNCTAD Integrated Plan would have created a modest resource transfer to the LDCs of the order of U.S. $5 billion in present value over the decade 1963–72. His simulations show that any buffer stock scheme intended to raise, rather than merely stabilize, prices is unlikely to succeed, since even a modest price increase of 2 percent annually in the secular price trends above their historical growth rates would result in accumulation of enormous stocks and would require unrealistically large financing.[72]

Turning then to the DCs, we may note that, if the DCs were faced with demands explicitly aimed at indexing, the prospects for commodity agreements would be negligible indeed. On the other hand, the DCs (and the United States specifically) have now indicated willingness to explore stabilization agreements. A cynical motivation behind this might well be to keep the North–South dialogue going for years to come, debating the rules and the specific commodities *ad nauseum*, while giving the appearance of responsiveness to LDC demands at relatively low cost. On the other hand, it appears that several DC policy-makers are of the view that price stabilization commodity schemes offer economic advantages to the DCs and that, therefore, here is an opportunity to grant an NIEO demand at a negative cost to the DCs, as long as indexing is firmly ruled out! There are really only two principal arguments underlying this view. First, that purchasers of primary products tend to be risk-averse and would favor price stability; and, second, that the inflationary effects of changes in primary product prices are asymmetrical and lead to a ratchet effect: primary product price

[71] Cf. Behrman (1977).

[72] The analysis in the text focuses on transfer of revenue to LDCs from the price-stabilization schemes. However, if we are interested in the welfare impact of price stabilization along conventional lines—it may be argued that welfare, as distinct from revenue transfer, impact is of interest only to economists rather than to LDC governments—then there is now an extensive literature on the distribution of welfare gains between producers and consumers from price stabilization, starting from the classic contributions of Waugh, Oi, and Massell. This literature has been surveyed recently by Turnovsky. The empirical issues, such as cost of stabilization, choice of commodities, as well as the econometrics underlying these are discussed among others by Behrman and Brook, et al. Cf. Waugh (1944); Oi (1961); Massell (1969); Turnovsky (1977); Brook, Grilli, and Waelbrook (1977); and Behrman (1977).

increases lead to overall price inflation, whereas their downturn does not reverse the overall price increase.

It is doubtful, however, that these arguments can support the case for an accommodation to the demands for commodity agreements, even if these are confined to stabilization arrangements. The risk-aversion that is admittedly rather strong at the moment surely reflects the phenomenally unusual commodity price boom of 1972–75: its remarkably unusual character having been noted and analyzed in the Cooper–Lawrence study for Brookings. Thus, they write:[73] "An extraordinary increase in commodity prices occurred in 1973–74. Even leaving aside crude oil as a special case, primary commodity prices on one index more than doubled between mid-1972 and mid-1974, while the prices of some individual commodities, such as sugar and urea (nitrogenous fertilizer), rose more than five times. While the timing differed from commodity to commodity, the sharp upward movement was widespread, affecting virtually all commodities. Most rose dramatically to twenty-year highs, and many went to historical highs." It is a fairly well-known generalization that when prices are on the upswing, consumers want price stability, whereas, producers want price stability on the downswing. Thus, one should probably treat as transient the present warmth toward price stability in the DCs. Nor is this judgment to be qualified by the argument that users, who fear quantitative shortfalls through withholding of supplies and embargos, would welcome price stability schemes: there is nothing in commodity agreements that would prevent such flow-disruptions and the appropriate method to approach the problem of export controls, so as to restrain their use to agreed rules of the game, may well lie in the general reform of GATT rules, whereby DCs agree to new market-disruption rules that restrain greatly their practice of clamping down on successful LDC exports and thus guarantee freer access by LDCs to DC markets, while LDCs reciprocally agree to a new set of rules that restrain their use of quantitative export controls on primary commodities and thereby maintain freer access by DCs to LDC supplies of primary products.

While, therefore, the risk-aversion argument in favor of price-stabilization commodity schemes is not particularly appealing to us, the macroeconomic argument on the ratchet effect is even less so. Admittedly, there is something to it: oil and wage goods obviously qualify for it. There even seems to be some empirical evidence in support of such a ratchet effect.[74] But, surely, it hardly applies to most of the commodities in which LDCs have invested their efforts for the commodity schemes. Again, just as LDCs made the mistake of generalizing from oil to other commodities in arrogating to themselves "commodity power" for unilateral price-raising, the DCs

[73] Cooper and Lawrence (1975).

[74] For detailed discussion, see the interesting papers of Nicholas Kaldor (1976), and Erik Lundberg (1977).

would appear to be making the mistake of generalizing the ratchet effect from oil, steel, and food to other commodities.

Our conclusions then are the following:

i) the LDCs have as their major objective an increase in the current transfer of resources from the rich to the poor countries;

ii) the LDCs stumbled mistakenly into commodity schemes as the new (OPEC-inspired) model for unilaterally achieving this objective;

iii) the LDCs, having realized that such unilateral power scarcely existed in a significant degree outside of oil, switched then to regarding commodity schemes as the conduit through which DCs could be politically pressured into transferring resources via indexing *à la* domestic price-support programs;

iv) the "true" objective of the LDCs is therefore to turn commodity agreements into indexing arrangements and the "noise" about stabilization etc. in UNCTAD/Group of 77/CIEC documents and demands is, at best, tactical;

v) the DCs, on the other hand, are opposed to indexing but are inclined, in some cases, to see in price-stabilization arrangements benefits to themselves;

vi) these benefits, however, are unlikely to be significant, have been mistakenly exaggerated, and will probably be seen to be so in the near future;

vii) the North–South willingness, if it crystallizes (as would seem imminent), to negotiate commodity schemes on the basis of price stabilization is then unlikely to lead to more than a transitory accommodation: the LDCs will soon wish to move to indexing, which the DCs will oppose and reject, whereas, the DCs will soon come to see even the stabilization schemes as nuisances, rather than as benefits, to themselves;

viii) therefore, far from promoting a smooth or amicable North–South relationship, the present focus on commodity schemes as part of the NIEO is a certain recipe for disorder: the LDCs will get next to nothing from the schemes while investing a massive political effort into getting them floated; and the DCs will have accomplished nothing worthwhile if they do mean to improve the flow of resources to the poor countries (though, those who aim at a no-give response should consider this to be a happy outcome, of course);

ix) therefore, it is of the utmost importance to bury the commodity schemes and to shift attention instead to the more traditional remedies for any of the problems that may be raised for LDCs by commodity revenue instability and to respond to NIEO demands by developing new and efficient resource-transfer proposals;

x) the traditional remedies for the problems associated with revenue instability include compensatory financing facilities for LDCs to tide over the periods of lean foreign exchange earnings, and domestic buffer stock

schemes for those countries that wish to cushion their producers and/or consumers; this being the early, classic prescription of Ragnar Nurkse and also what has transpired satisfactorily with the successive augmentations of the special compensatory financing facilities at the IMF; and, finally, we may note that

xi) in regard to resource transfers, there are new resource transfer possibilities that amount either to taxing disexternalities (such as overfishing) or rents (such as from mining the seabeds or from skilled migration in the presence of severe immigration quotas) whose adoption could be explored.[75]

APPENDIX: DEFINITION OF PHASES IN THE NBER PROJECT

In order to demarcate in an analytically useful manner the evolution of a country's exchange-control regime, the NBER Project delineated a number of phases which were used in the country studies and are to be found in the two synthesis volumes as well. It should be noted that, while each study identifies the phases through which the country's payments regime passed, there is no presumption, and in fact the evidence shows there to be none as well, that the phases would be gone through necessarily in a predefined sequence.

Phase I: During this period, quantitative restrictions on international transactions are imposed and then intensified. They generally are initiated in response to an unsustainable payments deficit and then, for a period, are intensified. During the period when reliance upon quantitative restrictions as a means of controlling the balance of payments is increasing, the country is said to be in Phase I.

Phase II: During this phase, quantitative restrictions are still intense, but various price measures are taken to offset some of the undesired results of the system. Heightened tariffs, surcharges on imports, rebates for exports, special tourist exchange rates, and other price interventions are used in this phase. However, primary reliance continues to be placed on quantitative restrictions.

Phase III: This phase is characterized by an attempt to systematize the changes which take place during Phase II. It generally starts with a formal exchange-rate change and may be accompanied by removal of some of the surcharges, etc., imposed during Phase II and by reduced reliance upon quantitative restrictions. Phase III may be little more than a tidying-up operation (in which case the likelihood is that the country will re-enter Phase II), or it may signal the beginning of withdrawal from reliance upon quantitative restrictions.

Phase IV: If the changes in Phase III result in adjustments within the country, so that liberalization can continue, the country is said to enter Phase IV. The necessary adjustments generally include increased foreign-exchange earnings and gradual relaxation of quantitative restrictions. The latter relaxation may

[75] For estimates and analysis, see the papers by Richard Cooper and Koichi Hamada in Bhagwati (1977). See also Bhagwati and Partington (1976).

take the form of changes in the nature of quantitative restrictions or of increased foreign-exchange allocations, and thus reduced premiums, under the same administrative system.

Phase V: This is a period during which an exchange regime is fully liberalized. There is full convertibility on current account, and quantitative restrictions are not employed as a means of regulating the ex ante balance of payments.

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Comment

ROBERT E. BALDWIN

It is always a pleasure to have the opportunity to read a paper by Jagdish Bhagwati and T. N. Srinivasan. They combine great theoretical and econometric talents, a keen interest in policy issues, and a deep understanding of the complex economic and social forces that shape economic events in a manner that represents the best efforts of modern economists.

The paper begins by summarizing the rather large number of recent studies of individual developing countries that have evaluated the effectiveness of their economic development policies. Particular attention is devoted to the ten country studies and two synthesis volumes that make up the National Bureau of Economic Research project and in which Bhagwati and Srinivasan contributed a volume on India and Jagdish also wrote one of the synthesis studies.

It always has seemed remarkable to me how closely all of the authors in the NBER series agreed upon the notion that import substitution policies were carried too far in most of the countries studied and served to retard rather than accelerate growth. Moreover, it was generally agreed that, after a period, these policies worsened both the employment and income distribution problems. We also found that whenever trade and exchange rate liberalization measures were adopted in the economies, the pace of development tended to pick up. Those countries that followed export promotion policies most vigorously showed much better economic growth than those oriented toward import substitution. Perhaps the countries were somehow preselected, so that there was a bias toward these conclusions, but I do not think so. The conclusion is all the more impressive when one considers that the authors of the six countries constituting the OECD study arrived at the same general judgment.

One of the interesting questions Bhagwati and Srinivasan raise is why export promotion policies succeeded so well. It is not, as they point out, simply because they were administered so much better. Inconsistencies and mismanagement seem as prevalent in the success stories as the failures.

The authors give a series of interesting reasons why these outward policies may have succeeded so much better and they should provide the basis for further interesting work in the field. We also need theoretical work along these lines.

Another question that needs to be investigated further is why the developing countries tend to select the import-substitution route rather than export-promotion policies. It is by no means just a once and for all selection. Time and time again we found that after governments dismantled some of their import-substitution controls and moved in the direction of stimulating exports they slid back to import substitution within a few years. Why was this? Similarly, how did those few countries that succeeded in emphasizing exports maintain this policy? We must not make the mistake of believing that knowledge of the alternative results of the two development paths is all decision-makers need to know to make the right decision. For two hundred years, economists have been demonstrating the merits of liberal trade policies on theoretical, empirical, and historical grounds, yet the world is still dominated by trade barriers. If we are to affect policies, we must sometimes become political economists and try to understand the collection of forces that operate on decision-makers. Then, if possible, we must suggest policies that enable these decision-makers to adopt what we think are the proper long-run policies yet also handle some of the short-run economic and noneconomic pressures with which they must deal.

Without embarking on a long discussion of the subject, let me suggest that the import-substitution strategy was and is more politically acceptable and advantageous, especially in more democratically operated countries, than export promotion. Accepting industrialization as the major economic goal of the developing nations since the end of World War II, it seems that import substitution was the logical path to take toward this objective. First, it fit nicely in with the political goal of achieving a greater degree of independence from the developed countries that politically controlled so many of the developing countries. Increasing exports seemed to offer the prospects of substituting greater economic dependence for less political control, whereas replacing imports from developed countries with domestic production seemed to reduce both forms of dependence. Export orientation also promises—at least for many years—only a limited and highly selective form of industrialization. The early import-substitution programs, on the other hand, envisioned the creation of both textile and steel mills, and even machine tool factories. Financing development via the import-substitution route is also considerably more attractive politically. Tariffs, quotas, exchange controls, etc., provide an umbrella of protection that taxes the population in a hidden manner. For export promotion, on the other hand, governments must generally subsidize activities more openly in ways that involve politically difficult budget decisions. The burden of financing development can often be placed more easily on certain minority groups with

import substitution. Foreigners, in particular, who move operations from their own countries to the protected domestic market, bear a larger part of the development costs. Providing outright subsidies to foreigners to establish export industries is also more difficult to do politically. Foreigners and other minority groups who often are very knowledgeable about exploiting export opportunities are sometimes discriminated against in developing countries and thus not regarded as desirable recipients of the kind of subsidies that export promotion schemes involve. And it is more difficult to exclude these groups from exporting than from producing for domestic use only.

There are a number of other reasons that could be cited for the bias toward import substitution, but I hope the above are sufficient to illustrate the nature and importance of understanding this bias. The lesson of the last twenty-five years seems clear, namely, we need more emphasis on export promotion in the developing countries. But now we must turn our attention toward understanding how we can get the developing countries to implement these policies and the developed countries to accept the greater exports of manufacturers from the poorer countries.

After one concludes that most of the developing countries seem to be on the wrong track with their import-substitution policies and then one looks at the policy changes these countries are seeking internationally with the New International Economic Order, one wonders if the developing nations don't have a built-in, self-destructive bias. For I would completely agree with Bhagwati and Srinivasan that the commodity agreements these countries seek will not bring the benefits they hope for, but will serve mainly to increase their degree of frustration and take away their energies from more important matters. Similarly, I think the emphasis on tariff preferences is unfortunate. They are playing into the hands of the protectionists in the industrial countries with their preoccupation with preferences. Instead they should be devoting their energies toward achieving significant MFN cuts in products of special interest to them and in trying to reduce the quantitative restrictions on labor-intensive products that many developed countries impose.

As far as commodity agreements are concerned, I think we can rightly turn around the usual phrase of so-called "practical men" about trade economists and say that commodity agreements are all right in theory but won't work in practice. By this I mean that if we accept the goal of these agreements, namely, to stabilize commodity prices over the trade cycle, we can say this stability is possible in theory but cannot be achieved in practice. The reason for their impracticality is simply because it is very difficult to disentangle cyclical and secular price movements and to estimate the length of any given price cycle. Moreover, producing and consuming nations are unwilling to commit the volume of resources that would prevent the schemes from breaking down when the cycles are very long,

as they not infrequently are. For example, the floor and ceiling price that seemed reasonable to set for cocoa in 1973 was $.23 and $.32 per pound, respectively. Yet in recent months the price has been $1.50. What producer is now willing to accept $.23 as a price that is not too low as a floor for the long-run? Similarly, there are few consumers who don't think the long-run ceiling should be a lot closer to $.32 than $1.50. Moreover, why should consumers now agree to help maintain a floor, when the ceiling was exceeded to such an extent? That is, of course, why the Wheat Agreement broke down. Along the same general lines, a study of tin stabilization suggests that a buffer stock of something like 150,000 metric tons would have been necessary to hold the price of tin within a 15 percent annual price-change range. Yet the stock has never exceeded 20,000 metric tons.

In short, I think the developing countries will try to attach indexing schemes to commodity agreements and to raise the long-run average price of primary commodities. But the prospects for any significant success in these endeavors are not good, in my view. Moreover, they are diverting our attention from what I think is the only feasible way of narrowing the income gap between rich and poor and providing the employment opportunities so badly needed in the developing countries, namely, by concentrating on industrialization.

THE WORLD BANK
Headquarters:
1818 H Street, N.W.
Washington, D.C. 20433, U.S.A.
European Office:
66, avenue d'Iéna
75116 Paris, France
Tokyo Office:
Kokusai Building,
1-1 Marunouchi 3-chome
Chiyoda-ku, Tokyo 100, Japan

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