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TRADE POLICIES AND ECONOMIC DEVELOPMENT

Carlos F. Diaz-Alejandro

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Trade Policies and Economic Development

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The stagnation of international trade between the world wars gave rise, with a lag, to a reconsideration of pre-1914 classical orthodoxy regarding the role of trade policies on economic development. Even as Nurkse, Prebisch and Myrdal wrote, however, the post World War II trade boom was gathering momentum. By the 1960s it was clear that such a boom was not a passing cyclical phenomenon, and, not surprisingly, a substantial neoclassical revival followed in the applied trade and development literature, although pure trade theory was becoming increasingly agnostic regarding free trade. This paper will survey primarily what has been written since 1960 on the impact of trade policies of less developed countries (LDCs) on their growth and development. It will, on the whole, leave aside the literature on trade policies of developed countries.

What is to be included among "trade policies"? Pride of place will be given to those influencing significantly the level and composition of exports of goods and services, although those associated with inducing import substitution beyond the levels dictated by market forces will also be discussed. Most LDCs can influence their long run import level by encouraging or discouraging exports, while in practice, they are unlikely to expand exports just by increasing their imports, a simple point ignored by some import liberalization attempts of the 1960s. In other words, although one can imagine increases in imports triggering mechanisms which will lead to higher exports, the lags and frictions of that process are likely to be substantially greater than those involved between an export rise and the following import expansion. Exchange rate policy, taxes and subsidies on

merchandise trade, special credit programs, etc., are obvious examples of trade policies influencing exports. There are, however, other policies which will influence exports, and not just in the trivial sense that in general equilibrium everything depends on everything else. It is an old point, recently reemphasized and quantified (Birnberg and Resnick, 1971) that infrastructure financed by government can be more or less trade-biased. Moreover, policies toward multinational corporations (MNCs) have become for many countries a key element of their export-promotion plans.

Indeed, the classroom distinction between the current and capital accounts, and the corresponding separation between policies toward trade and toward capital flows is becoming increasingly irrelevant in world markets dominated by MNCs, even more so than it was already in 1929, when John H. Williams chided the classical theory of international trade for neglecting, in spite of Adam Smith's insights, the relation between international trade and capital migration. However, space allows us only superficial incursions into these broader interactions between the current and capital accounts, and between traditional trade and other developmental policies. Subjects like LDC external debt and international reserves management will be totally ignored.

Even if the foreign exchange available for imports of goods and services is regarded as given, the mechanisms used to allocate such an amount among competing uses still have important repercussions on the development of a country. Some of the most interesting recent research in the field of trade and development has dealt precisely with the details and consequences of different policies for repressing and controlling imports of goods and services.

Discussion of import repressing policies, like tariffs and quotas, tend to give them an exaggerated autonomous or trigger role, from which certain resource allocation decisions are supposed to follow. Yet in most contemporary developing countries those policies are only one weapon in the planning arsenal of the state, and frequently only an accommodating instrument, which follows decisions taken elsewhere. For example, a public investment bank may decide, as part of an industrialization program, to set up a petrochemical plant with or without private sector help; once that decision is approved, tariffs or quotas will be adjusted and changed as frequently as it is necessary so that the new plant can sell all of its output domestically. Tax rebates, low interest loans, etc., will also help the new plant. Thus, research on LDC trade policies should ideally be carried out in the context of their domestic development policies (Bhagwati and Krueger, 1972).

Trade policy instruments are far easier to describe than the target of economic development. By now everyone knows that for most LDCs growth of per capita GNP is only one of the several development targets. A more equal income distribution among families and regions and a greater degree of national autonomy are, inter alia, other developmental targets, which sometimes conflict with one another, even when they do not include lofty desires to create a "New Man." Glib references to different targets are frequently used to justify all kinds of trade policies, which are most unlikely to serve the efficient pursuit of any goal. Nevertheless, real trade-offs do remain.

LDCs differ not only in the weight they, or their ruling groups, give to different development targets, but also, of course, in their size, resource endowment, per capita income, etc. This reminder of the limitations

of purely qualitative arguments is sometimes lost in the fury of the ancient debate between protectionists and free traders. And these typological considerations can be more important for trade policies than differences in developmental targets. Many aspects of the trade experience of Taiwan, for example, may be more relevant to Cuba than those of the U.S.S.R., while India is unlikely to find much inspiration in the Hong Kong model.

The traditional central question in the field of trade and development, as put by Meier (1968), is: Are the gains from trade in conflict with the gains from growth? Or more simply, is international trade good or bad for growth and development? Kindleberger's (1962, p. 211) answer indicated that the question should be rephrased. The relevant queries seem to be the following:

1. Under what conditions will free trade (or more trade) increase per capita growth?
2. Under what conditions will free trade (or more trade) bring LDCs closer to their other development targets?
3. Can the LDCs, by their own actions, influence how much they trade?
4. Can the above qualitative effects be quantified even roughly, and what does such quantification tell us about the importance of trade policies (for good and evil) in achieving the different development targets?

The rest of the paper will be organized as follows: First, recent theoretical work will be reviewed, to see what answers it suggests to the above questions and what guidance it gives to empirical studies. Next, research on economic history, and on long term and cross section patterns will be surveyed. It will be seen that theoretical studies cast (an uncertain) light primarily on the first question, while providing some

tools which can be used, although they seldom are, to analyze the second. Research on pre-World War II economic history, and cross section studies yield scattered and contradictory hints for answering the first three questions. The paper will then examine empirical work on the issue of whether and by how much the LDCs can affect the level and composition of their exports, focusing on the rout of export pessimism during the 1960s. Recent work on some perennial issues surrounding the export sector will be discussed next. Attention will turn afterwards to work discussing mechanisms for suppressing import demand. Finally, quantification attempts which have been or need to be done on the several links between trade and development, in the world as it exists circa 1973, will be discussed. Some cranky conclusions, in the spirit of self-criticism, close the paper.

Guidance from Theoretical Developments

In the trade and development literature there has existed for a long time, at least going back to John S. Mill, a striking difference between the rigor of formal proofs on the static advantages of free trade, typically involving careful assumptions and caveats, and the impetuous enthusiasm with which most of the professional mainstream advocates free or freer trade policies, on both static and dynamic grounds, for all times and places. Positive theories of trade and of balance of payments adjustment mechanisms have come and gone, but whether one subscribes to "vent for surplus," Ricardian, Heckscher-Ohlin, or product cycle theories of trade, or to monetarist, absorption, or elasticities approaches to balance of payments adjustment, the typical normative advice on trade policy comes out pretty much the same. The leap from the sensible proposition that some trade can potentially make everyone better off as compared with no trade, to the conviction that more trade is always likely to do just that, is taken with remarkable ease.

The mainstream has tended to minimize what Mill called "the temporary inconvenience of the change" toward freer trade. It is ironic that one of the few recent efforts to conceptualize and quantify the burden of adjusting to freer trade policies has been done for one of the richest countries in the world, the U.S.A. (Baldwin and Mutti, 1972).

Even leaving aside adjustment costs, the tension between guarded theoretical results and the ultra-pro-trade-biased obiter-dicta of the professional mainstream has sharply increased during the 1950s and 1960s, as a result of general theoretical developments and what may be called the Indian planner's revenge. Once the Pandora's box of distortions and the second-best had been opened by professionally respectable hands (Haberler, 1950; Little, 1950; Lipsey and Lancaster, 1956-67), intellectual curiosity plus the fact that modern analytical tools were falling more and more into the hands of economists whose background made them skeptical of traditional free trade verities and who rightfully resented the glib conventional wisdom of bureaucrats in aid-granting organizations, generated consistent theoretical models embodying more or less realistic distortions, and in which free trade need not always be the best policy available.

It is true that in those static models (for example, Johnson, 1965a; Bhagwati, 1971) taxes or subsidies on international trade are not the optimal policies except in the old-fashioned case of monopoly power in international markets, if there are other policy instruments at hand which can tackle distortions directly. But it is easy to see that different assumptions regarding availability, effectiveness as well as real costs of different policy instruments can yield a disconcerting variety of heterodox conclusions. By now any bright graduate student, by choosing his assumptions regarding distortions and policy instruments carefully, can produce a consistent model yielding

just about any policy recommendation he favored at the start. Note that to reach this conclusion one needs not to introduce other developmental targets besides static efficiency. The conclusion, of course, applies a fortiori when other targets are brought in.

Algebra and consistent models can prove nothing about the real world, but perhaps the major contribution of these models, and of those sure to follow them, is to force the discussion of the realism of different assumptions which are crucial for determining under what conditions more trade benefits whom, and by how much. Given our professional discipline and prejudices, this result could not have been accomplished only by outside critics, who did not frame their doubts and skepticism in accepted mainstream theoretical language.

Postwar theoretical developments (Meade, 1955; Johnson, 1960) have also provided neoclassical frameworks for quantifying costs and benefits of trade policies for small or large countries. Typically, the strict application of that methodology to actual situations yields the result that contemplated changes in trade policy will raise or lower the nation's GNP by at most a few percentage points (see, for example, Harberger, 1959). Introducing effective rates of protection into calculations, making alternative assumptions as to whether protected industries will disappear under free trade (Balassa, 1966), computing the present discounted value of all future benefits of liberalization (Magee, 1972), etc., can raise somewhat those results, but not by much. It is possible to get the standard model to generate hypothetical situations in which the costs of protection and self-sufficiency loom large, partly by assuming low elasticities of substitution in consumption and production (Johnson, 1965b).¹ But in countries where those elasticities are indeed very low, one may wonder whether it may not

be better to work with structuralist or two-gap models, which after all are designed to emphasize inflexible economic structures. In short, the theoretical model used to show the qualitative superiority of free trade, can also show, if accompanied by assumptions most congenial to the neoclassical paradigm, i.e., high substitution elasticities, that the benefits are quantitatively small.

At this point, many authors quickly add that static effects are only one, and probably the least important, of the positive effects of free trade. This is likely to be right, but it implies that the standard neoclassical theoretical framework has some serious flaws, and fails to capture key aspects of the real world (Leibenstein, 1966). Faced with the alternative of strict adherence to the pure model yielding small quantitative effects or adding to it epicycles so that free trade looks quantitatively better, most authors have chosen the latter. This situation has a number of similarities with that in growth accounting and in the explanation of cross-country productivity differences, where Nelson has shown the weaknesses of the pure neoclassical methodology (particularly in 1972 and 1973). In all cases the pure neoclassical model is a poor guide to entrepreneurial behavior, particularly regarding productivity control and the search for and diffusion of innovations, which are more likely to explain both growth and productivity differences better than variations in such things as capital-labor ratios and static allocation. With few exceptions (Brainard and Cooper, 1968), uncertainty and costs of information have also been left out of neoclassical trade models.

While competition from world markets can, under the right conditions, insure that no major departures from static efficiency will survive in an industry, it will not necessarily promote autonomous innovation and adaptation. On the other hand, protected entrepreneurs can turn lazy and complacent,

or could use that market safety to devote their energies toward innovation and exports depending on their "animal spirits." Compare, for example, the textile industries in Brazil and Colombia, both of which have been overprotected for a long time. The former turned X-inefficient (Bergsman, 1970, Chapter 8), while the latter has been known for its progressiveness even before it began exporting in substantial amounts. Or compare quota-protected Japanese corporations and entrepreneurs with most British ones who are exposed to greater import competition, and who are at best protected with tariffs.

International trade in knowledge and technological services, a topic of particular interest for developing countries whether those services are embodied in direct investment or are hired directly, cannot be handled adequately within neoclassical models with assumptions of identical production functions and free trade conclusions, even if one is willing to neglect Schumpeterian considerations. As put by Johnson (1970a): "...the essential problem is that reliance on the market principle of rewarding investment in the discovery of knowledge, which has the nature of a public good, by granting a temporary monopoly of the use of the knowledge....is inherently inefficient" (p. 20). (See also Katz, 1972, Chapter 2.)

Structural models of trade and development (Chenery and Bruno, 1962; McKinnon, 1964; Chenery and Strout, 1966), formalizing insights developed also within the United Nations Economic Commission for Latin America during the 1950s (see, for example, United Nations, 1959), since their birth tended to sacrifice theoretical rigor for the sake of empirical applicability. This fact, particularly regarding the ex-ante, ex-post confusion, plus their assumptions of low elasticities of substitution in consumption and

production, and of exogenously given growth rates for exports, generated considerable criticism during the increasingly elasticity-optimistic 1960s, when the structural models came to be regarded as the intellectual underpinning for import substitution strategies (Fei and Ranis, 1968; Bruton, 1969). Nevertheless, the simplifications involved in structural models still exert considerable intellectual and practical appeal. An example of the former can be seen in Findlay's (1971) theoretical tidying up of the two-gap model, while fresh empirical applications of revised and extended two-gap models continue to be produced (Weisskopf) 1972a; Chenery and Carter, 1972).

A promising development is the introduction of some non-zero substitution possibilities in planning models which had generated two-gap scenarios, and the quantification of the impact of such a change in assumptions. This route seems to lead to a convergence of neoclassical and structuralist models; compare, for example, the Johnson (1965b and 1966) simulations with the Chenery and Raduchel (1971) arguments and calculations. Neither, of course, can quantify X-efficiency effects, induced technical change and costs of obtaining information. The latter authors, while admitting that policy variables such as the exchange rate can help to fully utilize domestic resources, remain doubtful that indirect factor substitution via demand and trade can be extensive enough to accommodate very wide variations in factor proportions. Their last sentence is worthy of full quotation: "This formulation offers the hope for shifting policy discussions from the ideological level to empirical questions of estimating structural relations and determining policy choices from them. In that context, there need be no inconsistency between the structuralist diagnoses of the causes of underdevelopment and the use of neoclassical guidelines for planners" (p. 47). Two-gappers and neoclassicists agree that the shadow price of foreign

exchange in LDCs is generally greater than its official value and that the two-gap problem is typically a symptom of inefficient allocation policies (Chenery, 1971, p. 92).

The suggested convergence is likely to be aided by fresh work on models in the neoclassical spirit which directly embody possible effects of trade on growth, and which subdivide output not only into importables and exportables, but also into consumption and investment. While the effects of growth on trade have been exhaustively analyzed using the Heckscher-Ohlin-Samuelson framework, much less has been done on the trade-on-growth link. Corden (1971) has explored the growth effects of trade which "...are not necessarily the most important ones in practice but are those that emerge most clearly from a simple neoclassical model" (p. 117). His emphasis on the impact of trade policies on the relative price and/or availability of investment goods is, however, likely to be of very great practical relevance, and offers an important link to the structural models.

Bardhan's (1970) and Findlay's (1972) dynamization of several aspects of trade theory, and their rigorous analysis of trade and development problems, are also important steps toward incorporating developmental insights into more or less formal trade and development models, although it is not always clear how those models could be quantified and used for policy purposes. The extension of the distortion literature into more dynamic contexts should also yield interesting results, as already indicated by the work of Johnson (1967 and 1970b) and Bhagwati (1968b). More could also be done to bring the link between income distribution, consumption patterns and savings into such models.²

Theoretical work is likely, alas, to continue generating interesting parameters and relationships at a much faster rate than such things are quantified. But a bringing together of theoretical developments on distortions and policy instruments, on the one hand, and on dualistic models, on the other, where the "modern" sector is split up into import-competing and exporting parts, may yield scenarios useful to guide empirical research on historical and contemporary cases where more trade yielded poor or ambiguous developmental results. Hopefully, those models would be more in accordance with the known stylized facts³ about LDCs than most of the present pure trade or pure development models are. It would be a matter of pinpointing and selecting the key circumstances under which the unavoidable (and the avoidable) rigidities, imperfections and distortions in LDC markets set the stage for a failure to capture the potential gains from trade for developmental purposes.

Many of the possible building blocks are at hand; besides the standard staple or vent-for-surplus (Caves, 1965; Findlay, 1970, Chapter 4) and dualistic models (Ranis and Fei, 1961), one can mention Brecher's (1972) work on the role of minimum wages in trade theory, showing the possibility that larger exports lead to greater unemployment. Also worth noting are the Hymer and Resnick (1969) model of agrarian economies with non-agricultural activities, and the Birnberg and Cohen (1971) second-best analysis in the context of distorted development conditions. The beautiful Lewis (W. A. Lewis 1969) model explaining trends in terms of trade for tropical exports, as well as relative standards of living, on the basis of average labor productivity in food production in tropical and temperate countries, lends itself to a number of extensions, and also to different interpretations, some of which are of a neo-Marxist radical character (Emmanuel, 1972, pp. 87-90). Besides

Emmanuel, neo-Marxist contributions to pure trade theory, in contrast with those in economic history and theory of capital movements are scanty.

The further exploration of differences in production functions between DCs and LDCs, which may vary from sector to sector, could also yield some relevant insights, combined with research along the product cycle line pioneered by Vernon (summarized in 1971). The works of Linder (1961) and Nelson (1968) also contain a number of ideas and hypotheses waiting to be further expanded. The old complaint that comparative advantage models were insufficiently "dynamic" is on the way of being met, probably with a vengeance. As in the case of recent explorations of the infant industry argument for protection, more empirical studies could greatly enrich theoretical analysis.

This kind of work can be extended to the analysis of the impact of direct foreign investment on LDC economies.⁴ See for example the paper by Cohen (1972b), in which cases are generated in the context of development-dualistic models, where the impact of incoming foreign investment on the host economy can be negative. The concept of an optimal tax or subsidy on international capital movements, developed by Kemp (1966) and Jones (1967), should also be of interest to empirical researchers and economic historians, and particularly to those with a radical bent.

Another line of theoretical endeavor in which fruitful interactions with empirical research will continue to occur is the analysis of illegal foreign trade transactions, such as smuggling and fake invoicing (Bhagwati and Hansen, 1973a). An interesting political economy sidelight in this field would explore asymmetries in what different countries regard as legal transactions, or at least transactions not vigorously persecuted. The importation of some commodities (e.g., marijuana) is actively repressed in most rich

countries, which complain that many LDCs tolerate such exports from their territories. On the other hand, most LDCs ban the export of archeological items deemed part of their heritage, while the same items have entered into rich countries either legally, according to their own laws, or using illegal routes not zealously guarded by authorities preferring not to upset wealthy collectors.

The application to international trade and development of theories involving externalities and the misuse of valuable but unclaimed assets is also likely to grow, as a result of LDC interest in pollution (particularly the desire of some LDCs to develop comparative advantage in pollution-intensive activities), as well as in the sharing of mankind's "commons," such as oceans and space, explaining some preemptive enclosure movements (the 200 miles issue).

This review of theoretical developments has, following custom, dealt with real or long run trade theory. As will be seen below, much recent empirical work on LDC trade problems has called attention to their short run adjustment mechanisms. Development theorists have tended to ignore the cyclical macroeconomic problems of LDCs, which are typically closely tied to balance of payments management, while theorists of adjustment mechanisms for rich countries have paid little attention to the case of LDCs. As a result, theoretical analysis of LDC short term policies for simultaneously achieving internal and external balance, as well as income distribution and growth targets, has been neglected. A notable exception is the recent paper of Taylor (1973), which correctly emphasizes the particularly difficult dilemmas faced by policy makers in many semi-industrialized economies.

Reexamination of the Pre-World War II Economic History of Trade Policies
and Development

The nineteenth century role of freer trade in weakening the position of unprogressive British landlords, the real targets of Ricardo, plus the fact that it accompanied the settlement and/or prosperity of some predominantly Anglo-Saxon or Scandinavian developing countries, has had a disproportionate influence in tilting the mainstream literature, dominated by Anglo-Saxon and Scandinavian authors, toward a benign and optimistic view of the trade and growth nexus. The combined population of Australia, Canada, New Zealand, Denmark and Sweden around 1900 was 18 million, a figure roughly equal to that for the combined population of Taiwan and Hong Kong today. If to those five successful countries one adds Argentina, South Africa, and Uruguay, their total 1900 population reaches 31 million, or less than two per cent of the world population at that time, and about the demographic size of today's South Korea.

The Nurksian notion of trade as the historical engine of growth has recently been challenged even for some "countries of recent settlement." Kravis (1972) rejects the view that causal predominance can be assigned to external demand factors in accounting for nineteenth century U.S. economic growth; he also argues (Kravis, 1970) that international trade policies and performances cannot provide a differential diagnosis to explain varying growth records of countries in the nineteenth century. Trade, at best, was a handmaiden of a growth whose mainsprings were internal, and it may be added, difficult to locate exactly. In a Kindlebergerian spirit, Kravis also suggests that both trade and investment can be fickle and opportunistic handmaidens; they may serve growth, but could also serve structures perpetuating underdevelopment.

For the Canadian case, Chambers and Gordon (1966) applied a strict neoclassical model to quantify the share of the increase in per capita income during 1901-11 which could be attributed to the wheat export boom. Not surprisingly, given the methodology, that share came out small, about 6 per cent. Although Caves (1971a) accepts their conclusion that advances in international technological knowledge and its application are likely to comprise the main source of income gains for small nations, a conclusion whose policy implications are unclear, he adjusts the Chambers and Gordon's calculations in mildly heterodox ways, raising that share to 21 per cent. In the same article, Caves has also provided a thorough survey (with extensive bibliography) and stimulating discussion of possible uses of the export-led growth model as a research tool, concluding that it is best applied to national or regional time series, but difficult to handle in cross-country studies. The important difference between extensive and per capita growth also receives attention from Caves, and Chambers and Gordon.

Skepticism regarding the historical predominance of beneficial links between trade and development has always increased when attention shifted to those countries which even today remain underdeveloped. In many of those countries, freer trade policies were adopted during the nineteenth century and up to 1930 not always simply as a result of the persuasive powers of Mill and Ricardo, but mainly as a consequence of unequal treaties imposed forcefully by colonial and neocolonial powers (see, for example, Hansen and Nashashibi, 1972, Chapter 1). Little wonder, then, that free trade policies which had to be buttressed by foreign gunboats failed to be universally viewed by LDCs as obvious handmaidens of their development.

Caves (1971a) discusses some of the reasons usually given for failures of rising exports to induce significant and self-sustained growth in developing countries, listing (pp. 433-37) ten possible and more or less positive linkages between staple export expansion and intensive growth. He tentatively adds an interesting eleventh effect, which contrary to the typical presumption in the literature on LDC export instability, suggests in a Schumpeter-Hirschman spirit that irregular (supply induced) bursts of staple exports will "...spur a larger quantity of capital formation and more diverse type of projects, than a growth process not attended by windfalls..." (p. 437). Leff (1972a and 1972b) blames economic retardation in nineteenth century Brazil on too few rather than too many exports; lack of internal capacity to transform and reallocate resources led to Brazilian failures to adapt and profit fully from shifts in a comparative advantage. He also introduces into the historical discussion the notion of optimum currency areas, suggesting that populations in large LDCs would have been better off had they been distributed among several smaller nation-states, rather than one large country with poor internal factor mobility.

Lewis (1969, Lecture 1) indicates that pessimism regarding the historical trade and development link is largely an optical illusion. Trade, he argues, was indeed an engine of growth for most of the tropics having "a stable and modern type of government," at least during 1880 to 1913. The illusion arises: from failure to realize that, given large subsistence sectors, trade was a smaller proportion of tropical economies than manufacturing was of temperate economies; from neglect of the fact that the starting point for LDCs was very low, due mainly to poor agricultural productivity; from too much emphasis on the "special" cases of land-poor India and the sugar islands; and from not putting the dismal interwar period in proper historical perspective. It should be noted that Lewis is not so much trying to give new life to the

thesis of trade as an engine of growth, as to combat views arguing that tropical growth would not be possible until deep spiritual and social transformations had occurred in those countries.

Other authors, contrary to Lewis, have emphasized the disruptive effects of expanding trade on underdeveloped economies, as well as the weaknesses or negative nature of backward linkages, uneven distribution of gains from trade, etc. Several have noted that, contrary to British experience, freer trade strengthened the economic and political position of landlords and regressive elements in LDC societies.

The upsurge of radical economics during the 1960s gave fresh impetus to such historical views and research. See for example the work of Resnick (1970) on the decline of rural industry under export expansion in Southeast Asia, the Hymer and Resnick (1971) paper on international trade and uneven development, and that of G. Frank (1970) on Latin America. These and other authors, not all "radical," stress that asymmetries in political and military power will be reflected not only in asymmetries in the distribution of the burden of adjusting to equilibrium disturbances, but also in the determination of equilibrium itself. The more extreme thesis is that markets grow out of the barrel of a gun, so the powerful can play the market following the rule of "heads I win, tails you lose." Although this extreme version appears to be an exaggeration, it is clearly incorrect to assume that markets exist independent of socio-political and power realities, as shown by the experience of markets under colonialism. The colonial experience with markets, in turn, varied according to the policies of hegemonic powers (Birnberg and Resnick, 1971). See also the discussion by Triffin (1968) of the actual workings of the gold standard during the nineteenth century, showing how Britain thrust the major burden of adjusting to her cyclical balance of payments difficulties onto the countries of the periphery.

Drawing heavily on pre-World War II historical experience, Sunkel (1969) and Furtado (1971) have elaborated building blocks of the Latin American "dependence" school, which examines not only the purely economic links between trade and growth, including the inducement to technological change, but also reemphasizes negative long run effects of export-led growth on the autonomous development of LDC social and political institutions. Contrary to Mill, who celebrated the impact on LDC tastes of the introduction of new products, these authors point to negative economic and social repercussions of international demonstration effects in consumption. Other authors have also lamented the spread of "consumerism" implicit in outward-looking trade policies, suspecting undesirable shifts in indigenous tastes. Girvan (1972) has noted the independent but related development of similar ideas in the sugar ex-colonies or plantation economies of the Caribbean. The dependence school, although providing numerous inter-disciplinary insights, still contains several ambiguities (Pinto, 1972). It remains unclear, for example, whether dependence has more to do with economic size than with social system, and whether only LDCs are dependent. Indeed, a fully satisfactory definition of "dependence" is hard to find, and the policy prescriptions flowing from this school are vague.

G. Frank (1970) has emphasized the healthy response of several Latin American economies to the great depression of the 1930s, as well as to the two world wars, suggesting that, contrary to orthodoxy, LDCs do best when the rich are weakest. But he seems to have interpreted a situation in which the more advanced LDCs were doing the best of a bad thing, in the trade field, as one absolutely preferable, from the LDC viewpoint, to world wide prosperity. Frank's thesis is stronger in the area of direct foreign investment; for example, several LDCs took advantage of conditions during

the Second World War to buy back rather cheaply European assets within their territories. Further comparative work on various LDC reactions to the Depression and the world wars should provide insights comparable to those of Kindleberger (1951) regarding group behavior and international trade. Frank also has given historical examples of regions geographically remote and isolated from metropolitan centers, claiming that they initiated and experienced the most promising self-generating economic development in Latin America, before they were stopped by lower transport costs and freer trade.

It should be clear by now that historical research yields no less ambiguous results than those surveyed under theory. The problem is not only the different ideologies and nationalities of the authors, but also the different weights placed by them on the various dimensions of development, and their non-testable views on "what it could have been," had the countries remained isolated from international trade currents. In history, as in cross-section research to be reviewed below, our small and young planet does not seem to provide enough variance and sufficient degrees of freedom to test our theories unambiguously.

It has been the practice of many economists, when faced with historical or contemporary situations in which it appears, prima facie, that growing trade led to weak or negative developmental results, to blame lack of LDC "preconditions," or market imperfections and distortions, or weak "societal responses" to development opportunities, etc., without usually bothering to further define and analyze these factors and explanations, which verge on the tautological. Two avenues seem worth exploring to cast further light on the absolute or relative historical failures in the trade and development literature.

One, already mentioned, would be to set up realistic models useful to isolate market frictions and distortions which account for unsatisfactory LDC reactions to trade stimuli, and to contrast those imperfections with the policy tools which LDC government had at hand before 1930. It is often forgotten that, whether independent or not, most of those governments had little control over their exchange rates, due to their commitment to the gold standard, and that most did not even have a central bank, while their fiscal machinery was rudimentary. Little wonder, then, that in LDCs characterized by large subsistence sectors and imperfect markets, the abandonment of one of the few policy tools those governments had, e.g., tariff rates, had often to be imposed by foreign pressure.

A second, and more difficult, step would be to look at social and political institutions which lie behind market distortions and imperfections, and which could also explain the degree and speed of the spread of educative effects arising from a more open economy (Myint, 1969). Why did LDC governments, for example, show greater interest in breaking some infrastructure bottlenecks rather than others? Who gained, if anybody, and who lost from such imperfections and institutional arrangements? Were those imperfections a result of policies? If not, could they have been resolved by policy?

The Post World War II LDC Experience with Trade Policies and Development;
Empirical Research on the Overall Performance.

Three major styles can be noted in scholarly empirical work looking at overall LDC postwar performance on trade and development: the econometric analysis of cross-section and time series data for many countries; more specific country or sector studies; and grand summaries. On the whole, these three styles look at the aggregate picture, and skip exhaustive discussion of the details in the trade and development nexus.

Inspired by the monumental work of Kuznets (see, for example, 1966 and 1967), the econometric analysis of LDC cross-section and time series data starts with the hypothesis that there are uniform patterns of change in the structure of production as income levels rise, subject to secular shifts due to innovational changes. The paper by Chenery and Taylor (1968) may be taken as the best published example of this school. Three LDC development patterns are isolated; for large countries (more than 15 to 25 million inhabitants), small industry-oriented countries, and small primary-oriented countries. From the viewpoint of this survey, the most striking result of Chenery-Taylor is that so much can be explained without reference to variations in trade policies, once differences in size and resource endowments are taken into account.⁵ While many LDCs have followed roughly similar trade policies, there has been a fair degree of variance among them (Mexico vs. Brazil, Philippines vs. Egypt, etc.), so the Chenery-Taylor results cannot be explained by saying that no policy effect is detected because all LDC policies were the same. Size and resources in this article seem to be destiny, and all that policy appears to do is to somewhat speed or delay a given LDC along its preordained development path, but cannot change the pattern. This will not bother those most interested in the link between trade policies and per capita growth, but will disturb those hoping to use trade policies to significantly alter the productive structures associated with a given per capita income. Trying to give a small primary oriented country the industrial structure of a diversified large country will simply stop or slow down growth. But it is also implied that India and Brazil, liberalize as they may, will maintain a diversified and "heavy" industrial structure.⁶

The quantification of the more short-term structural models generated by the Chenery planning school has focused on the identification of major development bottlenecks, usually either savings or foreign exchange, for a given country, and on the measurement of the impact of foreign resource inflows on growth, and more recently, on domestic savings. These efforts have yielded the measurement for many countries of important functions, such as those for imports and savings, as well as for the link between investment and output. An interesting summary of the latest refinements for these functions may be found in Chenery and Carter (1972). Unfortunately, export functions continue to be a weak spot in these constructions, which typically make exports depend simply on time.

Weisskopf (1972a) has proposed and applied an econometric test for whether the growth of a given LDC is constrained by lack of savings or foreign exchange. He concludes that a binding trade constraint, contrary to the usual belief, has been a relatively infrequent phenomenon in LDC postwar experience. Some of his results are puzzling; for example, Peru comes out dominated by a trade constraint while Colombia appears bound by a savings constraint. His ex-ante savings function makes exports one of the independent variables, on the ground that for many countries a strong ex-post link has been observed between exports and savings. There are also a priori reasons to expect some connection between exports and savings; for example, public savings often rely heavily on trade taxes. This formulation is now common in Chenery-style models; see Landau (1971), and for an earlier formulation, Vanek (1967). Such specification appears to further blur the distinction between the savings and foreign exchange constraints. It could be argued that a close link between fluctuating savings and exports is observed simply because the latter allow the importation

of machinery, unavailable otherwise, which national accounts register as investment, and therefore, given accounting procedures, as residual domestic savings.

The Chenery-style savings function has also generated controversy in the related area of the impact of capital inflows, or just aid, on domestic savings. Weisskopf (1972b) and others have argued that the evidence indicates a strong negative correlation between savings and foreign aid. Papanek (1972 and 1973) has provided a convincing critique of the methodology used in reaching those results. The key problem is the peculiar definition which makes domestic savings a function, inter alia, of domestic output, and not on a measure of disposable income, which for a country as a whole would include the grant element of capital inflows. Papanek notes that given the misleading definition of domestic savings as equal to investment minus all foreign resource inflows, any increase in investment which is smaller than the increase in foreign inflows will by definition lead to an absolute drop in recorded domestic savings. A pure grant from abroad, for example, used fully for relief, i.e., consumption, which leaves domestic investment unchanged, will lead by the illogic of this accounting to a recorded drop in domestic savings. Papanek urges separate treatment of different capital inflows, and also observes that many other realistic considerations indicate that factors which produce below average savings rates will produce above average foreign inflows. On the whole, these and other econometric exercises are on more solid ground when working directly with investment data than with those ill-defined residuals now labelled domestic savings.

During the 1960s there has been a voluminous outpouring of country and sector studies for LDCs, which typically devote substantial sections to discussing trade policies and development. In many cases, pre-World War II trends

are discussed at least as background to postwar developments. While these studies emphasize the experience and institutions of particular countries, they generally rely, implicitly or explicitly, tightly or loosely, on one or several of the standard trade and development models. The Yale Economic Growth Center, for example, has sponsored a series of ambitious country studies having both a historical and trade orientation. No grand summing up of these country studies has yet appeared, and if any such ever comes along, it would have to emphasize the variety of trade and developmental experiences found in those volumes.

Criticism of LDC trade policies hampering export expansion, of delayed and sporadic devaluations under inflationary conditions, and of erratic and excessive protectionism are themes which appear in some of the Yale country studies, particularly in that for Argentina. This theme is also developed in the Nelson, Schultz and Slighton (1971) volume on Colombia, and in that of S. Lewis (1969) for labor-rich Pakistan. Other country studies have been written around open dualistic land-surplus models. Examples include the work of Helleiner (1966) on Nigeria, and that of Hicks and McNicoll (1971) on the Philippines. The latter authors not only warn against excessive import substitution, but also against continued reliance on resource-intensive export growth.

Interesting examples of sectoral studies emphasizing the trade and development nexus include Roemer (1970), C. Reynolds (in Mamalakis and Reynolds, 1965) and Leff (1968). The major contribution of the first book lies in its analytical description of the Peruvian fishmeal industry, blending applied theory, straightforward econometrics and interesting narrative. That book's weakness is typical of many recent works on trade and development; together with scientific analysis of a specific case the

author gives us an evangelical description of the benefits of the export-led development in general. The capricious anchovies, alas, have decided to jolt this particular success story by mysteriously disappearing from Peruvian coasts throughout 1972. Reynold's study of how the then foreign-owned copper sector interacted with the Chilean economy developed the concept of "returned value," i.e., that part of copper sales abroad paid locally in the form of wages, taxes, purchase of materials, etc., a more significant magnitude than the gross exports of those enterprises. This concept, incidentally, could be fruitfully applied to some new LDC manufacturing export activities, dominated by MNCs and which rely heavily on foreign inputs.

While Roemer and Reynolds expanded the established export economy research line, Leff's study of the Brazilian capital goods industry analyzes in depth the historical evolution of import substituting activities, a relatively new and much needed research endeavor. The growth of that Brazilian industry, he found, was achieved without import restrictions, thanks partly to an elastic domestic supply for the required inputs, including technical and skilled personnel. He is also skeptical of the thesis that the development of domestic capital goods industry by itself will lead to accelerated rates of capital formation, at least for big Brazil. A related study, that of Baer (1969), also provides a favorable analysis of the expansion of the Brazilian steel industry.

As a result of the outpouring of country and sectoral studies, as well as of more specialized articles, on which more below, survey articles and books began to appear in the middle 1960s, attempting to evaluate overall LDC development and trade strategies. Import substituting industrialization received early and mostly critical attention, as in the paper by Macario (1964).

Criticism came from both neoclassicists and some Latin American structuralists who argued that import substitution would inevitably lead to economic stagnation unless incomes were drastically redistributed. The Williams group also provided, besides original research, valuable surveys, such as those of Bruton (1970) and Sheahan (1972). The weaknesses of the "import substitution syndrome" are by now being repeated ad nauseum, and fairly sympathetic reviews of that strategy, such as those by Hirschman (1968) and Baer (1972), are grossly outnumbered by orthodox and structuralist critics.

The critique of LDC policies used to induce import substituting industrialization reached a climax with the publication of the Little, Scitovsky and Scott comparative volume (1970), to be referred hereafter as LSS, together with accompanying country studies on Brazil (Bergsman, 1970), India (Bhagwati and Desai, 1970), Mexico (King, 1970), Pakistan (Lewis, 1970), and Taiwan and the Philippines (Hsing, Power and Sicat, 1970). It may be noted, first of all, that as could be expected not all country volumes fully share precise critical stance, nor all of the views, of the comparative work; this is particularly true for the Bergsman book.

LSS argue that near-first-best efficient policies are more practical than people in developing countries realize, and that they would also improve income distribution. LDC industry has been overencouraged relative to agriculture, they charge, and the selection of activities to be favored within industry has been careless. They recognize some arguments for special encouragement of industry, such as the infant industry thesis, unskilled industrial wages higher than opportunity costs, external economies arising from knowledge or training spillovers for which industry cannot charge fully, and from complementarity in industrial investments. But these and other arguments do not necessarily justify taxes on foreign trade. They recommend,

on grounds of wage distortion, the equivalent of a general labor subsidy of up to 50 per cent, which depending on the labor intensity of each industry, would imply "promotion" of up to roughly 20 per cent of value added. Other arguments could increase the subsidy in rare and ad-hoc cases up to 50 per cent of value added, but they expect the average justifiable subsidy to be no more than about 20 per cent. They add that in the more advanced developing countries there may be no justification for promotion at all. In all cases, quantitative controls would be eventually abolished, or kept for use only under emergency conditions, and import and export taxes, unless justified on optimum tariff or fiscal grounds, would be gradually phased out. Any remaining import duties would be matched by (equivalent) internal indirect taxes. The exchange rate would be allowed to seek its optimum-trade equilibrium, with small but frequent changes if necessary. The optimum amount of import substitution would then come out as a by-product of this system.

LSS find that the major distortion existing in the seven countries they and their collaborators studied is the very high level of protection resulting from various forms of restricting imports, and the uneven nature of such protection. They blame the use of protection against imports to encourage industrialization for a number of undesirable LDC trends. Industrialization policies are said to have aggravated inequalities in income distribution, benefiting mainly a small group of industrialists, plus a working class aristocracy. Adding insult to injury, it turns out that many "infant" industries are run by large MNCs. Untaxed excess profits, which when captured by local entrepreneurs represent domestic income redistribution, can further tilt the balance toward an unfavorable national result when those foreign owned activities are heavily subsidized by protection. Local industrialists have not always been induced to accumulate more domestic capital out of their high profits, choosing instead good

living more appropriate to affluent societies, or foreign bank accounts. Tariff levels and structures, with low duties on capital goods, and arbitrary import control rules, are said to have encouraged capital intensive industries and techniques, as well as widespread excess industrial capacity, aggravating the problem of unemployment. Employment in agriculture and labor intensive exports, on the other hand, have been discouraged. Import controls are said to have induced corruption.

Agricultural output naturally has also suffered, and at least in some countries social overhead capital is said to have been neglected due to excessive preoccupation with protection and industry. The bias against exports created by protection, plus overvaluation of exchange rates and the excessive import demand paradoxically generated by import substituting industrialization, led to persistent balance of payments difficulties, and to exchange bottlenecks which LSS would not call structural. They also note that possibilities for easy import substitution would sooner or later become exhausted, but at that point the necessary export growth will be hampered by expensive and shoddy domestic inputs to potential exporters, and by overvalued exchange rates inherited from the earlier stages of import substitution. In short, many LDCs have neglected comparative advantage and have failed to reap the full benefits of a decentralized price system.

LSS and the companion volumes contain gradualistic recommendations for a transition period between present and recommended policies. LSS also question the validity of recorded postwar LDC growth rates, which prima facie appear historically impressive, and take pains to show that the industrialized countries never had the astronomical protective rates registered now in many LDCs.

The LSS volume brilliantly captures professional exasperation with the errors and missed opportunities in LDC planning and policy making, particularly in trade policy, which accumulated during the late 1950s and the 1960s, as LDC exports lagged behind booming world trade. Had world trade stagnated during the 1960s, we would now be reviewing books praising LDC import substituting policies, as indeed such policies are praised for the 1930s. LSS policy recommendations do not rely on booming world trade, of course, and they would argue that under less buoyant circumstances their proposals would have resulted in more healthy import-substitution. But in the latter case the consequences of different choices among trade policies become relatively less important than when world trade is expanding vigorously.

The LSS volume is not intended as a rigorous presentation of either theory or empirical evidence, and it is written with a clear desire to influence policy as soon as possible. This makes it highly readable, given its subject matter, and influential among policy makers. Sympathy for its fundamental cause, however, should not keep us from listing some criticisms of it. Before going into those, it should be noted that LSS attempted, even if roughly, to translate arguments about externalities and distortions into concrete quantitative justifications for different policies. This deserves praise, and it is something seldom done by those who casually invoke this or that imperfection to justify just about any level of protection, or any other policy which happens to come into the head of a policy maker to whom they wish to be sympathetic. The leap from vague qualitative arguments to impetuous policy advocacy is no monopoly of the orthodox, and raises important questions regarding the role of theory, and its influence on policy advice and empirical research.

It is perhaps the LSS interest in influencing policy which leads them to couch their presentation too much in terms of old debates, such as industry vs. agriculture, or free trade vs. protection, rather than exploring more subtly the various links between trade policy and development. As with many other authors (including Díaz Alejandro, 1970), they lump together all features of the "import substitution syndrome," such as import and other controls, tariffs, overvalued and pegged exchange rates, spectacular balance of payments crises, inflationary pressures, and stop-go cycles. Following a "guilt by association" procedure, they then tend to blame much of what is going wrong in LDCs on that ill-defined syndrome. Unsophisticated readers may indeed conclude that nearly everything going wrong in LDCs is due to that wicked syndrome.

Consider a mental experiment: what would have happened if, say, Argentina and Colombia, had adopted a policy of flexible exchange rates back in 1945, while adopting also an across-the-board import tariff of 150 per cent ad valorem? I suspect their record, at least on growth and exports, would have been much better. Their harmful stop-go policies may be blamed to a large extent on exchange rate management, as in the case of the United Kingdom, and on other short-run policies, that could be analytically separated from the long run effects of protection, although, of course, a more flexible exchange rate policy will also tend to decrease the political muscle of protectionists. Similarly, the effects of the level of protection could have been separated more clearly in LSS, in a rough quantitative way, from the impact of dispersion in protective rates, as well as from effects arising from their year-to-year changes.

LSS do note the various aspects of the syndrome, as well as country to country variations, and are careful to say that problems such as unemployment or skewed income distribution are aggravated (not created) by protective policies. But the reader is left with the impression that the whole "infamous thing" must be eliminated before LDCs can achieve sound progress, and that income distribution, the employment picture, administrative honesty, etc., will be much better if the LSS policy advice is followed. The authors further expect X-efficiency and technological change to improve and accelerate if their policies are followed. It is perhaps revealing of the state of our science that LSS decline to quantify the gains countries may expect from following their policies, and much less enter into a quantitative separation of the costs of the various syndrome features. The impact on world trade which would occur if all LDCs followed the LSS advice is of course another nice matter left unquantified, although the authors devote a good chapter to suggest actions by developed countries which could pave the way for such contingency.

Other attempts to sum up at least parts of the postwar LDC trade and development experience typically share the LSS stance. See, for example, Keesing (1967), Cohen and Ranis (1971), and Schydrowsky (1972). Discussion at that level of generality faces sharply diminishing returns, so it is wiser to turn to the various empirical building blocks of the consensus view to see how solid are its foundations.

Can LDCs Affect the Level and Composition of their Exports? The 1960s Rout
Export Pessimism

No complicated models are needed to show that if one expects LDC exports to grow much below their desired GNP growth rates, import substitution, however induced, will be a very important part of the development program.

And if the supply of foreign exchange is, say, perfectly inelastic with respect to changes in the exchange rate, then import duties and even quotas can be made to have the same impact on resource allocation, although not on income distribution, as equilibrium exchange rates. The period between 1914 and 1945 generated an export pessimism which lasted well into the 1950s, based on two mutually reinforcing strands of thought. The supply price elasticity of exportables in LDCs, a domestic parameter, was deemed by many to be low due to institutional rigidities, in the case of rural exportables, or to difficulties of entry and quality, in the case of non-traditional manufactured goods. Secondly, both income and price elasticities of the foreign demand for LDC exports were considered to be very low. Engel's law, synthetics, etc., were the key code words. So export pessimists saw little point in trying to use domestic policy tools, such as the exchange rate, to coax a few more exportables out of inelastic domestic activities, which were frequently owned either by foreign or by nationals regarded as socially unprogressive and already above average in income, only to have to push staples on reluctant foreign buyers, perhaps only after immiserizing terms-of-trade declines.

Empirical research has been blasting away those two major props of export pessimism, at least in their most extreme form. In the first place, numerous studies have been produced showing that where markets exist, i.e., for commercial agriculture, LDC farmers will respond to relative prices. Nowshirvani (1971) surveys this literature, noting also that high prices will induce the spread of markets, so that their total economic effect includes a movement along a given supply schedule, plus a rightward schedule shift due to induced organizational changes. He notes, however, that such total price responsiveness is far from an unmixed blessing, as the social consequences of the uncontrolled spread of markets can be quite undesirable. Econometric supply response research has become ever more refined, as in Nowshirvani's

study (1971) for some food crops in northern India, in which subsistence crops showed no price response, while cash crops generally showed positive and significant price elasticities of supply. Also noteworthy is Behrman's book (1968) on four crops in Thailand using as independent variables not only mean prices, but also their variances. While, in the short run, supply responses may be weak or even apparently perverse, as with Argentine beef, most studies show a significant and substantial long run positive supply response for individual crops and rural activities. For large groups of such activities, or for the rural sector as a whole, however, the evidence on price responsiveness is much less clear.

The trade boom of the 1960s, during which the purchasing power of nonpetroleum LDC exports rose about three times as rapidly as in the 1950s, has provided abundant raw materials for empirical workers trying to show that external demand for LDC exports is much more price and income elastic than the pessimists thought (De Vries, 1967). Leaving aside old staples, such as coffee and sugar, whose international marketing can be handled with ad hoc policies, it has been shown that even within the area of primary products, all kinds of new DC demands have opened up (Cohen, 1970; but see Hicks and McNicoll, 1971, who remain skeptical, and warn of resource exhaustion). The small share accounted by most LDCs exports of manufactured goods in total world trade, and the rapid growth of those exports in "success stories," such as South Korea, have been powerful arguments in routing both demand and supply pessimism (LSS, Chapter 7).

Cohen and Sisler (1971) have provided a detailed analysis of LDC world market shares in their major exports during the 1960s. They show that for commodities where the growth rate of industrial country imports from the world was most rapid, LDCs experienced the largest losses in potential exports, as the result of not maintaining their market share. They take this

fact as prima facie evidence that low LDC export growth rates were due primarily to domestic supply problems, often induced or aggravated by incorrect domestic policies, rather than lack of external demand. An extreme example of a domestically induced decline in world shares would be the meat and grain exports of the Argentine Republic; it is hard to believe in 1973 that quite late into the 1960s many in that country justified just about any import substituting project on the grounds that there was no future in world markets for primary products such as beef, corn and wheat. And as one watches the U.S., the U.S.S.R., China, Japan and Western Europe plan growing trade among themselves in cotton, wheat, natural gas and oil, it is hard to remember that such trade was and is regarded by many as an infallible symptom of colonial dependency. Indeed, growing preoccupation in rich countries about resource exhaustion and undesirable side-effects of synthetics puts us back, at least for a while, in a Neo-Ricardian-Malthusian scenario.

The pessimists also missed the rapid 1960s expansion in the demand of rich countries for LDC tourist services, which transformed previously untradeable LDC "home goods" into earners of foreign exchange. The demand for LDC tourist services appears to have a high income elasticity, and for some areas also a high price elasticity.

There is an invincible pessimism even in countries which are now dramatically expanding their exports, such as Brazil and Colombia, which argues that the expansion cannot continue, or that it is bound to collapse. Others simply ignore the facts, and continue to repeat the a priori arguments for pessimism, eagerly greeting each new international monetary storm.⁷ Nobody, of course, can say for sure that trade wars among Europe, Japan and the U.S. could not radically alter the outlook for world trade. Another view, reflected in Lewis' (1969) second lecture, is that the expected

export expansion to DC markets, although substantial, will still not be enough to achieve LDC growth targets, so further import substitution, at the regional or all-LDC level, is still required. He does not, however, discuss the optimum way of inducing such import substitution. Helleiner (1972a, Chapter 2) argues that LDC supply policies and random difficulties account in large part for country-to-country differences in export performance, but only within constraints imposed by traditional world commodity demand factors.

The direct testing of the link between exchange rate policies and the supply responses of non-traditional LDC exports has generally yielded significantly positive elasticities, showing that exchange rate policy typically does matter. See, for example, the survey and fresh work of Eaton (1972). There are, however, some unresolved problems. While the time series econometric work shows that the exchange rate matters, it frequently suggests that it does not matter very much, explaining only a relatively small part of export growth rates. Indeed, as the monetarists would expect, examples of countries which have substantially changed their real exchange rate for a sustained number of years are few. More sophisticated lag structures, exchange rate variances, etc., could in some cases boost the quantitative weight of exchange rate variables.

For many countries, the stability of the real exchange rate may turn out to be more important for expanding non-traditional exports than the level of such a variable. But the separate effects as well as the interaction of exchange rate policy with the many other LDC export promotion policies remains very difficult to quantify, at least using time series. Halevi (1972) notes the crucial problem of establishing the functional links between relative prices and the structure of capital formation, as well as possible scale effects.

There is also the fact, emphasized by Krueger's work on Turkish exports (1972a, Chapter 7), that many LDC exports are determined mainly by government domestic policies, e.g., agricultural policies, as well as by direct public interventions in the export market, rather than by the trade regime itself.

Cross section studies on export performance rarely go beyond casual empiricism; a promising avenue could be to quantify degrees of under or over valuation across LDCs, using either a modified purchasing power parity approach⁸ or shadow exchange rate benchmarks, and formally relating those measures to export performance.

Many promotion policies have a net impact per dollar of exports which varies substantially from industry to industry, or even firm to firm, while others promote exports mainly by providing market and technical information inside and outside the country. The former include tax and credit subsidies, exemption from import duties, and the creation of free trade zones. The latter refer to such things as fairs, and can also include direct government pressures to export "or else." Either type of policy presents its own difficulties for quantifying supply responses. As already noted, some export promotion plans are closely coordinated with policies toward foreign investors. As my colleague Benjamin Cohen has pointed out to me, and as noted long ago by Williams (1929), this complementarity between trade and capital movements contrasts with the standard textbook thesis that trade and factor movements are substitutes, as indeed they have been in import substituting activities.

The multiplicity of export promoting policies has raised the issue of the effectiveness of the different instruments in expanding exports. The example of South Korea (C. Frank, 1972) suggests that export success is not simply a matter of following neoclassical textbook recipes. Export

promotion may involve as much haphazard government interventionism as import-substitution, (Bhagwati, 1968a). Cuba offers an extreme example of an export-promotion strategy with highly centralized socialist planning techniques. Thus the issue of the efficiency of the different tools and techniques must also be raised.

It is clear that examples of excesses in export promotion, symmetrical to excesses in import substitution, can be given at the theoretical as well as the empirical level. Bhagwati and Krueger (1972), however, argue that the situation is unlikely to be wholly symmetrical, and that export promotion may be the superior strategy. Generally, the costs of excess export promotion are more visible to policy makers than those of import substitution. An export-oriented strategy typically will rely more on indirect, rather than direct interventions, and the former is considered to be typically less costly than the latter. Exporting firms must face price and quality competition in international markets; insofar as the adverse side effects of inadequate competition are less severe under the export-oriented strategy, export promotion is superior simply because it reduces the incidence of the problem. Finally, if there are significant indivisibilities or economies of scale, an export-oriented strategy will enable firms of adequate size to realize them. The various symmetries and asymmetries between export promotion and import substituting strategies are likely to remain an important research focus.

The spread of preferential trading agreements among LDCs, and between some DCs and LDCs, presents measurement problems not yet adequately tackled by the empirical literature on LDC export expansion. LDC common markets or free trade areas provide the conditions under which apparent export expansion could be hiding the repetition at regional levels of national import

substitution excesses. In other words, a dollar earned exporting from Colombia to Peru, or to Bulgaria, may not be worth as much as a dollar earned by exporting to Germany, if the former carries with it the obligation to buy in return goods which are overpriced relative to alternative least cost sources, while the latter dollar can be used for purchases anywhere. Differential effects in other fields, such as employment, could also be expected between exports to common market partners, or to centrally planned economies under bilateral arrangements, and those to the rest of the world. A related point arises when growing exports are closely linked to heavy use of imported inputs, as in free trade zones in the Mexican border with the U.S. In either circumstance, using gross export data may yield misleading impressions.

Although customs unions and free trade areas among LDCs have received a fair amount of theoretical, speculative as well as descriptive attention, as in Cooper and Massel (1965), Grunwald et. al. (1972), and Morawetz (1972), analyses of the economic consequences of their actual trade flows have been relatively rare, perhaps due to their recent creation and/or precarious existence. Exceptions include the Hansen (1967) and Willmore (1972) studies on the Central American Common Market.

Recent Work on Other Perennial Issues of LDC Export Sectors

Two aged theses emphasized by some species of export pessimists have also come in for rude attack during the 1960s by empirical research and contemporary reality. One identified LDC export instability, independent of trend, as another obstacle to growth, while the other preferred to express its export pessimism arguing that the long term trend in the terms of trade for primary products (or for developing countries) was inevitably downward.

Looking at relevant 1946-58 numbers systematically, in an area where few had done so, MacBean (1966) created a minor scandal when he showed that export instability was not that much much greater in LDCs than in rich countries. Leaving aside such cases as Brazilian coffee and Ghanaian cocoa, he also argued that primary product exports are no more unstable than manufactured exports. When data showed acute export fluctuations, he found that domestic factors, including weather, pests, political turmoil and economic errors, rather than shifts in world demand, were responsible. Finally, there was little econometric evidence showing a significant link between export instability and the stability and growth of GDP and capital formation.

Examining the period 1950-66, Massel (1970) tested a number of possible explanations for export instability in rich and poor countries. The only variables showing significant coefficients are concentration in few export products, increasing instability, while absolutely large export sectors and unusual reliance on food exports are associated with less instability. A result related to the absolute size of the export sector is that of Erb and Schiavo-Campo (1969), who for 1954-66 found a negative correlation among LDCs between export instability and the absolute size of their GDPs. These authors also found that between 1946-58, the MacBean period, and 1954-66, there had been an important decline in export instability both in LDC and in rich countries, but in the latter more than in the former.

Kenen and Voivodas (1972) concluded that the choice among various methods of measuring export instability and among plausible country samples do not affect their major results, which on the whole agree with those of MacBean. Results, however, are somewhat more sensitive to the choice of time period. For example, contrary to MacBean, they find a strong and

plausible negative connection between export instability and the level of investment during the 1960s, which reopens the question of the extent and mechanisms through which export instability reduces investment levels.

Mathieson and McKinnon (1972) focus on the instability not only of exports and aggregate GDP, but also on that of several GDP components, arguing that measurement techniques tend to misleadingly hide important LDC instability in large aggregates. They find that LDC instability is indeed substantially larger than in rich countries, but that there is no persuasive evidence that the international economy generally exerted a net destabilizing influence on LDCs from 1950 to 1968, partly due to the fact that rich countries during these years did not experience their business cycles in unison. Mathieson and McKinnon find that instability decreases with per capita income, but contrary to Erb and Schiavo-Campo, they find that the country size per se, as measured by absolute GDP levels, bears no significant link with instability. They also obtain some weak evidence indicating that the more open an economy is, as measured by the ratio of exports to GDP, the lower the instability will be. Although that link is not strong statistically, they certainly can say that there is no basis in their results for supporting the traditional view linking instability with openers and outward looking trade policies.

The main thrust of the above is to undercut general contemporary arguments for international commodity schemes and for restrictionist and interventionist domestic trade policies, justified by the alleged harmful effects of presumed export instability on LDC economies. Ad hoc cases of instability which require particular policies, of course, just as ad hoc grounds for optimum export taxes, are not weakened by the surveyed results. Studies of pre-World War II LDC export instability should yield interesting

results, and are likely to indicate that declines in that instability, and of its negative impact on development, are due to improved macro and sectoral economic management both in developed and developing countries.

As noted by Helleiner (1972, Chapter 5), the focus on exports as a source of instability in LDC economies has been usually based on the belief that other elements in aggregate demand within those countries were not as important, in the short run, in determining the level of aggregate economic activity. LDC exports are supposed to influence economic activity not only via demand effects, but also through their effects on feasible import supplies. At least for the study of business cycles in the larger LDCs, such traditional focus is clearly out of date. The fact that in many LDCs imports show greater instability than exports cannot be explained without a closer examination of the interplay between domestic policy instruments, including monetary and fiscal policy, not only with external demand conditions, but also with the use of foreign trade policy instruments, particularly the exchange rate. The stop-go macro policies which have been observed in several semi-industrialized countries and the induced domestic instability have more to do with the sporadic and reluctant way in which devaluations have been handled, than with disturbances arising in world markets. In other words, postwar instability in, say, Argentine or Turkish investment, particularly in construction, has a lot in common with that found in the United Kingdom, a hypothesis hardly illuminated by the traditional focus on export instability.

Theoretical and empirical work on the determinants of secular trends for LDC terms of trade, so popular during the 1950s, was on the whole neglected during the 1960s, perhaps due to general agreement that the terms of trade, whatever their trend, were not the key variables to focus on when

discussing trade policy and development. On the theoretical front, the works of Arthur Lewis (1969) and Emmanuel (1972) have already been mentioned. Lewis adds to his theoretical model a historical-empirical test, concluding that the reason tropical countries were experiencing in 1965 net barter terms of trade, which were unfavorable compared with the situation before the First World War, was fundamentally that the world price of wheat had risen less than the price of manufactures, due to sharp increases in U.S. agricultural productivity in the context of relative immobility of farm populations (pp. 24-25).

Emmanuel presents a Marxian model of the terms of trade, based on the labor theory of value, which has a number of similarities with the Lewis view, anchored in "unlimited" supplies of labor generated by low productivity LDC subsistence food sectors, and with the Kindleberger (1956) emphasis on LDC-rich countries terms of trade, rather than on those between primary and manufactured products. Emmanuel also emphasized the relatively greater international mobility of capital, which could include human capital, contrasted with the contemporary international immobility of unskilled labor. Empirical work on terms of trade based on the "unequal exchange" thesis has been mostly polemical; of particular interest is the use made by Rumanians of this thesis in their arguments with COMECON, as described by Montias (1967, Chapter 4). In this debate, the less developed Rumanians argued that they had to spend more labor time to produce a unit of value at world prices, than, say the Czechs who produce their exports with higher labor productivity. Not surprisingly, the Czechs argued that so long as world prices were free of monopolistic elements, there was nothing exploitative about such a situation. One may remark, in passing, on the curious fact that some of the Western observers who are most admiring of the protectionist Rumanians, are the same who sneer with most zeal at LDC inward-oriented policies.

On the empirical front, nothing as monumental as Kindleberger's (1956) terms of trade study has been forthcoming during the 1960s. Besides the empirical aspects of the Lewis lectures, the Porter study (1970) of postwar primary product price movements may be mentioned. For the period between the late 1940s through the early 1960s he documents a generally falling trend for the prices of forty-six primary products. He also finds that demand for primary products typically may be very price-inelastic or very income-inelastic, but not both. In an interpretation in line with that of Lewis, he suggests that the greater ability of the advanced countries to raise productivity in primary products, presumably non-tropicals, is part of the explanation of their increasing domination of the more income-elastic products, a domination which has tended to increase since the late 1930s. Evenson (1973), in turn, suggests that differential productivity advances are partly explained by variations in expenditures on agricultural research and development, a field in which many LDCs have seriously lagged, particularly outside traditional staples.

The recovery of LDC terms of trade since the early 1960s, perhaps a partly offsetting consequence of past import substitution excesses, may also account for the recent scarcity of terms of trade studies, and the quiet filing of policy proposals linking terms of trade movements to domestic or international (e.g., aid) policies. On the other hand, the spectacular success of the Organization of Petroleum Exporting Countries has encouraged those wishing to use commodity agreements to raise selected LDC export prices, while alarming some who only a few years ago emphasized LDC impotence to do any such thing.

Managing LDC Foreign Exchange Availabilities during the Postwar: Mechanisms for Suppressing Import Demand and their Consequences

Even if the supply of foreign exchange had a zero elasticity with respect to the export exchange rate, the precise nature of the trade regime and of the mechanisms used to repress import demand could have important repercussions for efficiency, income distribution and growth. For many LDCs, their postwar trade regimes, featuring differential import exchange rates, high and uneven import duties, import and exchange controls, and prior import deposits, in fact evolved from their policy reaction to the Great Depression of the 1930s, when their supply of foreign exchange was highly inelastic to their export exchange rate, if indeed it did not have a negative elasticity. But once such complex restrictionist regimes were in place, first legitimized by the balance of payments crisis, they gradually took on a more openly protectionist nature.

The measurement of the costs and consequences of tariff protection is to be discussed in detail elsewhere in this volume, so two long paragraphs on the subject will suffice here. The use during the 1960s of the concept of effective rates of protection provided additional quantification tools which documented and dramatized, first, the high and uneven nature of LDC tariff structure, and later, the similar characteristics of the overall net impact of all the import repressing mechanisms. The recent work of Balassa and Associates (1971) summarizes and extends this type of research. Of the six LDCs studies in depth, Balassa finds a considerable degree of discrimination in favor of manufacturing and against primary activities in four of them, which also have the largest interindustry variation in effective rates of protection. Such variation, it is argued, is not the result of conscious and systematic planning decisions, a conclusion also reached by the Desai (1970) study of the Indian tariff commission. There may be, however, some

political method in such economic madness. For the cases of Mexico and Pakistan, Balassa found large differences between rates of tariff and implicit protection, showing that tariff data will not by itself appropriately describe the structure of protection in countries which employ quantitative restrictions to limit imports.

Another approach for measuring the extent and consequences of trade restrictionist regimes was pioneered by Bruno (1967) and Krueger (1966), using the concept of domestic resource costs, whose differences and similarities with that of effective rates of protection have recently been explored (Bruno, 1972, and Krueger, 1972b). In her in-depth study of ten Turkish industries, Krueger found a significant gap in real domestic resource costs per dollar earned or saved between the lowest cost -import-substitution activity and the most costly potential export industry. She also found a spread of about ten to one between the highest (an import substitution firm) and lowest (a potential export firm) domestic resource costs estimated. Yet, she notes that Turkish trade policies removed virtually all incentive for the potential export firms studied. Rejecting export pessimism, she tentatively suggests that twice as much output, in value terms, could be obtained from new resources with a liberalized trade regime and an equilibrium exchange rate. Her results, of course, depend heavily on the across-the-board application of the small country assumption to all Turkish activities, as well as on the assumption of constant costs. Other related detailed studies of the impact of restrictionist trade regimes in LDCs include those of S. R. Lewis for Pakistan (1969), L. L. Johnson for the Chilean automobile industry (1967), and Baranson for a larger sample of automobile firms in LDCs (1969).

A good part of the typical LDC restrictive trade regime relies not on general signals transmitted via tariffs and subsidies, nor through clear and universal administrative rules, but on a maze of ad hoc bureaucratic decisions and obscure rules of thumb. Not without reasons, most researchers have tended to stay away from a careful study of such disconcerting reality, preferring to handle them with a few well chosen critical generalizations, sure to be received with approval by the rest of the profession. Writers associated with Anglo-Saxon traditions have usually found the labyrinths of quantitative controls somewhat more Kafkaesque than authors used to Latin bureaucracies did, which, as Italy shows, may be compatible with and may survive economic development. But serious studies of these matters have begun to appear, as may be seen in Chapters 15 and 16 of the Bhagwati and Desai volume for India (1970), and Chapter 8 in the new Krueger study of Turkey (1972a): More should be on the way from studies on exchange control, liberalization, and economic development, sponsored by the National Bureau of Economic Research (Bhagwati and Krueger, 1972). Even more than with tariff protection, it is generally agreed that quota protection has been generally granted and used indiscriminately.

Administrative import and exchange controls are typically blamed for a large number of inefficiencies, many difficult to quantify. Their delays and red tape are said to: waste private and public entrepreneurial time and energy; require additional clerical staff to handle paperwork, in both government and industry; give rise to other extra expenses (e.g., flying back and forth to capital cities to deal with bureaucrats); lead to excessive domestic inventories; have peculiar rules of thumb stimulating overbuilding, capital intensity, and excess capacity; favor large firms and discriminate against new and small entrepreneurs; encourage administrative corruption

and smuggling; help to extinguish competition and technological change in domestic markets; slow down the inflow of foreign technology; arbitrarily alter the composition of imports; encourage industrial concentration in the capital city; and, of course, lose potential tax revenue for the state.

Solid empirical documentation of these charges is still scanty.

One suspects that some of the generalizations may rely too much on the complex psychology of Indian civil servants. Brazilian and Colombian postwar import controls, for example, did not have the same tendency displayed by those of India to rigidly use installed capacity as criteria to allocate import permits, nor to encourage machinery as compared to intermediate imports in the face of excess capacity due to input shortages. Perhaps the costs of administrative controls become very high only for very large countries and/or when too little reliance is placed on other, more orthodox, import repressing mechanisms.

At any rate, the key question continues to be how different things would be if controls are replaced by the other mechanisms. Noting that under import controls, for example, 100 large firms receive 50 per cent of a country's import permits hardly proves that controls lead to economic concentration, although it may show that controls do not prevent concentration. Observing that import controls coexist with excess capacity or corruption is also not very enlightening. One would have to show, or give persuasive reasons indicating that matters would be different in an LSS world, or that they are different in countries without such controls (adjusting for other differences!). More on this in the next section.

The study of import control mechanisms has typically focused on merchandise trade, often leaving aside imports of services. Yet the handling of service payments usually offers prima facie evidence of gross inefficiencies

as well as inequities. Without paying the equivalent of import duties, the following frequently have access, even if limited, to foreign exchange at overvalued exchange rates: foreign investors in import substituting activities, tourists, parents of students abroad, users of foreign ships, and users of foreign patents. Particularly in the field of optimal control of technological services imports, where world markets can hardly be said to be competitive, much empirical and theoretical work remains to be done, in spite of the pioneering work of Vaitsos (1970) and Katz (1972).

One subject receiving increasing empirical attention is that of illicit transactions, primarily under restrictionist trade regimes. Such illicit transactions include old-fashioned smuggling, inward and outward, and under- or overinvoicing, of imports and exports, as a way to avoid exchange controls and other departures from unified and equilibrium exchange rates. When considering alternative trade policies, their vulnerability to evasions and corruption is an important consideration (Bhagwati, 1968a). Going beyond unreliable anecdotes, systematic empirical work in this area includes that of Bhagwati on alleged Turkish fake invoicing (1969), which uses partner-country trade data to obtain presumptive evidence on the degree of faking going on. For the Pakistani case, Winston (1970) found that the effective price to the firm of imported capital goods was reduced by more than 45 per cent, as compared against its recorded value, as a result of fake overinvoicing of those goods, and subsequent illegal exchange transactions. More is expected from the NBER project already mentioned, and from a collection of papers on the subject edited by Bhagwati. It may be noted that trade policies vulnerable to corruption and evasion include not only those for which there exists a negative prima facie economic argument. For example, Colombian and Ghanaian export taxes on coffee and cocoa, respectively,

which could be defended on optimum tariff grounds are bedevilled by outward smuggling as much as less defensible export taxes.

Much of the 1960s debate on LDC trade policies suffered from the use of terms such as import-substitution, protection, promotion, etc., whose exact definitions were often ambiguous. The typical definition of import substitution, that used by Chenery (1960), was devoid of welfare implications. The proportion of total supply of a particular good obtained via imports rather than from domestic production can decrease, i.e., import substitution occurs, either because a tariff is placed on that good, or because devaluation makes imports more expensive, or for a number of other reasons.

Desai (1969) clarified and called attention to possible alternative definitions of import substitution, some based on optimality notions, and explored various ways of actually calculating the purely descriptive measure. Alternative descriptive statistical procedures arise from different ways of handling departures from base year import-availability ratios, degrees of aggregation, and ways of handling intermediate demands generated by import substitution. Both Desai and Díaz-Alejandro (1970, Chapter 4) noted the importance of aggregation. The commonly heard remark that import substitution has stopped in many LDCs because they have been unable to lower their aggregate ratio of imports to supplies can hide two conflicting tendencies: an across-the-board decline in each industry's imports-to-supplies ratio, and an increase in the weights of the more import intensive industries, which may benefit from high income elasticities of demand.

Morley and Smith (1970) note that a given imported good substitutes for the output of many domestic value adding activities, and that the standard measures for import substitution in a given sector do not quantify the two components of total supply, imports and domestic production, on the same gross production basis. They show for the Brazilian case that the usual measures underestimate import substitution by domestic intermediate goods industries, which now supply intermediate value added previously embodied in imports.

After the Rout: The New Trade Policies and Development

In spite of theoretical and empirical lacunae, on the whole evidence does appear robust for the proposition that trade policies in many LDCs during the 1950s and the 1960s left much to be desired. But even under the assumptions that world trade will continue to expand, i.e., that no new 1929s are to be feared, and that most LDCs have now a variety of policy tools and choices, allowing them to tackle distortions directly, important research and policy questions remain: How easy or difficult is the transition between old and new trade policies, both economically and politically? How far must old policies be dismantled and new ones installed to achieve significantly positive developmental results? Even if the old is totally abandoned, how much can be expected from the new trade policies?

Starting already in the late 1950s, many of the semi-industrialized LDCs attempted to liberalize their restrictive trade regimes, while in some cases attempting to check inflation. "Liberalization" is here defined in the Bhagwati-Krueger (1972) sense; it is said to be attempted when there exists the intention to let the official price of foreign exchange assume an increased role in the domestic allocation of resources. Díaz-Alejandro (1965)

examined the painful Argentine stabilization and liberalization attempts up to that date, focusing on the large redistributions of income triggered by massive devaluations, and the unsurprising failure of domestic supplies to respond quickly to highly unstable relative prices. The stop-go macro policies arising from the commitment to a pegged rate, sporadically and dramatically devalued every two or three years, were also analyzed in that book. The Turkish case, as that of Argentina, also illustrates the difficulty of isolating transitional problems due to fighting inflation, from those arising from liberalization (Krueger, 1972a, Chapter 4). This, of course, is related to the difficulty of parcelling blame for excess costs between uneven inflation and restrictive trade regimes while that not unusual combination is in full bloom.

Somewhat different issues have been raised by the analysis of the 1966 Indian devaluation (Bhagwati and Srinivasan, 1973c). In that case, as in the Turkish 1958 devaluation, the impact of the parity change was more than offset by the reduction and removal of surcharges, taxes and export premia, leading to a major difference between nominal and effective devaluations. This leads to confusion in public opinion, when the nominal devaluation is assessed as if it were also an effective devaluation. The 1966 Indian case also illustrates the dangers of liberalizing under pressure from aid donors, and the importance of timing liberalization attempts with relatively favorable exogenous factors, e.g., good harvests and terms of trade. These two points are also highly relevant for studying the short run failure of the Colombian 1965-66 liberalization attempt, and the friction between many Latin American governments and institutions such as the I.M.F. The links between aid, liberalization and stabilization in Latin America have been examined with particular verve by Hayter (1971).

Cooper's (1971a and 1971c) impressive review of about three dozen recent devaluations in developing countries also concludes emphasizing that managing a devaluation through the transition phase to final success requires both judgment and delicacy of handling. He confirms that although the price level often rises, real aggregate demand frequently falls following a devaluation, and so does the public official linked to the devaluation decision.

By now there is general agreement that stabilization and liberalization attempts should be managed gradually (LSS, Chapter 10); few share the 1950s and early 1960s orthodox enthusiasm for shock therapy, which left more than one patient wondering whether the net present discounted benefits of the cure were higher than the present discounted costs of the disease. The recessionary tendencies which frequently accompany stabilization and liberalization plans, contrary to what is expected from devaluation and resource allocation theory, and which occur even as the rise in the price level accelerates,⁹ have been blamed on a variety of factors, which seem to operate with different force from country to country. Large redistribution of income may transfer purchasing power from those with high to those with low propensities to spend on locally produced goods. The rise in domestic prices of tradeable goods triggered by devaluation will exert downward pressure on real cash balances, a tendency which may be aggravated by overly restrictive fiscal and monetary policies. In LDCs with rigid and segmented capital markets, this can put severe strains on various compartments of the credit market, such as those providing working capital for industrial firms, and for housing and construction, leading to supply-induced output declines, besides the standard cash-balance effects.

Cooper (1971b) also notes how devaluation can lower aggregate demand in aid-receiving countries, acting essentially as an excise tax, at least in the short run, and explores wealth effects arising from devaluations in countries with foreign debts. There may also be simply an asymmetrical response to the new incentive structure: sectors subject to new negative signals may pick up those more quickly and effectively than those which should be expanding in response to positive signals.

Not all stabilization and liberalization attempts have led to catastrophe, even if all had to undergo difficulties, and research on happier experiences can tell us something regarding the other two questions raised at the beginning of this section. A major point emerging from the successful cases, as noted before, is that to reach rapid growth in exports it was not necessary to dismantle totally the paraphernalia of controls inherited from the stage of import substitution, nor to enter fully into an orthodox neoclassical, decentralized world. Indeed, as shown in the cases of South Korea (Frank, 1972) and, more recently, Colombia, many administrative rules can be quickly turned around and used to encourage new exports, just as before they were used to promote new import-replacing activities. The authorities, in fact, can use existing market distortions, e.g., in the credit market, to give their export promoting policies greater leverage. As shown by the post-1967 Brazilian example, it is not even necessary to eliminate inflation, or even lower it below fifteen per cent per annum, to generate an export boom. Many successful liberalization attempts did not really try to eliminate or massively reduce protection to truly import-competing industries, limiting import liberalization efforts mainly to those goods and services which do not compete with established domestic industry (Michaely, 1973). At any rate, the least-risk strategy is clearly to first get exports up and then liberalize imports. This does not appear to be as difficult as many thought a few years ago.

The above gives substance to the earlier suggestion that conceptualization of trade and development problems of many LDCs is on firmer ground in three sector models, with some factor market imperfections, in which the competition for resources between the export and the import-competing sectors is mitigated by the existence of a home good or subsistence sector which can gradually yield resources to both (if the price is right.)

The view of liberalization, which is gradualist regarding its timing and marginalist (!) with respect to the degree of change needed in policy instruments to achieve higher export growth rates, gets some support from the argument (Schydrowsky, 1972; Dudley, 1972) that a large number of LDC import substituting industries developed during the last thirty years are not as inefficient, uncompetitive and technologically stagnant as the most extreme critics of import substitution suggest. One need not argue, as some do, that the stage of import substitution was a necessary precondition to the development of new exports, to notice that much of the productive capacity created during that stage can be turned around fairly readily toward export expansion. This argument, of course, while tending to decrease the urgency of drastic changes, also indicates that full adoption of neoclassical policies, including devaluations which will partly compensate lower protection, will only hurt the real white elephants, which may not be so many.

This view implies that LDC postwar growth rates have been, after all, mostly real, even measured at world prices.¹⁰ Another reason why even LDCs convinced of the excesses of past policies and the need for greater exports, may be reluctant to abandon suddenly all exchange and other controls is simply the fact that as one looks around the world in early 1973 one observes many developed countries returning to such practices as exchange controls and dual exchange rates, not to mention wage-price controls. In an uncertain world, it may be wise to hang on to a variety of policy tools.

A lesson emerging from both successful and unsuccessful liberalization attempts, particularly in medium and large countries subject to inflationary pressures, is the great importance of handling devaluations using crawling pegs, rather than the Bretton Woods system of infrequent and large parity changes. Brazilian and Colombian growth rates for exports and GNP, for example, have recently become not only higher but also less unstable, and their crawling pegs seem to have more to do with those results than any profound revision of their protectionist system (Donges, 1971). In other words, improved short term macroeconomic and balance of payments management in inflation-prone semi-industrialized LDCs may explain a larger share of their higher growth rates than that attributable to the presumed reallocation of resources from inefficient import substitution activities toward efficient export lines.

The new policies are clearly yielding higher per capita growth rates in capitalistic LDCs as diverse as South Korea, Brazil, Taiwan and Colombia. Higher exports have permitted sharply expanded levels of machinery and equipment imports and, therefore, of capital formation. It is noteworthy that Cuban economic authorities, not widely regarded as orthodox neoclassicists, put great emphasis on the link between expanding exports and growing capital formation, leading to a domestic resource allocation and a plan which can be characterized as an export-oriented staple growth strategy.¹¹ But the impact of new trade policies on domestic savings, besides those operating via the easier import of capital goods, are unclear, and appear secondary to results flowing from policies regarding local capital markets.

Evidence on whether the new policies are reducing the marginal capital-output ratio, and if so, through which mechanisms, is not yet robust. Higher growth rates, by themselves, are known to reduce that ratio. But the new policies could further reduce it by improving resource allocation

(Krueger, 1972a, Chapter 9), and by using up excess capacity. Reduction of average excess capacity, in turn, can result from the dampening of stop-go cycles, and/or from the elimination of mechanisms through which protectionist trade regimes allegedly stimulated idle installed capital.

The study of excess capacity in LDCs has picked up considerable steam recently (Winston, 1971; Thoumi, 1972; and Calvo, 1972). But the precise extent to which incorrect LDC trade policies can be blamed for such idle capacity remains obscure. There are several complementary explanations for excess capacity, and many have little or nothing to do with trade policies. It does seem plausible that excess profits induced or renewed by protection could lead to excess entry and Chamberlinian coexistence, or that due to small domestic market size and indivisibilities many import replacing projects may have a capacity unlikely to be fully used for many years. But the quantitative impact of these and other hypotheses is far from established.

Similar considerations apply to the impact of the new trade policies on LDC employment. Krueger (1972a, Chapter 9) shows that if Turkish manufacturing investment had been allocated following sectoral shares in value added or investment in 1963, instead of following the development plan, the same investment volume would have generated greatly increased manufacturing employment opportunities, besides reducing marginal capital-output ratios and import requirements (see also Power and Sicat, 1971). The evidence on employment growth in Taiwan and South Korea is also impressive (Ranis, 1972), but once again it is difficult to sort out exactly that part which can be credited to higher growth rates of aggregate output, from other effects, such as changing output composition, changing capital-labor ratios, etc.

Sweeping the Leontief paradox under the carpet, even though Baldwin (1971) has pinpointed its source mainly on U.S. trade with Canada, Oceania

and LDCs, we tend to assume that new LDC exports will be labor intensive, although there are skeptics, such as Sheahan (1971). As many such exports, even those going to world markets and not to free trade area partners, come from large firms, often foreign, which have also been active in import substitution, the skepticism regarding the quantitative impact on employment of the change in output mix is further justified.¹² Differences in capital-labor ratios between large and small firms within the same industry can be larger than such differences between sectors. Furthermore, a good share of the new exports are made up, directly or indirectly, by land-intensive primary products, whose labor use may or may not be greater than in labor substituting activities.

There is, after all, one small country "success story" which has for a long time followed free trade policies at least vis-à-vis a major industrial center, and where unemployment continues to be a serious problem. The case of Puerto Rico could also be fruitfully used as a near-free-trade comparative benchmark for excess capacity, capital-intensity and income distribution studies, even though (or perhaps because) that island has other notorious market imperfections (L. Reynolds and Gregory, 1965). It should also be noted that there are other sound theoretical reasons, besides sticky wages, to expect some LDC unemployment even in small countries following optimal trade policies (Fields, 1972). Furthermore, fast export expansion could lead to a relaxation, in some LDCs, of controls over imports of labor-replacing machinery.

As in the case of LDC rural supply responses, evidence has been accumulating showing that substitution possibilities between capital and labor in LDC productive activities are generally not zero (Clague, 1969; Fei and Ranis, 1971). But beyond this weak statement, interpretations differ and generalizations become shakier; Behrman, for example, interprets his

estimates (1972) to imply that Chilean flexibility in response to changes in international markets is limited and that adjustment takes a long time, giving some support to the structuralist view. Behrman also concludes that Eckaus' technological explanation for LDC unemployment is supported by his results, and finds that sectors generally thought to serve as the predominant absorbers of surplus labor are among those with most limited estimated substitution possibilities.

Firmer answers to the above doubts should also help settle the quantification of how LDC income distributions are likely to react to the new trade policies. As with industrial structure and concentration ratios, differences in income distribution turned up by cross section studies are not plausibly explained by differences in trade policies (R. Weisskoff, 1970). Even the allegedly favorable Taiwanese income distribution could have more to do with previous land and educational reforms than with trade policies. Note that even if the new trade policies trigger massive labor-intensive exports, they are also likely to accelerate GNP growth, and periods of growth acceleration are generally regarded as conducive to growing inequality (Despres, 1973). It is not clear that Stolper-Samuelson will dominate Schumpeter. Furthermore, new land-intensive primary product exports often come from LDCs where land ownership is far from evenly distributed. These skeptical remarks can be extended to the impact of the new trade policies on regional distributions of income and economic activities.

Whether the new trade policies and higher exports significantly stimulate X-efficiency and technological change remains also an empirically open and researchable question. Much seems to depend on the institutional environment in which the new exports are being generated, and on what is regarded as the likely alternative scenario. For example, if those exports

are mainly forthcoming from foreign firms training large numbers of local workers and managers, who rapidly leave to work for local firms, the diffusion of new techniques will be greater than if such turnover is low (Cohen, 1972a). But foreign firms whose great asset is typically "know-how" are unlikely to go out of their way to promote the spread and diffusion of the knowledge on which their power is based. The mechanism through which the bargain on patents and licenses for new exports is struck, and differences it may present with the equivalent process for import substitution, is also obviously important. Will foreign firms spend more on adapting to local conditions in export or in import substitution activities, and what does that imply for domestic welfare? Will the new price structure arising from the reformed trade policies induce local and foreign entrepreneurs to search for "right" innovations in significant amounts, even if credit and labor markets remain imperfect?

But the most fundamental doubts about the new trade policies arise not on purely economic grounds, but on those related to fuzzier, but no less important, developmental targets and aspirations. The large role of foreign investors in new export activities, larger perhaps in Latin America than in the Far East, has been already documented (Vernon, 1971) and is likely to become greater than it was under the import substitution strategy (Helleiner, 1973; de la Torre, 1972). Many LDC exports will consist not of finished products, but of semi-finished commodities, which are also imported in a somewhat less finished state, both being part of vertically integrated international industries. As workers in an assembly line, LDCs will have in those cases little knowledge of what comes before or after them in the production process, a knowledge which will be reserved for those running the whole operation from abroad. Thus, even as LDC control over their traditional natural resource exports tends to grow, their control over

new exports could start from a very low base, renewing a sense of dependency and frustration.

If large exports of labor-intensive exports materialize, the need for wage and labor "discipline" will grow, a discipline likely to be exerted either by the reserve army of the employed or, particularly when surplus labor dries up, by the other army. Indeed, it is quite disconcerting that neoclassical liberal policies are more often than not pursued by LDC regimes with notoriously illiberal politics, while democratic LDC governments typically provide a good share of horror-show inefficiency stories. It is also a bit unseemly that some of those eager to promote the new exports, and who become outraged at income inequalities arising from the higher wages of the "aristocracy of the proletariat," appear to get much less excited about other income inequalities.

Concluding remarks

The scholarly research community should be kept busy documenting and analyzing the various possible developmental consequences of the new LDC trade policies. The task must include improving and extending the available data base. In particular, fresh insights are most likely to come from disaggregated and sample data than from further manipulation of rather dog-eared national accounts and other macroeconomic aggregates. In the meanwhile, as always, LDC trade policies will react, and should react, to trends in the world economy. In spite of recurrent monetary crises and threats of commercial wars among the rich, the LDCs face a world market on the whole prosperous and diversified. It is in their interest to stimulate such diversification, and in particular, to fight trends toward domination of the world market for trade, finance and technology by either a few countries or a few MNCs. In trade policy discussions, it is frequently too glibly assumed that domestic

monopoly problems can be resolved simply by putting down import barriers and letting "world competition" do the job. Alas, in some sectors even the whole market may not be big and diversified enough to result in sufficient competition. LDC investments in expanding their own networks of information and intelligence gathering about imperfect and uncertain world markets for commodities, technology and finance, i.e., a kind of LDC "Consumer Reports," should become a key element of their "trade policies." LDCs could profitably rethink their acceptance of world arrangements, such as the Paris patents convention, which appear to benefit mainly the rich. LDCs also have an interest in new international monetary rules which minimize the possibility that rich countries will thrust the burden of adjusting their balance of payments onto LDCs. Sudden unilateral import surcharges, defaults on the convertibility of debts, etc., are no monopoly of LDCs, as recent actions by rich countries faced with payments problems show.¹³

How far the rich will be willing to accommodate their economies to new LDC exports remains a difficult matter to forecast exactly. Yet a good share of the heated debate on how far LDCs should go in adopting this or that trade policy typically depends on often implicit assumptions regarding world demand. The key "staple" for many contemporary LDCs is simply unskilled labor, and, particularly for the large LDCs, it is unlikely that exports of this "staple" can reach the relative developmental significance which wheat, timber, meat, etc., had last century for the development of the success stories of that time, whose populations represented tiny fractions of world totals. It is also unclear how far the rich will permit those LDCs, choosing to be outward-oriented in trade but reluctant to permit foreigners to handle their new exports, to take advantage of wealthy markets. Yet this combination is perhaps the most appealing to LDCs worried about both exchange

earnings and national autonomy (Myint, 1969). In view of these uncertainties, LDCs would do well to continue working toward the creation and expansion of common markets among themselves, hopefully in ways which minimize repetition of the past errors in import substitution.

Much empirical research on the exact impact of the new export expansion on the growth, employment, income distribution and national autonomy of different types of LDCs remains to be done. But it should be added that the rout of export pessimism has not been a pyrrhic victory,¹⁴ nor are the achievements in the recent trade and development literature to be dismissed lightly. The air has been cleared of nightmarish myths dreamed up mainly in the 1930s, and important analytical tools have been developed to help LDC authorities to avoid, if political will exists, at least the worst errors in evaluating projects related to the foreign sector (Bacha and Taylor, 1971; Little and Mirrlees, 1969). Suitably employed, economists who know the shadow price of everything and the social worth of nothing are more useful than bureaucrats who know neither. Studies on crawling pegs also led to gradual acceptance of that technique. Indeed, it can be argued that the major contribution of research on trade policies during the 1960s has been to provide concepts and tools which should make exchange crises, trade problems, etc., become less of a pressing preoccupation during the 1970s to LDC policy makers. The ridiculous extent to which LDC public opinion followed every new local balance of payments crisis can be made largely a thing of the past, allowing policy makers to turn, if they have the will, to really basic developmental problems such as mass poverty and low rural productivity. We have little to say on those problems, but perhaps our conscience is saved by showing policy makers how to avoid letting the basically small problems of trade and payments policy absorb too much of their attention. Many of us who look at development

wearing international trade glasses may have trouble accepting that for most large and medium-sized LDCs trade policies are a small part of the development problem. Furthermore, as good firemen, our efforts during the 1960s have already helped to make such part even smaller, freeing development planning from the tyranny of avoidable payments crises. But only those aspiring to use their knowledge of trade theory as a base to conquer roles as world saviors should object to being labelled simply honest draftsmen, with a few magic formulas and much empirical homework to do.¹⁵

FOOTNOTES

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¹This result is somewhat peculiar, as Ronald Findlay argues in this volume. Less ambiguously, low elasticities of substitution in consumption and production will make the short run adjustment problem more complicated.

²Ricardo's dictum to the effect that income distribution is the major concern of political economy was largely unheeded, until very recently, in postwar mainstream research, theoretical or empirical, on trade policies and development.

³Such as less than full employment, profit rates not very different from those in rich countries, but much lower real wages, etc.

⁴The growing role of MNCs, and to a lesser extent of state-owned enterprises, in international trade, will make the borderlines between trade, location and industrial organization theories increasingly blurred (Caves, 1971b). The internal rules of large bureaucratic units will necessarily influence trade theories as such units spread their activities across several countries. Analytical problems raised by the study of such administrative rules, in turn, are remarkably similar to those arising from research on non-market socialist economies.

⁵In a cross country study of industrial concentration ratios, Pryor (1972) found that average four-firm, four-digit concentration ratios among large industrial nations are roughly the same, in spite of alleged policy differences in anti-trust policies. Concentration in those large nations, however, was less than among smaller industrialized nations. Rank orders of concentration ratios by specific industries were found to be roughly the same in all nations. A difficulty in all cross-country studies, but of particular importance to those involving LDCs, is the difference which exists in relative price structures from country to country. For example, in comparing investment rates in GNP, cross-country studies seldom take into account differences in the relative prices of capital goods, which can be large.

⁶In more recent, unpublished work, Chenery (1970a and 1970b) explicitly introduces trade policy orientation, as well as capital inflow, as explanatory variables of the trade and development patterns he isolates. For example, he blames a policy of import substitution at the expense of export promotion for the abnormally low levels of exports, not offset by substantial capital inflows, observed for Argentina, Uruguay, Chile and Turkey. Nevertheless, size of country still emerges as the most important difference explaining various patterns. In this kind of analysis the level of aggregation and the time span one has in mind very much influences the judgement regarding how much "policy matters" for both the speed of growth and its structure.

⁷Some recalcitrant export pessimists make the aesthetically understandable point that it is difficult to wax enthusiastic about a boom in exchange earnings which is partly based on items such as wigs, false teeth, dog toys, plastic flowers, and, in some countries, blood and cadavers, not to mention earnings from the sale of tourist services, not all of which originate in ticket sales at the local anthropological and historical museums.

⁸Assuming that LDC non-tradeables are on balance more intensive in unskilled labor than tradeable goods, and that the importance of the subsistence sector which makes up a good share of non-tradeables declines with development, it is to be expected that the ratio of unskilled wage rates to the exchange rate will be positively correlated with per capita incomes. Departures from such "normal" relationships could provide clues regarding degrees of over or undervaluation of currencies. See also Balassa (1964). Much remains to be done in making the distinction between tradeables and non-tradeables both more empirically useful and theoretically more integrated with the traditional models used to derive the show-piece theorems of international trade. It is not clear, for example, whether the share of non-tradeables in the absorption basket depends only on per-capita income, or also on country size. Size, in turn, can be defined in terms of geographical extension, population or total output. The precise degree of "tradeability" of different commodities is a difficult matter to establish precisely, but it is probably a mistake to regard all agricultural and manufactured goods as one hundred percent "tradeable."

⁹During the late 1950s and early 1960s many economists from industrialized countries looked upon explanations of alleged coexistence of output recession with price inflation in semi-industrialized countries with a mix-

ture of amusement and doubts about both the economists proposing explanations and the peculiar economies where such queer happenings were said to occur. As the Argentinization of first the United Kingdom and then of the United States advanced during the 1960s and 1970s, one began to hear even from rigorous macroeconomists in the rich countries rather mystical explanations for "stagflation," not so different from those offered in semi-industrialized economies in the 1950s.

¹⁰As shown by Bhagwati and Hansen (1973b), the usual measure of growth rates based on data at domestic market prices is the correct one if one is looking for an indicator of the development of actual welfare, assuming a well-behaved community preference map. For other purposes, valuation at international prices is more desirable. But in general, these authors argue, we cannot tell whether a particular measure "exaggerates" the growth rate.

¹¹The developmental consequences of the bizarre blockade imposed on that island by some members of the world trading community, incidentally, have not been yet carefully analyzed. The issues are similar, but hardly identical, to those involved in the study of the impact of wars and the 1930s Depression on LDCs. The even more complex issues surrounding massive reorientation in LDC trade links, as a result of domestic and foreign political decisions, require for their study going way beyond the pure theory of foreign trade, as Hansen and Nashashibi (1972) emphasize in their study of Egypt.

¹²The fact that many new LDC exports come from firms which, thanks to protection, still rely on captive domestic markets for most of their sales, and which "dump" say ten percent of their output at marginal cost in

world markets, raises the paradoxical possibility that a lowering of protection for the output of such firms may decrease their exports, for a given installed capacity.

¹³World financial disorder and inflation during the late 1960s and early 1970s, however, probably had a positive net effect on LDCs. When the 1930s Depression hit, and the world price level fell unexpectedly, LDC long term foreign debts typically exceeded their short term foreign exchange assets. During the **Second World War** and its aftermath, when the world price level rose, LDC exchange reserves exceeded their foreign debts. For a change, during the recent world inflation the long term foreign debt exceeded exchange reserves in most LDCs, excepting mainly oil countries, thus partly providing the real debt relief sought by many (e.g., Pearson, et.al., Chapter 8).

¹⁴Although written while discussing rich country policies, the following warning by Paul Samuelson (1972, p. 450) is relevant here: "There are correctly formulated systems in which elasticity pessimism is a correct doctrine rooted in irremovable real elements. Our world may not be like such models. And no doubt many writers of the late 1940s were paranoid on this subject. That does not mean we can take as established, either by valid deductive reasoning or plausible inference from the experiences of the last two decades, that 'elasticity optimism' is assuredly correct. The jury is still out on this empirical question..."

¹⁵A reviewer of books on the lives of G.D.H. Cole and Lord Robbins recently suggested that "...economics is more a matter of temperament than the reaching of scientific conclusions from an objective survey of the evidence" (Paul Johnson, The New York Times, book review section, January

7, 1973). Hopefully, this will be less true in the future than it has been in the past for the field of trade policy and development.

REFERENCES

Bacha, E., and L. Taylor, "Foreign exchange shadow prices: A critical review of current theories," Quarterly Journal of Economics, 85 (May 1971), pp. 197-224.

Baer, W., The Development of the Brazilian Steel Industry, Nashville, Vanderbilt University Press, 1969.

_____, "Import Substitution Industrialization in Latin America: Experiences and Interpretations," Latin American Research Review, 7 (Spring 1972), pp. 95-122.

Balassa, B., "The Purchasing-power Parity Doctrine: A Reappraisal," Journal of Political Economy, 72 (December 1964), pp. 584-96.

_____, "Resource Allocation and Economic Integration in Latin America," mimeo, 1966.

_____, and Associates, The Structure of Protection in Developing Countries, Baltimore, Johns Hopkins Press, 1971.

Baldwin, R.E., "Determinants of the Commodity Structure of U.S. Trade," American Economic Review, 61 (March 1971), pp. 126-47.

_____, and J.H. Mutti, "Policy Problems in the Adjustment Process (U.S.)," mimeo., 1972.

Baranson, J., Automotive Industries in Developing Countries, World Bank Occasional and Staff Papers, No. 8, Washington, D.C., 1969.

Bardhan, P.K., Economic Growth, Development and Foreign Trade, New York, John Wiley and Sons, 1970.

Behrman, J.R., Supply Response in Underdeveloped Agriculture, Amsterdam, North-Holland, 1968.

_____, "Sectoral Elasticities of Substitution Between Capital and Labor in a Developing Economy: Time Series Analysis in the Case of Postwar Chile," Econometrica, 40 (March 1972), pp. 311-27.

Bergsman, J., Brazil: Industrialization and Trade Policies, London, Oxford University Press, 1970.

Bhagwati, J., The Theory and Practice of Commercial Policy: Departures from Unified Exchange Rates, Princeton Special papers in international economics, No. 8, (January 1968a).

_____, "Distortions and Immiserising Growth: A Generalization," Review of Economic Studies, 35 (4) (October 1968b), pp. 481-5.

_____, Trade, Tariffs and Growth, Cambridge, M.I.T. Press, 1969.

_____, and P. Desai, India, Planning for Industrialization: Industrialization and Trade Policies Since 1951, London, Oxford University Press, 1970.

_____, "The Generalized Theory of Distortions and Welfare," in Bhagwati et al., eds., Trade, Balance of Payments and Growth, Amsterdam, North-Holland, 1971, pp. 69-90.

_____, and A.O. Krueger, "Exchange Control, Liberalization, and Economic Development," mimeo., December 1972.

_____, and B. Hansen, "A Theoretical Analysis of Smuggling," Quarterly Journal of Economics, 87 (May 1973a), pp. 172-88.

_____, and B. Hansen, "Should Growth Rates be Evaluated at International Prices?," in J. Bhagwati and R.S. Eckaus, eds., Development and Planning, London, Allen and Union, 1973b.

_____, and T.N. Srinivasan, Exchange Control, Liberalization and Development: India, mimeo., 1973c.

Birnberg, T., and S. Resnick, "A Model of the Trade and Government Sectors in Colonial Economies," Yale Growth Center Discussion Paper #130, (November 1971).

_____, and B. Cohen, "A Theoretical Analysis of Partial Economic Reform," Yale Growth Center Discussion Paper #135 (December 1971).

_____, "Dynamic Properties of Colonial Development," Yale Growth Center Discussion Paper #156 (September 1972).

Brainard, W., and R.N. Cooper, "Uncertainty and Diversification in International Trade," Food Research Institute Studies in Agricultural Economics, Trade, and Development, 8 (1968), pp. 257-85.

Brecher, R., "Minimum Wage Rates and the Pure Theory of International Trade," Yale Growth Center Discussion Paper #140 (May 1972).

Bruno, M., "The Optimal Selection of Export-promoting and Import-substituting Projects," in Planning the External Sector: Techniques, Problems, Policies, New York, United Nations (1967), pp. 88-135.

_____, "Domestic Resource Costs and Effective Protection: Clarification and Synthesis," Journal of Political Economy, 80 (January/February 1972), pp. 16-33.

Bruton, H., "The Two-gap Approach to Aid and Development," American Economic Review, 59 (June 1969), pp. 439-46.

_____, "The Import Substitution Strategy of Economic Development," Pakistan Development Review, 10 (Summer 1970), pp. 123-46.

Calvo, G., "A Theory of Capacity Utilization with an Application to Electricity Generation in Colombia," mimeo, 1972.

Caves, R.E., "'Vent for Surplus' Models of Trade and Growth," in R.E. Baldwin et al., eds., Trade, Growth and the Balance of Payments, Chicago, Rand McNally, 1965, pp. 95-115.

_____, "Export-led Growth and the New Economic History," in Bhagwati et al., eds., Trade, Balance of Payments and Growth, Amsterdam, North-Holland, 1971a, pp. 403-43.

_____, "International Corporations: The Industrial Economics of Foreign Investment," Economica, 38 (February 1971b), pp. 1-27.

Chambers, E., and D.F. Gordon, "Primary Products and Economic Growth: An Empirical Measurement," Journal of Political Economy, 74 (August 1966), pp. 315-32.

Chenery, H., "Patterns of Industrial Growth," American Economic Review, 50 (September 1960), pp. 624-54.

_____, and M. Bruno, "Development Alternatives in an Open Economy: The Case of Israel," Economic Journal, 72 (March 1962), pp. 79-103.

_____, and A.M. Strout, "Foreign Assistance and Economic Development," American Economic Review, 56 (September 1966), pp. 679-733.

_____, and L. Taylor, "Development Patterns: Among Countries and Over Time," Review of Economics and Statistics, 50 (November 1968), pp. 391-417.

_____, "The Normally Developing Economy," mimeo., September 1970a.

_____, "Alternative Patterns of Development," mimeo., September 1970b.

_____, and W.J. Raduchel, "Substitution in Planning Models," in H.B. Chenery, ed., Studies in Development Planning, Cambridge, Harvard University Press, 1971, pp. 29-47.

_____, and Nicholas Carter, "International External Aspects of Development Plans and Performance," mimeo., December 1972.

Clague, C.K., "Capital-labor Substitution in Manufacturing in Underdeveloped Countries," Econometrica, 37 (July 1969), pp. 528-37.

Cohen, B.I., "The Less-developed Countries' Exports of Primary Products," Economic Journal, 78 (June 1970), pp. 334-43.

_____, and D. Sisler, "Exports of Developing Countries in the 1960s," Review of Economics and Statistics, 53 (November 1971a), pp. 354-62.

_____, and G. Ranis, "The Second Postwar Restructuring," in G. Ranis, ed., Government and Economic Development, New Haven, Yale University Press, 1971b.

_____, "The Economic Impact of Foreign Investments for the Export of Manufactures: A Tentative Study of South Korea," Yale Growth Center Discussion Paper #136, (January 1972a).

- _____, "An Alternative Theoretical Approach to the Impact of Foreign Investment on the Host Country," Yale Growth Center Discussion Paper #164, (November 1972b).
- Cooper, C., and B. Massel, "Towards a General Theory of Customs Unions for Developing Countries," Journal of Political Economy, 78 (October 1965), pp. 461-76.
- Cooper, R.N., "An Assessment of Currency Devaluation in Developing Countries," in G. Ranis, ed., Government and Economic Development, New Haven, Yale University Press, 1971a, pp. 472-512.
- _____, "Devaluation and Aggregate Demand in Aid-receiving Countries," in Bhagwati et al., eds., Trade, Balance of Payments and Growth, Amsterdam, North-Holland, 1971b, pp. 355-77.
- _____, Currency Devaluation in Developing Countries, Princeton Essays in International Finance, No. 86, June 1971c.
- Corden, W.M., "The Effects of Trade on the Rate of Growth," in Bhagwati et al., eds., Trade, Balance of Payments and Growth, Amsterdam, North-Holland, 1971, pp. 117-44.
- Desai, P., "Alternative Measures of Import Substitution," Oxford Economic Papers, 21 (November 1969), pp. 312-25.
- _____, Tariff Protection and Industrialization, Delhi, Hindustan Publishing, 1970.
- Depres, E., "Dimensions and Dilemmas of Economic Development," in G.M. Meier, ed., International Monetary Reform: Collected Papers of Emile Despres, New York, Oxford University Press, 1973, pp. 89-99 (written in 1963).
- De Vries, B.A., Export Experiences of Developing Countries, World Bank Staff Occasional Papers, No. 3, Johns Hopkins Press, 1967.
- Díaz-Alejandro, C.F., Exchange Rate Devaluation in a Semi-Industrialized Country, Cambridge, M.I.T. Press, 1965.
- _____, Essays on the Economic History of the Argentine Republic, New Haven, Yale University Press, 1970.

Donges, J.B., Brazil's Trotting Peg: A New Approach to Greater Exchange Rate Flexibility in Less Developed Countries, Washington, D.C., American Enterprise Institute, 1971.

Dudley, L., "Learning and Productivity Change in Metal Products," American Economic Review, 62 (September 1972), pp. 662-69.

Eaton, J.W., "Effective Devaluation as an Export Incentive in Less Developed Countries," senior thesis, Harvard University, March 1972.

Emmanuel, A., Unequal Exchange: A Study of the Imperialism of Trade, New York, MR Press, 1972.

Erb, G.F., and S. Schiavo-Campo, "Export Instability, Level of Development, and Economic Size of Less Developed Countries," Bulletin of the Oxford University Institute of Economics and Statistics, 31 (November 1969), pp. 263-83.

Evenson, R., "Agricultural Trade and Shifting Comparative Advantage," mimeo., 1973.

Fei, J.C.H., and G. Ranis, "Foreign Assistance and Economic Development," American Economic Review, 58 (September 1968), pp. 897-912.

_____, "Development and Employment in the Open Dualistic Economy," Yale Growth Center Discussion Paper #110, (April 1971).

Fields, G.S., "Rural-Urban Migration, Urban Unemployment and Underemployment, and Job Search Activity in LDCs," Yale Growth Center Discussion Paper #168, (December 1972).

Findlay, R., Trade and Specialization, Baltimore, Penguin Books, 1970.

_____, "The 'Foreign Exchange Gap' and Growth in Developing Countries," in J. Bhagwati et al., eds., Trade, Balance of Payments and Growth, Amsterdam, North-Holland, 1971, pp. 168-83.

_____, "Primary Exports and Manufacturing Production in the Development of a Dual Economy," mimeo., May 1972.

- Frank, A.G., "The Development of Underdevelopment," in R.I. Rhoades, ed., Imperialism and Underdevelopment, New York, MR Press, 1970.
- Frank, Jr., C., Exchange Control, Liberalization and Economic Development: South Korea, mimeo., 1972.
- Furtado, C., "Dependencia Externa y Teoría Económica," El Trimestre Económico, 38 (2) (April-June 1971), pp. 335-51.
- Girvan, N., "The Development of Dependency Economics in the Caribbean and Latin America: Review and Comparison," mimeo., 1972 .
- Grunwald, J. M.S. Wionczek and M. Carnoy, Latin American Economic Integration and U.S. Policy, Washington, D.C., The Brookings Institution, 1972.
- Haberler, G., "Some Problems in the Pure Theory of International Trade," Economic Journal, 60 (June 1950), pp. 223-40.
- Halevi, N., "Effective Devaluation and Exports: Some Issues in Empirical Analysis, With Illustrations from Israel," Economica, 39 (August 1972), pp. 292-300.
- Hansen, B., and K. Nashashibi, Exchange Control, Liberalization and Economic Development: Egypt, from Free Trade to Arab Socialism, mimeo., 1972.
- Hansen, R., Central America: Regional Integration and Economic Development, National Planning Association Studies in Development Progress, No. 1, Washington, D.C., 1967.
- Harberger, A.C., "Using the Resources at Hand More Effectively," American Economic Review, 49 (May 1959), pp. 134-46.
- Hayter, T., Aid as Imperialism, Baltimore, Penguin Books, 1971.
- Helleiner, G.K., Peasant Agriculture, Government and Economic Growth in Nigeria, Homewood, Irwin, 1966.
- _____, International Trade and Economic Development, Baltimore, Penguin Books, 1972.

- _____, "Manufactured Exports From Less Developed Countries and Multinational Firms," Economic Journal, 83 (March 1973), pp. 21-48.
- Hicks, G.L., and G. McNicoll, Trade and Growth in the Philippines, Ithaca, Cornell University Press, 1971.
- Hirschman, A.O., "The Political Economy of Import Substituting Industrialization in Latin America," Quarterly Journal of Economics, 87 (February 1968), pp. 1-32.
- Hsing, M., J. Power and G.P. Sicat, Taiwan and the Philippines; Industrialization and Trade Policies, London, Oxford University Press, 1970.
- Hymer, S., and S. Resnick, "A Model of an Agrarian Economy with Non-Agricultural Activities," American Economic Review, 59 (September 1969), pp. 493-506.
- _____, "International Trade and Uneven Development," in J. N. Bhagwati et al., eds., Trade, Balance of Payments and Growth, Amsterdam, North-Holland, 1971, pp. 473-94.
- Johnson, H.G., "The Cost of Protection and the Scientific Tariff," Journal of Political Economy, 68 (August 1960), pp. 327-45.
- _____, "Optimal Trade Intervention in the Presence of Domestic Distortions," in R.E. Baldwin et al., eds., Trade, Growth and the Balance of Payments, Chicago, Rand McNally, 1965a, pp. 3-34.
- _____, "The Costs of Protection and Self-Sufficiency," Quarterly Journal of Economics, 79 (August 1965b), pp. 356-72.
- _____, "Factor Market Distortions and the Shape of the Transformation Curve," Econometrica, 34 (July 1966), pp. 686-698.
- _____, "The Possibility of Income Losses From Increased Efficiency or Factor Accumulation in the Presence of Tariffs," Economic Journal, 77 (March 1967), pp. 151-154.
- _____, "The State of Theory in Relation to the Empirical Analysis," in R. Vernon, ed., The Technology Factor in International Trade, New York, Columbia University Press, 1970a, pp. 9-21.

_____, "A Note on Distortions and the Rate of Growth of an Open Economy," Economic Journal, 80 (December 1970b), pp. 990-92.

Johnson, L.L., "Problems of Import Substitution: The Chilean Automobile Industry," Economic Development and Cultural Change, 15 (January 1967), pp. 202-216.

Jones, R.W., "International Capital Movements and the Theory of Tariffs and Trade," Quarterly Journal of Economics, 81 (February 1967), pp. 1-38.

Katz, J. Importación de Tecnología, Aprendizaje Local e Industrialización Dependiente, Buenos Aires, Instituto Torcuato Di Tella, January 1972.

Keesing, D.B., "Outward-Looking Policies and Economic Development," Economic Journal, 77 (June 1967), pp. 303-20.

Kemp, M., "The Gain From International Trade and Investment: A Neo-Heckscher-Ohlin Approach," American Economic Review, 56 (September 1966), pp. 788-809.

Kenen, P.B., and C.S. Voivodas, "Export Instability and Economic Growth," Kyklos, 25 (Fasc. 4, 1972), pp. 791-805.

Kindleberger, C.P., "Group Behavior and International Trade," Journal of Political Economy, 59 (February 1951), pp. 30-47.

_____, The Terms of Trade: A European Case Study, Cambridge, M.I.T. Press, 1956.

_____, Foreign Trade and the National Economy, New Haven, Yale University Press, 1962.

King, T., Mexico: Industrialization and Trade Policies Since 1940, London, Oxford University Press, 1970.

Kravis, I.B., "Trade as a Handmaiden of Growth: Similarities Between the Nineteenth and Twentieth Centuries," Economic Journal, 80 (December 1970), pp. 850-873.

_____, "The Role of Exports in Nineteenth Century United States Growth," Economic Development and Cultural Change, 20 (April 1972), pp. 387-406.

Krueger, A.O., "Some Economic Costs of Exchange Control: The Turkish Case," Journal of Political Economy, 74 (October 1966), pp. 466-80.

_____, Exchange Control, Liberalization and Development: Turkey, mimeo., 1972a.

_____, "Evaluating Restrictionist Trade Regimes: Theory and Measurement," Journal of Political Economy, 80 (January/February 1972b), pp. 48-62.

Kuznets, S., Modern Economic Growth, New Haven, Yale University Press, 1966.

_____, "Quantitative Aspects of the Economic Growth of Nations: X. Level and Structure of Foreign Trade: Long-Term Trends," Economic Development and Cultural Change, 15 (January 1967, part 2), pp. 1-140.

Landau, L., "Saving Functions for Latin America," in H.B. Chenery, ed., Studies in Development Planning, Cambridge, Harvard University Press, 1971, pp. 299-321.

Leff, N.H., The Brazilian Capital Goods Industry, 1929-1964, Cambridge, Harvard University Press, 1968.

_____, "Economic Development and Regional Inequality: Origins of the Brazilian Case," Quarterly Journal of Economics, 86 (May 1972a), pp. 243-263.

_____, "Economic Retardation in Nineteenth Century Brazil," Economic History Review, 25 (August 1972b), pp. 489-507.

Leibenstein, H., "Allocative Efficiency vs. 'X-efficiency'," American Economic Review, 56 (June 1966), pp. 392-415.

Lewis, S.R., Economic Policy and Industrial Growth In Pakistan, Cambridge, M.I.T. Press, 1969.

_____, Pakistan: Industrialization and Trade Policy, London, Oxford University Press, 1970.

- Lewis, W.A., Aspects of Tropical Trade, 1883-1965, Stockholm, Almquist and Wiksell, 1969.
- Linder, S.B., An Essay on Trade and Transformation, Stockholm, Almquist and Wiksell, 1961.
- Lipsey, R.G. and K. Lancaster, "The General Theory of the Second Best," Review of Economic Studies, 24 (1956-57), pp. 11-32.
- Little, I.M.D., A Critique of Welfare Economics, Oxford, Oxford University Press 1950.
- _____ and J.A. Mirrless, Social Cost-Benefit Analysis, Manual of Industrial Project Analysis in Developing Countries, Volume II, Paris, O.E.C.D. Development Centre, 1969.
- _____, T. Scitovsky and M. Scott, Industry and Trade in Some Developing Countries, London, Oxford University Press, 1970.
- Macario, S., "Protectionism and Industrialization in Latin America," Economic Bulletin for Latin America, 9 (March 1964), pp. 61-102.
- MacBean, A.I., Export Instability and Economic Development, Cambridge, Harvard University Press, 1966.
- Magee, S.P., "The Welfare Effects of Restrictions on U.S. Trade," Brookings Papers on Economic Activity, (3:1972), pp. 645-702.
- Mamalakis, M.J., and C.W. Reynolds, Essays on the Chilean Economy, Homewood, Richard Irwin, 1965.
- Massel, B.F., "Export Instability and Economic Structure," American Economic Review, 60 (September 1970), pp. 618-30.
- Mathieson, D., and R. McKinnon, "Instability in Underdeveloped Countries: The Impact of the International Economy," mimeo., February 1972
- McKinnon, R., "Foreign Exchange Constraints in Economic Development and Efficient Aid Allocation," Economic Journal, 74 (June 1964), pp. 388-409.

Meade, J.E., Trade and Welfare, London, Oxford University Press, 1955.

Meier, G.M., The International Economics of Development, New York, Harper and Row, 1968.

Michaely, M., Exchange Control, Liberalization and Development: Israel, mimeo., 1973.

Montias, J.M., Economic Development in Communist Rumania, Cambridge, M.I.T. Press, 1967.

Morawetz, D., "Economic Integration Among Less Developed Countries with Special Reference to the Andean Group," Cambridge, M.I.T., Ph.D. thesis, 1972.

Morley, S.A. and G.W. Smith, "On the Measurement of Import Substitution," American Economic Review, 60 (September 1970), pp. 728-35.

Myint, H., "International Trade and the Developing Countries," in P.A. Samuelson, ed., International Economic Relations, New York, St. Martin's Press, 1969, pp. 15-35.

Myrdal, G., An International Economy, New York, Harper, 1956.

Nelson, R.R., "A 'Diffusion' Model of International Productivity Differences in Manufacturing Industry," American Economic Review, 58 (December 1968), pp. 1219-48.

_____, T. Paul Schultz, and R. Slighton, Structural Change in a Developing Economy, Princeton, Princeton University Press, 1971.

_____, and S. Winter, "Evolutionary vs. Neoclassical Theories of Economic Growth," mimeo., 1972.

_____, "Recent Exercises in Growth Accounting: New Understanding or Dead End?," American Economic Review (June 1973).

Nowshirvani, V., "The Efficacy of the Market Mechanism in Traditional Agriculture: A Reexamination of an Old Controversy," Yale Growth Center Discussion Paper #106, (March 1971).

- Papanek, G.F., "The Effect of Aid and Other Resource Transfers on Savings and Growth in Less Developed Countries," Economic Journal, 82 (September 1972), pp. 934-951.
- _____, "Aid, Foreign Private Investment, Savings, and Growth in Less Developed Countries," Journal of Political Economy, 81 (January/February 1973), pp. 120-131.
- Pearson, L.B. et al., Partners in Development, New York, Praeger, 1969.
- Pinto, A., "Notas Sobre Desarrollo, Subdesarrollo y Dependencias," El Trimestre Económico, 39 (April-June 1972), pp. 243-65.
- Porter, R.C., "Some Implications of Post-War Primary-Product Trends," Journal of Political Economy, 78 (May/June 1970), pp. 586-97.
- Power, J.H., and G.P. Sicat, The Philippines: Industrialization and Trade Policies, London, Oxford University Press, 1971.
- Prebisch, R., "Commercial Policy in the Underdeveloped Countries," American Economic Review, 49 (May 1959), pp. 251-73.
- Pryor, F.L., "An International Comparison of Concentration Ratios," Review of Economics and Statistics, 54 (May 1972), pp. 130-141.
- Ranis, G., and J.C.H. Fei, "A Theory of Economic Development," American Economic Review, 51 (September 1961), pp. 533-65.
- Ranis, G., ed., Government and Economic Development, New Haven, Yale University Press, 1971.
- _____, "Technology Choice, Adaptation and Its Impact on Industrial Sector Labor Absorption in Developing Countries: A Review of Evidence," mimeo., 1972.
- Resnick, S., "The Decline of Rural Industry Under Export Expansion: A Comparison Among Burma, Philippines and Thailand," Journal of Economic History, 30 (March 1970), pp. 51-73.
- Reynolds, L.G., and P. Gregory, Wages, Productivity and Industrialization in Puerto Rico, Homewood, Richard Irwin, 1965.
- Roemer, M., Fishing for Growth: Export-Led Development in Peru, 1950-1967, Cambridge, Harvard University Press, 1970.

- Samuelson, P.A., "Heretical Doubts About the International Mechanisms," Journal of International Economics, 2 (September 1972), pp. 443-55.
- Schydrowsky, D.M., "Latin American Trade Policies in the 1970s," Quarterly Journal of Economics, 86 (May 1972), pp. 263-290.
- Sheahan, J., "Trade and Employment: Industrial Exports Compared to Import Substitution in Mexico," mimeo., December 1971.
- _____, "Import Substitution and Economic Policy: A Second Review," mimeo., August 1972.
- Sunkel, O., "National Development Policy and External Dependence in Latin America," Journal of Development Studies, 6 (October 1969), pp. 23-48.
- Taylor, L., "Short-term Policy in Open Developing Economies: The Narrow Limits of the Possible," mimeo., January 1973.
- Thoumi, F.E., "Industrial Capacity Utilization in Colombia: Some Empirical Findings," mimeo., April 1972.
- de la Torre, J.R., "Foreign Investment and Export Dependency," mimeo., 1972.
- Triffin, R., "The Myth and Realities of the So-Called Gold Standard," in Our International Monetary System: Yesterday, Today and Tomorrow, New York, Random House, 1968, pp. 3-28.
- United Nations, Economic Commission for Latin America, El Desarrollo Económico de la Argentina, México, Naciones Unidas, 1959.
- Vaitsos, C., "Transfer of Resources and Preservation of Monopoly Rent," Economic Development Report #168, Center for International Affairs, Harvard University, 1970.
- Vanek, J., Estimating Foreign Resource Needs for Economic Development, New York, McGraw-Hill, 1967.
- Vernon, R., Sovereignty at Bay: The Multinational Spread of U.S. Enterprises, New York, Basic Books, 1971.
- Weisskoff, R., "Income Distribution and Economic Growth in Puerto Rico, Argentina, and Mexico," Review of Income and Wealth, 16 (December 1970), pp. 303-33.

Weisskopf, T.E., "An Econometric Test of Alternative Constraints on the Growth of Underdeveloped Countries," Review of Economics and Statistics, 54 (February 1972a), pp. 67-78.

_____, "The Impact of Foreign Capital Inflow on Domestic Savings in Underdeveloped Countries," Journal of International Economics, 2 (February 1972b), pp. 25-38.

Williams, J.H., "The Theory of International Trade Reconsidered," Economic Journal, 39 (June 1929), 195-209.

Willmore, L.N., "Free Trade in Manufactures Among Developing Countries: The Central American Experience," Economic Development and Cultural Change, 20 (July 1972), pp. 659-70.

Winston, G.C., "Overinvoicing, Underutilization and Distorted Industrial Growth," Pakistan Development Review, 10 (Winter 1970), pp. 405-421.

_____, "Capital Utilization in Economic Development," Economic Journal, 81 (March 1971), pp. 36-60.