Pioneers in Development
Second Series

Theodore W. Schultz
Gottfried Haberler
Hla Myint
Arnold C. Harberger
Celso Furtado

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Preface

The first volume in this Pioneers series focused on the initial interest in economic development during the 1940s and 1950s. This volume examines the changing contours of the subject during the 1960s and 1970s—a period known for the “resurgence of neoclassical economics.”

The World Bank invited five pioneers in the subject to undertake a retrospective view of their specialty: Nobel Laureate T. W. Schultz, agriculture; Gottfried Haberler, international trade; Hla Myint, trade and development; Arnold Harberger, project appraisal; and Celso Furtado, structuralism and dependency. Each was asked to revisit his own contribution and to write a substantive review of his special area, interpreting its evolution during the 1960s and 1970s and emphasizing its policy implications and impact on development economists’ thinking.

Other prominent economists in the respective fields were asked to serve as commentators: Sir Alec Cairncross, Vittorio Corbo, Max Corden, Partha Dasgupta, Ronald Findlay, Nurul Islam, Deepak Lal, and Gustav Ranis.

The pioneers and commentators offered oral presentations to World Bank audiences, and their contributions here—printed in the order in which they were first given—retain this informal character. Together, they provide a unique intellectual history of what is the world’s most pressing economic problem. By looking back, they also lead one to ask in what directions future pioneering in the subject might lead.

An expression of gratitude is due to the many members of the World Bank who offered their services in the arrangement of the lecture series at the Bank and in the preparation of this book. Special thanks must be given to F. Leslie C. H. Helmers for overseeing the details of the entire endeavor. The support of José Botafogo G., Shahid Husain, Anne O. Krueger, and Christopher R. Willoughby was much appreciated. For
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G.M.M.
Introduction
On Getting Policies Right

Gerald M. Meier

In the evolution of development economics over the past four decades, the two outstanding features have been the resurgence of neoclassical analysis and, as a derivative, the prescription of appropriate policies for development. The essays in this volume focus on these features and indicate how they have been most effective in analyzing agricultural and trade policies and in project evaluation. As a set, the papers provide considerable insight into how development thought has evolved in response to the development experience since the 1950s. Together with the preceding Pioneers in Development, this volume allows a definitive retrospective assessment of development thought and policymaking by economists who played a major role in the evolution of the subject. And in sharing their retrospection, the reader may gain greater awareness of where development economics should go from here.

In the first essay, Nobel Laureate T. W. Schultz lays down a major theme of the volume by emphasizing the lessons from standard neoclassical economic theory in order to counter "misleading ideas, false concepts, and invalid theoretical fragments." Focusing on agriculture, Schultz claims that it has been the "victim of more than its share of bad economics." Industrialization has been promoted to the detriment of agriculture, agriculture has been squeezed, disguised unemployment has been accepted, the farmers' responsiveness to incentives has been ignored, and the declining economic importance of land has not been perceived. As a result of inadequate economic analysis, there have been economic policy mistakes, especially in distorting agricultural incentives.

Schultz also criticizes the "new development economics" for overburdening the public sector with economic functions that governments

are incapable of performing efficiently. Correlated with this argument is Schultz's criticism that the new development economics wrongly presumed that standard economic theory is inadequate for analyzing the economic behavior of people in low-income countries and that a different economic theory is required.

To improve the performance of agriculture, Schultz emphasizes the need for economic opportunities that are rewarding to farmers, proper emphasis on investment in human capital, and recognition of the economic value of agricultural research. It should also be realized that modernization is inherently a disequilibrium process and that consequently entrepreneurial actions are important in dealing with disequilibria. Schultz would now give more weight than in the past to the economic function of international trade in promoting specialization and in getting rid of price distortions within countries.

The subject of international trade receives concentrated treatment in Gottfried Haberler's paper. In a comprehensive fashion, Haberler emphasizes the contribution of trade to development. The trade theory that he elaborates is founded in neoclassical economics, and he too stresses the value of neoclassical analysis. Although he believes that Keynesian economics had prepared the way for a belief in "dual-economics," Haberler submits that there is really only a "mono-economics" and that development economics and development policy are "part and parcel of growth policy"; there is "only one economics, neoclassical economics in the broad sense, including the theory of international economic policy." According to Haberler, development economics initially acquired a dirigiste, anti-free market, anticapitalist bias as a result of the decline of liberalism and misconceptions of the Great Depression. Haberler forcefully criticizes the earlier views of development economists who believed in disguised unemployment, secular deterioration of the terms of trade, pernicious demonstration effects, and export pessimism, and who attributed only a minor role to the market price system while advocating "balanced growth," a "big push," and programming of the economy. To Haberler, the neoclassical paradigm explains, and is vindicated by, the success stories of East and Southeast Asia.

Also considering the potential for development through trade, Hla Myint examines the strength and limitations of neoclassical analysis in relation to international trade theories and policies. Although he accepts the neoclassicists' free market and free trade prescriptions, Myint does not derive these recommendations from formal neoclassical economic theory. As a framework for studying economic development, neoclassical trade theory has not been able to explain why the export-oriented countries have grown as rapidly as they have. Instead of the "perfect competition" model used in standard trade theory, Myint
utilizes a "dualism" model of the domestic economy of the developing country. Such a model goes beyond the neoclassical concern with the removal of trade distortions and the achievement of direct static gains from free trade and includes factors outside the formal neoclassical theory. Beyond the distortions introduced by governmental policies that artificially encourage industrialization is the "substratum of 'natural dualism'." Even if all policy-induced distortions could be removed, this natural dualism would remain, reflecting the incomplete state of the organizational framework of underdeveloped countries. And the underdeveloped economy would still be on a production feasibility curve within its production possibility curve. Of central importance in evaluating trade policies is how the incompletely developed organizational framework responds to trade policies—how institutional adaptation allows the production feasibility curve to shift upward toward the production possibility curve so that dynamic indirect gains from trade can be realized.

Arnold Harberger explicated the methodology of social project evaluation and emphasized how the approach has become more professional. Harberger's exposition provides a powerful conceptual framework for social project evaluation by utilizing three basic postulates that underlie the grand tradition of applied welfare economics. Correcting for distortions and externalities, Harberger offers a general solution to the problems of measuring the social opportunity costs of foreign exchange, capital, and labor. The social discount rate is also clarified. Moreover, Harberger argues that economic efficiency is not so incompatible with other goals and values, and he introduces "basic needs externalities" as a merit good in social project appraisal.

As indicated in the first Pioneers volume, it was initially believed that development economics constituted a new subdiscipline in economics—that the traditional neoclassical analysis with its concentration on the market price system, theory of exchange, and allocative efficiency did not provide much relevance or realism for the analysis of development problems. But as Albert Hirschman has argued, this view came to be opposed during the 1960s by the resurgence of neoclassical economics and neo-Marxist thought, and there was no rejoinder to this opposition.²

Based as they are on neoclassical analysis, the papers by Schultz, Haberler, Myint, and Harberger contradict much of the earlier thought and reassert the power of "good economics." In contrast, the paper by Celso Furtado criticizes the early belief in the "mutual gains" that might be realized within the international economy for rich and poor coun-

tries alike. Rejecting classical, neoclassical, and Marxian analysis as being inadequate for the analysis of the ongoing development of an economic system, Furtado's studies were offered out of a conviction "that there is a need for increasing and urgent effort at criticism and reconditioning of economic thought, an effort aimed at more effective knowledge of the problems of underdevelopment." Furtado therefore places the development process of the "periphery" in a historical context and concentrates on the "center-periphery," "development-underdevelopment," "dominance-dependence polarity." He also adopts a structural view of development problems with emphasis on noneconomic parameters and a necessary broadening of the conceptual framework of economics itself. As ways of analyzing development issues that run counter to the mainstream of thought, the structural view and the theory of cultural and technological dependence have received much attention.

Perhaps of most importance for the future course of development has been the revision in thinking about development policies that has paralleled the return to neoclassical economics. Much of the renewed enthusiasm for the market price system came from disillusionment with the early practice of development planning. In the 1950s the case for planning had been founded on a belief in pervasive market failures, the need for a government to step up the rate of development by forcing up the level of investment, and the need to promote external economies and, more generally, "balanced growth." A complete development plan was commonly advocated. Such a plan was to have at least four main components: first, specific production targets representing increases in the quantity of desired commodities; second, a capital budget for public investment projects; third, a budget covering government investment in the people—education, manpower training, health; and fourth, regulatory measures intended to redirect and guide the activities of private individuals, enterprises, and institutions so as to achieve the objectives of the plan.4

Country after country adopted comprehensive planning. Many of the new development economists fashioned impressive techniques for development planning—macroeconomic models and sector models, interindustry models based on input-output matrices, and linear programming models.5 The practice of planning, however, was dis-

4. See, for example, Benjamin Higgins, "Development Planning and the Economic Calculus," Social Research, vol. 23, no. 1 (Spring 1956), pp. 36, 47.
A number of biases dominated the actual planning processes: a bias toward macro models and macro plans to the relative neglect of the microeconomic considerations (which range from project appraisal to incentives and mass participation); a bias toward the quantifiable to the relative neglect of elements that are not quantifiable but are of crucial importance (for instance, many aspects of human resource development and sociocultural and political changes for which inadequate or no data exist); and a bias toward the formulation of a development plan without sufficient regard for its implementation (even though formulation and implementation should be inseparable).

As for their substantive content, many development plans emphasized inward-looking policies to the relative neglect of outward-looking policies, the development of the urban industrial sector with much less concentration on rural development, and the simple imitation of the advanced countries at the expense of innovation and adaptation.

Toward the end of the 1950s, Harry G. Johnson felt compelled "to make a strong case for the market mechanism as against detailed planning... because the market figures relatively little in the literature of economic development, and the theoretical analysis which economics has developed in relation to markets is often overlooked or disregarded." The merit of the market price system was reemphasized for its contribution to efficient resource allocation and for the provision of incentives for economic growth. The market mechanism was also advocated as an effective administrative instrument that could be used to achieve policy objectives and to avoid the inefficiency and corruption of direct controls. Further, the market provided extensive information and was inexpensive to operate.

During the 1960s and 1970s, there was increasing concern over policy-induced distortions and the nonmarket failures associated with the implementation of public policies. The emphasis on the market did not mean that the government must accept the practice and results of laissez-faire, but rather that the government should improve and strengthen the market price system. Instead of relying on comprehensive and detailed administrative controls, the government can alter prices to execute policy and can provide price and income stimuli to expand private output, increase exports, and enlarge domestic markets. These price changes may extend to foreign exchange rates, interest...


rates, tariffs, taxes, and subsidies. Subsidy and tax schemes can be especially relevant in inducing firms to value inputs according to their social opportunity costs, to exploit external economies, or to introduce new techniques of production. Of most importance was the need to remove the distortions in internal price relations that had resulted from the use of numerous specific controls. Accordingly, many people were advocating the adoption of flexible exchange rates to avoid currency overvaluation, the removal of price controls on foodstuffs, and the liberalization of foreign trade controls. The objective was to provide pressures and incentives for improved economic performance.

The evaluation of policy soon moved from a general consideration of planning as opposed to the market and began to focus on specific policy instruments. Most heavily criticized was the strategy of import-substituting industrialization. This strategy was blamed for a number of government-induced price distortions. Interest rates were too low in the urban sector, wages for unskilled labor were too high, agricultural prices were too low, and foreign exchange was undervalued. Recognizing that these price distortions caused inefficiency in resource allocation and inhibited the mobilization of resources, many came to accept Peter Timmer’s often quoted observation that “‘getting prices right’ is not the end of economic development. But ‘getting prices wrong’ frequently is.”

Criticisms came to be directed at a widening range of governmental activities—at a disequilibrium system and a set of trade, fiscal, financial, industrial, and wage policies that were seen to be contradictory and self-defeating. The plea to “get prices right” became more generally to “get policies right.” And for guidance to the right policies, “good economics” was needed. Neoclassical economics was to be the safeguard against policy-induced distortions and nonmarket failures.

Not differences in initial conditions but differences in policies were now to explain the disparate performances of developing countries. A country was not poor because of the vicious circle of poverty, but because of poor policies. Not adverse external conditions, but inadequate domestic policies explained why some countries were not taking advantage of their external economic opportunities.

In the 1950s the pioneers asked why underdeveloped countries were underdeveloped, and they formulated grand theories and general strategies. In contrast, the focus in the 1960s and 1970s became ever more directed to the heterogeneity of the developing countries and to an


explanation of differential rates of country performance. Analysis moved from highly aggregative growth models to disaggregated micro models. More emphasis was placed on applied research that was country-specific, provision of quantitative information, and the application of neoclassical principles to policy issues. In an increasing number of countries, these changes in development thought produced an improvement in agricultural policies, liberalization of the foreign trade regime, and professionalism in project appraisal. The papers by Schultz, Haberler, Myint, and Harberger attest to the progress in these areas.

In response to price incentives, agricultural progress became significant in several countries. The remarkable increase in rice production in Indonesia, for example, has demonstrated the efficacy of proper price policies. Farmers have been induced by improved financial incentives to use inputs more productively.

Many studies relate the success stories of the East Asian newly industrializing economies—Hong Kong, Singapore, Taiwan, and the Republic of Korea. It is well documented that their development accelerated as they liberalized their foreign trade regimes and removed the bias against their exports.

Although the first published project appraisal did not appear until 1972, project evaluation has been practiced extensively and continually refined since then.

And yet, despite the progress that has been made, development economists must still be concerned about the gap between good economic analysis and good policy practice. Why are economists not listened to? How can the resistance to appropriate policy reforms be reduced?

Part of the answer may lie in Hla Myint’s identification of limitations in neoclassical analysis. Myint attributes superior development performance to improved functioning of the organizational framework of the economic system. A well-functioning framework will allow an increase in the long-run capacity to utilize the potential sources of growth in output and productivity. But, as Myint indicates, this way of defining economic development is implicitly ruled out in the formal theoretical models, notably the “perfect competition” model. It as-

sumes a highly developed organizational framework in which all possibilities of improving the effective functioning of the framework have been fully utilized. By highlighting the organizational framework of the economic system, Myint reminds us that both planning and the market are social processes. From a somewhat different perspective, Schultz contrasts the “political market” and the economic market, and these two diverse domains can also help explain the gap between analysis and policy. As Schultz proposes, more attention needs to be given to the division of labor between the political market and economic market: what is the optimal combination of these two markets? To answer this, we need a fuller understanding of political preferences, conditions of political market failure, risk aversion and loss aversion in the political market, and the political costs and political benefits that enter into the policymakers’ calculations. If development policy is to improve, the political cannot be taken as simply exogenous and beyond economic analysis. Unlike other branches of economics, development economics has always been close to the territory of politics. After reading the essays in this volume, one may conclude that it is now necessary to wander more into this territory in order not only to diminish policy-induced distortions, but also to promote the organizational framework that Myint emphasizes.

Although the history of development thought is presented in the following pages in terms of the growing capacity of development economists to provide better policy analysis, questions are raised about the acceptance and implementation of the economists’ advice on policy reforms. The concern with the effect of development thought on development policy is especially prominent in the critiques by the various commentators: Nurul Islam on T. W. Schultz; Max Corden and Ronald Findlay on Gottfried Haberler; Sir Alec Cairncross and Gustav Ranis.

13. Richard Eckaus, in considering the neglected role of temporal processes or sequences in development processes has stated that “the time periods required for the spread of markets and the extension of their scope and functions in the course of development are controversial questions and have become ideological. The issues are akin to Creationism and Darwinism. Did the present system of pervasive market transactions in developed countries arrive with man on the sixth day of creation, although with much lower price levels? Or did the market economy evolve slowly, with fits and starts? If the latter, then what is the time scale of the evolutionary process, and from the standpoint of development policy, how can the process be accelerated and by how much? There has been little study and there are no good answers for these questions.” (Some Temporal Aspects of Development: A Survey, World Bank Staff Working Paper no. 626 [Washington, D.C., 1984].)

on Hla Myint; Partha Dasgupta and Deepak Lal on Arnold Harberger; and Vittorio Corbo on Celso Furtado.

Despite the improvement in the quality of economic analysis, why does the wide gap between good policy analysis and actual policymaking still persist? What determines policy choices in practice? What are the determinants of failure or success—for different policies within a country and for the same policy in different countries? The implication in all the essays and comments is that the major task ahead is to achieve more effective policymaking in actual practice. Perhaps the retrospective review that this volume offers will help to prepare the way.
Pioneers
Nobel Laureate Theodore W. Schultz was born in 1902 in South Dakota. He is Charles L. Hutchinson Distinguished Service Professor, emeritus, University of Chicago. His first degree was from South Dakota State College, and his doctorate was from the University of Wisconsin (1930). He is also the recipient of numerous honorary degrees.

Offices and honors have included: member of the Board of Directors of the National Bureau of Economic Research; member of the National Academy of Sciences, American Philosophical Society, and American Academy of Arts and Sciences; president of the American Economic Association (1964); distinguished fellow of the American Economic Association; recipient of the Frank A. Walker medal (1972) and the Leonard Elmhirst Medal, International Agricultural Economics Association (1976). His Nobel Prize for Economics was received in 1979 for his “pioneering research into economic development . . . with particular consideration of the problems of developing countries.”

His publications and activities have led to a greater understanding of the unexplained residual in the growth of output, the economic value of education, the value of the ability to deal with disequilibria, the declining economic importance of land, and economic calculations of farmers in developing countries.
Tensions between Economics and Politics in Dealing with Agriculture

In the invitation to write this essay on my part in economic development, I was asked: "Did your professional efforts make a difference?" The answer was No whenever I testified before congressional committees. The more I lectured throughout Latin America the greater became the economic distortions. In India the Fabian drums prevailed over my impeccable economics. Nigerian officials and I agreed that the high export tax on palm fruit was killing the goose that produced the revenue. It did. The officials and I were right. My first venture into the U.S.S.R. was in 1929. In 1960 the Soviet Academy of Sciences made the mistake of asking me to lecture and since then crop failures have become a part of the natural order. My lecture at Peking University and a series at Fudan University in 1980 also made a real difference. Agricultural economic policy was promptly put on the right track and Chinese graduate students opted for Chicago to master the hard core of economics.

While it is obvious that both political activities and economic activities entail human actions, it is not obvious that there is a division of labor between them. We accept Allyn Young's assessment that the most fruitful and illuminating generalization in all of economics is that "the division of labor depends on the extent of the market." The new analytical idea that there is a political market is in its infancy. What are the properties of this political market? Are they comparable to those of the economic market when it comes to the division of labor, specialization, and the gains to be had from extensions of political activities?

As yet we do not know the optimal combination of these two markets. At issue is the extent to which people belonging to a particular nation would be served better by substituting part of the activities of

I am indebted to J. J. MacGregor and Gerald M. Meier and to three anonymous readers at the World Bank for their critical comments.

Tensions between economics and politics, like those in marriages, are part of the human condition. Appeals to the idea of the political market have not reduced these tensions, nor has development economics. The dominating effect of development economics has been to overburden the political sector with economic functions that governments are not capable of performing efficiently. As a policy legacy it is a liability. Gerald M. Meier closes his essay, "The Formative Period," with an excellent summary of this new branch of economics: "Some may . . . summarize the mainstream development economics of the 1950s as being structural, shaped by trade pessimism, emphasizing planned investment in new physical capital, utilizing reserves of surplus labor, adopting import-substituting industrialization policies, embracing central planning of change, and relying on foreign aid." Would that we had a critique on why this variety of development economics had such a bad start.

A Russian economist who spoke at the University of Chicago’s agricultural economics workshop recently called attention to the many crop failures in communist countries; he then casually added, "It could be that God is trying to tell us something."

When it comes to the economics of agricultural production, some governments are about as sophisticated as farmers who allegedly planted crops in accordance with the phase of the moon. Famines provide still another perspective. Most of those occurring in parts of Africa are in considerable measure consequences of internal African governmental policies. It is always convenient to attribute food catastrophes to droughts.

Most people throughout the world, whether they are rich or poor, have both economic and political expectations. Economists are rarely privy to these expectations. People search for useful information, but they seem to place a low value on the information that economists produce. Politicians are wary of academic economists who specialize in the long view that is of little value to politicians. When considering the question, "What will be the future costs of agriculture products?" I once wrote:

Seeing the pure economic opportunities, the prospects for lower costs are good but in view of what is being done politically, the prospects for lower costs are less favorable. Meanwhile, international food conferences produce a lot of weak reports and social

thought produces strong ideologies. But reports and ideologies do not produce food. Fortunately, plants and animals do not read reports nor do they discriminate against the ideology of any government.  

On his own turf the lowly traditional farmer has an advantage over the expert from a rich country who comes knowing only economics. The farmer knows a great deal about his parcel of land, the local weather, and what he can expect for his efforts that is unknown to the so-called expert. The farmer also knows that the rain, wind, and sun are indifferent whether or not he and his family will survive. Pests, insects, and diseases are ever hostile to his crops. Nature is always niggardly. This unknown farmer is an indispensable economic agent in the modernization of agriculture. He calculates his marginal costs and returns in pennies, not in dollars. He is no less concerned than we are with improving his lot and that of his children.

Wholly self-sufficient farm families are few and far between. Increasing specialization has long been the order of the day. The supply of food has not been divorced from the economic productivity of agriculture, nor is agriculture a unique economic entity. Nevertheless, what a farmer does in traditional agriculture seems too simple to qualify as an economic activity at all. It looks like unskilled labor of zero value. Illusions abound from what we think we see.

Theory and evidence are critical in assessing our knowledge, whether of economics or of politics. I shall begin my assessment by calling attention to various misleading ideas, false concepts, and invalid theoretical fragments that have burdened economics in its treatment of agriculture. Whatever the reasons, agriculture has been the victim of more than its share of bad economics. It seems to me that I have devoted all too much of my career to exposing this particular class of economics.

Close at hand, in the United States, parity prices for farm products based on 1910–14 relative prices is a vulgar economic concept. While at Iowa State College, I did my best to expose the false economic logic inherent in this concept. I buried it but it would not die! Parity farm income is worse, but it has done less economic harm. But agricultural supply management, production control by means of acreage allotments, and the economics of dumping farm products abroad to the tune of Food for Peace are bad economics. I also had a little bout on the value of substituting margarine for butter. These are a few of the fragments of pseudoeconomics on which some agricultural policies of the United

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States have been, and to some extent continue to be, based. And other high-income countries are not altogether immune to this type of bad economics.

During the 1950s I concentrated on human capital to solve the mystery of the part of economic growth that could not be explained by increases in the traditional factors of production. I then turned to the productivity of agriculture in low-income countries, mainly to find out why the agricultural sectors in these countries were doing badly compared with the United States.

I turned for guidance to development economics, that new branch of economics designed to chart the optimal rates of economic growth of low-income economies. In my innocence I overlooked the fact that this branch was created by economists living in high-income countries—economists whose thinking was not encumbered by any knowledge of agriculture and whose theories were produced for export. Given my agricultural bias, I was appalled by their treatment of the role of agriculture in the economic growth of low-income countries. The thrust of their argument was as follows: Agricultural opportunities are the least attractive source of economic growth; investment in agriculture is not warranted; first and foremost is industrialization. Agriculture can provide a substantial part of the capital that is required to mount industrialization; it can provide an unlimited supply of labor for industry; it can even provide much labor at zero opportunity costs because a considerable part of the labor force in agriculture is redundant in the sense that its marginal productivity is zero. Policies and administrative means are required to keep farm food prices down in favor of urban consumers and thereby to promote industrialization. Farmers in developing countries are not responsive to normal economic incentives but instead often respond perversely, with the implication that the supply curve of farm products is backward sloping; and the indivisibilities of modern agricultural inputs are such that large farms are required to produce farm products at minimum costs.

My critique of this line of thinking and its policy implications is set forth in my *Transforming Traditional Agriculture*. I argued (p. 10) that this approach to development economics "is rooted in the economic thinking associated with the mass unemployment of the Great Depression. . . . the concept of 'disguised unemployment' . . . was extended to countries that have little or no industry, and in the transition it gave birth to the doctrine that a considerable fraction of the labor in agriculture in these countries has a marginal productivity of zero value."

An important first step in my analysis was to establish the critical

attributes of traditional agriculture. The next step was "to determine whether it is profitable to transform this type of agriculture by means of investment" (p. 24).

When farmers are limited to traditional factors of production they . . . can make little or no contribution to economic growth because there are few significant inefficiencies in the allocation of factors . . . and because investment made to increase the stock of traditional factors would be a costly source of economic growth. These two propositions, i.e., efficient allocations of factors and a low rate of return to investment at the margin will be formulated as hypotheses that can be tested empirically. There is then another presumption to the effect that there are alternative factors which would be relatively cheap sources of economic growth (pp. 24–25).

On the allocative efficiency of traditional agriculture, my task was to test the hypothesis that "there are comparatively few significant inefficiencies in the allocations of factors of production in traditional agriculture" (p. 37). For data I turned to field studies of anthropologists Sol Tax, with his yen for economics, and W. David Hopper, who after his field work and Ph.D. dissertation opted for economics.

For Panajachel, Guatemala, the data in the study by Sol Tax in *Penny Capitalism* show that although people were very poor they were efficient. This study opens with the words, it is "a society which is 'capitalist' on a microscopic scale" (pp. 41–44).

For Senapur, India, the analysis is based on a study by W. David Hopper, "The Economic Organization of a Village in North Central India" (Ph.D. dissertation at Cornell University, 1957). People in Senapur were poor but efficient (pp. 44–48).

I was not surprised that my critique of the doctrine of agricultural labor of zero value touched a sensitive nerve. My conclusion stands: that a part of the labor working in agriculture in poor countries has a marginal productivity of zero is a false doctrine. It has roots that make it suspect. It rests on shaky theoretical presumptions. It fails to win any support when put to a critical test in analyzing effects upon agricultural production of the deaths in the agricultural labor force caused by the influenza epidemic of 1918–19 in India (p. 70).

When I wrote *Transforming Traditional Agriculture*, the political market was seriously impairing the economic market. Strong ideological differences weakened the consensus among economists. But, in retrospect, older economists who were spared our particular ideological tensions had different sets of misleading doctrines. According to the
Physiocrats only agriculture produces an economic surplus—their third rent. A few agrarian fundamentalists still believe this doctrine. And lest we forget, Smith, Ricardo, and Hume viewed agriculture as an unprogressive sector.

Hume accused farm people of having a predisposition to indolence. His defamation of them is terse: “A habit of indolence naturally prevails. The greater part of the land lies uncultivated. What is cultivated, yields not its utmost for want of skill and assiduity in the farmers.”

Smith and Ricardo saw manufacturing and commerce as progressive, whereas agriculture was the sinecure of an unprogressive landed aristocracy. Although the libel of indolence has lost its sting, in the view of some development economists farmers in parts of Africa would do better if subjected to greater pressures, whether from higher rents or lower farm product prices. I strongly disagree.

The belief that there is a historical law of diminishing returns—which in the case of agriculture is made of steel—is widely held not only by the Club of Rome but by some distinguished economists. Alfred Marshall did not free himself wholly from the static dictates of Ricardo’s diminishing returns to agricultural land.

No less an economist than Colin Clark, no longer ago than 1941, came to the conclusion that the world was in for a dramatic rise in the prices of primary products. He predicted that by 1960 “the terms of trade of primary produce will improve by as much as 90 percent from the average of 1925–34.” (To speak of such a violent increase in these prices as an “improvement” is a neat twist.) His projection went off in the wrong direction. What went wrong? It was not the population variable that did it. The upsurge in population that occurred was larger than he had assumed. So, too, was the rate of increase in industrialization. Clark simply assumed a lot of secular diminishing returns against land which turned out not to be valid. Could it be the less agricultural land the better, as in Hong Kong and Singapore? Mark Twain would have enjoyed this aspect of economics.


6. A long shelf of empirical evidence shows that, in Africa, when the export price of cocoa, cotton, coffee, peanuts, or palm fruit becomes profitable, the supply response of farmers is highly elastic. It is wrong thus to malign African farmers, and it is a serious error to reach for that all too handy colonial stick.

7. Principles of Economics (London: Macmillan, 1930); see the preface, p. xv, which is from the eighth edition and dated October 1920.


Over fifty years ago in my first professional paper, I presented evidence that secular "increasing returns" had occurred in agriculture, and I argued that the concept of diminishing returns based on stationary equilibrium conditions does not suffice in analyzing the returns when economic conditions change. In that paper, I opted for the phrase "in view of progress," which I would not use now knowing that I might be liable to a class action suit! The "changing state of the economy" is a safer phrase. I know of no economy in which all economic activities are routine, repetitive, and blissful. Economic changes are evident worldwide. These changes entail risk and uncertainty, successes and failures beset with tensions, and conflicts of interest. For Adam Smith, "the progressive state is in reality the cheerful and hearty state" while "the stationary state is dull." John Stuart Mill disagreed. He wrote, "I am inclined to believe that it [the stationary state] would be, on the whole, a considerable improvement on our present condition." I consider it fortunate that the choice between hectic progress and a serene repetitive economic life is not determined by scientists, economists, or the World Bank.

A major mistake of much new development economics has been the presumption that standard economic theory is inadequate for analyzing the economic behavior of people in low-income countries and therefore a different economic theory is required. Models developed for this purpose were widely acclaimed, until it became evident that they were at best intellectual curiosities. Gunnar Myrdal reacted by turning to cultural and social explanations for the poor economic performance of India. Some scholars in these fields are uneasy about this use of their studies. When I have used the data of anthropologists, they have been generous in helping me. Increasing numbers of economists have now come to realize that standard economic theory is as applicable to the scarcity problems that confront low-income countries as to the corresponding problems of high-income countries.

Another mistake has been the neglect of economic history. Classical economics was developed when most people in Western Europe were barely scratching out subsistence from the poor soils they tilled and they were condemned to a short life span. As a result, early economists dealt with conditions similar to those prevailing in low-income countries today. In Ricardo’s day, about half of the family income of laborers in England went for food. So it is today in many low-income countries. Marshall tells us that "English labourers' weekly wages were often less

than the price of a half bushel of good wheat" when Ricardo published
his Principles of Political Economy and Taxation in 1817. The weekly wage of a plowman in India is now approximately the price of two bushels of wheat. Knowledge of the experience and achievements of poor people in Europe a century and more ago can contribute much to an understanding of the problems and possibilities of low-income countries today. Such understanding is more important for my purposes than more detailed facts about the surface of the earth, its ecology, or tomorrow’s computers.

Standard economic theory has its limitations. I shall presently consider some of them. These limitations, however, are not specific to low-income economies.

The Fine Art of Shedding Blame

It is all too convenient to conceal economic policy mistakes that impair the performance of agriculture by blaming it on bad weather, or on farmer’s perversity, or on man’s fecundity. Shift the blame to bad monsoons or to a spell of droughts. Reared in the Dakotas, I know that the reoccurring good and bad effects of weather are an integral part of the normal expectations of farmers. So it has been for ages in Ethiopia. The food tragedy in Ethiopia at present is in no small measure a consequence of the economic policy of that government. Keith Griffin, president of Magdalen College, Oxford University, reports:

In 1982 I was asked by the Government of Ethiopia to head a large team of Western economists and to prepare a comprehensive study of economic policy. In our report of September of that year we emphasized the deteriorating condition in the countryside and stated quite frankly that the major weakness in the economy has been agriculture. In the agricultural sector as a whole production increased only 1.7 per cent a year (from 1974–75 to 1979–80). That is, agricultural output per head declined on average about 0.8 per cent a year. A continuation of this trend would have dire consequences as it would result in the rapid impoverishment of the sector which contains 85 per cent of the nation’s population. Clearly, this cannot be allowed to continue.

Alas, it was allowed to continue. Our warning was ignored, our policy suggestions were rejected and the report itself was suppressed by the Government with the acquiescence of the sponsoring United Nations agency.

The poor performance of agriculture in the U.S.S.R., Poland, and a fairly long list of other countries is not the fault of nature.

In terms of their true economic interest, farmers in low-income countries are not bound by tradition. On this issue there is now strong evidence that when opportunities to improve their economic lot are to be had, they take advantage of them. That farmers in China did not respond to the command to make a great leap forward was a clear case in which the economic incentives were wholly wrong for them to do so.

It has become fashionable to jump on the fecundity of the population. I do not wish to imply that high rates of population growth do not give rise to some serious problems, for surely the additional costs of health facilities and of schools must be reckoned. But population increases should not be used as a cover-up of economic policy mistakes.

In the case of poor performance of agriculture, the real culprit is the lack of economic opportunities that are rewarding to farmers.

Analytical Apparatus

Not all of the useful parts of economics were at hand when economists began to study the economic behavior of people in low-income countries. We now have a comprehensive concept of capital that does not exclude human capital; a concept of knowledge, the economic value of which can be identified and measured; a concept of the economic disequilibria that occur during modernization; a concept of human agents with ability to deal with disequilibria; and a concept of the nature and significance of the distortions of economic incentives. I shall comment briefly on each of these in turn.

Irving Fisher's All-Inclusive Concept of Capital

Although Marshall acknowledged Fisher's masterly argument in favor of a comprehensive concept of capital, he argued that Fisher takes "too little account of the necessity for keeping realistic discussion in touch with the language of the marketplace." Fisher's concept, however, did not spawn the specialization in human capital research. It emerged out of the endeavor to account for the increases in national

income that could not be explained by the increases of conventional factors of production.

In the opening paragraph of my American Economic Association presidential address, I stated: 16

Although it is obvious that people acquire useful skills and knowledge, it is not obvious that these skills and knowledge are a form of capital, that this capital is in substantial part a product of deliberate investment, that it has grown in Western societies at a much faster rate than conventional (nonhuman) capital, and that its growth may well be the most distinctive feature of the economic system. It has been widely observed that increases in national output have been large compared with the increases of land, man-hours, and physical reproducible capital. Investment in human capital is, probably, the major explanation for this difference.

My initial concept of human capital led me to investment in human beings, that is, in their schooling, health, work, and entrepreneurial experience. I soon learned that the capital homogeneity assumption in capital theory is a disaster. After more than a decade of applications of the concept of human capital with special attention to the schooling of farm people in the United States and then in various low-income countries, I made a survey of the policy issues and the research opportunities in human capital. 17

The advances in thought and in research, as of 1971, were of two basic parts: "The 'capital' part rests on the proposition that certain types of expenditure (sacrifices) create productive stocks embodied in man that provide services over future periods. The other part rests on the allocation of 'time,' which has led to the economic treatment of a wide array of nonmarket activities." The linkage between these two parts is close and strong:

"The discovery of human capital in the growth context revealed the importance of earnings forgone in the formation of human capital. The development of micro theory extending the concept of earnings forgone led to the formulation of the theory of the allocation of time. This extension with special reference to micro theory of the household opened a new frontier in analyzing nonmarket activities."

A strong case can be made for using a rigorous definition of human capital.

capital. But it will be subject to some of the same ambiguities that plague capital theory in general and the capital concept in economic growth models in particular:

Capital is two-faced, and what these two faces tell us about economic growth, which is a dynamic process, are, as a rule, inconsistent stories. It must be so because the cost story is a tale about sunk investments, and the other story pertains to the discounted value of the stream of services that such capital renders, which changes with the shifting sands of growth. But worse still is the capital homogeneity assumption underlying capital theory and the aggregation of capital in growth models. . . . This assumption is demonstrably inappropriate in analyzing the dynamics of economic growth that is afloat on capital inequalities because of the differences in the rates of return, whether the capital aggregation is in terms of factor costs or in terms of the discounted value of the lifetime services of its many parts. Nor would a catalogue of all existing growth models prove that these inequalities are equals. But why try to square the circle? If we were unable to observe these inequalities, we would have to invent them because they are the mainspring of economic growth. They are the mainspring because they are the compelling economic force of growth. Thus, one of the essential parts of economic growth is concealed by such capital aggregation.

There is little room for doubt that investment that enhances people's abilities really makes a difference in economic growth and in the satisfactions derived from consumption. We now know that the omission of human capital biases the analysis of economic growth. Land gets overrated. The declining economic importance of agricultural land as modernization proceeds is not perceived. We are beginning to see that specialization and increases in human capital go hand in hand. I shall return to the interaction between specialization and human capital. Some serious investment policy mistakes by international suppliers of funds, including the international donor community, are mainly consequences of underrating the value of human capital.


Marshall's Dictum: "Knowledge Is the Most Powerful Engine of Production"

We now have considerable information about the costs and returns from agricultural research. Both for analytical work and for investment policy, the achievements in this area over the past several decades have been impressive. The contributions of agricultural research to economic growth are being identified and measured. Organized research is being treated as a subsector of the economy that specializes in the production of knowledge.

Studies of the economic value of agricultural research began to flourish following the classic work of Zvi Griliches on "Research Costs and Social Returns: Hybrid Corn and Related Innovations" at the University of Chicago. He set the research stage for a series of Ph.D. dissertations in this area, and others elsewhere have added much to this part of the analytical work. For discovering and establishing the international dimensions of agricultural research, we are greatly indebted to many highly competent agricultural research entrepreneurs: George Harrar, F. F. Hill; the three venturesome scientists—Richard Bradfield, Paul Mangelsdorf, and E. C. Stakman; also Frank Parker, Ralph Cummings, Norman Borlaug, David Bell, Nyle Brady, and others belong on this list.

The success of International Agricultural Research Centers is not in doubt. There are now thirteen centers supported by thirty-five donors, and their annual budgets total more than $190 million. They have an international dimension that owes much to the Rockefeller Foundation and to the pioneering entrepreneurship of the late George Harrar, to F. F. Hill while he was vice president of the Ford Foundation, and to other key research entrepreneurs.

Successful as these centers are, I see four limitations: (1) they are not substitutes for ongoing national experiment stations and laboratories in low-income countries; (2) the relationship between them and the major research-oriented universities and experiment stations in high-income countries is too tenuous; (3) the central management, which allocates funds to each of the centers, is becoming overorganized in the sense that the research personnel spend too much time on paper work "justifying" research; and (4) several centers, such as the one in Nigeria,

22. For an extended analysis of these centers, see Vernon W. Ruttan, Agricultural Research Policy (Minneapolis: University of Minnesota Press, 1982), chap. 5.
concentrate on local food production and neglect the important export commodities. More generally, research restricted to food production, especially throughout Sub-Saharan Africa, is inconsistent with the economic comparative advantage: larger gains in real income are to be had from the growth in exports, primarily of tree and fiber crops. A recent World Development Report is clear and cogent on this point. Because of the economic importance of comparative advantage in production and trade, agricultural research to promote only food crops in parts of Africa is not optimal.

The annual agricultural research expenditures worldwide (in constant 1980 U.S. dollars) rose from about $2 billion in 1959 to more than $7 billion in 1980. The world food supply, ten to fifteen years from now, will be decidedly larger than it could have been had these investments in agricultural research not been made. Real costs of producing farm food products will continue to decline. Agriculture as a sector of the economy will also continue to decline.

No country in which the government distorts agricultural incentives benefits fully from the contributions of agricultural research. The rates of increase in agricultural production derived from new high-yielding varieties and from other discoveries are highest in open market economies in which incentives are not distorted. Such distortions are clearly evident in centrally planned and controlled economies, notably so in the U.S.S.R. They are also evident in Egypt, throughout much of central Africa, in parts of Central America, and elsewhere.

Economic Growth with No Economic Disequilibria Is Not Possible

For the purpose at hand, this proposition has two implications. The first is that even under the most favorable circumstances, when changes in production and distribution give rise to increases in real income,

economic disequilibria are inevitable. They cannot be prevented by law, by public policy, and surely not by rhetoric. The second implication pertains to the incentives to human agents and the actions that are taken to bring the economy into equilibrium.

If agriculture were to arrive at a long-run equilibrium, the economic activities of farm people would be those of traditional agriculture. Farming would be essentially routine. There would be no new technology, no alterations in the land being farmed, in the equipment used, or in the labor employed. The productivity of each of the various agricultural resources would remain constant, and the demand could be such that there would be no changes in relative prices. Under these conditions, long-run costs, risks, and returns would be known almost with certainty. Accordingly, there would be virtually no entrepreneurial function; routine management would suffice.

But agriculture is not in such an equilibrium state. On the contrary, the transformation of agriculture into an increasingly more productive activity, a process that is commonly referred to as “modernization,” entails changes in what farmers do as new and better opportunities become available. The value of the ability to deal with disequilibria is high in a modernizing economy.26

The number of models that assume steady, smooth, and blissful economic modernization is large; whereas the actual process of modernization is beset by various classes of uninsurable risk, by some true uncertainties that give rise to unanticipated gains and losses, and by political tensions that are consequences of changes in economic conditions. Although a market-oriented economy has a comparative advantage over a centrally managed economy, market economies are nevertheless subject to inflations and deflations, booms and depressions, and various types of economic irregularities.

The implications of equilibrium theory and the economic behavior of farmers in traditional agriculture appear to be virtually identical. But the implications of equilibrium theory and the behavior of economic agents, including farmers, as they deal with changes in economic conditions appear to have little in common. Can research-based equilibrium theory be extended to deal with changes in economic conditions? One approach is to establish the linkage between disequilibria and entrepreneurial actions. In support of this approach, there is compelling evidence, often referred to by economists, that when any part of an open market economy experiences a disequilibrium, there are incentives for economic agents to take actions that have the effect of reestablishing an economic equilibrium. In Lyle Owen’s language, like the

earth's gravity, which pulls in rocks and metal fragments that come near enough from outer space, economic equilibrium tends to absorb disequilibria when there are incentives to reallocate resources.  

The nature of these incentives and their economic significance in the actions of economic agents are unfinished parts of economic theory.

**Economics without Entrepreneurs**

Economic theory that omits the role that entrepreneurs play in modernization is on a par with omitting the Prince of Denmark in presenting *Hamlet.*

Farmers the world over, when dealing with costs, returns, and risks, are calculating economic agents. Within their small, individual, allocative domain they are fine-tuning entrepreneurs, tuning so subtly that economists from high-income countries fail to see how efficient they are. Although farmers differ for reasons of schooling, health, and experience in their ability to perceive, interpret, and respond to new events pertaining to their farm enterprises, they provide an essential human resource which is entrepreneurship. On most farms there is a second enterprise, the household. Housewives perform economic activities and are entrepreneurs in allocating their own time and in using farm products and purchased goods in household production. This talent of entrepreneurship is supplied by millions of men and women on small-scale producing units, and it makes agriculture a highly decentralized sector of the economy. Where governments have taken over these entrepreneurial functions, they have been far from efficient in modernizing agriculture. Where governments have not nationalized agriculture, the entrepreneurial roles of farmers and of farm housewives are important and the economic opportunities open to them make a difference.

No matter what part of a modernizing economy is being investigated, we observe that many people are deliberately reallocating their resources in response to changes in economic conditions.

The ability to reallocate is not restricted to entrepreneurs who are engaged in business. People who supply labor services for hire or who are self-employed are reallocating their services in response to changes in the value of the work they do. So are housewives in


28. From William Baumol, "The theoretical firm is entrepreneurless . . . the Prince of Denmark has been expunged from the discussion of *Hamlet*,” in "Entrepreneurship and Economic Theory," *American Economic Review,* vol. 68 (May 1968), pp. 68-71. In the common display of macro theory, the entrepreneur is unknown.
devoting their time in combination with purchased goods and services in household production. Students likewise are reallocating their own time along with the educational services they purchase as they respond to changes in expected earnings along with changes in the value of the personal satisfactions they expect to derive from their education. Consumption opportunities are also changing, and inasmuch as pure consumption entails time, here too people are reallocating their own time in response to changing opportunities. 29

In agriculture it is clearly evident that

millions of farmers in low-income countries have substantial ability to alter the use that they make of their land, labor and their opportunities. . . . The necessity of dealing with disequilibria is a good teacher. Although most farmers in low-income countries have little or no schooling, their recent performance reveals considerable ability to learn; to wit, in their success in the adoptions of new high-yielding varieties of food grains. In view of the contributions of agricultural research oriented to the requirements of low-income countries and the large amounts of additional capital being committed to agricultural development in these countries, the observed ability of this new breed of farmers to transform these research contributions and the additional capital into increases in food production is clear and substantial. 30

Meanwhile, theory is silent on the economic value of the function that entrepreneurs perform, and empirical studies using standard production function theory provide no estimates of the value of the contributions that entrepreneurs make to production.

**Distortions of Economic Incentives**

Nations have governments; the actions of governments pertaining to the economic domain are in effect responses to the “political market.” The political market in many high-income economies overvalues agricultural products, whereas in most low-income economies it is the other way around.

The new development economics, as I noted at the outset, advocated economic policies that seriously distorted agricultural incentives in low-income countries. I protested then and I continue to do so. What appears not to be understood by governments and by some economists

is the critical allocative role that producer incentives play in attaining optimal increases in productivity. Because of wrong incentives the real economic potential of agriculture is not being realized. This unrealized economic potential is a measure of a pervasive economic disequilibrium in world agriculture.  

Correct governmental actions do occur. A notable case in point occurred in the mid-1960s. David Hopper's account of this case is telling.  

Despite arguments in New Delhi early in 1966 calling for government prohibition of imports of high-yielding seeds, the minister of agriculture decided to import the new Mexican dwarf wheat seed. Some 18,000 tons of this wheat arrived from Mexico in late spring. The new seed was suited to the agriculture of the Punjab and to adjacent areas. The farm price of wheat in India was somewhat below the price of imported wheat. Even so, the increase in the yield of the new seed enhanced the profitability of producing wheat. The farm entrepreneurs of the Punjab quickly adopted the new variety because the incentives to do so were favorable. Wheat production in India rose from 11 million tons in 1966 to 46 million in 1984. Landowners profited; real wages of farm labor rose. We called it a Green Revolution. But before they had evidence, many critics in India and abroad turned to making predictions about the unfavorable social side effects of this type of economic "progress" instead of searching for ways of duplicating the Punjab success in other parts of agriculture. Ways could be found, but they are at present suppressed by the lack of adequate incentives. The state of incentives is such that in many countries it is unprofitable for farmers to undertake modernizing investments that would increase the productivity of agriculture.

Improving the Quality of Inputs

The process of improving the quality of the inputs raises three questions: (1) What are the properties of quality? (2) What do these properties cost? (3) When the returns from quality exceed cost, what determines the process and the time that is required to attain a new equilibrium? The properties of quality can be identified and measured;


the cost of these properties can also be ascertained, and so can the equilibrating process. 33

We owe much to Griliches' pioneering studies of inputs, starting with his Ph.D. research on hybrid corn. Three of his papers rank high in presenting his approach and findings. They are "Measuring Inputs in Agriculture: A Critical Survey"; "The Sources of Measured Productivity Growth: United States Agriculture, 1940–60"; and "Research Expenditures, Education, and the Aggregate Agricultural Production Function." 34 Griliches' studies along with those by others that followed tell us more about the economics of the inputs in agriculture than is known at present about this issue for most other sectors of the economy.

In view of the improvements in official agricultural output and input statistics, it might be said that academic research has not been in vain. 35 These statistics, however, do not treat adequately the heterogeneity of physical capital; they exclude the investments in human capital and the economic value of the services rendered by the acquired abilities of farm people. The costs of and value of the contributions of agricultural research are omitted. Under normal conditions, ideal statistics would show that the value of the realized output is equal to the services of the inputs plus profits or minus losses. What they show instead for the United States is that the increase in output exceeded that of inputs 3.5 to 1 during the 1970s. We may, of course, take comfort in this productivity artifact at a time when there is so much ado about declining productivity.

The acquired quality of people as economic agents is revealed in the work effects and allocative effects of their health, education, and training. 36 These sources of quality entail investment in human capital. The returns from such investments are not to be had on short notice, and their value extends over the life span from youth through adulthood.

The core of the economics of these improvements in quality consists of: (1) the inputs that farmers purchase (an important source of quality, and increases in purchased inputs over time have a strong effect on

agricultural modernization); (2) the nonfarm sectors (the primary sources of this set of quality inputs; the incentive to buy them depends on how profitable they are); (3) the current costs as well as the private and public costs of research; and (4) improvements in the quality of farm people achieved by investment in their human capital.

Specialization and the Human Capital Approach to Economic Growth

“Truly, the most distinctive feature of our economic system is the growth in human capital. Without it there would be only hard manual work and poverty except for those who have income from property. In William Faulkner’s *Intruder in the Dust*, there is an early morning scene of a poor, solitary cultivator at work in a field. The man without skills and knowledge leaning terrifically against nothing.”

Division of labor, specialization, and increasing returns to human capital go hand in hand in the process of economic modernization. Our dear self-sufficient Robinson Crusoe, or a self-sufficient family living somewhere in splendid economic isolation, or a small population on a small Caribbean island with little or no international trade are micro entities with a minimum of division of labor, with traditional forms of specialization, and with small returns to human capital.

Nations differ greatly in natural endowments, in producible physical capital, and in human capital including knowledge. I venture to generalize. The performance of a small set of not so rich economies in East Asia is significantly better than that of most. Consider Hong Kong, the Republic of Korea, Singapore, and Taiwan: no oil, no iron ore; two of them are city-states with no agriculture. The cultivated area per capita in Korea and in Taiwan is far less than that in China. Harry T. Oshima has compared the rapid productivity growth, the marked rise in employment and education, and the sharp decline in birth rates in Hong Kong, Korea, Singapore, and Taiwan (he also includes Japan) with the less successful performances of Indonesia, Malaysia, the Philippines, and Thailand.

My assessment of the economic performance of three selected sets of countries is as follows: (1) the aggressive, successful four East Asian entities are at the top in growth rates; (2) another four, Indonesia, Malaysia, the Philippines, and Thailand may be next by this test (Malaysia comes close to qualifying for membership in my first ‘gang of four’); and (3) throughout most of tropical Africa and parts of the

37. “Investment in Human Capital.”
Caribbean and Latin America, there are economies that are performing poorly.

Why the large differences in economic performances? Are they the consequences of having or not having coal, oil, iron ore, and other minerals? Are they the result of differences in the acreage and productivity of cropland? My interpretation of the evidence is that the answers are No. Where trade extends the market there are incentives for specialization based on the increases in productivity from divisions of labor, and there are increasing returns to human capital as economic modernization is achieved.

### A Tale of Two Small Nations: Singapore and Jamaica

<table>
<thead>
<tr>
<th>Item</th>
<th>Singapore</th>
<th>Jamaica</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>In common</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population mid-1982</td>
<td>2.5</td>
<td>2.2</td>
<td>Millions</td>
</tr>
<tr>
<td>Life expectancy of females,</td>
<td>75</td>
<td>75</td>
<td>Years</td>
</tr>
<tr>
<td>1982</td>
<td>1.4</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>External debt, 1982</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area</td>
<td>224</td>
<td>4,232</td>
<td>Square miles</td>
</tr>
<tr>
<td>Population density</td>
<td>11,160</td>
<td>520</td>
<td>Per square mile</td>
</tr>
<tr>
<td>Economic (GDP) growth rate,</td>
<td>8.5</td>
<td>-1.1</td>
<td>Percent</td>
</tr>
<tr>
<td>1970–82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports, 1982</td>
<td>20,800</td>
<td>730</td>
<td>Millions of dollars</td>
</tr>
<tr>
<td>Imports, 1982</td>
<td>28,200</td>
<td>1,370</td>
<td></td>
</tr>
<tr>
<td>Per capita GNP</td>
<td>5,910</td>
<td>1,330</td>
<td>1982 dollars</td>
</tr>
</tbody>
</table>


The tale of Singapore and Jamaica, as told in the accompanying table, contains the secret of the connections between specialization and development. The key to the secret is in the division of labor, which depends on the extent of the market. The market is large for Singapore, small for Jamaica. Allyn Young's classic paper, "Increasing Returns and Economic Progress" reveals the secret. Securing increasing returns depends on a progressive division of labor that gives rise to increases in outputs without increasing their costs proportionately. In Young's language, "Economic changes become progressive and propagate themselves in a moving equilibrium."

A notable advance on this issue is made by Sherwin Rosen in his "Specialization and Human Capital." His argument is:

Incentives for specialization, trade, and the production of comparative advantage through investment are shown to arise from increasing returns to utilization of human capital. Indivisibilities imply fixed-cost elements of investment that are independent of subsequent utilization. Hence the rate of return is increasing in utilization and is maximized by utilizing specialized skills as intensively as possible. Identically endowed individuals have incentives to specialize their investments in skills and trade with each other for this reason, even if production technology exhibits constant returns to scale.

... The enormous productivity and complexity of modern economies are in good measure attributable to specialization.

In the long run, the critical component in economic modernization and development consists of human capital—that is, in the abilities and knowledge embodied in people rather than in the properties of land, other natural resources, or other forms of physical capital. First and foremost over the decades are investments in population quality.

Self-Appraisal

Self-appraisal was requested; against my better judgment I indulge in it. I had given much weight during the 1930s and 1940s to the importance of reducing international trade barriers in bringing about the economic recovery of U.S. agriculture. But when I then turned to world agriculture, I gave too little weight to the economic function of trade in my *Transforming Traditional Agriculture*, 1964. I also neglected it in my *Investment in Human Capital: The Role of Education and Research*, 1971. When it comes to getting rid of the vast array of price distortions within countries, the elimination of the barriers to trade is an important means of achieving economic efficiency and gains in welfare.

It took me decades to learn that time spent on preparing and presenting congressional testimony, however valid my analysis, had no discernible effect on the actions of Congress. I also have been slow in learning that serving on international economic committees and doing assignments for governments or international agencies is to place a low value on my time. I have become stubborn in my belief that my comparative advantage is in thinking about the long pull.

I derive professional pleasure when someone makes a point for or against me citing a passage from what I have published. I want to be read, especially by concerned people. I value translations of my books more than royalties. I bask in the fact that my *Investing in People* is available in nine languages.
The Bottom Lines

1. Do international agencies, the donor community, governments in low-income countries, and private people invest enough in human capital? Taking the long view, the answer is No!

2. Is enough being invested in the knowledge-producing sector? The record is fairly good in the area of agricultural research. The prospects are that in the long run the rates of return on investment in knowledge are likely to continue to be higher than the normal return on other investments.

3. Is the economic contribution of agricultural land overrated by governments and international agencies? The answer is Yes, in part because of the prevailing Ricardian Rent bias, because of the failure to see that most of the productivity of agricultural land is man-made and that substitutes for agricultural land are being produced by agricultural research, and because of the declining economic importance of agricultural land.

4. Does the organization of the economy provide optimal economic incentives? In the case of agriculture, they are at their worst in a centrally planned economy. In many high-income economies the incentives established by governments overvalue agricultural products, and in most low-income countries, despite food shortages, the opposite occurs.

5. Is the economic value of the ability of entrepreneurs to deal with the economic disequilibria that occur as a consequence of modernization being fully realized? The answer is No. Unfortunately, standard economic theory tends to omit the entrepreneur. In high economic policy he is also forgotten as an economic agent, which explains many of the mistakes that are made.

6. The economic gains from specialization and human capital go hand in hand.

How could I know whether or not my professional efforts have made a difference? What I do know, however, is that there is much about economic development that remains unknown to me.
Theodore W. Schultz has provided a clear statement of his major contributions to the theory of economic development. Since the majority of the world's population is poor and the world's poor are largely concentrated in the agricultural sector, he has devoted much attention to the economics of peasant agriculture. He distances himself from what he calls the traditional development economics, with its emphasis on the import substitution strategy of industrialization as the principal source of technical change and economic growth. Most will agree with much of what he says on the limitations of this strategy.

However, what he calls the "bad start" of development economics has been followed in the past twenty years or so by considerable theoretical and empirical analysis of the economics of being poor. This has been enriched—at least some of us would like to believe—by learning from experience, or learning by doing. To this large body of literature he makes no reference, nor does he put his original contributions in the context of subsequent developments in the analysis of the peasant economy.

Today, we perhaps have a more balanced view of the role of agriculture in overall economic growth. The growth in per capita income is associated, on the one hand, with a decline in the share of national expenditure on agricultural output and, on the other, with an increase in the productivity of labor in agriculture. As a result, there is a decline in the relative importance of agriculture in the process of economic development.

Since agriculture employs most of the labor force in a poor country and constitutes the most predominant source of income, it is necessarily the principal source of savings or capital accumulation and labor supply for the rest of the economy. Since over time the nonagricultural

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sector has to expand faster than the agricultural sector in order to absorb an increase in the labor force and to meet an increase in demand for its output, investment in nonagriculture has to accelerate at a rate that would frequently exceed the rate of saving in this sector. It therefore has to be financed partly by savings generated in the agricultural sector. The question is not whether the nonagricultural sector should draw on agriculture in the process of economic development; rather the relevant questions are at what pace, by what method, and in what time sequence or at what stage in the process of growth such intersectoral transfer of resources one way or another should take place. However, a stagnant agricultural sector cannot provide resources for investment elsewhere; only a dynamic agriculture enjoying sustained productivity growth can contribute to overall economic growth. Although this is part of the "received doctrine," it is not necessarily observed or practiced by many developing countries.

Of relevance to these questions is the tension between politics and economics, to which Schultz refers, but he does not elaborate on it. What he calls the political market is indeed dominated by special interest groups, who seek to further their own welfare—not only their income, but also their power over resource allocation and capital accumulation. The urban interest groups—industrialists, workers, and urban consumers who desire access to cheap food and raw materials—seem to wield greater political power than the peasants. That adverse terms of trade against agriculture can depress agricultural growth is not perceived by the dominant interest groups, whose time horizon is inevitably short run. How to reconcile the conflicting pulls of divergent interest groups and of short- and long-run considerations is a problem in political economy that is common to both developed and developing countries. Economists have not been of great help in finding a solution. They can, however, highlight the conflict between sectoral interests and social welfare as well as between short- and long-term interests of various groups.

Schultz believes that economists often either accept the value judgment of politicians or fail to convince them of the irrationality of their decisions. He exaggerates the potential role of economists in the political decisionmaking process. His own experience contradicts his position in this regard. Perhaps the economists' failure may be accounted for by their inability or unwillingness to acknowledge the politicians' goals and constraints. It is not enough to understand why the politicians do what they do; it is necessary to identify the circumstances under which they are likely to act in ways considered economically rational. It is frequently not a lack of knowledge on the part of the policymakers, although in a few cases they may be the slaves of the "defunct theorists"
of yesterday; the truth, however, is that what appears politically optimal is often not economically rational or optimal.¹

Schultz's most significant early contribution relates to the efficiency of the peasant economy. Since farmers are rational and efficient in the use and allocation of resources, neither a reorganization of institutions nor a reallocation of resources is likely to improve efficiency or expand output. The marginal product of labor in a peasant economy is not zero; consequently any withdrawal of labor from agriculture reduces output. Growth occurs with the introduction of new technology, new inputs, and new markets. Farmers' response to prices is positive and substantial. Whatever inefficiencies exist are due to government interventions; they create price distortions which inhibit growth, among other things, by constraining both technological innovations and their diffusion.

The seminal value of Schultz's contribution—at a time when the hypotheses of conservative, tradition-bound farmer behavior and a backward-sloping supply curve were widely accepted—can hardly be exaggerated. His challenge probably stimulated an unprecedented amount of both theoretical and empirical research on the economics of peasant agriculture. In subsequent years there was a great spurt of writings on the nature of rural product and factor markets, the role of uncertainty and risk, and the impact of land tenure, land distribution, and rural institutions on the efficiency of resource use and on technological innovations.

The unequal control over or ownership of land leads to inequitable access to credit, services, and inputs and thus may inhibit the optimal utilization of land. Redistribution of land increases aggregate production whenever output per hectare on small farms is higher than that on big farms. A consolidation of fragmented and scattered holdings may improve productivity because of increased efficiency in the use of inputs such as water and draft animals and release labor without an adverse effect on output.

In the growing literature on agricultural growth and agrarian change, new hypotheses or theoretical constructs have been and are being devised. A small farmer's behavior is to be distinguished from that of a commercial farmer or a landlord. The small farmers are highly vulner-

¹. The need to pursue second-best solutions is not much evident in Schultz's analysis. He recognizes that his strength lies in the realm of ideas and in thinking about the "long pull." I only hope that he does not disparage or denigrate too strongly the economists (among whom can be counted many of his followers and admirers) who work in international organizations or in national governments. One likes to believe that those who "stand and wait" in these institutions may also "serve" by bringing to bear the complexities of real life on the analysis of development problems.
able to production and market risks; they often consume a large frac-
tion of what they produce and supply most of their own labor require-
ments.

On a small farm, the family as a decisionmaking unit combines
consumption and production decisions. In many countries the family is
not a homogeneous decisionmaking unit; frequently women and men
constitute separate decisionmaking units. The integration of the de-
cisionmaking process leads to conclusions different from those reached
separately, even if the family acts as a profit maximizer. The family
decisions on production and consumption may be the outcome of some
sort of cooperation-cum-bargaining game.

In many instances, markets themselves may be inadequately formed.
Although the traditional system of obligatory payments and custom-
determined rewards is being eroded by the steady penetration of mar-
kets, the extent of this penetration is a matter of empirical judgment.
Even when markets function, they are limited by inadequate informa-
tion and high transaction costs. For example, in the rural labor market,
the employer often places a high premium on the prompt availability of
labor at the right time of the season and therefore searches for labor
only within his own village, counting on the goodwill or loyalty of the
villagers.

The theory that agricultural wages are competitively determined by
forces of supply and demand cannot explain the persistence of unem-
ployment among poor farm families, whose “appetite” for voluntary
unemployment is not likely to be great. The transactions taking place in
the labor market at less than the market-clearing wage can be ascribed
to market failure caused by the play of noneconomic factors such as
“social conventions or principles of appropriate behavior whose source
is not entirely individualistic.”

Both analytical and empirical research over the past several years has
attempted to put the price-responsiveness of farmers in a proper per-
spective. First, the price elasticity of supply of aggregate agricultural
output is to be distinguished from, and is usually lower than, the
elasticity of supply of a particular crop in response to relative price
changes. The empirical estimates of aggregate supply elasticity put
them between 0.2 and 0.6 percent; they are small but not totally
negligible. Second, expanding farmers’ output requires not only price
incentives but also adequate inputs, appropriate technology, credit, and
marketing and distribution infrastructure, including the availability of
consumer goods. Even in the absence of these complementary supply-
augmenting factors, setting prices right expands output but by much

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less. Third, although there is general agreement that prices are not a sufficient condition and that other nonprice measures are needed for increasing production, there is disagreement as to the relationship between other measures and correct prices. Some argue that putting prices right by itself will call forth appropriate or requisite improvement in nonprice measures such as public investment in research and irrigation; this line of reasoning suggests that public investment is optimally allocated at current prices. On the contrary, it is reasonable to argue that the circumstances which lead to an undervaluation of agriculture and keep prices low are also responsible for inadequate agricultural research or insufficient public investment.

Schultz seems to ascribe a prominent role to adequate price incentives in explaining the success of the Green Revolution in the Indian Punjab. Obviously, this is a simplification. A well-developed irrigation system, a long-standing system of land-owning cultivators, adequate rural infrastructure, including roads, markets, and rural electrification, a seed and fertilizer technology supported by national agricultural research—all contributed to the highly favorable environment in which price incentives played a role. Similarly, although a lack of price incentives in certain African countries has discouraged agricultural production, it is misleading to ignore a large number of factors such as droughts, the unrelenting erosion of Africa's relatively fragile soil, wars and civil disturbances, the deterioration of the external terms of trade, inadequate physical infrastructure, and lack of technological packages appropriate to diverse agroecological circumstances. Techniques of empirical research have not yet advanced far enough to disentangle conclusively the separate contributions of these factors to the African agricultural crisis.

The depressing effects of rising food prices on income and food consumption of the poor and on social and political stability are too well known to be repeated here. To devise cost-effective supplementary measures to cushion the adverse effects on the poor is not always easy. It may be argued that price distortions, by offering low-cost food to poor consumers, seek to correct other distortions caused by the unequal distribution of income and absolute poverty. To quote A. C. Pigou: "A man ordered to walk a tight-rope carrying a bag in one hand would be better off if he were allowed to carry a second bag in the other hand, though of course, if he started bagless to add a bag would handicap him."

In an ideal world one instrument, price policy, should not be used for

two objectives: efficient resource allocation and equitable income distribution, or alleviation of poverty. In the real world, however, such neat or elegant choices between several policy instruments are not readily available for lack of political feasibility or implementation capacity. To devise an appropriate policy package in such a situation, one is constrained to seek a second-best policy, while striving to minimize its adverse effects on allocational efficiency. To quote Robert Solow:

Most of us are conscious of a conflict that arises in our minds and consciences because, while we think it is usually a mistake to fiddle with the price system to achieve distributional goals, we realize that the public and the political processes are perversely more willing to do that than to make the direct transfers we prefer. If we oppose all distorting transfers, we end up opposing transfers altogether. Some of us seem to welcome the excuse; but most of us feel uncomfortable. I do not think that there is a very good way of resolving that conflict in practice.  

Schultz’s emphasis on human capital as an important input in economic growth and agricultural development is widely acclaimed. His reminder of the economic value of education is eminently relevant at the present time. Faced with the scarcity of resources and with the need for reductions in government expenditures, many developing countries are more willing to cut education, health, and social expenditures than to cut directly productive physical investment, a trend that jeopardizes long-run growth prospects.

Schultz’s analysis seems to yield two propositions. First, private education expenditures should be treated as investment rather than consumption. Second, knowledge and skill (acquired from education and training) are productive factors whose physical return can be measured exactly like that of any other productive factor. Furthermore, the growth of knowledge helps explain much of the unexplained residual in econometric growth equations.

Schultz seems to ignore that education is both a consumption and an investment good—and is considered as such by individuals as well as by societies. Human capital is as heterogeneous as physical capital and raises similar problems of measurement. In addition, it is not easy to isolate the contribution of new knowledge from that of new inputs (Green Revolution techniques are a clear case); both often form a single indivisible technological package.

An entire body of theoretical and empirical literature has been built up around the costs and benefits of investment in education. For exam-

ple, farmers' education needs to be distinguished from the training provided by the extension service. The latter disseminates information relating to the methods and techniques of farming, whereas education imparts the knowledge and skills needed to process and use this information. In a situation of technological change when new inputs and new methods rather than routine farming operations have to be mastered, education assumes added importance. Extension and training stress practices and "packages" rather than principles. Education provides command over principles, which enable farmers to screen and evaluate the components of packages. When education is combined with new technology and complementary inputs, farmers' productivity is estimated to increase almost twice as much as with education alone. It is not clear to what extent the success of the Green Revolution—new technology embodied in high-yielding inputs—is due to formal education of the farmers rather than to extension and training through nonformal means such as demonstrations on government or on neighbors' farms and the dissemination of information by mass media.

The contribution of education to economic growth is not confined to its microeconomic effects but extends to its macroeconomic consequences. There is some evidence that literacy, for example, contributes to increased investment and affects life expectancy and fertility. Developing countries with higher literacy rates tend to grow faster, other things remaining the same; they also have higher investment rates. Analytical research and empirical work on these macroeconomic aspects are still in an early stage.

Do developing countries underinvest in education? Public education expenditures rose from 2.4 percent of their GNP in 1960 to 4 percent by the late 1970s. The adequacy of educational expenditures cannot be fully evaluated, however, without reference to the costs of educational services and to the levels and types of education. The pendulum has swung from an emphasis on secondary and higher levels of education in the 1950s and 1960s to an emphasis on primary education in the 1970s. Investment in primary education is estimated to yield higher returns than that in the higher levels of education, especially in promoting agricultural development.

The increase in expenditure on agricultural research in developing countries in recent years—supported by national and international efforts—is a tribute to the success of pioneers like Schultz who contributed significantly to the growing recognition of the role of research in agricultural development. The suggestion that the allocation of research efforts among different crops has been guided or misguided by wrong price signals—that crops with depressed prices received less research efforts than crops that enjoyed favorable prices—does not fully conform to the pattern of public expenditure on agricultural
research. Even Schultz admits that recently research expenditures have shifted toward food crops, even though in many instances their prices were not favorable or even at the world level.

The development experience of the four East Asian economies has been the subject of much discussion in recent years. Different observers have emphasized different aspects of their development policies. Indeed, in the early years countries such as Korea did pursue an import substitution policy by restricting trade and by biasing their incentive structure more toward domestic than toward export markets. In the next stage they shifted toward an export promotion strategy, which in some cases was carried, often with the use of subsidies and other financial incentives, beyond what was warranted by comparative cost considerations. In both cases they followed, on the whole, a policy of labor-intensive industrialization in both import and export sectors. They did not climb the ladder of comparative advantage solely in response to market signals and by a policy of laissez-faire; government intervention and the public sector did play a role—in some cases a very important role—in their development strategies.

The relevant lesson of their successful development strategy seems to be not that government intervention or participation in economic activity should be minimized or excluded but that it should be focused on priority areas and be consistent with the implementation capacity. The relative roles and patterns of the public and private sectors change over time in response to changing circumstances. The chief difficulties with the import substitution strategy in the past seemed to be in conforming to comparative cost considerations and eliminating discrimination against exports.

The success of a trade-oriented outward-looking strategy depends no less on the policies of developed countries. Schultz does not refer to the domestic agricultural support policies of developed countries—their effect on the level and stability of world prices and their adverse consequences for growth in developing countries—or to the growing trade barriers against the labor-intensive manufactured exports of developing countries. If all developing countries were to repeat the intensity and the scale of the export promotion strategy of the East Asian economies, their manufactured exports would increase sevenfold and make up approximately three-fourths of the imports of industrialized countries. This degree of penetration in the latters' domestic markets

would be likely to provoke a large-scale retaliatory action, if current experience is any guide.

Not all countries, it is argued, will succeed at the same time and in the export of the same commodities. There would be "pioneers" and "followers" in a well-regulated progression. In the real world a fine-tuning to obviate any competition among developing-country exporters is not likely as is evident from recent examples of textiles and leather goods. What is likely—as in the case of Korea and Taiwan—is that the export expansion phase will follow the import substitution phase in each country; while some are still in the first stage, others will enter the second stage. In the future, the rate of export expansion is unlikely to be of the same order of magnitude as that of the four East Asian economies. Their experience indicates that export promotion through subsidies and incentives could be as inefficient as an overly protectionist import substitution strategy.

It is in this context that one has to view Schultz's comparative analysis of the economic growth of Jamaica and Singapore. Admittedly, Singapore has followed a more outward-looking developing strategy than Jamaica and has encouraged a policy of labor-intensive industrialization to a much greater extent than Jamaica. This difference has undoubtedly contributed to the difference in growth. But this is only a part of the story. Singapore has no agricultural sector worth its name; almost all its population is engaged in industry, trade, and services, unlike Jamaica where agriculture and mining are the predominant sources of income and employment. More than 24 percent of the exports of Singapore were entrepot exports. Moreover, 87 percent of Singapore's exports in 1980 were manufactured goods, whereas about 37 percent of Jamaica's exports were bauxite; bauxite, sugar, and bananas together contributed 41 percent of its exports. Services constitute 35 percent of total exports in Singapore and 43 percent in Jamaica. Jamaica did specialize in exports (such as coffee, sugar, bananas, bauxite, and tourism) in which it had a comparative advantage. The slow growth in its exports was due in part to exogenous factors, including world market conditions, and in part to inappropriate domestic policies. The world trade in commodities exported predominantly by Jamaica did not achieve anywhere near the rate of growth enjoyed by the commodities which were Singapore's principal exports. In addition, the political instability of Jamaica—which had no parallel in Singapore—discouraged private investment in all sectors and adversely affected both exports and overall growth. The relative openness of an economy is too simplistic an explanation for its performance, however. There is no single policy change that can account meaningfully for differences in economic performance among different countries.
To conclude, one cannot but join many others in admiring the vision and insight of Schultz as one of the pioneers in development who highlighted some of the crucial but neglected factors in economic development and opened up new vistas of research and analysis for many generations of economists.
Gottfried Haberler was born in 1900 in Austria and came to the United States in 1936. From 1934 to 1936 he was an expert attached to the financial section of the League of Nations. He is Galen L. Stone Professor of International Trade, emeritus, Harvard University. After thirty-five years of teaching at Harvard, Haberler became a resident scholar at the American Enterprise Institute, his current position.

He has been president (1950–51) and honorary president (since 1953) of the International Economic Association, president of the National Bureau of Economic Research (1955), and president of the American Economic Association (1963). He is also a recipient of several honorary degrees from universities in Switzerland, Austria, and the Federal Republic of Germany.

His classic work on *The Theory of International Trade, with Its Application to Commercial Policy* appeared in English in 1936 (London: W. Dodge; New York: American). The following year he published *Prosperity and Depression* (Geneva: League of Nations). Many of his journal articles—especially those dealing with the theory of international trade, terms of trade, integration, and foreign exchange—have influenced the subject of economic development. Most notable is his *International Trade and Economic Development, 50th Anniversary Commemoration Lectures* (Cairo: National Bank of Egypt, 1959). His most recent book is *Selected Essays of Gottfried Haberler*, Anthony Y. C. Koo, ed. (Cambridge, Mass.: Massachusetts Institute of Technology Press, 1985). Without his reformulation of the theory of comparative advantage in terms of modern general equilibrium theory and his derivation of the welfare implications of free trade and protection, the economics of development would not have been able to be as influential on trade policy as it has been.
I cannot claim to be a pioneer in development economics. But like any economist who is interested in economic policy, I could not avoid thinking and writing about economic growth and development in general. It was then quite natural to apply the general principles of economics to the problems of the developing countries.

Specifically, I came to the problems of development from the theory of international trade. I submit that this is not a bad approach for several reasons. International trade obviously is a matter of utmost importance for the developing countries. Just ask yourself how long it would have taken a developing country—Chile, Egypt, Ghana, Mexico, Nigeria, or any other—to reach its present level of development without international trade? It is no exaggeration to say that international trade has been a major factor in the development that has taken place. This is true not only of the now developing countries, but also of the industrial countries in their early stages of development.

Trade provides imports of commodities at lower cost than they could be produced at home, as explained by the static theory of comparative cost; it also provides imports that could not be produced at home. In addition, trade is the vehicle for the importation of capital, know-how, and entrepreneurship. More on all this later.

It is true, however, that if one samples casually the literature on economic development, one might easily get the impression that trade is a most destructive force that locks developing countries in a vicious circle of poverty. The literature abounds with dire predictions of inexorable deteriorations in the terms of trade and of pernicious “demonstration effects.” There is much talk of massive disguised unemploy-
ment in developing countries, which is often misinterpreted as being akin to Keynesian unemployment that is curable by monetary expansion and deficit spending and justifies import restrictions. There are strident denunciations of the monopolistic exploitation of the developing countries by monopoly capitalism; this is by no means confined to Marxists and those whom Schumpeter called Marxo-Keynesians.

An extreme example is provided by Gunnar Myrdal. He asserted that "trade operates (as a rule) with a bias in favor of the rich and progressive regions (and countries) and in disfavor to the less developed countries." It is not only that the poor derive less benefit from trade than the rich, but that the poor become poorer if and because the rich get richer. And "by itself free trade would even tend to perpetuate stagnation in the underdeveloped regions" and countries.

Of course, everybody knows that there are situations in which selective trade restrictions can be justified. To put it differently, there exist some widely accepted arguments for tariffs. There is the terms of trade argument that is often called the optimum tariff argument. But the argument most relevant for development economics is the infant industry argument for protection. In fact, the early nineteenth-century proponents of infant industry protection, Alexander Hamilton in the United States and Friedrich List in Germany, can be regarded as early practitioners of development policy. Present-day theorists and practitioners of development economics would do well to familiarize themselves with the literature on infant industry protection, especially with the critical analysis to which the infant industry theory has been subjected by liberal economists such as John Stuart Mill, Frank William Taussig, Alfred Marshall, and others.

Let me make it clear that I use the terms "economic liberalism" and "liberal policy" in the classical nineteenth-century sense of market-oriented, laissez-faire policy and not in the perverted sense that is widespread in the United States and denotes almost the opposite of the classical meaning.

But before going into a more detailed analysis of development economics, I propose to put development economics into historical perspective.

Development Economics and Development Policy in Historical Perspective

The stance of development economics and policies, liberal or illiberal, roughly follows, often with a lag, the stance of general economic

3. Alexander Hamilton is also claimed as an early practitioner of industrial policy.
theory and policy. This is true even of the development economics of those who claim autonomy for their own brand, "duoeconomics," which says that different economic principles apply to developing and developed countries. In my opinion development economics and development policy should be regarded as part and parcel of general economics and economic policy—more precisely, of growth theory and growth policy. I believe in what some development economists call "monoeconomics"; that is to say, the same economic principles apply to developing and developed countries alike. From the adoption of monoeconomics, however, it does not follow that policy prescriptions should be the same for all countries.

In the fifty or sixty years since development economics has emerged as a branch of economics, a big swing in the general stance of economic policy has occurred. A sharp decline of economic liberalism started with the onset of the Great Depression of the 1930s (or possibly earlier—the precise date does not matter) and reached a low point after World War II. It was followed by a revival of liberalism that started in the late 1940s (the precise date again is unimportant).

The Decline of Liberalism

When "the problems of development were thrust upon economists by the breakup of colonial empires in Asia and Africa during the Second World War and shortly thereafter," "faith in liberalism, in free markets, and in free enterprise was probably at its lowest point since the early nineteenth century. No wonder that the stance of much of development economics, too, was far from liberal.

This is strikingly illustrated by an interesting essay by Raul Prebisch, one of the most influential development practitioners through his work in the United Nations, in the U.N. Economic Commission for Latin America (ECLA) and the U.N. Conference on Trade and Development (UNCTAD). Prebisch relates that in the 1920s he "was a firm believer in neoclassical theories." But "the first great crisis of capitalism," the world Depression of the 1930s, had changed his mind. Thus, Prebisch follows Keynes who during the Depression abandoned his early liberal beliefs (see below). But he goes way beyond Keynes when he continues: "The second great crisis of capitalism, which we are all suffering now, has strengthened my attitude." 5 What Prebisch here refers to is the world recession of the early 1980s that was caused by the fact that the United States and other industrial countries had to step on the monetary

5. "Five Stages in My Thinking on Development," in Meier and Seers, Pioneers in Development, p. 175.
brake to curb inflation. To call this a “great crisis of capitalism” is a gross misinterpretation. Actually, there has been no depression in the post–World War II period, if by depression we mean a decline remotely similar to the Great Depression of the 1930s or earlier ones. Moreover, while Keynes later returned to his early liberal beliefs (see below), Prebisch never found his way back.

The story of the decline of liberalism begins with World War I, 1914–18. This war marked the end, or the beginning of the end, of an epoch—the epoch of liberalism, of relatively free trade, of the gold standard, of free migration, free travel without a passport among most countries (excluding Russia but including the United States). True, in the 1920s most countries recovered faster from the ravages of the war than had been expected; trade was resumed and the gold standard restored. But tariffs were higher, and new tariff walls were erected in Central Europe between the successor states of the Austro-Hungarian empire. The United States and some other countries had a severe depression in 1920–21, and the countries on the European continent had high and hyper inflation. The recovery lasted barely eight years, 1921–29.

In the United States the Great Depression lasted from 1929 to 1933. It was followed by a long recovery, 1933–37, but was interrupted by a short (thirteen months) but extremely vicious depression, and full employment was reached only after the outbreak of World War II in Europe when U.S. rearmament went into high gear.

The worldwide depression was greatly intensified when country after country tried to protect employment by raising tariffs and imposing import quotas and exchange control. The volume of world trade shrank by about one-third and its value (in terms of gold dollars) by one-half, the difference reflecting the sharp decline in prices of internationally traded commodities.

Hitler came to power in 1933 at about the same time as Roosevelt. Hitler’s economic policy was a great success. Unemployment disappeared in a few years, and for several years prices rose little. Thus he was able to give the German people guns and butter at the same time.

6. Hourly wage rates, nominal and real, did not change much, but real annual earnings increased sharply because unemployment disappeared and the work week returned to its normal length. The situation changed two or three years later when rearmament hit its full stride and price controls clouded the picture. For details, see Gerhard Bry (assisted by Charlotte Boschan), *Wages in Germany, 1871–1945* (Princeton, N.J.: Princeton University Press, 1960).

The Nazis’ economic successes did not go unnoticed in the Third World. Hitler’s economic wizard, Hjamar Schacht, who was acquitted by the Nuremberg tribunal of war crimes, was after the war retained as a consultant by some developing countries. Interestingly, his advice proved to be too conservative for the governments that consulted him.
This greatly strengthened his position in Germany. The U.S.S.R., too, gained economic prestige for two reasons: the immunity of the communist economy to the depression that engulfed the capitalist West and rapid industrialization.\(^7\)

The economic success of the two totalitarian regimes made a deep impression in the West. Along with a fatal misinterpretation of the true nature of the Great Depression (see below), it strengthened the tendency among intellectuals, especially in developing countries, to believe in the superiority of controls and central planning over free markets and private enterprise.

The impact of these traumatic events on the stance of economic policy was powerful. For one thing, the Great Depression spawned the “Keynesian revolution” in economic thinking. Whether it really was a scientific revolution is very questionable, but that Keynes was the most influential economist of the century cannot be doubted. True, the main recommendation firmly associated with his name—that if there is much unemployment, the government should engage in deficit spending—was by no means new. If the policy was applied in situations like the one that existed when Keynes wrote his *General Theory*—a situation characterized by high unemployment, declining prices, and deflationary expectations—the policy would have been widely accepted, even by non-Keynesians. But without Keynes’s powerful leadership, which called forth scores of devoted and able followers who enthusiastically preached the Keynesian gospel, the New Economics, the policy would not have been put into practice so fast.

Unfortunately, in the post-World War II period Keynesian economists and policymakers applied the policy in situations very different from the Keynesian situation. The postwar environment was characterized by spotty unemployment, rising prices, and inflationary expectations. Thus Keynesian policies had highly inflationary consequences.

Keynes’s followers showed little or no concern about inflation. This was, however, not true of the master himself. In 1937, one year after the publication of his *General Theory*, Keynes became concerned about inflation and urged a shift in policy from fighting unemployment to curbing inflation, although at that time inflation was not very high by post–World War II standards and unemployment was still about 11 percent. We have to distinguish between Keynesian economics and the economics of Keynes.\(^8\)

\(^7\). This prestige was by no means accorded only by outright fellow travelers and Soviet sympathizers.

A Fatal Misinterpretation of the Great Depression

The general picture underlying the Keynesian policy prescriptions was that of a "mature" economy that is subject to more or less continual deflationary pressure, chronic oversaving, and a scarcity of investment opportunities because of a slowdown of technological progress. This theory of secular stagnation has been completely discredited by later developments, but it was very popular in the 1930s and was embraced by Keynes in his General Theory.

The theory of secular stagnation is a gross misinterpretation of the nature of the Great Depression. Unfortunately, it was taken up by Raúl Prebisch and thus had a strong impact on development economics. Actually, the Depression of the 1930s would never have been so severe and lasted so long if the Federal Reserve had not by horrendous policy mistakes of omission and commission caused or permitted the basic money supply to contract by about 30 percent. One need not be an extreme monetarist to recognize that such a contraction of the money supply must have catastrophic consequences. According to Joseph A. Schumpeter, who certainly was not a monetarist but recognized monetary forces when he saw them, the collapse of the U.S. banking system in the early 1930s and the implied contraction of money supply "turned retreat into rout"; what would have been a recession, perhaps a relatively severe one, became a catastrophic slump. In other words, the Great Depression was not "a crisis of capitalism," as Prebisch says, but was a crisis of largely anticapitalistic government policy, the consequence of horrendous policy mistakes.

Subsequent Developments

That the Great Depression was not due to an inherent, endogenous instability of capitalism as many Keynesians and Prebisch assume, but


Although Keynes himself changed his views after the publication of the General Theory, not many of his followers could keep pace with the quick turns of the master.


was the result of exogenous, avoidable policy mistakes, "adventitious factors" as Schumpeter said, is supported by the fact that during the post–World War II period there were recessions, comparatively mild cyclical declines, but nothing resembling the Great Depression of the 1930s or earlier depressions. This was because there was no deflation, no contraction of the money stock.

This favorable outcome had not been foreseen by Keynesian economists. During the war and for years after the war, Keynesian economists predicted that the dismal interwar experience would repeat itself, that the inherent instability of capitalism would reassert itself, and that therefore expansionary monetary-fiscal policies were necessary. It stands to reason that this stance of the influential Keynesian economists greatly contributed to the inflationary excesses of the World War II period.

This raises the question of whether we have simply exchanged the horror of deflation for the horror of inflation. Far be it from me to minimize the dangers of inflation, but I submit two points. First, even in highly inflationary countries such as Argentina or Israel, the damage done by inflation has not been nearly so great as the consequences of deflation in the 1930s, measured by loss in output and employment.\(^{11}\) Second, and more important, to call the recent recession caused by disinflation "the second great crisis of capitalism" as Prebisch does is inappropriate, and the policy conclusions derived from this misinterpretation are ill-advised, to put it mildly.

A medical analogy will make clear what I have in mind. Suppose a doctor has a patient who got himself into serious trouble by living for some time on a starvation diet, but later went on an eating binge. The proper treatment would be to put him on a normal diet and let the recuperative forces of the body do their work. It would clearly be inappropriate to put the patient permanently or for a long time under intensive care, using all sorts of devices to monitor and regulate essential body functions such as heartbeat and breathing. But that is precisely what ECLA and UNCTAD prescribed for the developing countries—all sorts of controls. Prebisch himself probably does not go far in that direction, but his disciples and followers clearly do.

\(^{11}\) We have become familiar with stagflation, the vicious form of an inflationary recession. And the possibility of an inflationary depression cannot be entirely excluded. I have given reasons why I think that this is unlikely in "The Great Depression: Can it Happen Again?" in The Business Cycle and Public Policy, 1920–80, a compendium of papers submitted to the Joint Economic Committee of the U.S. Congress, November 28, 1980; reprinted as AEI Reprint no. 118 (Washington, D.C.: American Enterprise Institute, January 1981).
Disintegration of the World Economy

As mentioned above, the Great Depression led to a veritable explosion of protectionism. Under the combined effects of the slump in world output and protectionist measures, world trade fell by about 30 percent in real terms and by 50 percent in nominal terms (gold dollars). The difference reflects the sharp decline in prices of internationally traded commodities. The terms of trade turned sharply against developing countries (exporters of primary products) as they always do in downswings of the business cycle. This was widely misinterpreted as indicating a long-run pattern. It thus led to the famous Prebisch-Singer theory of a secular tendency of the terms of trade of developing countries to worsen—a theory that later research proved to be invalid (see below).

Three interconnected reasons may be roughly distinguished. First, high unemployment made the pressure to protect jobs by shutting out foreign competition almost irresistible. Second, large balance of payments disequilibria were bound to arise, and the prevailing gold standard mentality made it very difficult for deficit countries to relieve deflationary pressures by devaluation of the currency, let alone by floating; therefore, they resorted to import restrictions through quotas and exchange control. Third, free trade conviction among economists, economic journalists, and intellectuals in general had been weakened and protectionist views became fashionable.

To indicate the change in general attitude, it will be well to sketch very briefly Keynes’s metamorphosis from a staunch liberal to an all-out protectionist, because he reflected the view of many others and carried along many (though fortunately by no means all) of his followers.

In a famous paper, “National Self-Sufficiency,” Keynes wrote: “I was brought up to respect free trade as an economic doctrine which a rational and instructed person could not doubt... As lately as 1923 I was writing that free trade was based on fundamental truths which, stated with their due qualifications, no one can dispute who is capable of understanding the meaning of the words.” Ten years later—in 1933—he summed up his views in the well-known passage: “I sympathize with those who would minimize, rather than maximize, economic entanglement among nations. Ideas, knowledge, science, hospitality, travel—these are the things which should of their nature be international. But let goods be homespun whenever it is reasonably and conveniently possible.”

When Keynes during the war became involved in planning for post-

war economic reconstruction, Bretton Woods, and trade policy, he at first strongly opposed the liberal trade policy proposed by the U.S. State Department. In a memo of October 1943 he wrote: "I am a hopeless skeptic about a return to 19th century laissez faire for which the State Department seems to have such a nostalgia. I believe that the future lies with (I) state trading for commodities, (II) international cartels for necessary manufactures, and (III) quantitative import restrictions for non-essential manufactures." Harrod writes: "In the preceding 10 years he [Keynes] had gone far in reconciling himself to a policy of planned trade: these ideas had sunk deeply in. Even for him with . . . his power of quick adaptation, it was difficult to unlearn so much." Another great admirer of Keynes, Lionel Robbins, wrote: "Even Keynes succumbed to the [then] current insanity . . . A sad aberration of a noble mind."

Keynes later changed his mind, but many of his followers, notably Nicholas Kaldor and the New Cambridge School, have consistently followed the protectionist line. Kaldor recommends protection of manufactures in Britain and other mature countries to stimulate growth. Unlike agriculture and service industries, manufacturing industries are supposed to enjoy increasing returns to scale; hence, protection of manufactures from foreign competition will, it is thought, stimulate growth. Whatever the merits or demerits of a policy of protection for developed countries, it clearly would be highly detrimental for developing countries, especially for the more advanced ones.

Kaldor is wrong when he mentions Germany and France in the late nineteenth century as demonstrating the beneficial effects of protection. In fact, Germany in the crucial years of industrial development had very

14. Ibid.
17. But there can be no doubt that it is very bad advice for the developed countries, too. Kaldor does not make it clear whether he assumes internal or external economies to be the reason for increasing returns. He does not even mention this vital distinction. With regard to internal economies, the enormous advance of transportation, communications, and information technology has progressively undermined the strength of local monopolies, enhanced the importance of large free trade areas, and made protectionist policies increasingly more costly and obsolete. External economies are attached not merely to manufacturing industries; service industries are equally important.
little protection. The tariff of the Zollverein, which preceded the establishment of Bismarck's Germany after the Franco-Prussian War of 1870–71, was very low. For the first ten years or so Bismarck continued the low tariff policy of the Zollverein. When he turned protectionist in the late 1870s, the policy was anything but growth promoting. Duties on steel and agriculture, the "Compact of Steel and Rye" as it was dubbed, was inimical to the manufacturing industries.  

In his last years Keynes turned sharply against the protectionist-nationalist policies proposed by his erstwhile followers, who in the meantime had become his critics. It was these policies that he had in mind when he wrote in a famous posthumously published paper: "How much modernist stuff, gone wrong and turned sour and silly, is circulating in our system, also incongruously mixed, it seems, with age-old poison." He pleaded that the "classical medicine" should be allowed to work—that is to say, liberal trade policy, convertible currencies, and sound monetary and fiscal policies. "If we reject the medicine from our systems altogether, we may just drift on from expedient to expedient and never get really fit again."  

The Changing Tide: The Liberal Revival

The flame of liberalism was sharply dimmed, but never fully extinguished. A tiny flicker was kept alive during the dark days of the Depression by Roosevelt's Secretary of State Cordell Hull, when he initiated the reciprocal trade agreement policy in 1934 and nurtured it into full bloom in the 1940s. After the General Agreement on Tariffs and Trade (GATT) was set up, tariffs were sharply reduced in several rounds of multilateral negotiations.

The reconversion of Keynes to his early liberal beliefs was an important factor in the liberal revival. Keynes's prestige greatly strengthened the liberal cause, and the way in which Keynes's reconversion came about demonstrated the existence of a strong liberal wing among the Keynesians. Keynes's reconversion was largely the result of extensive discussions he had with Roy Harrod, Lionel Robbins, James Meade,
Marcus Fleming, and Redvers Opie, when he was working on plans for postwar economic reconstruction.20

The liberal resurgence went into high gear in the late 1940s and 1950s when monetary restraint and liberal policies produced economic miracles in several countries. The best known was the German economic miracle which started with the currency reform of 1948 and the simultaneous abolition of all wage, price, and exchange controls by Ludwig Erhard. When the controls inherited from the Nazi period and continued under the military occupation were lifted, the German economy quickly rose from the ashes of the Hitler reich.

Revisiting Early Beliefs

Revisiting early beliefs on development economics turned out to be an exciting and, on the whole, enjoyable task. I was pleased that my main thesis seemed to have stood the test of time very well. In fact, statistical material that has become available and new insights have strengthened the case.

As mentioned earlier, I came to the problems of development from the theory of international trade. My approach has been monoec- nomic, as it is often called. In my opinion there is only one economics, neoclassical economics in the broad sense, including the theory of international economic policy. This body of theory is broad and flexible enough to handle the problems of the developing as well as of the developed countries. I reject the idea of dueoecomics, a separate theory for the developing countries. From the monoeconomic approach, however, it does not follow that exactly the same policy recommendations apply for all countries.

I have been critical of the view underlying much of development economics that developing countries as a group are set apart from the developed countries and are disadvantaged; that they are characterized by heavy “disguised” unemployment; that their terms of trade have an inexorable tendency to deteriorate (the Prebisch-Singer theory); that they are subject to pernicious “demonstration effects”; that private initiative and market forces can be assigned only a minor role; and that development requires “balanced growth” on a large scale and a “big

push" brought about through comprehensive "programming" by the government. One of my main objections, expressed in a 1957 paper, was that this approach suffers from what I called "excessive aggregation." I was then referring specifically to the Prebisch-Singer theory of the secular deterioration of developing countries' terms of trade. But it applies to the whole approach.

It is obvious that the developing countries are a very heterogeneous group, even aside from those that form the core of OPEC and float on a third of the world's crude oil reserves. In fact, even the dividing line between developing and developed countries is arbitrary. Different groupings are possible, although all of them are unavoidably somewhat arbitrary, the borderline between the groups being often a little fuzzy. I suggest the following rough classification. First are the economies in East and Southeast Asia—Korea, Malaysia, Taiwan, and Thailand, as well as Hong Kong and Singapore—that are still referred to as "less developed" but are doing quite well. These economies pursue on the whole liberal, market-oriented policies and obviously are not bothered by the handicaps and afflictions mentioned above from which all developing countries are supposed to suffer. Their success is fully explained by, and confirms, the neoclassical paradigm.

The second group includes potentially rich countries that are in financial trouble and suffer from inflation; some are on the verge of defaulting on their foreign debt. To this group belong Argentina, Brazil, Chile, Mexico, Uruguay, and Venezuela.

The outstanding example is Argentina. It is ironic that Raúl Prebisch's country fits so poorly into his scheme of things. Argentina is a potentially very rich country. Years ago Colin Clark in his pioneering study, *Conditions of Economic Progress*, predicted that Argentina would soon reach the level of the United States and Canada. This was not an unreasonable prediction. Argentina is blessed with excellent human and material resources. Its plight has nothing to do with a "crisis of capitalism." It is simply due to horrendous mismanagement that began with the first Perón regime and was continued by successive military and civilian governments.

To the third group belong Bangladesh, India, and Pakistan, where a large part of the world's poor people live. And in the fourth group, sometimes called the "Fourth World," are some very poor and backward countries, mainly in Africa.

This great heterogeneity of the developing countries makes a sham-

22. The irony is heightened by the fact that Prebisch had been fully aware of the mismanagement.
bles of any attempt to apply a separate body of economics, development economics, to all of them. It was, however, a great political achievement, largely the work of Raúl Prebisch, to bring this disparate group under one umbrella, the caucus of the developing countries. This effective pressure group wields considerable power in the United Nations and other international bodies.

Secular Deterioration of the Terms of Trade

I begin the discussion of the various components of development economics with the Prebisch-Singer hypothesis of the secular deterioration of the developing countries' terms of trade. This was reiterated in Hans Singer's contribution to the first Pioneers volume and in a later paper.23

I can be very brief because my summary judgment in the 1957 paper that "the alleged historical facts lack proof, their explanation is faulty, the extrapolation [into the future] is reckless and the policy conclusions are irresponsible"24 has been fully confirmed by later research. I refer especially to Robert E. Lipsey's important book, *Price and Quantity Trends in the Foreign Trade of the United States*, a study carried out with the careful attention to basic data and statistical methods that one expects in a publication of the National Bureau of Economic Research.25

Lipsey reaches the following conclusions: "Two widely held beliefs
regarding net barter terms of trade found no confirmation in the data for the United States. One is that there has been a substantial long-term improvement in the terms of trade of developed countries, including the United States; the other, that there has been a significant long-term deterioration in the terms of trade of primary as compared to manufacturing products. Although there have been very large swings in U.S. terms of trade since 1879, no long-run trend has emerged. The average level of U.S. terms of trade since World War II has been almost the same as before World War I. During the Great Depression the terms of trade of developing countries deteriorated sharply because primary product prices declined much more than prices of manufactures, as they always did in depressions. The cyclical decline was then misinterpreted as a secular change. Since we now know that there has been no secular deterioration in developing countries' terms of trade, it is no longer necessary to dwell on the alleged causes (Engel's law, business monopolies and union power in the developed countries, which would be inadequate anyway, or to comment on the far-reaching policy conclusions (protectionism, leading to "balanced growth," "big push," and inflation), which must be described as ill-advised, to put it mildly.26

To further illustrate the futility of forecasting long-run changes in the terms of trade, I mention a school of thought that was the exact opposite of the Prebisch-Singer doctrine. It held that the terms of trade must inexorably turn against the industrial countries because of the law of diminishing returns in agriculture and in extractive industries. This theory goes back to David Ricardo and earlier writers and had a strange fascination for British economists. Alfred Marshall and J. M. Keynes greatly worried about the British terms of trade. The most extreme position was taken by no less than W. S. Jevons in his gloomy book, *The Coal Question: An Enquiry Concerning the Progress of the Nation and the Probable Exhaustion of the Coal Mines.* In our time Austin Robinson has taken up the theme.28 It hardly needs lengthy arguing that

27. 1st ed., London 1865; see especially chap. 13 of the 3d ed., A. W. Flux, ed. (London, 1906). Keynes related that Jevons had the courage of his convictions. He "laid in such large stores not only of writing-paper, but also of thick brown packing paper, that even today [1936], more than fifty years after his death, his children have not used up the stock he left behind him of the latter; though his purchases seem to have been more in the nature of a speculation than for his personal use, since his own notes were mostly written on the backs of old envelopes and odd scraps, of which the proper place was the waste-paper basket." Keynes's *Essays in Biography,* new edition, with three additional essays edited by Geoffrey Keynes (New York: Horizon Press, 1931), p. 266.
Ricardo’s pessimism and Marshall’s and Keynes’s worries (not to mention Jevons’s forebodings of disaster) have proved entirely groundless.\textsuperscript{29}

\textit{The Demonstration Effect}

Another pillar of development economics is the so-called demonstration effect, from which developing countries are supposed to suffer. I quote from my 1957 paper:

\begin{quote}
In our era of improved communication and transportation, of high pressure advertising by means of newspapers, radios, film, etc., consumers in poor countries come into quick and intimate contact with the latest products and gadgets developed and consumed in the richer countries. They try to emulate consumption habits which are beyond their means. This reduces the propensity to save and increases the propensity to import. In the sphere of production the consequence of the demonstration effect is supposed to be that capital intensive and highly mechanized methods of production are adopted which are uneconomical for the resource pattern of the poorer countries.\textsuperscript{30}
\end{quote}

The demonstration effect clearly is not specifically related to the developing countries. “All of us, even in the most advanced countries, are under pressure by high power advertising to live beyond our means. Everywhere we see and read of things we would like to have and cannot afford. Installment credit makes it easy actually to buy things which we should not buy. Some of us actually are tempted into making foolish purchases, which we later regret; but these slips are quickly corrected and no permanent harm results except if accommodating lax monetary policy leads to inflation.”\textsuperscript{31} In the early post–World War II period exactly the same reasoning was used in Europe, especially among Keynesian economists, to explain the “permanent” dollar shortage which then was widely supposed to exist. It was, I believe, in that connection that the term “demonstration effect” was first used by James Duesenberry of Harvard University.

\textsuperscript{29} There exists an extensive literature on the terms of trade. A large part was reviewed by T. Morgan, “Trends in Terms of Trade and Their Repercussions on Primary Producers,” in \textit{International Trade Theory in a Developing World}, Roy Harrod, ed. (London: International Economic Association, 1963), pp. 52–95. See also his “The Long-Run Terms of Trade Between Agriculture and Manufacturing,” \textit{Econometrica} (1967); Kindleberger, \textit{The Terms of Trade}; and P. T. Ellsworth, “The Terms of Trade between Primary Producing and Industrial Countries,” \textit{Inter-American Affairs} (Summer 1956). There is no support for the Prebisch-Singer hypothesis in any of these works.

\textsuperscript{30} “Critical Observations.”

\textsuperscript{31} Ibid.
The theory of the demonstration effect shows an unbecoming and unjustified patronizing attitude toward the "natives" on the part of development economists from abroad and their disciples in the developing countries. They grossly underestimate the intelligence and responsiveness to price changes of even businessmen in Korea, Malaysia, and elsewhere, let alone the lowly farmers. All that has been convincingly demonstrated by Peter (Lord) Bauer in numerous writings. While discounting the significance of the demonstration effect in the private sector of the economy, I pointed out that it operates in the area of public policy, the conduct of state enterprises, and the theories that are adopted by the development economists and that underlie their advice to the governments of developing countries.

As I indicated above, when the problems of development were thrust upon the Western world during and immediately after World War II, the faith in free markets and liberal policies was at a low point. The misinterpretation of the nature of the Great Depression and the apparent successes of the totalitarian regimes had made a deep impression on many economists and intellectuals. No wonder that this gave development economics a strong, dirigist, anti–free market, anticapitalist bias.

The most pervasive and damaging example of the demonstration effect is the excessive stress on manufacturing industries and the neglect of agriculture. This has been well described by Harry Johnson in his powerful study, *Economic Policies toward Less Developed Countries*, where he wrote, "Development plans typically steer a disproportionate share of the available . . . resources toward industry . . . Further, development policy . . . depresses [agricultural] incentives [by raising] the price of industrial inputs for agriculture [and by holding] down the prices received by agricultural producers . . . [Where] an export surplus of agricultural products [exists], it is generally deliberate policy to tax their producers heavily, [reducing] export earnings [and encouraging] the development of alternative supplies from elsewhere."32 Needless to add that protection of agriculture in industrial countries damages the developing countries and pushes them further into protectionism.

A striking and depressing example of the lack of confidence in the efficacy of the price mechanism is provided by the theory of the permanent dollar shortage, which was widely held in the early postwar period. It had a strange fascination for British economists. In a more sophisticated form it was embraced by two giants among economists,

J. R. Hicks and D. H. Robertson. The theory is based on faulty theorizing and poor judgment and has been disproved and completely discredited by subsequent developments.

The theory had, however, a strong impact on development economics. It became the theory of the "foreign exchange bottleneck." Developing countries cannot increase their export earnings, it is said, because they are faced with inelastic demand for their products; when they try to export more, the price of their exports declines, so that the value of exports remains the same or even declines.

If this were the rule it would show up in a worsening of the terms of trade. There has been no such long-run deterioration. It is perhaps possible to think of individual cases—banana republics—where something like that may have happened. Banana republics seem indeed to be the model the pessimists have in mind. If there are such cases, they should be identified. But to speak of developing-country or primary-product exporters in general is totally unrealistic.

The theory has been extended and elaborated in many ways. The most important extension probably is the so-called two-gap approach to aid and development. The importance of the two-gap approach is enhanced by the fact that its distinguished author Hollis Chenery for many years held a high position in the World Bank. Chenery and his collaborators argue in many publications that developing countries "typically," although with some notable exceptions, run into intractable bottlenecks, or gaps, which make the economy inflexible and unadjustable. These impediments are intractable in the sense that their elimination cannot be left to market forces; they require government action—in particular, foreign aid to afflicted developing countries.


In the 1920s J. M. Keynes argued in his famous dispute with Bertil Ohlin that Germany would not be able to pay reparations because demand for German exports abroad was inelastic. It is now generally agreed that Ohlin was right and Keynes's elasticity pessimism was wrong. Alfred Marshall had also emphatically rejected the idea of inelastic demand for a country's exports.

34. The list of publications and country studies in which the theory has been developed is impressive. I mention a few: Hollis Chenery with Irma Adelman, "Foreign Aid and Economic Development: The Case of Greece," *Review of Economics and Statistics*, no. 48 (February 1966); Hollis Chenery with A. Strout, "Foreign Assistance and Economic
The two gaps are the savings-investment gap and the import-export gap. The trouble arises from the alleged fact that production functions are often rectangular. To state it in the simplest form, the two factors, capital and labor, cooperate in fixed proportions (rectangular isoquants). The capital-output ratio is assumed to be fixed. Hence, if one factor, say, labor, is in excess supply, there will be unemployment, which can be eliminated only by increasing the supply of capital through more saving, foreign aid, or capital imports. The import-export (balance of payments) gap, or bottleneck, occurs if the targeted growth rate and the necessary investment require inputs imported from abroad, which most developing countries cannot obtain by more exports because foreign demand is inelastic.

All this is, of course, in sharp contrast to the neoclassical paradigm, which postulates variable, not fixed, coefficients and elastic demand. In reply to Bruton, Chenery expresses agreement with most of Bruton’s analysis, but he disagrees with the neoclassical assumption of variable coefficients and elastic demand.

In my opinion this is not a realistic model of the development process in the countries currently developing or of the early stages of development in the present industrial countries. What I find the most disturbing are the interventionist implications of the approach and the disdain of the efficacy of market forces. The authorities, both national and international, are supposed to know the appropriate or potential growth rate, the volume of investment required, the supposedly fixed capital-output ratio, and so on. This is a tall order, especially for developing countries whose statistics are notoriously deficient. Furthermore, this approach leads to protectionist conclusions. Since the usual methods of balance of payments adjustment—disinflation, devaluation of the currency, or floating—do not work, in the absence of foreign aid the only way out would be direct controls to cut down the imports of “nonessential” goods in order to make room for the imports of “essential” products. Few economists will accept that conclusion.

The apparent success of the Marshall Plan in helping the war-torn economies of Europe to recover made a deep impression on development economists. It suggested to them that foreign aid is a necessary or
even a sufficient condition for rapid development. On several occasions I pointed out that this analogy is invalid, irrespective of one's view of the success of the Marshall Plan. It is one thing to assist the economic reconstruction of a war-ravished industrial country; it is a much more difficult and time-consuming task to help a backward country change its way of life and modernize its economy.

Keynesian Economics and Disguised Unemployment

In my 1957 paper I pointed out that development economists eagerly embraced Keynesian economics and "sadly neglected" what I called "the most serviceable types" of neoclassical economics. These include specifically the neoclassical analysis of the infant industry argument for protection, which is, of course, directly applicable to the developing countries.

The theme has been taken up by Albert Hirschman in his brilliant paper "The Rise and Decline of Development Economics" and echoed by Hans Singer. Hirschman speaks (pp. 375-76) of the "inapplicability of orthodox macroeconomics in underdeveloped areas"; Keynes made the "crucial step" from "monoeconomics" to "duoeconomics." He established the "new economics" applicable to situations with unemployment, which "had instant credibility."

All this is, in my opinion, deeply flawed, confusing, and misleading. To begin with, it is not clearly stated what the orthodox macro policy is that failed in the 1930s and is not applicable to developing countries. It probably refers to the views of those who opposed the Keynesian prescription of deficit spending in a deep depression. That view was widespread in British Treasury circles in the City of London and was held by a small but influential group of conservative economists at the London School of Economics, led by F. A. Hayek, Lionel Robbins, and others. (Robbins later changed his mind.)

We have seen already that the Keynesian recommendation of deficit spending in an ongoing deflationary spiral is and was shared by many neoclassical economists such as A. C. Pigou and D. H. Robertson, including some monetarists. It did not require a new economics to make

35. I myself share the general view that on the whole the Marshall Plan was a very constructive and beneficial policy, even though the advice of the American administrators of the plan to the recipients of aid was not always the best.
36. I discussed the infant industry protection in The Theory of International Trade.
this point. For example, it was the prevailing view of Henry Simons, F. H. Knight, Jacob Viner, Lloyd Mints, and others in Chicago that without gross monetary mismanagement the Depression would not have become so deep, but that after a deflationary spiral had been allowed to develop, government deficit spending was in order, preferably through the operation of the automatic stabilizers, to inject money directly into the income stream. As Milton Friedman, Herbert Stein, and others have pointed out, this climate explains why Keynes did not catch on in Chicago as he did in London.

The development economists who embraced Keynesianism failed to distinguish between Keynesian economics and the economics of Keynes. Keynes himself never lost sight of the dangers of inflation. As mentioned above, one year after the publication of his *General Theory*, he urged a shift from fighting unemployment to restraining inflation. Most Keynesian economists, however, have shown little concern about inflation and have continued to urge expansionary policies throughout the post-World War II period.

In my 1957 article I had a lengthy criticism of the theory that there is widespread disguised unemployment in the developing countries, mainly but by no means exclusively in rural areas. I pointed out that the concept of disguised unemployment originated in Keynesian circles. Joan Robinson seems to have used the term the first time to designate workers who, having lost well-paid positions in industry to which their skill and training entitles them, are doing odd jobs, raking leaves or selling apples to eke out a miserable living.

38. Similar views were expressed in Germany by conservative economists such as Albert Hahn and Wilhelm Röpke. They spoke of "secondary deflation," which enormously aggravated the cyclical decline caused by "structural maladjustments." The secondary depression required strong expansionary measures, including government deficit spending.


In a deep depression, Keynesian unemployment, open or disguised, is easily curable by government deficit spending. This is, of course, not applicable in developing countries. The more sophisticated proponents of this theory, W. A. Lewis, Ragnar Nurkse, and P. N. Rosenstein-Rodan, recognize this, but they insist that at least in the more densely populated countries of Asia and Africa disguised unemployment is heavy in rural areas. That means that a fraction of the labor force—25 percent is often mentioned—could be withdrawn without a loss of output. In other words, the marginal productivity of labor is zero or even negative.

Although this situation is not inconceivable in isolated cases, I have strong doubts that it ever existed anywhere on a considerable scale. I have pointed out that the idea of disguised unemployment is associated with the proposition that the capital-labor ratio is fixed; in other words, that the isoquants in the production function are rectangular (or at least angular). I have also demonstrated that the theory of disguised unemployment can be regarded as an extreme and unrealistic version of the theory that in many developing countries, and perhaps in some developed countries too, the quality of labor in agriculture is lower than that in industry; in other words, that agriculture is a backward sector of the economy.

There surely is some truth in this assertion. The process of development will lift backward areas to higher levels through investment in material capital as well as in human capital. There is, of course, much room for public policies to speed up the process of development—for example, by providing better infrastructure and better education. But to speak of disguised unemployment because workers will produce more when better tools, machines, and education become available is totally inappropriate. In that case, everyone is a disguised unemployed, because in the future we will all produce more with better methods of production, better tools, and better education.

Naturally I was very pleased when I discovered that Jacob Viner and

41. Rosenstein-Rodan in a famous article refers to East European countries. His figures have been critically analyzed and found wanting by Berdj Kenadjian, "Disguised Unemployment in Underdeveloped Countries," Zeitschrift für Nationalökonomie, vol. 21 (1961), pp. 216-23, part of a Ph.D. dissertation, Harvard University, 1962.

42. In my 1957 article, "Critical Observations," I pointed out that the argument has been used to advocate protection for industry so that inefficient labor can be drawn from agriculture and educated on the job in industry. This is, of course, the infant industry argument for protection. The scope and limits of the argument have been thoroughly discussed in the classical and neoclassical literature by John Stuart Mill, Alfred Marshall, Frank W. Taussig, and others.
Theodore W. Schultz strongly reject the theory. In a well-known article, "Some Reflections on the Concept of 'Disguised Unemployment,'" Viner has this to say:

As far as agriculture is concerned, I find it impossible to conceive of a farm of any kind on which, other factors of production being held constant in quantity, and even in form as well, it would not be possible, by known methods, to obtain some addition to the crop by using additional labor in more careful selection and planting of the seed, more intensive weeding, cultivation, thinning, and mulching, more painstaking harvesting, gleaning and cleaning of the crop.

I am not aware that anyone has ever given a convincing illustration of a technical coefficient, which is “fixed” in any valid economic sense. [Speaking of the steel industry, he says:] If iron ore, or coal, were as expensive per ton as gold I am sure that the steel industry would find ways of appreciably reducing the amounts of iron ore, or of coal, it uses to produce a ton of steel of given specific character, even though the chemical constituency of the steel were invariant, and, moreover, it would readily find ways of changing the chemical constituency of a ton of “steel” without reducing its suitability for its ordinary uses, and this not only in the long run but in the very short run.

Nobel Laureate Theodore Schultz is just as emphatic as Viner in rejecting the theory of widespread disguised unemployment. He is doubly qualified as a renowned expert on world agriculture and for his seminal work on human capital. He quotes approvingly Viner's statement concerning agriculture cited above, and he sums up his views as follows: “The conclusion with respect to the doctrine that a part of the labor working in agriculture in poor countries has a marginal productivity of zero is that it is a false doctrine. It has roots that make it suspect. It rests on shaky theoretical presumptions. It fails to win any support when put to a critical test in analyzing effects upon agricultural production of the deaths in the agricultural labor force caused by the influenza epidemic of 1918–1919 in India.”

**Trade Policies for Developing Countries**

I always took it for granted that neoclassical trade theory, as developed by Viner, Heckscher, Ohlin, Meade, Samuelson, or myself is
applicable for both developing and developed countries. It never oc­
curred to me that a different theory applies to developing countries. The
thesis of duoeconomics came later. Traditional trade theory includes, of
course, the theory of trade policy, which is a branch of welfare econom­
ics. Most trade theorists lean toward free trade, but all of them realize
that there exist exceptions to the free trade rule. In view of the great
diversity of developing countries, the theory of duoeconomics makes no
sense. Why should a different theory apply to Argentina and Australia,
or to Brazil, Portugal, and Spain?

The classical theory of comparative cost in its modern form presents
a greatly simplified model of general equilibrium which lends itself to
diagrammatic analysis. It has proved a versatile tool of analysis. Much
has been made of the fact that the basic model of comparative cost, like
most general equilibrium theories, is static and assumes perfect com­
petition. Development problems, however, are essentially dynamic in
nature; therefore, it is argued, a static theory is of no use. But the
argument is fallacious. Although the simplest theory of demand and
supply is static, nobody would doubt that it is applicable to developing
countries.

In my Cairo lectures, I argued at some length that the static nature of
trade theory does not deprive it of usefulness in exploring dynamic
processes. There is, after all, the method of comparative statics. True,
for certain problems, such as the short-run business cycle, comparative
statics is of little use. But the trade problem is different. Static gains
from trade along the lines of comparative cost enable a country to save
and invest more. Furthermore, it attracts capital from abroad and
fosters the importation of technical know-how. This means that the
static production possibility curve is pushed out. I recalled that classical
and neoclassical theorists were fully aware of the dynamic effects of
trade. John Stuart Mill, for example, argued at great length that in
addition to the direct (static) beneficial effects of an international
division of labor according to comparative cost, trade has powerful
indirect (dynamic) effects by “placing human beings in contact with
persons dissimilar to themselves, and with modes of thought and action
unlike those with which they are familiar.” This is “principally appli­
cable to [countries in] an early stage of industrial advancement,” that
is, to what we now call developing countries. According to Mill, “in­

45. International Trade and Economic Development, 50th Anniversary Com­
memoration Lectures (Cairo: National Bank of Egypt, 1959). See also my paper “An
Assessment of the Current Relevance of the Theory of Comparative Advantage in
3 (May 1964). Both papers are reprinted in Economics of Trade and Development, James
direct benefits of commerce, economical and moral, [are] still greater than the direct.**46

I now come to the main question: what is the proper trade policy for developing countries? Most developing countries pursue highly protectionist policies, which are often called—euphemistically—a policy of import substitution, especially with respect to manufacturing industries. In many cases the results have not been good. The economic landscape in some developing countries is littered and disfigured by white elephants, modern factories unsuited to their productive resources, which either stand idle or operate inefficiently at exorbitant costs, with protection from imports or direct subsidies at the expense of the taxpayer and the traditional export sector—mainly agriculture. The demonstration effect at its worst. Tanzania is a sad example.

As mentioned, most classical and neoclassical trade theorists lean toward free trade but realize that there are exceptions to the strict free trade rule. Some of the arguments for tariffs are discussed below, along with their possible applications to developing countries.

*Terms of Trade Argument for Protection.* The terms of trade argument comes in two different versions, a static and a dynamic one—the latter applicable specifically to developing countries. The static version, also called the optimum tariff theory, is beloved by trade theorists because it lends itself to elegant mathematical and diagrammatic analysis. It states that any country or group of countries that is confronted with foreign demand for its products with an elasticity of less than infinite can improve its position by imposing restrictions on imports or exports, a duty whose height depends on the elasticity of foreign demand. In other words, any country that, unlike the individual wheat or dairy farmer, is not confronted with infinitely elastic demand for all its products wields some monopoly power which it can exploit in a variety of ways.

The theory has been elaborated in many different ways. But it is not necessary to go into details, for it seems clear that there exists not a single developing country that has any control over its terms of trade. This is more true now than it was earlier because of the tremendous growth of the world economy and of world trade since World War II and the emergence of new industrial centers in many parts of the world, including the Third World and the communist bloc.

This development has made the world economy more competitive

than it was and has also made obsolete a theory that was popular among the development economists in the early post–World War II period. This theory holds that the developing countries are confronted by monopolistic markets in their purchases of manufactured goods, and that prices are kept above competitive levels by international private cartels or simply by the absence of price competition among producers operating in imperfect markets. In the early years after World War II, U.S. industry had a quasi monopoly because Europe, Japan, and the communist countries lay prostrate from the ravages of war. But the world economy has completely changed since then. Moreover, even if it were true that developing countries are victims of monopolistic exploitation on the import side, it would not follow that their proper response should be protectionist measures. On the contrary, this response would make things worse.

In the past, many attempts have been made to organize international cartels and collective restriction schemes for rubber, tin, coffee, and the like. All these attempts have failed. The only successful one—for a time—was OPEC. But even mighty OPEC is now in disarray. The mills of markets grind slowly, but powerfully. After some delay, OPEC's monopoly power was undermined by market forces when the high price of crude oil stimulated conservation of energy and induced a successful search for oil outside the OPEC countries.

To sum up, the static terms of trade argument for protection simply does not hold any more, if it ever did. The dynamic version is based on the Prebisch-Singer thesis that the terms of trade of developing countries have a secular tendency to deteriorate. If this were true it could be argued that protection of manufacturing simply speeds up an unavoidable development. But since the Prebisch-Singer thesis is invalid, it cannot supply an argument for protection.

The arguments for protection that appear relevant for developing countries are the infant industry, unemployment, and external economies arguments. These arguments are indeed interrelated.

**Infant Industry Argument.** In what might be called a synthetic picture of views widely held by supporters of infant industry protection and development economists, I will try to make the case for protection as reasonable as I can.

Unemployment is in the center of the stage. The most reasonable interpretation of the alleged existence of heavy rural unemployment in

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47. See, for example, The Economic Development of Latin America and Its Principal Problems (New York: ECLA, 1950). The theory was endorsed by Nicholas Kaldor; see his "Stabilizing the Terms of Trade of Underdeveloped Countries," paper submitted to the Rio de Janeiro Conference organized by Yale University, January 1963.
developing countries is not that the marginal productivity of labor is literally zero, but that the efficiency of labor in agriculture is low, perhaps very low, compared with that of agricultural labor in more highly developed countries and also with that of labor in industry in the developing countries themselves. The lack of an efficient, educated, disciplined labor force is, of course, a great handicap for the development of industries. But inefficient labor can be trained on the job. This is, after all, what happens in the process of development. The crucial question then is, can and should the process be speeded up by providing support to industry through restraints on imports or in some other way—or should it be left to market forces?

I present two answers to this question: first, the view of the proponents of infant industry protection which is shared by many development economists and, second, that of classical free traders.

Infant industry protection is, to use modern terminology, largely investment in human capital. To make it possible for nascent industries to provide on-the-job training for inefficient and therefore expensive labor, they need “temporary protection” from foreign competitors who are not handicapped by inefficient labor. This applies not only to workers, but also to managers and possibly fledgling entrepreneurs.

Free trade economists, of course, argue that free markets will take care of the problem. Peter Bauer recently restated his view in a powerful article, “Myths of Subsidized Manufacturing.” He flatly calls the infant industry argument invalid. “Business people are prepared to finance the early stages of an activity they expect will become viable. Indeed, they routinely do so in manufacturing, trade, transport, and commercial agriculture alike.”

For a different view, I first quote a free trader, John Stuart Mill, who says in his Principles: “But it cannot be expected that individuals at their own risk, or rather to their certain loss, will introduce a new manufacture, and bear the burdens of carrying it on until the producers have been educated to the [efficient] level.”

Mill did not say why he thought that this was not to be expected. An attempt to give a precise reason came much later. What I have in mind is Paul N. Rosenstein-Rodan’s theory of the “inappropriability” of labor skills. He explains it this way: “Under a system of slavery it paid the owner to invest in training a slave because the increase in skills would benefit the investor. When slavery was abolished, a worker trained

49. Ashley edition, p. 922. Mill was fully aware of the great danger, not to say certainty, that in practice infant industry protection will be carried from “infancy to senility,” to quote Bauer again.
could contract with an outside employer who did not have to bear the cost of his training. Whoever invested in the training of the worker would run the risk of not being able to appropriate the benefit of increased productivity. The training and education of workers under competitive market conditions would therefore be below optimum. This is a widespread phenomenon.” In other words, in a free country “there are no mortgages on workers.”50

There may be some truth in all this, but it surely requires further analysis. The theory must assume that there are institutional rigidities and distortions. For in a fully competitive economy, where factors of production are remunerated according to their marginal productivity, untrained labor would receive a correspondingly low wage. That would mean that the cost of training would be borne by the trainees, not by the trainers. Hence, there would be no presumption of underinvestment. Thus the Rosenstein-Rodan effect would not materialize.

True, it can be argued that in many developing countries, just as in industrial countries, wages have become rigid, union power has increased, and government policies have fostered this development through welfare measures, minimum wages, and so forth. Such policies, which in some industrial countries took fifty years or longer to develop, were adopted in some developing countries in a hurry.

But this does not justify import restrictions. In fact, such restrictions are a poor second or third choice. The first choice is clearly to change the policies that cause the rigidities and distortions. The theory can and has been elaborated in many different ways. For example, Robert Lipsey has suggested to me that Gary Becker’s distinction between general and specific training can be usefully applied. Becker defines the two types of training as follows:

General training is useful in many firms besides those providing it: . . . firms would provide general training only if they did not have to pay any of the costs. Persons receiving general training would be willing to pay these costs since training raises their future wages. Hence it is the trainees, not the firms, who would bear the cost of general training and benefit from the return . . . Completely specific training can be defined as training that has no effect on the productivity of trainees that would be useful in other firms . . . If all training were completely specific, the wage that an employee could get else-

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where would be independent of the amount of training he had received... The wage paid by firms would also be independent of training. If so, firms would have to pay training costs, for no rational employee would pay for training that did not benefit him. Firms would collect the returns from such training in the form of larger profits resulting from higher productivity.51

The general conclusion to be drawn from this analysis would seem to be that a good deal of the cost of on-the-job training can be left to competitive markets, but there surely is a case for public expenditure on education to foster general training.

External Economies and Diseconomies. The problem of external economies plays a great role in development economics.52 The concept of external economies was first introduced by Alfred Marshall in his Principles. It can be defined as influences that flow from the expansion or contraction of one firm or industry to other firms or industries, and that for one reason or another are insufficiently acknowledged by the market or not acknowledged at all—nonmarket interactions for short. Neoclassical writers, for example Jacob Viner, distinguish between technological and pecuniary external economies.

It is easier to think of examples of technological diseconomies than of technological economies. This has become clear in our age of environmental concern. Pollution of air and water are real problems that are dealt with by administrative and legislative actions. Development economists tend to neglect diseconomies when they assert that external economies are more important in industry than in agriculture. This is hardly true of diseconomies.

Tibor Scitovsky defines pecuniary external economies as follows: If industry A invests and expands, it is bound to have pecuniary repercussions on any or all of the following industries: (1) on industries which produce intermediate goods (such as machinery and materials) used by A; (2) through cheapening of A’s own products, on industries which use A’s products as intermediate goods; (3) on industries on whose products factors used in A spend their additional income; (4) on industries whose product is complementary in use to the product of A.53 To repeat,
according to neoclassical writers these interindustry reactions are not really external; they are reflected in price changes, and market participants take them into account. Development economists such as Rosenstein-Rodan, Scitovsky, and others, however, assert that in the “dynamic context of development these pecuniary external economies become real.” Scitovsky puts it this way: “In the market economy prices are the signalling device that informs each person of other people’s economic decision and thus guides production and investment decisions. Market prices, however, reflect the economic situation as it is and not as it will be. For this reason they are more useful for coordinating current production decisions . . . than . . . for coordinating investment decisions, which have delayed effects . . . and should be governed . . . by what the future economic situation is expected to be . . . Hence the belief that there is need either for centralized investment planning or some additional communication system to supplement the pricing system as a signalling device.”

In my opinion this analysis misunderstands the working of a dynamic decentralized market economy. It ignores the role of the entrepreneur and underestimates his capability to foresee the consequences of his action. Of course, any investment carries a certain amount of risk. The larger the investment and the more durable the equipment, the larger the risk. But any adaptation to a change carries uncertainty and risk. The distinction between current production and investment is one of degree. It is therefore misleading to say that the equilibrium theory applies only to the former.

Rosenstein-Rodan and Scitovsky have been quite consistent in their policy conclusion. As Scitovsky put it, to capture the alleged pecuniary external economies, of which the private producers are supposed to be unaware, simultaneous expansion of all industries is necessary. Only complete integration of all industries can do the job. This amounts to a plea for comprehensive central planning.

Using different language, Rosenstein-Rodan reaches the same conclusions. He pleads for a “big push,” that is to say, simultaneous expansion of many industries. For good measure he also urges a large investment of social overhead capital by the government to provide an elaborate infrastructure and calls for government programming of the process of economic development; this too amounts to a call for central planning.

54. Ibid., pp. 305–06.
55. Ibid., p. 304.
Providing a good infrastructure—education, law and order, a good monetary system, and so on—is, of course, vitally important for economic development, and in many developing countries these public services badly need improvement. But when the call for massive expenditures on infrastructure comes on top of a big push to expand many industries through government actions at public expense, the whole program becomes a recipe for economic disaster. It would greatly overburden the weak administrative capabilities of developing countries, overtax their economies, and open the floodgate for corrosive inflation.

The best policy would be to let free markets, in other words, capitalism, do what they do best—develop new industries. Direct investment by foreign corporations should be encouraged, because they provide technological know-how and on-the-job training. Unfortunately, one often finds that foreign companies are denied permission to set up branches in developing countries because this would make life harder for the protected state enterprises. This is development policy at its worst.

As indicated earlier, these theories were developed after the Great Depression and during or immediately after World War II, when faith in free markets was at an all-time low and the prestige of the two totalitarian regimes, Nazism and Bolshevism, and their alleged economic successes were at their zenith. Since then the situation has completely changed. We are now in a position to compare the performance of market economies and centrally planned ones: the German Democratic Republic and the Federal Republic of Germany, the Democratic Republic of Korea and the Republic of Korea, Austria and Czechoslovakia, Greece and Yugoslavia, pairs of countries with similar backgrounds that in the past have enjoyed the same standard of living. Other examples are Taiwan and China, Malaysia and Thailand versus Burma. There can be no doubt that market economies have performed better.

There surely are cases where judicious, temporary restrictions on imports can be justified to help infant industries. For markets are often imperfect, and private investors make mistakes. But market failures and mistakes in the private sector usually correct themselves, possibly in a recession. The business cycle is still with us. In the past fifty years enormous technological advances in transport, communications, and information have made markets much more competitive than they were at the time when new development theories emerged.

Faulty government policies, however, are hard to change. When controls do not yield the intended results, the controls are not abolished but tightened; when the response to a policy of subsidies is not what was expected, the subsidies are raised but the policy continues and
infant industry protection is likely to be extended to senility. As Deepak Lal, in his hard-hitting classic, wisely remarked: "Imperfect markets [are] superior to imperfect planning."  

**Exchange Rate Policies for Developing Countries**

Many developing countries suffer from high rates of inflation. If that is the case they should let their currencies float to minimize the adverse effects of inflation on their foreign trade. They should avoid import restrictions for balance of payments reasons, and avoid exchange controls like the plague.

The best policy would be to curb inflation sufficiently to make it possible to peg the currency to a suitable foreign currency, to special drawing rights (SDRs), or some other basket of currencies—but of course they must make sure that the currency is fully convertible into the currency or currencies to which it is pegged without the use of controls. According to statistics of the International Monetary Fund, thirty-four countries peg their currencies to the dollar, thirteen African countries peg to the French franc, eleven to SDRs, and so on.

Proposals have been made, especially in Latin America, to organize regional monetary unions, analogous to the European Monetary System (EMS). In my opinion, this is not a good approach. A monetary union requires very tight coordination of monetary policy, which is almost impossible to achieve by sovereign states. The example of the EMS is misleading for two reasons: first, the EMS is, after all, backed up by the European Community; second, despite the impressive facade, the EMS has not been an outstanding success from the economic point of view.

**Excessive Pessimism**

Most of the development literature, both private and official, is imbued with deep pessimism about past performances and prospects for the future of the developing countries. To some extent this pessimism may be regarded as a negotiating stance; for much of the literature, even the unofficial literature, is meant to support demands of the poor countries for foreign aid and other concessions from the rich.

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57. Since this was written, the Economist (May 18, 1985, p. 73) has taken up the subject. It points out that "many developing countries are still letting their exchange rates become overvalued. The results are always bad, sometimes disastrous." In other words, many developing countries use controls to prop up the exchange rate.
industrial countries. Whatever the motive, in my opinion, the pessimism is unjustified.

To set the record straight, I can do no better than to quote the world's foremost authority on economic growth, Simon Kuznets. In his magisterial lecture, "Two Centuries of Economic Growth: Reflections on U.S. Experience," Kuznets summed up the results of the enormous amount of research that he and others have done in recent years: "Even in this recent twenty-five year period of greater strain and danger, the growth in peacetime product per capita in the United States was still at a high rate; and in the rest of the World, developed and less developed (but excepting the few countries and periods marked by internal conflicts and political breakdown), material returns have grown, per capita, at a rate higher than ever observed in the past."\(^58\)

In his paper, "Aspects of Post–World War II Growth in Less Developed Countries," Kuznets had this to say: "For the LDCs as a group, the United Nations has estimated annual growth of total and per capita GDP (gross domestic product at constant factor prices) from 1950 to 1972. The growth rate of per capita product . . . for the twenty-two years was 2.61 percent per year . . . Such growth rates are quite high in the long-term historical perspective of both the LDCS and the current DCS. These high growth rates are largely a recent phenomenon, the result of the post–World War II period of comparative liberalism and liberalization."\(^59\)

Kuznets is, of course, fully aware of the dangers of using broad aggregate measures of growth for the developing countries as a group, given the great diversity among them. He discusses and carefully evaluates possible biases in the procedures. But after everything has been said and done, he stands by the basic soundness of his findings and is puzzled that, despite the "impressively high" growth rates "in the per capita product of LDCs over almost a quarter of a century," the general


sentiment in the developing countries is one of dissatisfaction and gloom that "seems to ignore the growth achievements." He conjectures, and gives ample reasons for this conjecture, that "a rise in expectations has produced a negative reaction to economic attainments which otherwise might have elicited litany of praise for economic miracles."\textsuperscript{60}

I suggest three factors that have aroused excessively optimistic expectations. The first one is that the early economic success of the U.S.S.R.—rapid industrialization and growth, and immunity from the depression that engulfed the West in the 1930s—made a deep impression in the developing as well as in the developed countries. It engendered the belief that through comprehensive central planning governments have it in their power to lift backward countries, in one great leap, to a higher level of development. It took a long time for the persistent conspicuous lag of the centrally planned countries behind the market economies to shake confidence in the superiority of central planning. This issue cannot be further discussed here. I confine myself to asking a simple question: How is one to explain the glaring gap in the per capita GNP and standard of living between such pairs of countries as the German Democratic Republic and the Federal Republic of Germany, Austria and Czechoslovakia, Yugoslavia and Greece—pairs of countries that enjoyed about the same standard of living in the pre-communist era?

The second factor to arouse overoptimistic expectations was the apparent success of the Marshall Plan in speeding European recovery after the war. We have seen that the analogy of the Marshall Plan and foreign aid to developing countries is invalid.

The third factor was the great success of the oil cartel in lifting the standard of living in most member countries of OPEC. But mighty OPEC countries have recently fallen on hard times. The high price of crude oil has stimulated conservation of energy and the search for alternative sources. The demand for OPEC oil has sharply declined. The mills of the market often grind slowly, but they always grind powerfully.

\textsuperscript{60} Ibid., pp. 40–41.
Comment

W. Max Corden

GOTTFRIED HABERLER is not a development economist as this term is usually understood. He has not written about particular developing countries—that is, currently low-income countries—nor has he focused primarily on their specific problems. But his work is actually highly relevant, both to the analysis of their own policies and to the impact of world macroeconomic developments on these countries. Indirectly, his contributions to trade theory have probably had a greater effect on their policies and the analysis of their policies than the work of some of the development pioneers presented in the first volume in this series.

Above all, Haberler is one of the great figures of international economics in this century. He played a crucial role in the construction of the modern pure theory of international trade by introducing the opportunity cost approach (which replaced the confusing real cost approach espoused particularly by Viner). This new approach clarified the nature of the gains from trade and the law of comparative advantage and went beyond Ricardo's special constant cost case. With further contributions from Lerner, Leontief, and Samuelson (on the gains from trade), and then from Samuelson (incorporating the great Heckscher-Ohlin insights), the foundations of modern pure trade theory were laid. In addition, Haberler's classic textbook, *The Theory of International Trade*, written in his early thirties, has laid the foundation for much later work. It sorted out (and usually demolished) many arguments for protection. It foreshadowed various models and ideas that became prominent later, such as the specific factors model of trade theory.

Most important for the analysis of economic policy of developing countries is his modestly titled but actually quite revolutionary article,

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“Some Problems in the Pure Theory of International Trade,” which initiated the theory of domestic distortions. In this article he analyzed the implications for the gains from trade of a number of domestic distortions, notably externalities and factor price rigidities. Perhaps his main contribution was to show that immobilities of factors of production (factor specificity being an extreme case) do not affect the case for free trade, but that factor price rigidities do. This pioneering work was subsequently expanded to the analysis of protection and to the consideration of various other cases by Meade, Johnson, Bhagwati, and others. It has been very influential and, in effect, led to a reconstruction of the theory of trade policy.

Gottfried Haberler made his international reputation with Prosperity and Depression, first published in 1937 and revised four times after that, the last in 1964. This book critically analyzed numerous pre-Keynesian trade cycle theories, displaying an unsurpassed mastery of the extensive literature in this field and an ability to consolidate and integrate. The later editions took account of Keynes’s contributions. Above all, this book showed historical perspective and detachment, something for which Keynes and his followers were not noted. It also foreshadowed numerous ideas that became more prominent later. The book was a tour de force and an immediate success, receiving enthusiastic reviews. Subsequently Haberler has written extensively, but in a less integrative fashion, on domestic and international macroeconomic issues, particularly on the international monetary system and (skeptically) on various reform proposals.

His paper here speaks for itself. It is utterly clear, written in Haberler’s usual simple, unpretentious style. It certainly does not require summarizing. What comes through is his historical sense, his constant awareness of the contributions of earlier scholars, and his breadth of approach. A good part of it might be regarded as rather negative, because he reviews his criticisms over the years of a whole range of questionable arguments that were temporarily fashionable. For this reason I have drawn attention to his important positive contributions. In my view he has been consistently correct, one reason being that his arguments are always carefully qualified, a characteristic to which I shall return. Many of the criticisms he made seem obvious today, but it is worth noting that Haberler was right at the time, not afterwards. As a discussant of his paper I suffer from the serious disability that I agree with him almost entirely and know of no way of saying better what he has already said so straightforwardly. No doubt criticisms can be made

from points of view with which I have little sympathy. To me it seems hard for a reasonable person to disagree.

A common strand in some of the arguments that Haberler has criticized over the years is a tendency to draw long-term conclusions from short-term events. Haberler has always seen the folly of this at the time. The Great Depression, from which the world was slow to recover, in the late 1930s led to the theory of secular stagnation, which was still being written about after World War II. The current account surplus of the United States in the immediate postwar period, combined with the physical shortages in Europe which were obviously the result of wartime dislocation and destruction, led to the theory of the long-term dollar shortage. The decline in the terms of trade of commodity exporters in the Depression, and again after the Korean boom, led to elaborate theories claiming that there was a long-term tendency for the terms of trade of developing countries to decline. The conclusion I draw from this is that one should be hesitant to draw conclusions about long-term trends from developments that may be short-term. In fact, it is hard if not impossible to detect such trends, if indeed there are any, from the observation of recent and brief periods.

If one wished to criticize Haberler's paper, perhaps one should note that Scitovsky would no longer agree with his 1954 argument (about pecuniary externalities) that private decisionmakers use only existing and past prices as guides to resource allocation and ignore expectations; this leads to rather simple-minded conclusions about the need for centralized coordination. I also find it hard to believe that Gunnar Myrdal in the 1970s stood by his beliefs of the 1950s quoted by Haberler.

In addition, Haberler's remarks about the irrelevance of the terms of trade argument for trade restrictions for developing countries seem to be too sweeping. In fact, his lack of caution here is uncharacteristic, and qualifications need to be pointed out. After all, the OPEC cartel did succeed in improving the terms of trade of its members for a considerable time. The gains are being gradually eroded, so that it is impossible to sustain the conclusions derived from purely static theory that there is some firm, permanent, optimal degree of trade restrictions. But there have been terms of trade gains in that particular case. One could find other cases in which temporary—but significant—gains are likely to have been obtained from some degree of trade restrictions. This does not mean that trade restrictions should be greater than they now are, but rather that the national optimum may sometimes justify some modest degree of restrictions. But this is a rather minor quibble. An empirical judgment is involved, and one might argue that the OPEC case is sui generis. If, as is usual, the potential gains concern an improvement in export prices, the optimal policy requires export taxes or cartels, not
import tariffs or quotas. Other than in a two-good model, tariffs and quotas cannot be "symmetrical" (à la Lerner) with an optimal structure of export taxes, a structure that is likely to be nonuniform.

Haberler notes that in the postwar period there has been nothing resembling the Great Depression because there were no substantial deflations through sudden money contractions. He notes that this favorable outcome was not foreseen by Keynesian economists. It might be said that there were no severe deflations because Keynesian policies were being followed, so that the only fault of the Keynesians was in failing to foresee the successful adoption of their messages.

This raises the deeper question of why depressions were avoided after World War II and why, until 1973, remarkably low levels of unemployment were maintained in all the developed countries. Was this really the result of Keynesian policies? For one thing, until the so-called new economics came to the United States, Keynesian theories were explicitly accepted in only a limited number of industrial countries, notably Britain and other Commonwealth countries and Scandinavia. The United States, Germany, and France were not explicitly Keynesian. Even in the "Keynesian countries" investment demand was buoyant and relatively stable, so that there was no great need for countercyclical fiscal stabilization policies. But one could argue that in those cases the knowledge that Keynesian stabilization policies would be followed if needed (and were followed to a modest extent) helped to generate the stability and buoyancy of investment.

I would add another explanation of the long-term tendency for all the industrial countries to have little unemployment until the early 1970s, whether or not they professed to follow, or actually did follow, Keynesian policies. The explanation involves a mixture of neoclassical theory and historical or sociological factors. Workers—more specifically, trade unions—were willing to accept real wage levels which were compatible with full employment, a willingness that was gradually eroded in the 1970s. This moderation in real wage demands and expectations was explained by the memories of the Depression and, in continental Europe, of the earlier inflations and the hard times of the immediate postwar period. Furthermore, underlying growth rates were so high (partly because of wage moderation) that for a long time expectations of standard of living increases did not get ahead of the increases that were actually possible at full employment levels.

If the real wage levels had not been accepted by trade unions, nominal wages would have increased further and, with monetary expansion, would have squeezed profits and thus generated unemployment. Given the fixed exchange rate system and the stable monetary policies being followed in the United States, further monetary expansion would have created balance of payments problems outside the United States, as
occasionally it did. If this were avoided with exchange rate depreciation, eventually the inflationary consequences would have led to restrictive measures and thus to unemployment.

All this is a somewhat lengthy diversion provoked by some brief remarks of Gottfried Haberler's. To return to the main subject, something must be said about Haberler's style or approach. It does not appeal to those who like drama or flamboyance. Some might argue that if ideas are to make an impact they must be stated in extreme form. Haberler, however, is too scholarly, has too much knowledge of and respect for the contributions of scholars of earlier times, and is too aware of the qualifications to most simple propositions to engage in the sort of bold generalizations or statements, and spurious claims to originality, which are often found effective for maximum impact.

Haberler's early skepticism about Keynes's contributions is well known, and I have found particularly interesting his sympathetic but similarly sceptical remarks about the most recent development in macroeconomic theory: rational expectations. His few pages on the subject at a conference in 1980, where he criticized the "hard-line version" of this theory—a type of criticism that five years later is perhaps conventional—are instructive. 4 He agrees that countries should not "fine-tune," but also believes that they should not rule out discretionary anticyclical policy when there is a serious recession. The Keynesian prescription (one not merely advocated by or owed to Keynes) was appropriate for the 1930s. Turning to rational expectations, Haberler queries the sharp distinction between "systematic" or predictable policies and "unsystematic" policies on which the theory focuses and from which some early contributors derived some rather far-fetched conclusions. Furthermore, he points out that not all agents in a market appraise policies in the same way, and not everybody is a monetarist. He prefers the "post-Keynesian consensus," whereby expansionary monetary and fiscal policies can have significant real effects, even when announced in advance, but effects on inflationary expectations must also be taken into account. Haberler is thus no macroeconomic extremist. And all these issues concern developing countries. The new developments in macroeconomic theory have been applied to developing countries, mainly in Latin America, and they have affected and will continue to affect the thinking of domestic policymakers and domestic and foreign advisers.

In the first volume of this series Paul Streeten suggested some thought-provoking categorizations for development economists. I have been wondering where Gottfried Haberler fits in.

Is he a constructionist or a skeptic? Obviously, he is a constructionist about the uses of the neoclassical model. He uses it continuously, and he shows, for example, that static models are useful even in a dynamic world and that, in any case, the theory does not ignore dynamics. (Quite early, in his well-known Survey of International Trade Theory, however, he called for improvements in a dynamic direction, a call that has, in fact, been heeded by subsequent contributors to trade theory.) He is a constructionist when he refutes silly arguments against trade theory, which take simple heuristic models (such as Samuelson’s factor price equalization model) literally and criticize trade theory because one cannot observe results that appear to follow from very simple models. With his continual and sensible use of neoclassical theory he is indeed an archconstructionist. But Haberler is, of course, also a skeptic, not only about the numerous unsound generalizations and confused arguments to which he refers in his paper, but also about more recent extreme arguments on the neoclassical side, namely (as I have mentioned) the theory of rational expectations.

Is Haberler a utopian or a pedant? He is definitely not a pedant. Indeed, pedantry irritates him, and he has never been fond of excessive formal theorizing (note his skeptical references to the elaborations of the terms of trade argument for protection). At the same time, his style is certainly nonutopian. He is too much of a skeptic and too judicious. But, in a sense, he is a utopian, while recognizing the short-term costs that may be involved in getting to Utopia. He does believe that a system of free markets and free trade (subject, I need hardly add, to some qualifications) is the most efficient way of organizing an economy, and he has consistently advocated moving in that direction. Although he does not suggest that Utopia would result, he has no doubt that great improvements could, in many cases, be brought about by moving in that direction. And, in a manner of speaking, the Utopias—or at least the role models—do exist, though never, of course, perfect.

In referring to Argentina, Haberler used the phrase “horrendous mismanagement.” No doubt this could be used about the economic policies of many other countries, although Argentina may have given the world some of the most dramatic examples. Indeed, in many countries at many times there is “horrendous mismanagement,” and economists like Haberler spend their time preaching against it and hoping to improve things with their preaching. In a sense, we are all management consultants, often not too successful in our advocacy, but always optimistic that we can do some good, this being a particular form of utopianism. But this raises the thought that there is more in heaven and

earth than horrendous or wise management. There are larger issues on which Haberler has not touched but which are relevant to the issues he discusses.

To some extent, politicians and political behavior are endogenous, reacting to pressure groups and reflecting deep-seated historical attitudes. Thus, a belief in planning and regulating when there are economic problems, and in restricting imports when a local industry is in trouble, comes naturally to people all over the world. The extent of these beliefs depends, among other things, on collective memories of earlier events, especially crises, as well as on ideologies that may have originated far back in history. Politicians who engage in horrendous mismanagement rarely see themselves as free agents, and the question is to what extent economists can actually affect events by clarifying issues and explaining consequences. Clearly, the varying impact of economic advice and preaching and the explanation of why horrendous policies were actually followed are important matters for study but somewhat outside the tradition in which Haberler has been writing.

Gottfried Haberler has been a "liberal" economist—defined in the continental European sense—all his life. He has believed in free markets and free trade and has been unsympathetic to interventionist policies. For many years, notably in the late 1930s, these views were not in fashion. After World War II they came back into fashion in Germany and to some extent in the United States, but they were quite out of tune with the conventional wisdom of the new field of development economics. In the 1970s the advantages of the market system, the need for liberalization, and an awareness of the excessive costs of import substitution in developing countries came to be widely, though not universally, accepted by students of developing countries and practitioners of development economics. I need not go into details here, since this is so well known. Various writings, such as those by Ian Little, Tibor Scitovsky, and Maurice Scott, played a role, but possibly even more important were the success stories of the outward-looking newly industrializing economies, notably Korea and Taiwan. In effect, Haberler was a precursor, who kept the free market or liberalization flame alight. Now, when one rereads him, one finds much that is obvious, quite moderate, and close to the mainstream. In assessing him, one should assess the whole of this school of thought and its battles with the protectionists.

There must really be two aspects to this assessment. First, there is the purely analytical aspect. The "nonorthodox" have always been weak analytically. Haberler and the many followers in mainstream neoclassi-

cal economics have provided the analytical framework. They have successfully destroyed many of the protectionist arguments that have been used (for example, the argument that if the terms of trade were moving against developing countries this would provide an argument for protection); in other cases, they have demonstrated the rigorous conditions required for the arguments for protection to be correct.

Second, there is the question of whether the free marketeers are making the right empirical judgments when they imply that the qualifications to the free trade argument are relatively unimportant and when they give more weight to the likelihood of government or bureaucratic failure than to market failure. Here views are much influenced by the country that people have in mind. It is worth stressing that for large economies, notably China and India, freeing domestic markets may be relatively more important than opening up to the world market, although the two openings are likely to be connected.

There is never a clear choice between imperfect markets and imperfect planning. Even in the most regulated societies some markets do operate, and in countries with the freest markets there are elements of planning, both in the public sector—inevitable in the provision of public infrastructure—and within corporations. There is always a continuum. But it is certainly a widely accepted view, which I share, that in most developing countries the bias has been too much toward interventionism. This leads sometimes to an imperfect attempt at planning and more often to a highly unplanned response to the interests of special pressure groups. A shift in the free market direction is certainly desirable.

Haberler has clearly been much influenced by the success of relatively free market policies in some European countries, notably Germany under Erhard, and the contrast with Eastern Europe hardly needs laboring. He has not, to my knowledge, written specifically about the experiences of countries that are currently developing or low-income. But followers of his point of view have been much influenced by the experiences of a limited number of countries, principally in East Asia. They do not usually suggest (and I suspect Haberler would not) that a removal of restrictions and an outward-looking approach would unhesitatingly and universally ensure development and economic dynamism. There can be many factors holding back development. But a reasonable degree of liberalization, although not sufficient, is surely in most cases a necessary condition for real progress.
Comment

Ronald Findlay

NINETEEN HUNDRED is not only the title of a film by Bernardo Bertolucci. It was also the year in which Gottfried Haberler was born. He has therefore lived through every year of our turbulent and exciting century. His paper is no mere academic disquisition but a reflection of the events and ideas that have shaped the evolution of the world economy and the very texture of the lives we lead within it.

The grand theme around which Haberler organizes his exposition is the fate of liberalism as an economic doctrine in the twentieth century. The Great Depression of the 1930s, which he sees as a massive aberration rather than some inherent “structural contradiction” of the capitalist system, gave rise in his view to the pernicious influence of Keynes, not only in the short-term economic management of the advanced industrial economics but also in the longer-term development policies adopted by the newly independent countries of the Third World. In common with other distinguished economists of Austrian or Austro-Hungarian persuasion, such as F. A. Hayek and William Fellner, he traces the roots of inflation and macroeconomic instability in the West to the intellectual deficiencies of naive Keynesianism. These are reflected in the once popular notion that the so-called Phillips curve offered policymakers a “menu of social choice” in which they could secure full employment at some fixed rate of inflation. The reasoning behind this was shattered by the work of Milton Friedman and my colleague Edmund Phelps in the late 1960s.

Haberler, however, does not stop here. He traces the Keynesian infection to development policy in the developing countries as well—chiefly, it seems, on the ground that the concept of disguised unemployment stems from that most eminent of left-wing Keynesians, the late Joan Robinson. Disguised unemployment is also seen as a justification for growth-friendly policies, which in turn presupposes a high rate of investment. The result is that the strategy for development became to some extent hostage to the ideology of the Welfare State.

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for state intervention to plan for industrialization on the basis of a strategy of import substitution. Thus one huge error leads to another, and development theory and policy are seen as having led to decades of misfortune in Latin America, India, and other parts of the developing world.

Just as he sees the troubles of earlier postwar decades, in both the developed and developing worlds, as being the consequence of Keynesian heresies, he sees the past few years, with Reagan and Thatcher, as marking a return to sanity and the free market. Freed from the hubris of Keynesian activism, the West can provide the basis for a stable and prosperous world economy, in which the developing countries can join on the basis of free trade and capital movements to steadily raise their per capita incomes.

I personally share Haberler's commitment to liberalism in trade and development policy, so I am in general agreement with his criticism of much of conventional thinking about development and the emphasis on planning and state intervention associated with it. Like him, I "come to the problem of development from the theory of international trade," and like him I consider that an advantage (perhaps even an absolute one!) and not a hindrance; like him I see no contradiction between rapid and sound development and international specialization on the basis of comparative advantage. I do, however, respectfully disagree with him on several of the nuances, both of the intellectual history of development theory and the experience of the past few decades with development. I hope that my disagreements are based mainly on misunderstanding, owing to the fact that he is obviously forced by the limits of space to paint with a very broad brush and has therefore perhaps not been able to qualify and modulate his statements as much as he would have wished.

My comments are in three parts. The first notes the points on which I feel the need to modify the views expressed by Haberler in his paper. The second looks at the standard neoclassical theory of international trade, on which he has been one of the major influences, in relation to some of the main concerns in the field of economic development. The final section looks at some perennial problems of the trade and development literature that have drawn continued attention from Haberler: the infant industry argument and the secular tendency of the terms of trade between advanced and developing countries.

Whatever one thinks of the logical consistency or empirical relevance of the concept of disguised unemployment in the development theory of
the 1940s and 1950s as expounded by Paul Rosenstein-Rodan, Ragnar Nurkse, and Arthur Lewis, there do not seem to me to be any plausible direct links to Keynesian unemployment—that is, unemployment caused by a deficiency of aggregate demand. All of the development writers traced the problem to a basic deficiency of the supply of complementary inputs, such as arable land and physical capital, relative to the population and potential labor force, and not to a deficiency of aggregate demand à la Keynes.

They also did not claim any "free lunch" on the basis of the diagnosis of disguised unemployment. It was recognized that effective utilization of this "hidden potential" would raise demands for the limited supply of food from the countryside. This in turn would give rise to the familiar "scissor's crisis" of the U.S.S.R. in the 1920s, involving the terms of trade between town and country that figured prominently in the early development literature. The dilemma of the planners in charge of urban industry was whether to induce a flow of food to the towns by supplying plentiful consumer goods in return, or to opt for heavy industry in the subsequent Stalinist pattern of the early five-year plans in the 1930s.

The terms of trade between town and country when the urban industrial sector is controlled by the planners while the rural sector is populated by an independent peasantry was much discussed in the development literature of the 1960s by such writers as Maurice Dobb and A. K. Sen, in addition to W. A. Lewis and others. This literature, even in the case of Marxists such as Dobb, did focus on the key role of relative prices and was often based on impeccable neoclassical principles of demand and supply. Indeed, the theory of international trade, Haberler's own specialty, is fully applicable to this problem. The notion of "primitive socialist accumulation," put forward by the Russian theorist Eugene Preobrazhensky, could be interpreted as the application of an optimum tariff by monopolistic urban industry against competitive rural agriculture; the maximized profits would be plowed back into capital accumulation in industry to serve as the driving force of the system over time.

The problem with much of this literature was that it assumed that neither town nor country in the developing economy was connected to the outside world. This was a realistic assumption for Russian writers such as Preobrazhensky and Feldman but was quite unjustified for almost any developing country after World War II. The well-known Indian statistician, P. C. Mahalanobis, formulated his very influential

methodology of Indian planning on the basis of a two-sector model that completely ignored foreign trade, so that the only possibility for growth was to allocate investment to the domestic capital goods industry. This was somewhat modified by K. N. Raj and A. K. Sen, but they assumed that export earnings were stagnant and therefore came to the same policy prescriptions as Mahalanobis. The justification for this assumption was that India's traditional exports, such as tea and jute, faced very inelastic world demands, and no attention was given to the possibility of labor-intensive manufactured exports despite India's long experience in this field. This missed opportunity was of course fully exploited a little later by the East Asian economies. The "foreign exchange gap" approach, associated with the work of Hollis Chenery, also made this ultrapessimistic assumption. Considering the extent to which India tended to dominate development thinking, and the sanctity that numerically quantified but behaviorally crude models tended to enjoy, it is perhaps not surprising that the opportunities for outward-looking development were ignored by so many for so long.

Thus, while I tend to share Haberler's critical view of much of the development literature of the 1950s, I trace the basic problem to the distrust of international trade as an engine of growth and not to any direct or indirect influence of Keynesian ideas. What lies behind both explanations, of course, is the devastating effect of the Great Depression of the 1930s, which destroyed the faith of almost an entire generation not only in the benefits of free trade but also in the working of the price mechanism itself. Like Ragnar Nurkse in particular, development economists tended to look back to the 1870-1914 era as a golden age of expansion that was based on free trade and capital mobility and would never be restored. Ironically, this was just when world trade was beginning to undergo a rate of expansion that made anything in that era pale into insignificance.

Alterations in relative prices were regarded as undesirable and potentially disruptive to economic health and order, and that is why balanced growth was advocated—that is, increasing supplies in line with income elasticities of demand through conscious planning. The belief in the possibility of massive disguised unemployment, at least in some countries, could also be seen as necessitated by the acute pessimism regarding foreign trade. The mobilization of the underemployed domestic labor was a substitute for the neglected external option.

Another point on which I believe I have a significant difference of opinion with Haberler is his characterization of the East Asian "gang

of four" as economies which "pursue on the whole liberal, market-oriented policies" and whose "success is fully explained by, and confirms, the neoclassical paradigm." No one doubts the extraordinary success in recent decades of these economies, and that it has been done by taking full advantage of the opportunities opened up by an expanding world economy. Only in the case of the British colony of Hong Kong, however, has something close to laissez-faire been practiced. In the case of the others there is extensive intervention and promotion in the form of state enterprises, subsidies, regulations, and other measures affecting the capital market, domestic savings, the trade regime, and indeed almost every aspect of the economy. I find it difficult to consider Korea, Taiwan, and Singapore "liberal" societies in the classical sense of the word as Haberler uses it, when the state intervenes so heavily not only in the economy but in the private lives of their citizens. It is true that state intervention in these economies has a complementary rather than restrictive or tutelary relationship to the private sector, as in India, for example, but it seems inappropriate to characterize their policies as "liberal" in the true sense of the word.

II

The literature on development is replete with criticisms of the theory of comparative advantage, most of which are usually flagrant errors based on the most elementary misunderstandings. Non sequiturs, in particular, abound. Many years ago even so distinguished an economist as Thomas (Lord) Balogh made a long list of the assumptions usually found in textbook demonstrations of the theory of comparative advantage. He had no difficulty in demonstrating that most of these assumptions did not hold in the real world. He triumphantly concluded that he had totally demolished the theory. It was left to Haberler to explain patiently the difference between necessary and sufficient conditions and to show how the "gains from trade" proposition was valid even in the complete absence of familiar assumptions such as perfect internal factor mobility. His paper on this subject has become a classic, and its major role in the subsequent literature on distortions developed by J. N. Bhagwati and V. K. Ramaswami and others is very well brought out in an essay in commemoration of Haberler's eightieth

birthday by Robert Baldwin, one of the most eminent of his many students.¹

As Haberler has noted again here, one continues to hear the canard that trade theory is "static," while development is "dynamic," so that the former is of no relevance to the latter. Once again a non sequitur and once again Haberler has to point it out gently but firmly. He does not, however, go further and mention that the dynamic extension of trade theory that he himself called for in his Survey of International Trade Theory has now largely been accomplished, and it gives no more comfort to protectionists than the traditional static doctrine does.

As is well known, both Haberler's "opportunity cost" doctrine of comparative advantage and the Heckscher-Ohlin theory in its formal representation by Samuelson and others were based on fixed supplies of the factors of production, including not only raw labor and natural resources, but also physical and human capital. Since both types of capital are man-made and functions of economic variables that are themselves functions of the volume and pattern of trade, it is essential for a theory of international trade to account for them endogenously. This has been done in the past twenty years by integrating neoclassical growth theory with international trade theory, along lines first rigorously established by H. Oniki and H. Uzawa.² As I have pointed out, it is possible to distinguish between "momentary" and "long-run" comparative advantage.³ The first is based on the per capita capital stocks at any particular instant, and the second on the steady-state values of these levels, as determined by parameters such as propensities to save and rates of labor force growth.

One of the most famous ideas of the Austrian School, of which Haberler is a luminous representative, is its view of the role of time in the three grounds for a positive rate of interest first expounded by Bohm-Bawerk. I have drawn on this Austro-Wicksellian tradition in an attempt to place the Heckscher-Ohlin approach to trade on a more fundamental microeconomic basis.⁴ Here it is the country that is more

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"patient," in the sense of discounting the future at a lower rate, and that ultimately has a comparative advantage in the more capital-intensive or roundabout processes of production. Thus there is no need to postulate arbitrarily given stocks of capital or even saving propensities in the Keynesian fashion but only individual tastes with regard to present and future consumption.

Education is an obviously Austrian production process, since there must be a waiting period between the input of resources, such as teaching, and the emergence of output in the form of skilled labor. The incentive to acquire education obviously depends on the differential between the wage rates of skilled and unskilled labor. According to the Stolper-Samuelson theorem, this differential depends on trade itself, and so we need a model that can simultaneously handle trade and the formation of human capital in an intertemporal framework. This has only recently been done.¹⁰

With a perfect capital market there is no case for any state intervention in these models. The free trade solution is the first-best, except for the optimum tariff argument, which always applies when there is monopoly power in trade, even in the traditional models. It is true, however, that free trade could reduce the formation of skills and human capital, for example, by narrowing the wage differential of skilled labor as a result of obtaining skill-intensive goods more cheaply through imports. This is not an argument for protection, however, since a better result could be obtained by free trade together with an educational subsidy, although even this would result in less national welfare than free trade.

Policies that aim to increase physical or human capital formation can change long-run comparative advantage in the sense defined earlier. At any instant, however, it is always best to allocate the available resources efficiently, and that means following free trade. Nor does it follow that policies that raise steady-state welfare as a result of protection are better than free trade, since it is necessary to compare not only steady-state welfare levels but also the entire integral of welfare, including the time spent in reaching the higher steady state, which is when the cost is paid in terms of forgone consumption.

Another source of possible justification for irrational economic policies in developing countries comes from a misapplication of the theory of the second-best. The contention here is that since the free market in developing countries is beset by all sorts of preexisting distortions of one kind or another, it makes no sense to apply any sort of rational

calculus along neoclassical lines to any new projects or measures. A variant of this argument is that even if such a calculus were possible in principle, the relevant shadow prices would be so difficult to determine that it could not be made.

A fundamental contribution by I. M. D. Little and J. A. Mirrlees, however, has shown that there is no basis for such a nihilistic position. The relevant shadow prices are simply the world market prices, in the case of tradable goods, for an economy without monopoly power in international markets. This is true in the case of most developing countries for most tradable goods, and where there is monopoly power the relevant shadow price is the marginal revenue (for exports) or marginal cost (for imports). The shadow prices for primary factors and nontraded goods can then be derived in principle from the world prices of the tradable goods. The costs and benefits of new projects, direct foreign investment, migration of labor, royalties for new technology, and so on can be evaluated at these prices. Thus even in the presence of distortions that are regarded as irremovable, the world market imposes a rational discipline on the allocation of resources. The best alternative, of course, would be to remove the distortions altogether, but it is important to realize that it is not the case that there is no alternative to perfection in the neoclassical approach.

III

Two central ideas in the field of trade and development have been the infant industry argument for protection and the alleged tendency for a secular deterioration in the terms of trade of the developing countries. The first of these of course goes back to Hamilton and List, while the second appeared around 1950 in the independent work of Raúl Prebisch and Hans Singer. Haberler has always given the first idea a fair and sympathetic hearing, but he has been severe in his strictures on the logical basis and empirical accuracy of the latter. As he points out here, his early skepticism has been abundantly confirmed by subsequent research. In view of the attention that Haberler has given to these doctrines in all his writings on trade and development, it would be

appropriate to close my comments with some observations on each of them.

It is now generally recognized that there is a logical case for infant industry protection on the basis of the “learning by doing” argument; that is, productivity improves as a function of the cumulative volume of output, as in the well-known article of Kenneth J. Arrow. The production process produces not just the good itself but also more skill in the work force, which has a social value and therefore a positive shadow price that a perfectly competitive firm cannot capture. An output subsidy, not an import tariff, is therefore warranted, the level of which has to be adjusted to equate the private with the social return to firms in the competitive industry where this effect occurs. P. K. Bardhan has worked out an intertemporal model with an optimally varying subsidy of this sort. Other arguments for infant industry protection usually involve imperfections in the capital market or the market for skilled labor, and so are best dealt with by direct action in those markets.

All these issues are by now very well understood. More interesting and controversial is what may be called the “infant exporter” argument: is there a first-best case for export subsidies? This problem gains much of its interest from the related issue of export-oriented development strategy of the type that seems to have been pursued by at least some economies in East Asia. There is considerable confusion in the literature as to exactly what is meant by “export orientation” in a trade regime or development strategy. According to one interpretation it simply means restoration of neutrality in the incentives to produce exportables, importables, and nontraded goods. Korea and Taiwan, for example, had quite heavily protective import substitution strategies in the 1950s before they began their outward orientation in the early 1960s. Since the original protection has been lowered only gradually, and in fact still exists in many sectors, the incentives for exporters, such as remission of duties on imported raw materials for export production, were in the nature of countervailing measures. I am not aware of precise calculations which show whether these measures fell short of, exactly offset, or overcompensated for the initial bias against imports.

As argued by Paul Streeten and myself, and as I am sure Haberler

would agree, the basic neoclassical doctrine would be as critical of net export subsidies as of net import tariffs, since welfare is maximized at the point at which the marginal rate of transformation between exportables and importables is equal to the ratio of world prices. It can be argued, however, that there is a marketing technology for exporting that has to be learned. Thus a learning by doing argument can be applied to the activity of exporting instead of to the activity of production. Again an externality is involved that cannot be captured by competitive firms, so there is a first-best case for an export subsidy, as worked out very neatly by Wolfgang Mayer.17

Prebisch’s views on trade and development contain at least three separate strands and arguments that are often confused. One is the assertion, on the basis of sketchy data for Britain’s terms of trade from 1870 to 1940 by the German historian Werner Schlöte, that there was a historical secular deterioration of the terms of trade of the developing countries as a whole. This assertion has been overwhelmingly rejected by the weight of subsequent empirical research and criticism, with Haberler as one of the earliest and most acute critics.

Second is the contention that laissez-faire with competitive markets will drive exports in developing countries to the point at which marginal cost is equal to price, but above marginal revenue because of unexploited monopoly power. If such monopoly power exists, then of course the familiar optimum tariff argument applies and the case is granted in principle. The extent to which such power exists at the national level is vigorously disputed here by Haberler, and cartels at the international level present their own familiar problems.

Prebisch presented a loose but very perceptive and insightful informal model of the interaction over time between the growth of an advanced industrial “center” and a primary producing “periphery,” in which the movement of the terms of trade appeared as the result of trends in technical progress in the two regimes, mediated by differences in market structure and in parameters such as the income elasticities of demand for imports. His view was that monopolistic labor and goods markets in the center retained the fruits of technical progress in manufacturing, while in the periphery atomistic competition resulted in these gains being dissipated by losses in the terms of trade. His center-periphery model was therefore characterized by an asymmetry in structure between the two regions.

The neoclassical analysis of the terms of trade between growing economies emerged slightly larger, with J. P. Hicks and H. G. Johnson as the pioneers. A modern analytical synthesis between the Prebisch center-periphery model and the neoclassical approach has recently emerged in a number of what are called North-South models. In my model the South specializes in primary products (or labor-intensive manufactures) and the North in manufactures (including capital goods). The South has a dual labor market à la W. A. Lewis, and the North has an exogenously growing labor force that is always fully employed à la R. M. Solow. The terms of trade emerge as the regulator of the growth rate of the South, deteriorating when it grows faster and improving when it grows slower than the North. A steady-state value of the terms of trade would maintain equilibrium between the two regions. A number of unorthodox implications can be derived from this and similar models.

The work of Arghiri Emmanuel and also Lewis has recently shifted the focus of attention from the commodity or barter terms of trade, which is the relative price of commodities, to the so-called double factorial terms of trade, which is the rate of exchange between the labor of the trading countries. The unequal character of exchange would presumably be removed if the double factorial terms of trade were equal to unity; that is, the products of one man-year of labor in the North exchange for the products of one man-year of labor in the South. With wage rates higher in the North than in the South this condition will not hold, and so the North "exploits" the South within this view of the problem.

If this is the way people choose to define terms, then the conclusion follows and there is no point in arguing further. However, the definition has peculiar consequences that may not make it so attractive for its

proponents. Thus suppose that country A and country B exchange one unit of cloth for one unit of steel, with a unit of labor producing one unit of cloth in A and one unit of steel in B. Then there is no unequal exchange and everything is apparently as it should be. Suppose, however, that a unit of labor in country C can produce three units of steel, and C is willing to give country A two units of steel per unit of cloth. In exchange for its cloth export country A can thus get twice as much from C as from B, but A would become a "victim" of unequal exchange if it accepted the doubly more favorable offer!

A genuinely just order for world trade, consistent with even such widely divergent ideologies as Marxism and classical liberalism, would seem to be one which permitted the free mobility of labor across national boundaries. Accepting this proposition seems to me to be the acid test for the liberal philosophy that Haberler has so eloquently espoused in all his writings.

22. As I have argued in "International Distributive Justice," Journal of International Economics (February 1982).
Hla Myint was born in Burma in 1920. He received his first degree from Rangoon University in 1939 and his Ph.D (Econ) at the University of London in 1943. He has been professor of economics at the London School of Economics and Political Science since 1965. He was professor of economics in Rangoon University and economic adviser to the government of Burma from 1947 to 1950. From 1950 to 1965 he was a lecturer at the University of Oxford, where he introduced in 1949-50 a seminar on the economics of underdeveloped countries. He was also rector of Rangoon University from 1958 to 1961.


As early as 1951 Myint served with the group of experts who produced the United Nations' report on *Measures for International Economic Stability* (New York, November 1951). Since then he has consulted with many governments of developing countries and with international agencies and has lectured extensively in Asia and Latin America.

Among Myint's many substantial contributions to the subject of economic development are his analyses of the effects of external economic forces on the internal economic organization of the developing
countries, his attention to the relationship between the history of eco-
nomic thought and development economics, and his application of a
theory of economic organization and institutions to the developing
countries.
The Neoclassical Resurgence in Development Economics: Its Strength and Limitations

I have been asked to give an appraisal of development economics in the 1960s and 1970s in relation to my own work on the subject. I can most usefully carry out this assignment by considering the revival of the neoclassical approach, the most noticeable development in the subject since the 1960s. In particular, I shall consider this "neoclassical resurgence" in relation to international trade theories and policies, which have been a major area of my work for a long time.

Development economics in the 1950s was strongly antineoclassical, and neoclassical economics was identified with free market and free trade policies. The consensus at that time was that the problem of economic development was essentially "dynamic" and could not be satisfactorily considered in terms of the "static" neoclassical theory of resource allocation. It was also believed that economic development would not take place simply by relying on the market forces, but needed development planning to push through massive investment programs.

For reasons which I shall discuss, the 1950s development theories and policies were wearing thin at the end of that decade, and by about the mid-1960s there were clear signs of a neoclassical resurgence in the major areas of development economics, notably in the approach to international trade and agricultural policies and to development planning. This trend toward the neoclassical has continued steadily to the present.

The neoclassical approach to development programs has met with continuing opposition from the critics belonging to other schools of thought, notably from the structuralists, the Keynesian economists, and the radical economists. In the 1950s their main argument was that economic development would not take place without systematic de-

development planning. By the 1970s, however, there was much talk about ‘crisis in planning,’ and yet there was also mounting evidence that the developing countries were growing at much faster rates than it was ever thought possible in the 1950s. The critics then switched their line of attack on neoclassical economics by concentrating on the income distribution aspects of growth. They would now argue that even if rapid growth was possible without systematic planning, the benefits from growth would trickle down to the poorer sections of the population very slowly without active government policies to counteract the dis-equalizing effects of the free market forces.

My position in this debate is based on a sharp distinction between the acceptance of the formal neoclassical economic theory on the one hand and the advocacy of the free market and free trade policies on the other. I believe that there is no simple, inseparable relation between the two and that much confusion could have been avoided by recognizing that there are four distinct possibilities.

1. One may accept the neoclassical economic theory and advocate free market and free trade policies. This is the position of the liberal neoclassical economists.

2. One may reject both the neoclassical economic theory and the free market and free trade policies. This is the position of the critics from the non-neoclassical schools of thought.

3. One may accept neoclassical economic theory but question the ability of the free market forces to bring about an optimum allocation of resources. This is the usual position of the neoclassical welfare economists. Welfare economics may be regarded as the heartland of neoclassical economic theory, but welfare economics, with its emphasis on market failures, externalities, and the divergences between social and private costs, has for many decades been a powerful intellectual force behind interventionist policies.

4. One may question the adequacy of the neoclassical theory as a framework for studying economic development but advocate free market and free trade policies for the underdeveloped countries. This has been my position for much of the time.

I became disenchanted with the neoclassical approach to economic development in the 1940s when I was working on welfare economics. As a lapsed welfare economist in the 1950s, I was mainly concerned with the limitations of the neoclassical international trade theory in

relation to the developing countries. During that period I put forward various non-neoclassical arguments for free trade: the “vent for surplus” theory and the “educative” effects of foreign trade in introducing new wants, new technology, and new forms of economic organization into an underdeveloped country. I went through a neoclassical interlude in the 1960s, attacking the import substitution policies of the developing countries by using the neoclassical weapons. In addition, I was concerned with pointing out the limitations of Hirschman’s fashionable concept of linkages in the context of international trade. I argued that the principle of comparative advantage would apply both to the horizontal pattern (the final products) and to the vertical pattern (the stages in the production of a given product) of international specialization. Since the beginning of the 1970s, however, my earlier dissatisfaction with the formal neoclassical trade theory has reasserted itself. My work since then has been concerned with the development of a “dualism” model of the domestic economy of the developing countries. This, I believe, would provide a more fruitful way of studying the process of interaction between trade and development than the conventional “perfect competition” model adopted in the neoclassical trade theory.

Despite my reservations about the neoclassical trade theory, however, I may claim to be an early advocate of free trade policies for the developing countries. This started in the late 1950s before the neoclassical resurgence in trade policies had gathered force. But I believe that there is nothing eccentric or perverse about my stressing the limitations of the neoclassical trade theory while advocating free trade policies. In fact, it was in the process of probing the weaknesses of the formal neoclassical theory that I became impressed by what to my mind are the more powerful arguments for free trade and an open economy. These have led me to favor the outward-looking policies of economic develop-


ment which include not only a free trade policy but also an open-door policy toward foreign investment.

The 1950s Background

It was frequently said in the 1950s that Western economic theory as a whole was irrelevant for developing countries. But on a closer look, the real attack was aimed at the orthodox neoclassical economic theory. In fact, most development economists were quite friendly toward Keynesian economics, partly because they thought it could be used in support of deficit financing of development programs and partly because they regarded the Keynesian revolution as helping to break down the crust of the neoclassical orthodoxy. It was the ambition of the development economists at that time to bring forth a new branch of economics, development economics, analogous to the Keynesian macroeconomics. Post-Keynesian economics in the form of the Harrod-Domar growth model was enthusiastically adopted as the basis for overall development planning and for calculating the aggregate capital requirements to achieve a certain rate of growth, on the assumption of a fixed capital-output ratio.

The 1950s criticism of the neoclassical economics was of three main types.

1. It was said that neoclassical economics was static and was concerned only with the allocation of the given resources, whereas the problem of promoting economic development was dynamic and was concerned with increasing the supply of investable resources through a greater rate of saving and investment. Thus the leading writers of the time, such as W. W. Rostow or W. A. Lewis, claimed that the essential condition or the central problem of economic development was to raise the saving and investment ratios of the underdeveloped countries above 10–12 percent of their national incomes. This argument was reinforced by the theory of the vicious circle: low per capita incomes leading to low rates of saving and investment in the face of rapid population growth and thus perpetuating the initial low incomes. On this basis, it was argued that the neoclassical approach—marginal adjustments and

piecemeal improvements to patch up the market—would be unable to jerk an underdeveloped economy out of its "low-level equilibrium trap." This could be done only by launching a "big push," in the form of massive investment programs financed by international aid, to expand output simultaneously in the domestic manufacturing and agricultural sectors in a pattern of "balanced growth."9

2. It was argued that the neoclassical model of an economic system making flexible economic adjustment in response to price changes was highly unrealistic for developing countries that were suffering from various structural rigidities. Some writers emphasized the sociological rigidities—that is, the "irrationality" and unresponsiveness to economic incentives on the part of small farmers who used traditional methods of agriculture. Others emphasized the technological rigidities—that is, the limited technical possibilities for substituting labor for machinery in the modern manufacturing sector, where it was imperative to adopt large-scale capital-intensive methods of production. Whatever the exact nature of these structural rigidities, it became fashionable to apply input-output models based on fixed technical coefficients to development planning. These models were concerned mainly with the formal conditions of consistency in economic planning, which were abstracted from the organizational problems of providing an effective mechanism to implement the plans.

3. There was a two-pronged attack on the neoclassical theory of comparative costs and the free trade policies for developing countries. The first line of attack emphasized the static nature of the comparative advantage theory: its concern with the direct welfare gains from trade and its inadequate attention to the indirect dynamic benefits of domestic industrialization, which generated external economies by improving the skills of the people and by creating linkages with other parts of the economy. Some protectionist writers, however, did not disdain to use arguments in terms of static distortions in resource allocation when it suited their purpose. Thus, the disguised unemployment argument introduced by Lewis was based on the idea of a distortion in the labor market. It was argued that the modern manufacturing sector should be given protection because it had to pay labor drawn from traditional agriculture more than its true social opportunity cost measured by its very low marginal product in overcrowded agriculture. Similarly, some advocates of the infant industry argument maintained

that because of the neglect of the external economies generated by modern manufacturing, too few resources would be allocated to that sector under free trade. Still, by and large, the main line of attack was that the direct static losses from the distortions would be outweighed by the indirect dynamic gains from industrialization.10

The second line of attack was directed at free trade policy and was based on the “export pessimism” of the UNCTAD economists. It was reinforced by Nurkse’s celebrated argument that, unlike in the nineteenth century, international trade in the postwar period was no longer able to function as an engine of growth for the developing countries. It was therefore said that an alternative “engine” must be found in import substitution policies based on the balanced growth of domestic manufacturing and of agriculture.11

The credibility of the 1950s development theories and policies was wearing thin by the early 1960s. Overall, the per capita incomes of the developing countries as a group grew at about 2 percent a year during the 1950s, accelerating to 3.4 percent a year during the 1960s. By 1960 even the low-income developing countries had achieved the goal of saving 10 to 12 percent of their national incomes, while the middle-income developing countries were saving some 17 to 18 percent of their incomes.12 On the international trade front, despite the export pessimism of the UNCTAD economists, it was becoming evident that the volume of world trade had been expanding at an unprecedented rate and was offering buoyant demand conditions for all types of exports from the developing countries, including mining and plantation exports, peasant exports, and, later, labor-intensive manufactured exports.13 This upward trend in world trade was to continue until the first oil shock in the mid-1970s.

It is possible that these retrospective estimates of growth did not fully impinge on the consciousness of the development economists at the end of the 1950s, but by the mid-1960s the signs were clear. The evidence was also brought home at the individual country level. Those countries that had gone furthest in following the 1950s recipe—domestic industrialization and import substitution policies combined with detailed

controls and economic planning—were running into difficulties. After the first easy phase of import substitution, they were faced with the familiar balance of payments difficulties and domestic inflation, and the attempts to extend import substitution to the consumer durables and the capital goods industries became increasingly constrained both by the foreign exchange bottleneck and by the small size of the domestic markets. In contrast, it was easy to see the superior economic performance of the countries that had switched to export-oriented policies or had simply maintained a relatively open economy. This was true not only for the star performers in East Asia that had taken the lead in switching to export expansion policies and were to achieve dramatic successes in the expansion of labor-intensive manufactured exports, but also for the general run of countries that had maintained open economies and achieved a steady expansion of their primary exports. Among Southeast Asian countries with similar factor endowments and a similar range of exports, the more outward-looking, such as Malaysia, Thailand, and to some extent the Philippines, by the mid-1960s were displaying economic performances markedly superior to those of the inward-looking countries, such as Burma and, at that time, Indonesia.14

By the mid-1960s the times were propitious for a new approach to trade policies. At a theoretical level the question facing development economists was not the 1950s question of why the developing countries could not grow, but a new question: why have some developing countries grown so much faster than others? I now consider how the neoclassical resurgence met these challenges.

The Neoclassical Resurgence in International Economics

The neoclassical resurgence was most striking in the field of international economics. Notable improvements in theoretical analysis in the 1960s, included the distinction between domestic distortions and foreign trade distortions,15 the concept of the effective rate of protec-


tion, and the concept of domestic resource costs. These were followed in the 1970s by an impressive body of empirical research on trade and industrialization by I. M. D. Little, Tibor Scitovsky, and M. FG. Scott for the OECD; on the structure of protection by Bela Balassa and associates at the World Bank; and on the experiences of trade liberalization in the developing countries by A. O. Krueger and Jagdish N. Bhagwati for the National Bureau of Economic Research. These contributions provided a devastating critique, both theoretical and empirical, of the 1950s arguments for protection and import substitution.

The distinction between domestic distortions and foreign trade distortions cuts the ground under all the arguments for tariff protection which purport to correct the misallocation of resources. It was clearly shown that, from the standpoint of the optimum theory, the distortions originating in the domestic economy should be corrected by appropriate subsidies and taxes applied to the domestic source of distortions instead of by a tariff on foreign trade which would introduce an additional distortion. For instance, consider the disguised unemployment argument for protection. If it is really true that too little labor is being employed in the modern manufacturing sector because wages are above the social opportunity cost of labor in agriculture, then the new analysis suggests that this distortion in the domestic labor market should be corrected by offering wage subsidies to the manufacturing sector. To give tariff protection would introduce an additional distortion in the form of a higher consumer price for the imports and might be self-defeating if the manufacturing sector used its tariff-generated profits to introduce labor-saving machinery. Similarly, with respect to the infant industry argument for protection, insofar as the manufacturing industry is generating external economies in training and research that it cannot fully capture, this domestic distortion should be corrected by direct subsidies to training and research rather than by tariff protection. In fact, according to the new analysis, a tariff protection is justified


only in the case of a foreign trade distortion when a country exercises a
degree of monopoly in its export market. In that case, it can improve its
position by restricting its exports either by imposing an export tax or by
imposing a tariff on its imports.

This leads to an important issue highlighted by the concept of the
effective rate of protection. Many developing countries have been
restricting their imports by means of tariffs and quotas, while com­
plaining about the difficulties of expanding exports. They do not see the
connection between the two and do not realize that a tax on imports
would have an effect on resource allocation equivalent to that of a tax
on exports. The concept of effective protection highlights this proposi­
tion. Where export production requires imported inputs, a tariff on
these inputs would handicap the export producers in their competition
with their foreign rivals who can obtain these inputs at the lower world
market prices. Thus the calculation of the effective rate of protection
provides a useful way of measuring the distortions in the incentives
against export production in a general equilibrium framework.

In the 1950s it was generally assumed that the growth or stagnation
of exports from the developing countries depends mainly on world
market factors beyond the control of these countries. The notion of
trade as an engine of growth reinforced this view by assuming a rigid
mechanical link between the growth in the incomes of the developed
countries, and the growth of exports from the developing countries,
which is determined by the given income elasticity of demand for the
primary products. The structural rigidities in the domestic economy of
the developing countries were then invoked to provide an additional
element of determinism and helplessness. The most important con­
tribution of the neoclassical resurgence was to show with a wealth of
illustrations that the developing countries could increase their exports
by following appropriate domestic policies to exploit their comparative
advantage. This would reduce the costs in their export industries and
thus enable them to capture a larger share of the world market. This
approach emphasizes the relatively high price elasticity of demand for
any given line of export, which is the most important consideration of
an individual exporting country. In contrast, the 1950s emphasis was
on the allegedly low income elasticity, which even if true would apply
only to the exporters of primary products as a group, including also
many resource-rich developed countries.

In my view, the great virtue of the neoclassical resurgence was to
reassert the importance of appropriate domestic policies in enabling a
country to expand its exports. This is not to deny the role of external or
fortuitous factors, such as the new discoveries of oil and minerals or the
world market booms and slumps. But it is to insist that as a general rule
and in a wide range of situations a country's capacity to expand exports
will depend to a great extent on its own domestic policies. These policies would include not only trade policies but also supporting policies, such as (1) appropriate pricing policies in the markets for products and factors of production to reflect the relative scarcities of resources within the country, (2) appropriate macroeconomic policies to control domestic inflation and correct the overvaluation of the exchange rate, and (3) appropriate investment policies for social overhead capital to bring out the potential comparative advantage of the country.

Granted that these policies for removing distortions in the allocation of resources will enable a country to expand its exports, two related questions are raised. To what extent does the removal of trade distortions satisfactorily explain the very rapid rates of export expansion shown by many developing countries? To what extent do the direct static gains from free trade satisfactorily explain the very rapid rates of economic growth associated with export expansion? I believe that the conventional neoclassical trade theory has not been able to provide adequate answers to these questions.

During the two decades from 1950 to 1970, the countries that recorded rapid rates of export expansion (above 5 percent a year) also showed very high rates of growth in the GDP, typically ranging between 5.5 and 7 percent a year; in contrast, the countries with slower rates of export expansion showed slower rates of economic growth, typically between 3 and 4 percent a year. Further, the gap in the growth rates between these two types of countries widened during the 1960s. However, attempts to quantify the gains or losses associated with the trade distortions tend to come out as a "small" percentage of the aggregate income. There may be some dispute about the exact magnitude of these gains or losses in particular cases, but the general order of magnitude is unlikely to change so long as we interpret them strictly as direct static gains or losses, without bringing in factors outside the formal framework of the neoclassical theory, such as X-efficiency or improved productivity as the result of induced technical changes.

To what extent do terms of trade distortions explain these very large


differences in growth performance? Neoclassical theory can take us a part of the way in explaining the slow growth of countries that have persisted with the import substitution policies. It can be argued that although the static once-for-all losses from the distortions may be small in relation to the allocation of a fixed amount of resources, the cumulative losses from diverting a continuing stream of savings and investable resources into inefficient domestic manufacturing would be large enough over time to produce a noticeable effect on growth. In this case, contrary to the 1950s belief that the static problem of allocating the given resources is irrelevant to the dynamic problem of promoting growth through capital accumulation, the mistakes in the allocation of the resources are likely to inflict serious losses.

At the other end of the spectrum is the question of why the export-oriented countries have grown as rapidly as they have. Here we come up against the limitations of the formal neoclassical theory. The gains from the removal of the static distortions seem to be too small to explain the rapid growth of these countries. We can stretch the existing theory a bit and argue, as Bhagwati has done, that these countries have benefited in various ways from the increased availability of imports from the expanding export proceeds. It served to reduce the chaos in their import substitution incentives, allowed better utilization of existing productive capacity, and also reduced the need to hold large stocks of imported inputs. But how adequately does this type of explanation—the once-for-all improvements in resource allocation—account for the continuing growth of the export-oriented countries? Is it really true that the export-oriented countries are free from the trade distortions in the neoclassical sense? In fact, Bhagwati and Krueger reported in another context that the export-oriented countries, such as Korea, appear “to have intervened virtually as much and as ‘chaotically’ on the side of export promotion as others have done on the side of import-substitution” and that their success cannot be attributed to “the presence of a neoclassically efficient allocating mechanism in toto in the system.”

Furthermore, one cannot convincingly attribute the faster rate of growth of the export-oriented countries to their greater capacity to save and invest. Although the star performers such as Taiwan and Korea have saved and invested above the average, the general run of the

export-oriented economies do not seem to have saved and invested a markedly higher ratio of their GDP than the import-substituting economies have done.

This is not too surprising since import substitution policies are notoriously capital-intensive and the countries that have extended these policies to consumer durables and capital goods industries must of necessity maintain a high ratio of saving and investment. There is some evidence that the export-oriented countries have been able to reduce their capital-output ratios, which suggests that the key to their rapid growth is not their greater capacity to save and invest but their capacity to use their investable resources more productively. If this is true, we are still left with the original question: to what extent do gains from removing distortions in the allocation of resources adequately explain the substantial rise in the productivity of resources associated with export expansion?

The remaining obvious explanation of the rapid growth of the export-oriented countries is of course technological improvements. No one would disagree that this is a major factor. The real question is how these technological improvements are introduced into the process of export expansion. Conventional international trade theory can quite easily incorporate capital accumulation and technological innovations provided they can be treated as autonomous, that is, independent of the process of trade; the formal model is, however, too tightly specified to allow for the induced effects of trade on technological change. Thus, in the perfect competition model of the domestic economic system of a trading country, the production possibility curve is determined by the country’s given resources and technology, and its position cannot shift without an exogenous change in these determinants. With given international prices, the effect of these autonomously given causes of growth can be traced to the pattern of the country’s international trade, but the impact of trade cannot be traced to the country’s growth, which (in the absence of distortions) is supposed to be determined only by the autonomous factors: in other words, there are no induced effects of trade on growth.

This is clearly an unsatisfactory state of affairs and would explain why the neoclassical trade theorists frequently find themselves at cross-purposes when debating with Third World economists who advocate protection to promote domestic industrialization. The question in

which the Third World economists are interested is: to what extent does the traditional pattern of trade, in which developing countries specialize in the export of primary products, adversely affect their longer-term prospects of growth? Would it not be worth incurring the direct static losses from protection for the sake of the longer-term indirect benefits from promoting domestic industrialization? The neoclassical trade theorists can give an effective reply insofar as the protectionist arguments are formulated in terms of the alleged distortions in the allocation of resources. But once the indirect induced effects are brought in, the neoclassicists are taken out of their formal model and can appeal only to the empirical evidence of the strong correlation between export expansion policies and rapid growth and between import substitution policies and slow growth. This inability to make an effective theoretical reply is highlighted when the neoclassical theorists encounter those who wish to distort resources in the opposite direction of promoting exports, on the ground that the indirect induced effects of export promotion would more than outweigh the static losses of the distortion. Here the empirical evidence is ambiguous, and we do not really know whether countries that have distorted resources in favor of export promotion are growing rapidly despite these distortions or because of them.

The further question that has exercised the minds of Third World economists is to what extent direct foreign investment, which frequently goes hand in hand with the expansion of foreign trade,25 has benefited the people of the developing countries. Here again the formal neoclassical theory cannot provide an adequate answer, although direct foreign investment may be an important method of introducing new technology into the developing countries. The conventional trade theory model does not merely assume an absence of international factor mobility but is logically designed to exclude international factor flows. This at least seems to be the implication of a formal proposition such as the Samuelson factor-price equalization theorem, which is, after all, a logical development of the standard Heckscher-Ohlin trade theory model with two commodities and two factors of production.26 The conclusion is that international trade is a substitute for the international movement of factors of production, and the expansion of foreign trade will eliminate the need for foreign investment!

25. See, for example, Yuan-Li Wu and Chun-Hsi Wu, Economic Development in Southeast Asia: The Chinese Dimension (Stanford, Calif.: Hoover Institution, 1980).
Faced with these difficulties of using the neoclassical trade theory to study the process of interaction between trade and growth in the developing countries, I have made a sharp break with that theory and searched for alternative approaches. This brings me to the two phases of my work on the subject, first during the 1950s when I drew my inspiration from the trade theories of Adam Smith, and more recently, since 1970, when I have made a systematic attempt to replace the perfect competition model with a dualism model of the domestic economy of the developing countries.

The Impact of Trade on Development

My search for an alternative approach to trade and development led me in the 1950s to the vent for surplus theory of international trade. According to that theory, an underdeveloped country newly opened up to external economic contacts under colonial rule would not start from a position on the production possibility curve conventionally depicted in textbooks. Rather, such a country would start from somewhere well within the production possibility curve theoretically attainable with its "given" resources and "given" technology (interpreted as the best practical technology available in the outside world). The reason for this is not the factor market distortions in the usual trade theory sense but the incomplete development of the domestic organizational framework. Before the opening up process, an underdeveloped country is characterized by (1) a rudimentary development of the exchange economy with limited internal trade and a large proportion of output from subsistence agriculture; (2) an underdeveloped social infrastructure with poor internal transport and communications; and (3) an underdeveloped administrative and fiscal system with inadequate public services, including the maintenance of law and order and enforcement of contracts and property rights.

In this setting, the introduction of international trade is not merely a matter of reallocating the given and fully employed resources by appropriate movements along the production possibility curve. Rather, a developing economy moves from its initial position somewhere within its production possibility curve toward the theoretically possible production frontier defined by that curve. The extension of colonial administration and foreign investment and enterprise were the essential ingredients of this process. Foreign investment was obviously impor-

tant in the expansion of the mining and plantation exports. But even in the agricultural export sector, where no substantial long-term foreign investment was required, the foreign trading firms played a crucial role in creating trade channels that extended deeply into the traditional agricultural sector and linked small farmers with the world market. This was a two-way process: the foreign trading firms introduced new wants and a wider range of consumer goods to the farmers; and the desire for these imported consumer goods spurred the farmers to expand the production of the export crops. This export expansion took place, not by reallocating the given resources, but by clearing more of the unused land and by attracting underemployed labor from subsistence production to export production.

The vent for surplus theory was particularly suited to explain the rapid expansion of agricultural exports from the relatively sparsely populated countries of Southeast Asia and West Africa. After the initial opening up of these countries in the late nineteenth and early twentieth centuries, agricultural exports grew typically about 5 percent a year for many decades. This happened without any important change in agricultural techniques, simply by bringing more land under cultivation. The additional labor was drawn from the subsistence sector. Unlike the situation in the densely populated countries, the underemployment was caused not by a shortage of land but by the limited local demand for the additional agricultural output that the existing underemployed labor could have produced with the existing uncultivated land. Hence the role of international trade as a vent for surplus.

I believe that the vent for surplus theory provides a more powerful argument for free trade than the conventional comparative advantage theory. The direct gains from using the previously underutilized resources will be many times greater than the conventional gains from a more efficient reallocation of the given resources. In addition, there are the indirect gains from trade: the introduction of new technology and methods of production in the mining and the plantation sector; the improvement in internal transport and communications and the extension of public services financed out of the increasing government revenues from foreign trade; and last but not least, the development of the markets for products and the factors of production and the expansion of internal trade induced by the expansion of international trade.

The vent for surplus theory was derived from Adam Smith with a little bit of piecing together on my part. But there was also a better-known argument for free trade in Adam Smith's work, which I called the productivity theory of international trade. This emphasized the role of international trade in widening the extent of the market and the scope for division of labor. These changes would raise the productivity of resources by improving the skill and dexterity of labor, by overcom-
ing technical indivisibilities in production, and by encouraging technological innovations.

In the 1950s I thought that this productivity theory would give too optimistic an interpretation of the colonial phase of export expansion. At that time, agricultural exports expanded with unchanged agricultural techniques, and although the mines and plantations introduced new technology, they were prone to pay conventionally low wages to indigenous labor. This cheap labor policy tended to pull down labor productivity to the predetermined low wage level. Smith's productivity theory of trade has now come into its own with the spread of improved technology in agriculture, the erosion of the cheap labor policy, and the rise of small-scale industry producing labor-intensive manufactured exports in the developing countries.

My method of introducing foreign enterprise and investment into the process of trade means that the problem of income distribution has to be considered as an integral part of the analysis of trade and development. In the conventional international trade theory based on the assumption of no international mobility of factors, a country's gains from trade are synonymous with the people's gains and thus can be considered on the basis of the geographical terms of trade between the country and its trading partner. But in the setting of a developing country where foreign enterprise, foreign capital, and frequently immigrant labor play an essential role in export expansion, the gains to the indigenous people of a country depend not only on the external terms of trade but also on the internal terms of cooperation between the domestic and the foreign factors in export production. That is to say, in order to evaluate the people's gains from international trade, we have to take account of the share of income and economic activities going to the indigenous people of the country as distinct from the share going to the foreign-owned factors of production.

Thus my 1950s papers were much concerned with the problems of growth and income distribution, which have some similarities to and some differences from the problems of growth and equity discussed in the 1970s. I believe that in terms of absolute levels of income, the indigenous people of the developing countries gained from the export expansion of the colonial type by getting a share of an increasing total output. But in relative terms, the indigenous people in the countries I

studied in Southeast Asia and West Africa did not receive their fair share of the gains from export expansion. I was impressed at that time by the fact that most of the agricultural export economies showed a heavy and sustained export surplus to pay for foreign remittances without ever having gone through a phase of import surplus—an indication that high profits were being made without any substantial long-term capital investment. Therefore, in the early 1950s, I thought that the independent governments in such countries should use state agricultural marketing boards to siphon off the profits of the foreign export-import firms for general development purposes and to offer more favorable or stable prices to the farmers. I also expected the independent governments to devote a larger share of the taxes and royalties from the mining and plantation sector to help the development of the small-farm sector. By the late 1950s, however, I was getting disillusioned with the operations of the state agricultural marketing boards. In countries such as Burma and Ghana they not only had reduced the relative share of incomes accruing to the small farmers but also were threatening their absolute levels of income by slowing down the expansion of the once-thriving export industries. I was also finding that the independent governments were diverting the bulk of the revenues from the mining and plantation exports into highly capital-intensive projects to promote domestic industrialization through import substitution. This brings me to the next phase of my work in search of an alternative theoretical approach to trade and development in the setting of import substitution policies.

Dualism versus Distortions

This phase started with a paper in 1970 in which I argued that policies to encourage domestic industrialization through import-substitution would not only lead to distortion in the allocation of resources but also aggravate dualism in the domestic economic framework of the developing countries. I defined dualism by the following characteristics: (1) the coexistence of a modern and a traditional sector, the modern sector consisting of large-scale economic units based on capital-intensive modern technology and the traditional sector consisting of small farmers and small-scale handicraft industries.

based on labor-intensive traditional technology; (2) the fragmentation of the factor markets, with low rates of interest and high wages in the modern sector drawing its factor supplies from the organized markets and high rates of interest and low wages in the traditional sector drawing its factor supplies from the unorganized markets; and (3) an unequal provision of public services and social infrastructure that favors the modern over the traditional sector.

The distortions introduced by the government policies of artificially encouraging domestic industrialization were fairly obvious. The modern manufacturing sector was encouraged to adopt excessively capital-intensive methods of production by government offers of cheap loans and a lion's share of the limited foreign exchange at overvalued exchange rates. The minimum wage laws and the encouragement of trade unions further stimulated the substitution of labor by machinery. These policies starved the traditional sector of its much needed capital resources and imports and reduced the employment prospects of those who wished to migrate from the traditional to the modern sector. In addition to these factor market distortions, the traditional agricultural sector suffered both from government policies that kept down agricultural prices to control the cost of living in the towns and from discrimination in the provision of social infrastructure and public services. Given all these, I had no difficulty in concluding that the distortions in the allocation of resources in favor of the modern sector would tend to have a negative effect on growth and on the share of income accruing to the poorer traditional sector.

Beyond these considerations, I was also concerned with the unfavorable longer-term effects of the distortions on the domestic economic framework, particularly on the development of a well-integrated domestic capital market. A financial center and a network of financial links were required to collect savings from both the modern and the traditional sectors as well as from the international capital market and to channel these funds to the parts of the domestic economy that would give the highest returns. I argued that tight foreign exchange controls combined with artificially low interest rates (sometimes lower than those prevailing at that time in the advanced countries) were isolating the domestic capital markets of the developing countries from the international capital markets; that given domestic inflation, the low nominal rates of interest were yielding negative real rates of interest and driving savings away from the banking system into the purchase of gold and jewelry, real estate, and speculative activities; and that the usury laws and government discouragement of the moneylenders were attenuating the already weak financial links between the modern and the traditional sector. My argument that the policy-induced distortions
would aggravate "financial dualism" is similar to the notion of "financial repression" put forward by R. I. McKinnon.30

My 1970 paper focused on the effect of distortions in aggravating dualism. But in the course of writing it, I became aware that even if one could remove all the policy-induced distortions, a substratum of "natural" dualism would still remain, reflecting the incomplete state of development of the domestic organizational framework of the developing countries. Even without the policy-induced distortions in the capital market, for example, the rate of interest in the unorganized capital market would remain much higher than that in the modern sector. The transactions costs and risks involved in lending to a large number of small borrowers of doubtful creditworthiness would be higher than in the case of lending the same aggregate sum of money to a small number of large borrowers with established credit. Similarly, even in the absence of trade unions and minimum wage laws, the wages of unskilled labor would remain higher in the modern sector than in the traditional sector to reflect the costs of recruiting suitable workers and maintaining a stable and experienced labor force.

There would also be this type of natural dualism both in the markets for goods and in the administrative and fiscal system. Thus regional prices for the same commodity would be likely to vary more widely in a developing than in a developed country because of higher transport costs and an underdeveloped system of transport and communications. Seasonal prices of agricultural products would also vary more widely because of higher storage costs, including higher interest charges. Furthermore, a basic feature of dualism that has important implications is that while the large economic units in the modern sector are geographically concentrated, the small economic units in the traditional sector are not only numerous but widely scattered. This means that a long chain of middlemen and a far-flung network of retail-wholesale links are necessary to cater to the needs of scattered economic units in the traditional sector. In the private trading sector this is reflected by wider retail-wholesale margins than in an integrated or a compact economy. Thus the local or farm-gate price that the small farmers receive for their crops is less than the wholesale (or f.o.b.) price by a wide margin, and the retail price at which the farmers can buy goods at the retail or village level exceeds the wholesale (or c.i.f.) prices of these goods by an equally wide margin. This pattern would apply not only to private trading and borrowing and lending, but also to the operation of

the government fiscal and administrative system. The government would have to go through a long chain of its own middlemen at various administrative levels to reach the small economic units at the village level, both to collect taxes and to provide services. Thus, even if the government were willing to spend the same amount per head in the modern and the traditional sectors for the provision of public services, the traditional sector would still receive poorer public services than the modern sector.

My recent work has been greatly influenced by this concept of dualism, and I now think that it is necessary to draw a sharp conceptual distinction between dualism that is preeminently a phenomenon of the underdeveloped state of the domestic organizational framework and distortions that can occur equally in both the developed and the developing countries. This distinction, I believe, will provide a useful basis for studying the interaction between trade and development.

The neoclassical trade theory is based on the perfect competition model, which implicitly assumes that the domestic organizational framework of the trading country is fully developed. In the standard trade theory model with two commodities and two factors of production, the production possibility curve depicts the maximum production frontier that the country can attain with its given resources and technology. Factor prices are assumed to be perfectly flexible so as to ensure the full utilization of the "given" resources. The "given" technology, interpreted as the best-practice technology, is assumed to be embodied in a "costless" manner in the production functions for the two commodities. Thus, in the absence of distortions in the allocation of resources, the country would be located on its production possibility curve.

Neoclassical trade theorists need not assume that the domestic economic system would literally work in this "frictionless" manner without any transport costs, transaction costs, and information costs. But they do assume that it is possible to abstract from these costs without serious errors, because the frictions can be assumed to be uniformly distributed in the economic system so that they would affect only the country's absolute advantage and not its comparative advantage in international trade.

In contrast, my dualism model assumes that a developing country will not be on the production possibility curve theoretically attainable with its given resources and technology. Even in the absence of any

distortion, it will be on a lower curve—its "production feasibility
curve"—that is feasible with the incomplete state of development of its
domestic organizational framework. The gap between the production
possibility curve and the production feasibility curve will not be uni­
form, but will be skewed against the increase in output of the traditional
sector. This is because the frictions and the costs of overcoming them
are not uniformly distributed. These frictional costs will be higher
within the unorganized traditional sector and in the transactions be­
tween the traditional and the modern sectors and will be lower within
the modern sector and in the transactions between the modern sector
and the outside world.

The figure shows the production possibility curve PP for a developing
country, whose modern sector produces a highly capital-intensive com­
modity Y and whose traditional sector produces a labor-intensive
commodity X. Y may be identified as a sophisticated manufactured
product requiring high technology, and X may be identified as either an
agricultural product or a type of traditional manufacture. Assume that
this is a labor-abundant country in which capital and technological
skills are relatively scarce. Thus its comparative advantage will lie in the
export of the labor-intensive product X. With a given international
price ratio for the two commodities RR (assumed to be fixed through­
out the analysis), the country will be at point A on its production

\[ \text{Modern sector} \]

\[ \text{Traditional sector} \]
possibility curve PP under free trade according to the conventional theory.

Now draw the production feasibility curve FF below the PP curve. Because of dualism, the gap between the two curves will widen as we move in the direction of increasing the output X of the traditional sector. There are two reasons for this. First, given the unorganized nature of the traditional sector, the individual producers in that sector will be subject to wide variations in the relative prices and the availabilities of the factors of production. Strictly speaking, the traditional sector does not possess a coherent production function and is likely to suffer from various "organizational slacks" in the utilization of the given resources. Second, the cost of transmitting the given best practice technology would be higher in relation to the small economic units in the traditional sector than they would be in relation to the large-scale economic units in the modern sector. With the existing incomplete state of development of its domestic organizational framework, the country will be on its production feasibility curve FF and not on its production possibility curve PP. Under free trade it will be at point B. Thus the country will produce relatively less of the commodity X for which it has comparative advantage than it would at the conventional free trade point A, not because of any policy-induced distortions but because of the natural bias imparted by dualism against the output of the traditional sector.

A further implicit assumption of the conventional trade theory is that it assumes not only that the domestic organizational framework is fully developed but also that this framework is fixed and invariant to the effects of trade policy. Thus we may introduce a distortion in favor of import substitution (a movement from A to A' in the diagram) or a distortion in favor of export promotion (a movement from A to A''). In either case, the policy-induced distortion will affect only the pattern of resource allocation, while leaving the underlying organizational framework unchanged; that is, the curve PP will remain fixed in its position. Both types of distortion will result in a static loss in terms of the direct gains from trade, and this can be corrected by removing the distortion and moving back along the fixed PP curve to the original free trade position A. In the conventional trade theory, the PP curve cannot shift its position except through the autonomous changes in the resources and technology; there is no room for the induced effects of trade policy on the productive capacity of the country.

In contrast, in the dualism model, one may regard the incompletely developed organizational framework of a developing country as being in a state of formation which can be improved or repressed by appropriate or inappropriate trade policies. That is to say, we may regard the
production feasibility curve FF as being shiftable through the induced effects of trade policy even if the given resources and technology determining the position of the PP curve are unchanged. Starting from its free trade position B on the FF curve, the country may distort its resource allocation in favor of export expansion by moving to B' in favor of import substitution by moving in the opposite direction to B'. In the short run, both types of distortion will result in a loss in the immediate gains from trade, but the longer-term effects may be different because of the induced effects of trade policy.

Let us say that the country has distorted its resource allocation in favor of export expansion by moving from B to B'. This may be done in various ways, such as by building the social overhead capital required for export production ahead of demand or simply by giving export subsidies. As long as the distortion is helping to expand exports according to the potential longer-run comparative advantage, the country is likely to enjoy economies of scale from producing for a wider export market. The indivisibilities confronting the small economic units in the traditional sector are themselves rather small by conventional standards. They arise, on the one hand, from poor credit facilities to finance even fairly small-scale capital investment and, on the other hand, from limitations on the size of local markets because of poor transport, communications, and marketing facilities. In such a setting, by overcoming the indivisibilities of the small and by filling in the gaps in the organizational framework of the traditional sector, the expansion of exports may be able to shift the production feasibility curve FF upward to the dotted stretch of curve BF' parallel to PP. (This would indicate that the differential disadvantages suffered by the traditional sector have been removed.) With the given international prices, the country may be able to move to a point such as E on BF', which is superior to its original position at B. Here the indirect gains and induced effects of the export promotion policies would outweigh the direct static losses from the distortion of the resources.

Starting from the original position B, the country may distort resource allocation in the opposite direction to encourage import substitution, by moving B' on the FF curve. This will cause a direct static loss in the usual sense, but (if my 1970 paper is accepted) there may be further indirect losses repressing the organizational framework and shifting the FF curve downward to BG. The champion of the infant industry argument for protection will, however, maintain that the FF curve will also shift upward in the direction of producing commodity Y because of the external economies and the dynamic benefits of a manufacturing industry based on advanced technology. Thus the infant industry argument based on the dynamic effects may be interpreted as
an upward shift in the FF curve to the dotted stretch of curve B'G', which enables the country to reach a point such as I in the long run. On empirical and historical grounds, I am skeptical about this possibility, but my extended framework of analysis can incorporate these dynamic arguments against the static comparative advantage theory, whether they are advanced by those who favor import substitution policies or by those who favor export promotion policies.

Unlike the conventional perfect competition model, which postulates the existence of a fully developed domestic system working in a frictionless manner, the dualism model focuses attention on the process by which a developing economy is enabled to make more flexible economic adjustments through the development of a domestic organizational framework. This serves to clarify the notion of the potential comparative advantage with the given resources and technology. In the conventional analysis, a country is prevented from realizing its potential comparative advantage only by distortions. But as we have seen, the gains from the removal of the distortions are likely to be small. The concept of the potential comparative advantage may be more satisfactorily interpreted as a movement from a position on the production feasibility curve to the production possibility curve. The gains then generated are large enough to provide a starting point for explaining why the export-oriented countries have grown as rapidly as they have.

This approach also serves to bring out the asymmetry in the process whereby a labor-abundant country may realize its potential comparative advantage in labor-intensive exports, while a resource-abundant country may realize its potential comparative advantage in resource-intensive exports. Given free trade and open-door policies toward foreign investment, a resource-abundant country can readily expand its mining and plantation exports, simply by extending the organizational forms that already exist in the modern sector of its economy. In contrast, a country with abundant labor but scarce capital resources can more effectively pursue its potential advantage in trade, whether in agricultural exports or in labor-intensive manufactured exports, on the basis of small-scale production. This means that a labor-abundant country would have to face the more difficult organizational problem of catering to the economic needs of a large number of small-scale economic units in the traditional agricultural sector or in the informal sector by providing them with a more effective network of transport, marketing, and information. Only through a successful process of institutional and organizational adaptation can a country transform its abundant population into an effective labor supply to realize its potential comparative advantage in labor-intensive exports.
Further Aspects of the Organizational Dualism Approach

Other areas of development economics—agriculture, income distribution, and planning—illustrate the interplay between my organizational dualism approach and the neoclassical theory, particularly the analysis of factor proportions.

A well-known landmark in the neoclassical resurgence in the field of agricultural economics is Schultz's book on traditional agriculture. It reiterated the proposition that traditional farmers are "efficient but poor" and that little could be done to raise the productivity of traditional agriculture without the introduction of new inputs. I fully agree that neoclassical microeconomics can be applied to small farmers and that they may be regarded as following the ordinary maximizing economic behavior on the basis of their given resources and technology. But in my dualism model, the relative prices facing the farmers will vary, depending on their individual locations within the traditional sector, because of the underdeveloped state of the organizational framework. Thus, an exclusive emphasis on the introduction of new inputs may seriously underrate the possibilities for raising the productivity of the traditional sector through improvements in transport, marketing, credit, and informational networks.

From my perspective, the more interesting approach is in the concept of "induced innovation" in agriculture put forward by Yujiro Hayami and Vernon W. Ruttan. They started in a neoclassical fashion by showing that the direction of profitable agricultural innovations will depend on the initial pattern of resource endowment of a country. Thus the United States, which typifies a land-abundant and labor-scarce country, has been preeminent in introducing labor-saving innovations in the form of mechanized farming; Japan, which typifies a labor-abundant and land-scarce country, has been preeminent in introducing land-saving innovations such as high-yielding seeds, intensive applications of fertilizer, and multiple cropping. Hayami and Ruttan regard the appropriate type of agricultural innovation as being induced by the...

perception of the government and of private entrepreneurs concerning the most profitable direction for research and development to take, as indicated by the existing land-labor ratio. There is an obvious similarity between this approach and the Heckscher-Ohlin theory of comparative advantage: in both cases, factor proportions are analyzed to find the direction of comparative advantage, whether in international trade or in agricultural innovation. The merit of Hayami and Ruttan is that they go a step further and clearly recognize that in order to spread the new technology it is necessary not only to offer the new inputs at attractive prices (for example, a low ratio of fertilizer price to rice price) but also to have effective institutional mechanisms for distributing the new inputs. In this connection, it is worth remembering that in the 1950s and 1960s seeds and fertilizers were distributed to farmers in developing countries by government agricultural departments that were not efficient in getting the right quantities at the right times to the right recipients. In my view, one of the less well-appreciated factors in the spread of the Green Revolution in the 1970s was the increasing use of private trading networks to distribute the new inputs.

Hayami and Ruttan's concept of institutional innovation to promote agricultural development is similar to my concept of institutional adaptation to realize the potential comparative advantage in trade. Both stress the need for a more systematic analysis of the organizational problems that have to be solved behind the scenes before one can accept the neoclassical conclusions. But when we have added the institutional dimension, the neoclassical analysis of factor proportions (which is, after all, nothing but a glorified analysis of demand and supply) turns out to be a versatile tool, capable of extension to other areas of development economics. In particular, the neoclassical theory of the functional distribution of incomes provides a useful perspective on the issue of growth and income distribution that was widely discussed during the 1970s.

Taiwan is a good illustration, because it has been notably successful in making the necessary institutional and organizational adaptations, both in promoting a labor-intensive pattern of agricultural development and in expanding labor-intensive manufactured exports. High-yielding varieties of rice together with improvements in irrigation were introduced into Taiwan during the Japanese colonial period, decades before the spread of the Green Revolution to other parts of Asia. During the 1950s, Taiwan continued with a series of land-saving and labor-using agricultural innovations that increased its agricultural output at the remarkable average rate of growth of 4.4 percent a year between 1954 and 1967. Taiwan also inherited the Japanese flair for creating favorable conditions for the growth and efficiency of small-scale labor-intensive manufacturing industries. As a result, Taiwan was able to
The neoclassical resurgence promote a decentralized pattern of industrialization, based on close links between small-scale industries and agriculture, and to exploit its potential comparative advantage in labor-intensive manufactured exports.

Taiwan's remarkable achievement of combining rapid economic growth and high income equality is well known. Some writers have singled out the successful land reform programs of 1949–53 as the key to its equal income distribution. But a look at history and a factor-proportions analysis shed a different light on the situation. In the 1950s Taiwan started out with a rapidly growing population of very high density. It is therefore not difficult to see that a one-time redistribution of the existing land could not have solved Taiwan's economic problems, and the benefits of the land reform would soon have been eroded without rapid economic growth. In the long run, the key to Taiwan's success in combining rapid growth and a high degree of income equality must be found in its successful introduction of labor-intensive policies both in agriculture and in manufactured exports. These policies acted continually over time to transform Taiwan from having an abundance of labor in the 1950s to having a scarcity in the 1970s. This rapid expansion of employment raised wages and brought about a high degree of income equality through the working of the labor market.34

If this analysis is correct, the conflict between the objectives of growth and income equality that was so much publicized during the 1970s seems to be exaggerated. Since most developing countries are labor-abundant with the prospect of high population growth, efficient growth policies for them must lie in the labor-intensive direction. A labor-intensive pattern of economic growth, if successful, would tend to raise the share of wages in national income and have an equalizing effect on income distribution. The initial pattern of property ownership may be equal or unequal, depending on historical circumstances, but at least the direction of change will be toward greater income equality if the labor-intensive methods, required purely for efficiency, can be successfully introduced. Further, the working of the labor market is likely to have a more potent equalizing effect than redistribution policies, which would have to be implemented through underdeveloped fiscal and administrative machinery.35

The dualism approach emphasizes the incomplete state of develop-

34. Hla Myint, "Comparative Analysis of Taiwan's Economic Development with Other Countries," *Academia Economic Papers*, vol. 10, no. 1 (March 1982).
ment of both the market organization and the government administrative and fiscal machinery in the developing countries. I can round off my discussion with a very brief look at the implication of this for economic planning. Clearly, it is quite as unconvincing to make the case for free market policies on the basis of the perfect competition model as it is to make the case for comprehensive planning by postulating a perfect planning agency, which is a perfect competition model under another name. Thus, quite early in the debate I came to the conclusion that the crux of the matter is not the formal conditions of optimum and consistent planning, but the actual functioning of the market mechanism and the government administrative machinery as alternative instruments for carrying out the policy objectives. Although the objectives of economic policy are necessarily selected by the exercise of value judgments and political ideology, the relative merits of the market mechanism and the government mechanism should be judged, not ideologically, but according to their comparative cost-effectiveness in carrying out the chosen policy objectives.

At this point, my approach converges with the neoclassical approach to planning in terms of project evaluation. My main concern, however, has been not with the physical infrastructure, but with the invisible social infrastructure in the form of the organizational framework. To determine the relative effectiveness of the market and the state mechanisms as instruments of economic policy, a useful practical rule would be to allow the two mechanisms to compete whenever possible. For instance, the high rates of interest and the wide retail-wholesale price margins that operate against the small farmers in the traditional sector have been popularly attributed to the monopolistic activities of the moneylenders and the middlemen. The best way of testing this suspicion is for the government to see whether its own credit and marketing agencies can cater to the needs of the farmers more efficiently than the private trading network. In practice, it frequently happens that the government agencies cannot compete successfully. The usual reaction is to control or suppress the private trading network and replace it by state-controlled monopolies, such as the state agricultural marketing boards that are ubiquitous in agricultural export economies. There is then the danger of confusing dualism and distortions. It could lead to a further distortion in the allocation of resources in the misguided attempt to “correct” price differentials that merely reflect the high

transaction costs and risk premium, which are unavoidable in the existing underdeveloped state of the organizational framework.

Concluding Remarks

I conclude by briefly considering the implications of the neoclassical resurgence for development economics as a branch of economics. The 1950s dream of establishing a new type of economics analogous to the Keynesian economics has been unfulfilled. The neoclassical resurgence may be described as asserting that instead of two different types of economic theory, one for the developed countries and the other for the developing countries, there is only a single mainstream theoretical approach, based on the efficient allocation of resources. What are the strengths and limitations of this view?

On the credit side, the basic lesson that has emerged from the experiences of the developing countries is that economic growth does not depend simply on increasing the supply of savings and investable resources but must depend crucially on how productively these resources are used. Allocative efficiency is a major factor in using the resources productively; more precisely, the need to prevent misallocation of resources is especially important when we are concerned not with the given resources, but with an expanding stream of resources from increasing savings and capital accumulation. In this setting the distortions in the allocation of resources can seriously retard growth through their cumulative effects, and it is therefore misleading to say that the static problem of allocative efficiency is unimportant for the dynamic problem of promoting growth through capital accumulation.

On the debit side, the neoclassical resurgence has left many unanswered questions about why some developing countries have been able to grow so rapidly and what have been the substantial sources of the growth in productivity of their resources. These questions cannot be adequately settled in terms of the gains and losses associated with the distortions in the allocation of resources. There are other possible approaches, such as X-efficiency, entrepreneurship, and social and cultural background. The approach I have tried to develop is in terms of the underdevelopment of the organizational framework and the process of mutual interaction between economic policies and economic institutions. Whatever one's views about the usefulness of these alternative approaches to the causes of the rise in the productivity of resources that is the main factor in economic growth, few would deny the need for them. In this situation, a strict insistence on the neoclassical doctrine of a single economic theory for both the developed and the developing countries may be inimical to the growth of fruitful theoretical
approaches to the problems of underdevelopment and development. It is for this reason that I have devoted much of this paper to the limitations of the formal neoclassical economic theory, despite my general agreement with what are identified as neoclassical types of policy conclusions.
Comment

Sir Alec Cairncross

I AM PARTICULARLY HAPPY to comment on Hla Myint’s contribution to development economics because we seem to have a good deal in common: early involvement in the work of an economic adviser (he at the age of twenty-six, I at twenty-eight); a preoccupation with international influences on development (he in a country that spurned them, I in one from which some of these influences came); and an attachment in different capacities to the university of first choice. But Myint is far more thoroughly versed in the literature of development, and my comments, therefore, are those of an amateur on a professional.

In looking back over the past thirty years or so, he sees the latter part of that period as one of “neoclassical resurgence,” which I take to mean a reassertion of the influence of market forces in producing economic development. To this resurgence he has a somewhat ambivalent attitude. He is conscious of the weaknesses of neoclassical theory and goes to some trouble to emphasize them. Yet at heart he sympathizes with its drift and confesses to going through a “neoclassical interlude in the 1960s” when he was “attacking the import substitution policies of the developing countries by using the neoclassical weapons.” Even now,

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1. It is never very obvious to me which economists and what propositions should be labeled neoclassical. As Myint himself pointed out in his first book (Theories of Welfare Economics, p. 54), the economists of Marshall’s generation defended what they called “free enterprise” as giving “the freest rein to the mainsprings of economic progress” and based their objections to state interference mainly on the grounds that it would “undermine the incentive to save and embark on new enterprise rather than on the more familiar argument that it [would] lead to a maldistribution of resources.” Theirs is not the neoclassical theory to which Myint takes exception but the later versions in terms of fixed factor endowments and variable factor proportions. Whatever the reasoning of earlier economists, by the time I came to the subject in the 1920s and 1930s the textbooks on international trade gave very little attention

(Note continues on following page.)
when his earlier dissatisfaction has reasserted itself, he seems to me to push his critique of protectionist arguments too far.

If all that was affected was the allocation of resources there would be little to be said for protection. But as the latter half of his paper brings out very strongly, the degree to which resources are usefully mobilized, employed, or created is also at stake. Take, for example, the argument that subsidies for training and research are an effective substitute for tariff protection. The fact is, surely, that in the absence of a market, which a tariff may create or guarantee, investment in training or research, with or without a subsidy, will simply not occur. Similarly, the argument that restriction of imports must automatically affect exports to a corresponding extent leaves out of account what may be more important effects on the volume of employment.

Myint's consistent advocacy of free trade policies and an open economy rests not on neoclassical theory, however, but on an alternative approach to the influence of trade on development. He is impressed by the disproportionate effect that an expanding volume of trade seems to exert on economic growth and at the same time by the limited gains that seem likely when the distortions introduced by trade restrictions are removed. Both of these considerations point to larger, indirect consequences of the opening up of an economy to trade. Such consequences Myint explains in terms of the "vent for surplus" theory which he developed in the 1950s. They also color his later thinking about the interaction between the traditional agricultural sector of the economy and the modern, capital-intensive industrial sector.

I agree with Myint that a theory that runs in terms of allocative efficiency does not do justice to the importance of trade in economic development. This is particularly true in the case of underdeveloped countries. The international influences that come with trade can set on foot that revolution in ideas, attitudes, institutions, and techniques that the Chinese call "modernization" and is the true basis of development. Even in the case of developed countries the ostensible gains from freer trade may fall well short of the total impact. When British economists tried to quantify the blessings of joining the Common Market by multiplying the saving in import costs by the volume of trade affected they were liable to end up with a once-for-all gain of no more than 1–2 percent of GNP—not a very plausible result.

The really major gains from trade come from the fuller use of resources, the changes in techniques that this encourages, and the incen-
tive to create fresh resources. Sometimes, as in the vent for surplus model, this means bringing surplus resources into use by opening up foreign markets; sometimes it means mobilizing scattered resources hitherto neglected, as envisaged in Myint's discussion of dualism; sometimes as in recovery from a trade depression, it means raising the level of economic activity. The removal of impediments to trade is far less important than allowing or inducing an increase in demand.

In his vent for surplus theory Myint makes this point largely in relation to the additional scope offered by foreign markets for the exploitation of underutilized resources. These he treats as unused land or mineral deposits rather than as underemployed labor or surplus capital assets. The picture he gives suggests, at first sight, a rather special situation in which, as the market expands, the surplus is absorbed and development is eventually brought to an abrupt stop. This is not at all Myint's view. He sees the process stretching out over a long period ("many decades") and fresh resources being drawn in steadily over that period. Moreover, he points out that expansion brings into play other, more enduring influences. These include:

- the introduction of new technology and methods of production in the mining and the plantation sector;
- the improvement in internal transport and communications and the extension of public services financed out of the increasing government revenues from foreign trade;
- and last but not least, the development of the markets for products and the factors of production and the expansion of internal trade induced by the expansion of international trade.

It is hard not to detect in this passage the lament of a Burmese professor for opportunities neglected, contrasting the success of other Asian countries with the slow growth of his own. Some countries, not all of them in Asia, do have large, unexploited natural resources, but others do not. Hong Kong on the one hand and Bangladesh on the other do not fall readily within the limits of the model. Even where the model does apply—in economies based on small-scale agriculture with surplus land or mineral resources—there must be a stage at which the surplus begins to disappear. What happens then? Can we assume that industrial development will have taken over from agricultural or mining development? There can be no guarantee of this.

What if, as Myint implies, there is also surplus labor to be drawn from the subsistence sector, and it can be attracted into manufacturing once the transport system has been built up? The process of absorption can then go on almost endlessly. In fact the vent for surplus theory has more in common with Arthur Lewis's model of unlimited supplies of labor than Myint admits. The difference is that Arthur Lewis tends to represent capital in the form of industrial capacity as the bottleneck in
development, whereas Myint wants to see small-scale labor-intensive industry given more encouragement and does not regard the capital requirements as a major obstacle.

Myint's emphasis is on the beneficent influence of an expanding market. But is development just a matter of the lucky possession of a surplus for which there happens to be a market abroad? Obviously not. Any theory that treats market expansion as the prime factor in growth obliges one to consider what can be done to make the market expand. Myint takes it to be the great virtue of the neoclassical resurgence that it insists on the importance of appropriate domestic policies to achieve this result. But what policies? The three examples he gives are directed not at raising the level of demand but at allowing market forces to operate effectively. They take the form of pricing policies for products and factors of production, macroeconomic policies to control inflation and the exchange rate, and investment policies to provide necessary infrastructure. Even in highly developed countries these policies have not been uniformly successful: wages and prices, interest rates and exchange rates, and investment in infrastructure may all respond perversely to well-intentioned government action. The governments of developing countries are unlikely to be more successful and may find their policy so conditioned by pressures from without and within that it scarcely deserves the name. The limits to their powers to pursue "appropriate" policies may even drive them to adopt the "inappropriate" ones of which the neoclassical economists complain.

In any case it seems to me that Myint has not sufficiently considered the scope for government action in developing countries. Lauchlin Currie may go too far in arguing that the basic distinction between developed and developing countries is that the former have achieved some control over their economic destiny, which the latter do not yet have. But at least one has to recognize the universal ambition to achieve some kind of control. This means that governments are reluctant to rely completely on an autonomous expansion of the market. If the market is not expanding they try to create expansion by excluding imports—not a very promising way of improving efficiency. They may couple import substitution with efforts to accelerate capital accumulation, and this in turn may lead them into central planning for development: development plans nearly always take the form of investment plans.

Myint, however, is skeptical both of planning and of high levels of investment as a recipe for faster growth. The role he sees for domestic economic policies does include "appropriate investment policies in social overhead capital to bring out the potential comparative advantage of the country." But he suggests that the key to rapid growth lies in a "capacity to use . . . investable resources more productively" rather
than in a greater capacity to save and invest—a judgment in which I concur.

It is not altogether clear to me why Myint draws so sharp a distinction between his vent for surplus theory and what he calls the productivity theory of international trade. Both depend on a widening of the market and both accept that this will encourage innovation and raise productivity. The vent for surplus theory is not dependent on these reactions to market expansion since it holds even if techniques remain unchanged. But, as we have seen, Myint lists the introduction of new technology as an indirect gain from an expanding market.

My own view has always been that technical change is the crux of the matter since growth with unchanged techniques is not properly development at all. Technical change, being a commercial and not a scientific process, is necessarily endogenous, and it responds more powerfully to market expansion than to any other factor. So I agree with Myint that it is important not to put impediments in the way of market expansion. Access to world markets is doubly important because the narrowness of the domestic market would otherwise limit the scale and hence the technique of production and because world markets offer better chances of expanding sales quickly. Although market expansion encourages technical change, it does not rob technical change of its central importance, nor does the fact that it frequently requires increased investment.

Myint is quite rightly impressed by the rapid growth in exports from developing countries and by the growth in aggregate income that has accompanied it. But he takes too readily for granted that it is the additional exports that have brought about the more rapid growth in output. May it not, to some extent, have been the other way around? If productivity is rising for reasons unconnected with exports, the path of the exporter is smoother; expanding markets abroad make it smoother still. In Myint's interpretation, the growth in exports exercises a spreading influence on the whole economy, larger than can be accounted for by the removal of trade distortions and not, ostensibly, attributable to a rise in the savings and investment ratio. There is no doubt that much of the growth in East and Southeast Asia has been export-led. But that does not rule out some contribution from industrial innovation elsewhere in the economy, whether through government or purely private initiative.

Instead of building on his vent for surplus theory, Myint tackles the issue of industrialization from a quite different angle, the dualism of modern and traditional sectors. The modern sector is large-scale and capital-intensive, enjoys low interest rates, pays high wages, draws its resources from organized markets, and benefits from an unequal share
of public services and social infrastructure. In the traditional sector the opposite applies.

A dualistic approach evokes Burma again and is by no means new. What is new in Myint's version is his emphasis on the difference between the two sectors in factor proportions and on the role of the state in tipping the balance against the traditional sector. Capital intensity in the modern sector is aggravated by minimum wage laws and the encouragement of trade unions on the one side, and on the other by "cheap loans and a lion's share of the limited foreign exchange at overvalued exchange rates." By contrast, things are made difficult for the traditional sector by government controls that fragment and distort the capital market.

Myint recognizes that the dualism he describes is not due entirely to government policy but is to a considerable extent inescapable. All economies in transition exhibit dualism in some form, if only because structural change takes time. Myint's argument is that dualism is intensified by favors to the modern sector and burdens on the traditional sector. But the favors are compensated to some extent by tax payments, development of labor skills, familiarization with new techniques, and other benefits. There seems no reason why a policy of import substitution should be tied any more closely to the capital-intensive modern sector than to the small-scale handicraft sector. If development hangs on an expansion in trade, and if market connections are an indispensable element in the process, there has to be some kind of modern sector that can build up connections.

Myint goes some way toward explaining why the traditional sector does not by itself expand into manufacturing on a competitive footing and indicates some of the obstacles. But he does not provide a convincing analysis of those obstacles and does not consider sufficiently why a modern sector comes into existence. After all, every economy has a substantial manufacturing sector, even if it is sometimes labeled "handicrafts," and the output of manufactured goods in developing countries is far from negligible. Why is this sector not transformed by the opportunities offered by foreign markets? There are examples to show that it can be done. Why are there not more examples, and why should a modern sector be able to overcome the handicaps (whatever they are) of the traditional sector? I doubt whether the real handicaps are those of which Myint complains: the special favors conferred on the modern...

2. It goes back to J. S. Furnivale, *Colonial Policy and Practice* (Cambridge, Eng.: Cambridge University Press, 1948), who also had Burma in mind.
sector. They seem to me to lie more in matters of scale, design, quality, contact with foreign markets—above all, marketing. We are still too much concerned with factor proportions and too little with merchandising.
Comment

Gustav Ranis

Hla Myint is justifiably recognized as one of the fathers of our disciplinary subculture and one who has moreover continued to contribute substantially to its evolution over time. But even if he were unable to appeal to parental authority it would be difficult to disagree with much of what he has to say in this perceptive and well-reasoned essay. However, my task is not to dwell unduly on the very substantial areas of agreement between us but, instead, to focus on where I believe his position requires either elaboration or amendment. My comments are therefore divided into what I consider queries, which hopefully further elucidate the ground he has chosen to cover, and some points on which there may be some real divergence on substance or coverage.

At the most fundamental level I cannot but fully endorse Myint’s effort to distance himself from the false dichotomy so often preached by the “true believers”: that the use of neoclassical tools in theory must be fully equated with a complete reliance on market forces in practice, while the “lower reaches” of other theories are inevitably equated with fuzziness of thinking and an uncritical attachment to central planning and widespread interventionism. There are indeed quite a few people in the profession who clearly see the limitations of neoclassical theory but still agree with neoclassical type conclusions, even though there are admittedly still larger numbers who see the limitations of other theories even more sharply and thus feel impelled to preach the gospel in its purest form. The problem, I believe, goes deeper than the natural tension between an essentially static but precise and elegant equilibrium theory and a development problem that is inherently dynamic and characterized by disequilibrium. The issue comes down to whether developing countries represent a “special case” in theory and just how

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historically sensitive the approach to the study of development should be. There are quite a few practitioners after all (including Arthur Lewis and the late, lamented Simon Kuznets, to cite some rather safe examples) who have a less restrictive view of the possible relevance of institutional factors and the phenomena of nonmarket clearance, who worry about transition rather than equilibrium, and yet who are by no means devotees of dirigism or central planning. Anyone who tries to understand historically observed regularities as well as deviations, before attempting to force everything into a constrained utility-maximizing mode, should not be asked to take his stand with dirigism, dependencia, structuralism, and worse. In fact, I would myself prefer to march under the banner of a fifth possibility with regard to the acceptance of formal neoclassical theory and the advocacy of neoclassical policies: one may question the adequacy of neoclassical theory but advocate neoclassical policies together with selective and timely government interventions along the way. Presumably we all recognize by now that this, rather than the simple application of laissez-faire, is the real lesson behind the East Asian success story.

I find myself in substantial agreement with Myint when he takes pains to distinguish between the existence or nonexistence of static distortions and the existence or nonexistence of learning processes and organizational changes, often induced by exposure to trade. But I believe his weighting of the relative roles accorded to trade and other "supporting" policies betrays his professional origins. The tail is too much wagging the dog here or, to use Kravis's terminology, the handmaiden is too much at center stage. For example, in the classical tradition, Myint sees the underemployment problem, to which he is otherwise quite sensitive, mainly as central to the argument for industrial protection rather than as an important ingredient of development theory and policy in their totality, with special importance for agricultural development. In fact, Myint's almost exclusive emphasis on the trade and foreign capital dimensions of development constitutes a major shortcoming of his paper. Admittedly this fascination with the open economy dimensions of the problem is something he shares with a large portion of the development literature of the recent past. Nevertheless, it is somewhat harder to forgive him than to forgive the more conventional trade theorists for the almost complete neglect of the special role of the rural economy and of the importance of domestic balanced growth in development theory—whether constructed within a wholly neoclassical or a classical-neoclassical framework of analysis.

Myint, quoting Nurkse, quite clearly puts balanced growth and import substitution into one interventionist box. In fact, if the most successful cases of development—those of historical Japan and of post-war East Asia—teach us anything, it is that balanced domestic growth through markets represents a critical complementary blade for outward-oriented growth through markets in any but the smallest of countries. In the context of neoclassical rules of the game, the openness of the economy to the rest of the world depends on the extent to which the rural hinterland’s surpluses are mobilized by a mixture of neoclassical type policies and such “good” government interventions as land reform, the equitable provision of infrastructure, financial intermediation alternatives, and information on process and product alternatives. Only when such conditions are propitious—when balanced domestic growth via markets can serve as an effective propellant and complement to export-oriented growth—is there likely to be overall success in the development effort. Myint’s own vent for surplus notion cries out for full generalization to the exportation of labor in the form of industrial goods. And the effectiveness of that particular handmaiden may well depend on not favoring cash crops for export over domestic food crops. In other words, one senses all too little emphasis on the shift—required at least to some degree—from traditional to nontraditional exports, a shift impossible to achieve in the absence of domestic policy change.

It is, moreover, difficult to decipher whether Myint in fact believes that an early import substitution phase in the life cycle of a typical developing country is entirely avoidable. What exactly is that “general run of countries that had maintained open economies” that he refers to? Malaysia certainly succumbed to import substitution, if a bit later, and Thailand and the Philippines have never been open economies in the sense described here. Once again the problem seems to reside in a surprising absence of historical perspective. We read a lot about the phases of Myint’s thinking but very little about the possibility of phases emerging naturally in any developing country as it transits from agrarianism into modern growth. Is there any room, perhaps even a necessity, for infant industry protection—preferably mild and preferably short—especially in a large country and where managerial and entrepreneurial capacities are initially more limited? Even the most successful of the East Asian cases cited by Myint, that of Taiwan, experienced almost a decade of admittedly mild import substitution during the 1950s.

A closely related issue is whether policies should be treated entirely exogenously—as when Hollis Chenery merges them with his initial conditions—or endogenously as either obstructing or accommodating some underlying “natural” evolution of the system. Kuznets keeps
policy at arm's length and refers to it only in terms of the importance of a country's gradual shift toward egalitarianism and away from nationalism during the growth process. By this he means a transition, brought about by a gradual liberalization of policy, from a consensual sharing ethos to a system in which individuals are rewarded according to the quality of their contribution. Myint seems to ignore the issue. But surely he must ask himself, along with the rest of us, why so many countries have so consistently refused to accept such good advice emanating from the warriors in the extreme neoclassical camp as well as from the more balanced exponents of neoclassical type policies, among which he himself clearly likes to be counted.

Just as surprisingly, Myint is also somewhat insensitive, at least in this essay, to important typological differences among developing countries. For example, why does he puzzle so much about the strong relationship between output and export growth, an obvious point for a small country such as Korea and probably inaccurate for a large one such as India or China? Of course, one has to recognize the difficulty with typologies—for example, the difficulty of differentiating among various dimensions of initial conditions and of distinguishing such conditions from the exercise of policy options. Moreover, the more refined the classification the closer we approach the notion of a "special case" for each country. Nevertheless, in the past decade Chenery and his associates, who started with cross-sections of many countries and then began to pool these with time series data, have been moving in this direction, as have those working within a more historical comparative approach, complete with subphases of development. Myint may not agree with either approach as represented in the literature, but he virtually ignores the issue. At least implicitly, he seems to take his stand with the monotheorists, in Hirschman's language. But can one really analyze the contribution to the solution of the development problem of neoclassical versus non-neoclassical theories or, more to the point, of neoclassical type policies versus others in a context that is both ahistorical and atypical?

The main novelty in the paper before us, and perhaps its most controversial aspect, is the discussion attending Myint's recent rediscovery of the concept of dualism that he implicitly claims is substantially different from other versions of that much-abused term in the literature. Strangely enough, the definition he offers—the coexistence of modern and traditional sectors, with large and small units existing side by side, together with the fragmentation of factor markets and an unequal provision of public services and infrastructure between the two sectors—represents a well-plowed field in development economics, as he must surely know. Myint insists on separating his version of dualism from distortions that may "aggravate dualism." What he has in mind is
an underlying “natural dualism” that is never fully spelled out. The
evidence he cites for it—for example, higher interest rates for small
borrowers than for large, in combination with higher transaction costs
and higher risks—is admittedly not associated with distortions or the
garden variety of dualism. But isn’t this to be expected from a market
solution? Similarly, if unskilled workers in the modern sector are paid a
higher wage partly because they are more “suitable,” “stable,” or “experienced,” isn’t this, according to Stiglitz, part of the neoclassical
explanation of human capital?

Labels aside, however, Myint is justifiably trying to draw our atten-
tion to some omitted variable, or organizational deficiency. Whether
such an organizational black box should contain transportation, trans-
action, and information costs or something more is not very clear.
Perhaps it doesn’t matter. Myint’s basic contention is that even if there
were no distortions a country could be within its production possibility
curve, along what he calls its production feasibility curve, as a conse-
queline of organizational deficiencies. Granted; but this presumably is
what Harvey Leibenstein’s X-inefficiency is all about. Myint goes on to
confuse at least one reader by placing traditional sector goods on one
axis and modern sector goods on the other, with the gap between the
production feasibility and possibility curves relatively larger for tradi-
tional goods because of the greater prevalence of organizational dual-
ism. But how does this relate to his own definition of dualism, which
focuses on the coexistence of large and small units producing the same
set of goods? Is his version of dualism valid only between sectors?

More important, Myint defines a movement from A to A’ along the
production possibility curve as “import substitution,” while a move-
ment from A to A” constitutes “export promotion.” Is it really justified
to equate “modern goods” with import substitution and “traditional
goods” with exports? The labor-intensive product X, even if produced
by the traditional sector, may in fact constitute the most modern and
competitive exportable product, as the experience of the newly indus-
trializing countries of East Asia has amply demonstrated. Admittedly a
system may find itself inside its production possibility curve in the
absence of distortions and the presence of organizational deficiencies. It
can then move to the frontier by removing those deficiencies. But if the
choice of import substitutes is, at least for a time, associated with
the proverbial distortions of an import substitution policy, what is the
meaning of being on that part of the production possibility curve? Can
such distortions really be viewed as independent of the organizational
shortfalls? We all know that the production possibility curve is a purely
heuristic device that has never been empirically observed. It is fair to ask
how the addition of another heuristic device, the production feasibility
curve, advances the cause. If the purpose is to explain why ex-
port-oriented developing countries have grown so much faster than their inward-oriented cousins I am not at all convinced that this machinery takes us further than the work of I. M. D. Little, A. O. Krueger, Bela Balassa, and others.

Myint further claims that his approach brings out the asymmetry between labor-abundant countries and natural-resource-abundant countries. He concludes that countries rich in natural resources can easily expand their mining and plantation exports simply by extending the organizational forms that already exist in the modern sector of their economies, whereas labor-abundant countries face more difficult problems of having to organize large numbers of small units. Once again, however, observation of the empirical realities since World War II could easily lead to quite the opposite conclusion that natural-resource-abundant countries have generally found it much more difficult than labor-abundant countries to make the organizational changes that Myint apparently has in mind. Not only has the so-called Dutch disease kept exchange rates overvalued and discouraged nontraditional exports, but also political economy pressures to avoid painful policy change have been much more powerful in resource-rich countries. It is the countries without good natural resources which, forced by necessity, have generally managed to implement important organizational changes and make them stick—conditions favoring a successful outcome for the development effort.

Myint goes on to make three other, relatively minor claims for the usefulness of his concept of organizational dualism—none of which, to my mind, is outstandingly successful. First, with respect to agriculture, for instance, it is rather unfair to claim that Theodore W. Schultz was concerned only with inputs. Certainly an emphasis on the prices facing individual farmers represented an integral part of his position; moreover, it is by no means clear whether "different prices facing different farmers" should be viewed as an organizational problem or, rather, as part of the price distortions that Myint relegates to a level of lesser importance. Second, with respect to income distribution, on which Myint is uncharacteristically imprecise here—although he apparently feels impelled to say something—it is by no means clear how his discussion of Taiwan's performance relates to his concept of organizational dualism. Although he fails to distinguish between the functional and the size distributions of income and pays little heed to the growing literature on the subject, he in fact draws heavily on neoclassical theory in explaining the good "growth with equity" performance of the Taiwan economy. Income distribution is rightly viewed as a central part of traditional development theory, but the crucial role accorded to foreign investment is not at all convincing. Even if there were no international factor mobility, gains from trade would surely be affected
by the initial distribution of assets as well as by the changing break­
down between traded and nontraded goods. Finally, I agree with much
of what Myint has to say about planning but cannot quite see its
relevance to organizational dualism. Here, at least, it is recognized that
all planning is not necessarily rigid and centrally administered.

At the end, I am not sure where Myint stands on the question of the
relevance of the “special case.” Does his diagnosis of the development
problem lead him to neoclassical type policies for developing countries
different from those that apply to the mature economy? His organiza­
tional dualism is clearly seen to be relevant only in developing coun­
tries, although distortions can exist anywhere. And differential trans­
port, transaction, and information costs in mature economies would
equally seem to be a fact of life. We are never told how much weight, if
any, is attached to old-fashioned institutional differences that may set
off problems in developing countries and thus affect their choice of
policy—nor how effective changes in trade policy alone can be in
shifting the production feasibility curve outward. I believe Myint was
 handicapped by a reluctance to examine the experience of some indi­
vidual countries or to consider the implications of Third World heter­
ogeneity. He would undoubtedly agree that we need to dig much deeper
if we are to understand the specific constraints to a better functioning of
different developing countries, especially with regard to the relation­
ship among static distortions, organizational changes, dynamic
learning processes, and (perhaps) institutional rigidities. That is a tall
order and we should not ask for the moon. Undoubtedly with this
stimulating essay Myint has, once again—as so often in the past—set
the profession thinking in promising directions.
Arnold C. Harberger

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He has consulted on problems of public policy in Bolivia, El Salvador, Indonesia, Mexico, Panama, and Uruguay and on matters of project evaluation in Argentina, Canada, Chile, Colombia, Costa Rica, Honduras, and India. He has also lectured on project evaluation in most of the above countries as well as in Brazil, China, and the Dominican Republic, Portugal, and Spain and in most of the major international lending agencies.

Harberger has strengthened the subject of economic development through his contributions to the measurement of the efficiency costs of distortions, his empirical study of the dynamics of inflation, and his analysis of international monetary relations. Most influential has been his establishment of a coherent system of social project evaluation based on the traditional framework of applied welfare economics.
Reflections on Social Project Evaluation

I approach with considerable humility the task of organizing and expressing these reflections, because I do not consider my work in the field of project evaluation to be characterized by great originality. What I have strived for over the years is better expressed by the word "professionalism."

This statement applies at two levels. First, there is the level of that largely unsung host of people serving in budget bureaus, planning authorities, and all types of ministries and agencies (among them the World Bank itself) all over the globe, who strive selflessly to see to it, insofar as they can, that projects not meeting adequate standards are rejected, while those in the social interest are accepted. These honorable people (for I exclude the many who demean project evaluation by using it as a device for "justifying" whatever projects their clients or superiors want) must literally number in the thousands. They, in my view, form a nascent profession. To me, the task of helping them develop this profession lies more in distilling the knowledge, wisdom, and common sense that are already part of our heritage than in extending the frontiers of knowledge in any deep sense. Moreover, I have always thought that in doing so one should respect the goal of simplicity as much as possible—seeking principles and rules that can be readily communicated to and understood by this heroic (and hopefully growing) band of practitioners, most of whom belong to professions other than economics.

This brings me to the second sense in which the word "professionalism" is relevant. The economics profession has been with us for a long time. The insights and wisdom it has accumulated over more than two centuries are probably the most important source from which to derive the principles and rules to guide the new profession of social project evaluation. This is the star that I have tried to follow as I have dealt over the years with project evaluation: to distill from the huge corpus of economic science the concepts that were particularly relevant for the
new profession, and to function as a professional myself (rather than as a scientist) in studying different areas of application.

This same spirit motivates the present paper. In the course of it I will surely have to disagree with other professional colleagues who have dedicated their time and efforts to work in the same vineyard. But even here the spirit of the disagreement is better described by “Who has found the simplest and most convenient distillation of our profession’s accumulated tradition?” rather than by “Who has invented what?” or even, on a given point, by “Who is right and who is wrong?”

Three Basic Postulates of Applied Welfare Economics

The grand tradition of applied welfare economics, going back at least to the days of J. A. Dupuit (1844),¹ can be interpreted as being based on three simple postulates:

1. Competitive demand price measures the benefit of each marginal unit to the demander.
2. Competitive supply price (or marginal cost) measures the opportunity cost of each marginal unit from the standpoint of the suppliers (factors of production).
3. In attempting to measure the benefits and costs to a society (or group) as a whole, take the difference between benefits (+) and costs (−).

On the basis of these postulates, the classical principles of economic policy analysis can be derived. Among these are (1) the measure (a triangle between demand and supply curves) of the so-called welfare or efficiency cost of a tax; (2) the traditional demonstration of why the exercise of monopoly power is not in the social interest; (3) the case for the so-called optimum tariff or export tax, which shows how a nation (though not the world as a whole) can benefit from exploiting its monopsony power (if any) over products it imports and its monopoly power (if any) over products it exports; (4) the generalized expression for the welfare or efficiency cost of taxation in a general-equilibrium setting with many commodities (developed independently by many authors but perhaps most elegantly by Hotelling); (5) various rules for optimal taxation, of which the so-called Ramsey rule (1927) is among the most famous; and (6) the so-called Lerner theorem (1936) showing

the equivalence of a uniform import tax with a uniform export tax under conditions of balanced trade.²

These examples are impressive because of the power of the ideas involved and their significant place in the accepted corpus of economic policy analysis. But truly they are only the tip of the iceberg. The tradition of what is called consumer surplus analysis has had many distinguished representatives, among whom Alfred Marshall and A. C. Pigou stand out as giants.³

The three basic postulates have sometimes been criticized as not yielding in every circumstance “true” measures of how the utility of individuals changes when some policy is introduced or some other disturbance occurs. But as a basis for the actual analysis of real-world policies and projects the postulates have not been seriously challenged, let alone surpassed.

Some authors have worried about cases of multiple equilibria, others about examples in which the postulates need not always yield the same measure if a sequence of policies is imposed in a different order (the so-called integrability condition). But I do not know of even a single case where the presence of multiple equilibria has been identified as a factor in an important real-world policy problem. And as for the integrability condition, my favorite analogy is that we all know that the distance between two cities will vary with the route we take. But when asked what the distance is, most road maps, geography books, and airlines present only a single number. The logical answer in the case of intercity distance is sometimes “as the crow flies,” sometimes “the shortest available route.” The corresponding answer in applied welfare economics (when the sequencing of policy steps is an issue) is to choose the most plausible or likely sequence or, if there is none, to assume that all the policies are imposed together (in technical jargon, to assume “a radial expansion of the vector of distortions” from the relevant starting point to the end result).

From my own standpoint, I have always thought of the three basic postulates as exactly that—simple postulates on which a system of measurement (traditional applied welfare economics) has been constructed. All economists know that national income and gross national product are inaccurate measures of national welfare. Yet they are relied


on for most studies. In spite of their defects, they have performed reasonably well in most contexts. What can be said of the three basic postulates is that they are considerably more subtle and more refined than the rules on which national income accounting is based—they would not, for example, make the mistake of implying that welfare falls when mothers voluntarily leave the labor force to take care of their homes and families. In every case that I know of where the three postulates lead to results different from those derived by the rules of national income accounting, the postulates (as in the above example) win hands down. For the real-world problems they have been used to solve, they have proven more adequate than anything else we have. They thus are the natural sources from which the principles to guide the budding profession of social project evaluation should be drawn.

On Distortions and Externalities

Using the three basic postulates makes it easy to understand the sense in which the grand tradition of economics has always looked upon an undistorted and fully competitive economy as an optimum. If demand price as seen by demanders in each market is equal to supply price as seen by suppliers, and competition prevails, marginal social benefits as measured by postulate 1 will always be equal to marginal social costs as measured by postulate 2. This happy state no longer prevails when distortions or externalities are present.

Distortions can take on many forms, of which the simplest to analyze are taxes and subsidies. When these are present, marginal social benefit as measured by the price paid by demanders differs from marginal social cost. If we represent the excess of demand price over supply price in an activity by $D_j$ and the change in the level of that activity by $\Delta x_i$, the introduction of a new policy or project will produce net benefits or net costs, through its effects on other markets, according to whether the expression $\Sigma_j D_j \Delta x_i$ is positive or negative.

I have always thought of $D_j$ as standing for "distortion," with the term construed very broadly. That is to say, the above expression is valid quite generally—not only for taxes and subsidies but also for the distortions present in more complicated public policies, and for those stemming from monopoly and monopsony situations. Externalities that vary with the level of an activity, such as traffic congestion with the volume of traffic or smoke pollution with the volume of a factory's output, can also be treated as distortions ($D_j$) within the same simple formula.

All this is important because, as will be seen below, these distortions are precisely why (within the framework of the three postulates) we have to build a system of social project evaluation that is different from
the simpler economics of a distortion-free world. In particular, the pervasive presence of important distortions is the main reason it was necessary (or at least exceedingly useful) to construct these concepts.

On Social Opportunity Costs in a Market Setting

As pointed out above, the postulates would assert that in the absence of any distortions in the economy, the social opportunity costs of marketed goods and services would equal their market prices. When new demand for a good or service is generated (say, by a new project) there are only two sources from which that demand can be satisfied—increased total supply and the crowding out (displacement) of other demanders. Postulate 2 tells us that the increased supply should be evaluated at the supply price, while postulate 1 tells us that the displaced demand should be evaluated at the demand price. In the presence of a distortion, say, a tax, these two prices are different and the social opportunity cost becomes (at least in simple cases) a weighted average of them. Another way of expressing this is that demand price \( p_d \) is equal to supply price \( p_s \) plus the distortion \( D_j \). If the social opportunity cost of one unit of the good or service is a weighted average \( f_1 p_d + f_2 p_v \), this can be expressed as \( (f_1 + f_2)p_s \rightarrow f_1 D_j \). But \( f_1 \) is simply the measure of the amount of displaced demand, so the above formula boils down to saying that the social opportunity cost of a unit can be expressed in the form \( p_s + D_j \Delta X_j \).

The above is the most rudimentary example of a general rule. Other cases are more complicated but come down to the same thing. A simple capital market example contains two taxes, a capital income tax \( t_c \) and a personal income tax \( t_p \). There are thus three rates of return: \( \rho \), the gross of tax return to investment; \( i = \rho - t_c \), the market rate of interest; and \( r = i - t_p \), the after-tax return received by savers. In this market funds raised by a project come in part from displaced investment, which by postulate 1 has an opportunity cost of \( \rho \), and in part from newly stimulated saving, which by postulate 2 has an opportunity cost of \( r \). The social opportunity cost of capital can then be expressed as \( f_1 \rho + f_2 r \). But this is also equal to \( f_1(i + t_c) + f_2(i - t_p) \), so, given that \( f_1 + f_2 = 1 \), it is equal to \( i + f_1 t_c - f_2 t_p \)—that is, it is a market rate of interest adjusted for distortions by the \( \Sigma D_j \Delta X_j \) principle.

No matter how many sectors we add, the fact remains that it is substantially equivalent in such cases to look at social opportunity cost as a measure that is a weighted average of the demand prices \( p_d^j \) of those sectors whose demand was displaced by the entry of new demand, and of supply prices \( p_s^j \) of those sectors whose supply was stimulated, and as a measure that is a market price (like \( p_i \) in the first case or \( i \) in the second) adjusted by a factor based on the application of \( \Sigma D_j \Delta X_j \). Here...
the $\Delta X_i$ represent precisely the same displacements of demand and stimuli to supply incorporated in the weights of the weighted average. Perhaps the most elegant case is the representation of the social opportunity cost of foreign exchange in terms of a weighted average of a whole host of individual terms, which reflect the different tariff treatment of many categories of imports and the various taxes and subsidies applying to different categories of exports. For a dollar’s worth (the dollar being the main foreign exchange unit for most small countries) of imports of good $j$ the demand price (postulate 1) is $E_m + T_j$, and for a dollar’s worth of exports of good $k$ the supply price would be $E_m + S_k$. Here $E_m$ is the market exchange rate for the dollar, and $S_k$ the subsidy per dollar of exports of $k$. If there are many different categories we have weights of $f_j$ and $f_k$ reflecting the fractions of a dollar newly demanded (say, by a project) that are brought about through displacing imports of $j$ or by stimulating an increment in exports of $k$. The end result of this exercise is the following expression for the social opportunity cost of foreign exchange:

$$\Sigma_j f_j (E_m + T_j) + \Sigma_k f_k (E_m + S_k).$$

This is a weighted average of the demand prices (postulate 1) of many different classes of imports and of the supply prices (postulate 2) of many different classes of exports. But since $\Sigma_j f_j + \Sigma_k f_k = 1$, the expression above can equally well be written as

$$E_m + \Sigma_j f_j T_j + \Sigma_k f_k S_k.$$ 

This takes the form of a market rate of exchange adjusted by the $\Sigma_j D_i X_i$ principle.

In all the above cases the weighted average of demand prices for displaced demand and of supply prices for newly stimulated supply (based on a quite intuitive application of postulates 1 and 2) is equivalent to the representation of social opportunity cost as a market price, duly adjusted by the same weighted average of the relevant distortions (based on the $\Sigma_j D_i X_i$ principle, a less direct but more subtle application of postulates 1 and 2.

This leads us to see that the standard weighted-average measures of social opportunity cost can be regarded as attempts to follow an approach that (though subtle and correct) asks us to look at the effects of a given action on all the distorted activities of the economy, and to assemble the adjustments for distortions into convenient “packages.” For the weighted-average measure, the elements in the package are the supplies and demands in the various component parts of the given broad market. Thus, for the social opportunity cost of foreign exchange, the weighted-average measure includes the supplies of all the various export categories and the demands for all the various import
categories, while for the social opportunity cost of capital it would include the demands for all the various investment categories and the supplies of savings from different sources (presumably with different marginal tax rates, hence different supply prices of their savings). Of course, in all these cases, several categories can be lumped together if they have the same, or closely similar, distortions.

But there may be times when the relevant package includes elements above and beyond those in the weighted average. In deciding on the relevant package one must recall that in determining social opportunity cost we are attempting to trace what happens when new demand enters a market. Weighted-average methods trace out those consequences just on the constituent parts of that market—displacing imports and stimulating exports, for example. These displacing and stimulating effects work through the real exchange rate, and one must recognize that there may be other consequences. I have suggested, for example, that if a rise in the real exchange rate ends up displacing some imports of petroleum, there will be a side effect in the form of reduced receipts from gasoline taxes. I have also suggested that if there existed a tax on bricks, and if the introduction of new demand into the capital market displaces construction, there would similarly be a side effect in the form of reduced receipts of that tax. When these effects are relatively minor, the principle of simplicity suggests ignoring them. But when they are significant, they should be taken into account. Most important of all, perhaps, from the standpoint of the present paper, is the clear conclusion that weighted-average measures of social opportunity cost are not in themselves the correct solution. In a market situation they will always be a component of the correct solution, but they may at times need to be supplemented in important respects. All of this, of course, follows directly from the three basic postulates that have guided applied welfare economics from its beginnings.

_Some Additional Observations_

Let me set the stage by pointing out an important characteristic of a well-functioning capital market or foreign exchange market. Particularly in the latter case, one can almost guarantee that the reaction will be the same: the real exchange rate will go up by the same amount, and the same set of displacements of imports and stimuli to exports will occur—regardless of who is the buyer of a given amount of foreign exchange. In the case of foreign exchange in well-organized markets, the names of the buyers and the purposes for which they buy are not even known by the market, most purchases being made by financial institutions or other intermediaries. The market simply "feels" the pressure of an added demand, and a set of market-determined reactions ensues.
Some people dispute the above proposition by saying that it does not take into account the use to which the foreign exchange is being put, and that when this use is taken into account the social opportunity cost of foreign exchange will vary from case to case according to the attributes of the use. I believe that this line of reasoning misses the whole point of the concept of the social opportunity cost of, say, foreign exchange. The main reason for assembling certain $\sum D_i \Delta X_i$ in packages is that these packages turn up with great frequency. When this is so, one can calculate the package solution just once and save lots of time and effort.

This, I believe, is what is accomplished when we calculate the social opportunity cost of foreign exchange. To my mind, the social opportunity cost of foreign exchange (in a market setting) has no relation to its use. To put it graphically, if an enterprise or individual in country A enters the market, buys dollars, and then suffers a fire in which the dollars burn up, what is the loss to the country? This loss is measured by the forces of import displacement and export stimulus and is the same regardless of who was the buyer or what intentions he might have had about the use of the now lost dollars. Here is a perfect example of how social opportunity cost can be separated from use. Of course, the use of foreign exchange cannot be neglected in social project evaluations. But here, by the very nature of the case, a different pattern of effects ($\sum D_i \Delta X_i$) in distorted markets will take place in almost every operation. Foreign exchange spent on highly taxed imports ($D_i$ positive and large) will produce an important benefit, which should be attributed as a benefit of the project. If spent on subsidized imports ($D_i$ negative) it will produce a cost. Application of the three basic postulates requires that these benefits and costs be taken into account in the analysis of each project. But this does not annul the usefulness of the package represented by the social opportunity cost of foreign exchange. Quite the contrary, when a project buys foreign exchange the package is a cost, and the analyst need only examine the $D_i \Delta X_i$ that are involved in spending it. Similarly, when foreign exchange that has been earned is sold in the market, the package is a benefit and the analyst need only examine the $D_i \Delta X_i$ that occurred as a consequence of the particular activities by which it was earned.

The same attribute is pretty much shared by the social opportunity cost of capital. Again, when money is drawn from a reasonably well-functioning capital market, people rarely know for what purpose. But the withdrawal of funds tightens the market and produces a package of responses that is likely to be very similar, regardless of who was doing the withdrawing. There is a difference between the foreign exchange market and the capital market, however. In the former the price paid (say, for a dollar of foreign exchange) is essentially the same for every buyer, and so also are the market reverberations that produce the
difference between the social opportunity cost of foreign exchange and its essentially uniform (among buyers) market price. In contrast, the rates of interest paid by different classes of borrowers vary quite substantially, but the market reverberations that follow from the withdrawal of funds from the capital market are likely to be virtually the same, regardless of who withdrew them. To put it simply, the lender learns who the borrower is and charges him a supply price; but the market, which then reacts to the greater scarcity of funds, does not know who the borrower is. Its reaction is governed only by the fact that funds are tighter.

Thus the reverberations \((\Sigma, D, \Delta X, i)\) may cause the social opportunity cost of capital to be 4 percentage points above the market price, but the market price might be 8 percent for the government, 10 percent for a good industrial borrower, and 12 percent for a normal commercial borrower. In this case, the social opportunity cost of funds would be 12 percent for the government, 14 percent for the industrialist, and 16 percent for the commercial borrower.\(^4\) Most actual social project evaluations deal with public sector projects, for which the government rate is appropriate. In some developing countries, however, there have been serious analyses of the social costs and benefits of projects to be undertaken by the private sector, and in such cases the appropriate procedure is to adjust a private (real) cost of borrowing (10 percent in the industrial case above) by a premium that takes into account the reverberations \((\Sigma, D, \Delta X, i)\) from the borrowing.

Furthermore, the time should come when students of the development process take seriously the idea of making extensive ex post evaluations of both public and private investments. When this happens it will also be appropriate, in principle, to consider the social cost of capital to be different for different broad classes of private borrowers.

As in the case of foreign exchange, there is going to be an entirely different set of reverberations \((\Sigma, D, \Delta X, i)\) stemming from the way the money is spent. These have nothing to do with the market for capital funds and should appropriately be taken into account in the analysis of the outlays of each project.

The Social Opportunity Cost of Labor

The application of the three basic postulates to the calculation of the social opportunity cost of labor is vastly more complicated than the

\(^4\) These rates should in principle be defined net of the actuarial component of default risk, which is not part of the social cost of borrowed funds. But in fact rates do differ by these amounts, and more in many cases, even after correction for the actuarial component.
applications in the preceding section. There are typically huge variations in the wages of labor according to occupation and skill. Even within these categories there are in many countries substantial regional variations in wages. And one must also deal with the fact that individuals can and do move among occupations, regions, and individual jobs and that they have demonstrably different supply prices in at least some of these cases.

The Key Role of Supply Price

To continue with the three basic postulates, the starting point for measuring the social opportunity cost of labor must surely be postulate 2. This has powerful implications. If a worker is willing to work at different jobs, but demands more pay for some of them than for others, he does not have a single opportunity cost of labor; instead, he has as many (private) opportunity costs as he has asking prices. But for any one job only one opportunity cost is relevant—his supply price for that job.

Obviously it is folly to think of conducting real-world social project evaluations by finding out the supply prices of all the different workers hired. The key lies in the presumption that, in the absence of clear evidence to the contrary, market wages are being paid by the project for each job, in each skill, and in each occupation. This in turn leads to the presumption that for most workers the wage represents or approximates their supply price, determined mainly by what they could get for an equivalent job in the same market. Some workers may be willing to take their jobs for less than the market wage and may thus be earning economic rents. But if all (or in practical cases nearly all) of the workers on a project are earning economic rents, that project simply cannot be paying market wages—it must be paying above-market wages, a case to be taken up presently.

The clear implication of this is that the social opportunity cost of labor must be treated as an essentially microeconomic phenomenon, at least in social project evaluation although possibly not in cases of major macroeconomic adjustments. The prevailing market wage, although differing among types and categories of labor, must reflect the market-clearing supply price of labor under postulate 2.

Yet this supply price is far from being the social opportunity cost of labor. To get to social opportunity cost we must follow a path directly analogous to the ones pursued in the case of foreign exchange and of capital. We begin with a somewhat semantic point. When a worker states his asking price (what he expects to be paid), he typically recognizes that he will have to pay income tax out of the proceeds. In this respect the market wage \( w_m \) is similar to the market interest rate \( i \).
presented above in analyzing the social opportunity cost of capital. The
true supply price of labor, $w_s$, must be defined net of taxes (at least in
applied welfare economics) because it is only out of net income that
workers presumably gain their welfare and satisfaction. If we take the
market wage $w_m$ as the base, we must recognize that there is a distortion
tp (personal taxes) lying between $w_m$ and the true supply price of labor
$w_s$, just as a similar distortion lies between $i$ and $r$ in the case of the
social opportunity cost of capital.

The easiest way to think of the social opportunity cost of labor in a
given area, occupation, industry, or other category is to start with the
market wage and make a series of adjustments. All the labor of each
type earns its relevant market wage. The first adjustment is to recognize
that taxes $t_p$ are being paid on those wages; this represents a positive
external effect of the form $D_i \Delta X_i$. But now we must turn to the ultimate
sources from which that labor was drawn. Some may have been drawn
from other regions, some from other industries within the same region,
some from competing firms within the industry. In addition, there will
be some who newly joined the labor force, and at least in times of less
than full employment there may be some net reduction in the number of
unemployed.

For all but one of the above sources there will be some sort of external
effect of the form $D_i \Delta X_i$. All three of the first groups will have ceased to
pay income taxes in their former place. These lost taxes represent a
negative external effect of the project. They may just cancel the positive
effect of taxes paid by the workers on the project, but this should not be
presumed. Wages may have been higher or lower in the source than in
the destination; in countries organized on a federal basis, taxes may
also differ from region to region. When it comes to displacing labor
from other industries, thought must be given to the taxes that may be
levied on the products of those industries. These taxes, too, are part of
the marginal product of the factors of production in those industries,
for the marginal product of the factors must be valued at the prices paid
by the ultimate demanders of those products (postulate 1), but their loss
may be partially offset if other factors end up substituting for the labor
that was in net terms drawn away. Labor drawn from the ranks of the
unemployed is likely to produce an external benefit. In cases where
unemployment compensation is being paid, any net reduction in the

5. I hope readers will forgive my using the term “supply price” sometimes in a
gross-of-tax sense and at other times in a net sense. To use “asking price” as a
technical term is, I believe, stretching it too far, but when it does not seem stilted or
possibly confusing I have used it. In other contexts I have stuck with “supply price.”
I trust that in such cases it will be evident from the context whether the market wage
$w_m$ or the net-of-tax wage $w_s$ is being referred to.
number who would probably be unemployed in the absence of the project means a corresponding saving of public funds, presumably to the benefit of the citizenry at large. This saving is an obvious external benefit. It is to be expected (and indeed has been demonstrated many times) that the presence of unemployment compensation causes the asking price of the unemployed to be higher. Where there is no unemployment compensation, the absorption of the unemployed creates a benefit in the form of economic rent (consumer surplus) that reflects the excess of the wage received over the true supply price of the unemployed (which is unlikely to be zero as was so often assumed in the early development literature).

The vicissitudes of measuring the social opportunity cost of labor are vast as, indeed, are those associated with foreign exchange and capital. In practice, the actual measurement is always immensely cruder than the underlying concept. I have tried to show that even though the task is more complex and differentiated for labor than for the other two, the three basic postulates lead to essentially the same general solution to the problem of measuring social opportunity cost. Whether hiring labor, borrowing capital, or buying foreign exchange, we must first determine (estimate, guess, or assume) the pattern of the ultimate sources of supply. That pattern will inevitably entail some sourcing from new supply and other sourcing from displacement of other demand. In simple cases one can merely assign the net supply price as the opportunity cost of new supply and the gross demand price as that of displaced demand. In more complicated cases, which the labor market exemplifies, the more subtle approach of working with a market price corrected by distortions is indicated.

In the case of labor we start with the market wage and correct it for all relevant externalities: taxes forgone in the various sources, unemployment compensation saved, and consumer surplus gained by newly hired workers. We need also to remember to introduce a credit for income taxes paid by labor in the destination.6

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6. In this respect the procedure differs slightly from that for foreign exchange and capital, where all distortions were to be treated in the explicit analysis of the benefits of each project. The reason is that within a labor market category (region, occupation, or some other), which we define by the fact that roughly a single market wage applies, the relevant tax rate \( t_p \) will not vary from project to project, and simplicity calls for incorporating the adjustment directly in the cost of labor.
labor market, of traditional versus modern sectors, and so on. I like the
term "protected sector" because it quite directly connotes a wage above
what would be a free-market equilibrium level. It also connotes that
some element (such as minimum wages, union bargains, or "political
insurance" by multinational companies) must be at work to create the
differential. In addition, the protected-sector concept, more readily
than its alternatives, opens the door to the idea of not just two but quite
a number of different protected sectors, ordered hierarchically accord­
ing to the wages they pay for equivalent work.

Another phenomenon in conjunction with protected sectors is that of
quasi-voluntary unemployment. Consider that there is a given pro­
tected-sector wage \( (w_p) \) and a free-market wage \( (w_f) \). The protected
sector cannot hire all who want to work there, for to do so would mean
bidding up the market wage all the way to \( w_p \), in which case the
dichotomy between the two sectors ceases to exist. With a protected
sector of moderate size (compared with the size of the relevant labor
market), the normal labor market structure is one in which there are a
significant number of people with supply prices between \( w_f \) and \( w_p \) who
were not lucky enough to be employed at \( w_p \) but who have no interest in
working at \( w_f \). These are the quasi-voluntary unemployed. In such a
situation an expansion in the number of jobs in the protected sector will
draw workers in part from the free-market sector and in part from the
quasi-voluntary unemployed. The average supply price and hence pri­
vate opportunity cost (postulate 2) of those who fill the protected-sector
jobs will accordingly be above the free-market wage. Quasi-voluntary
unemployment is thus an institutionally induced phenomenon which
curiously entails an opportunity cost of the unemployed that is above
rather than below the free-market wage.

If the setting of the protected sector is the urban labor market, and if
there is ready migration from rural areas, it is likely that the presence of
the protected sector will induce rural-urban migration. This has the
effect of driving down the free-market wage and swelling the ranks of
the quasi-voluntary unemployed. This is really a case of migration­
induced unemployment noted early by W. A. Lewis and analyzed in
some depth by Harris and Todaro, by myself, and by others.4

7. The protected-nonprotected distinction does not refer, for example, to high­
skilled as opposed to low-skilled jobs or to experienced as opposed to inexperience­
workers. It refers to workers of identical characteristics and abilities receiving
different rewards in essentially identical jobs in two sectors of the same labor
market.

Development, Gerald M. Meier and Dudley Seers, eds. (New York: Oxford Uni­
versity Press, 1984); J. R. Harris and M. P. Todaro, "Migration, Unemployment and
(Note continues on following page.)
Migration-fed unemployment is the result of the phenomenon of rent seeking, which in turn is easily rationalized in terms of postulate 1 to 3. Wages offered in the destination are above those required to induce migrants to move. The normal workings of an open labor market would entail a fall in wages as increased supplies of workers made themselves available. That is to say, the wage rate itself would serve the function of equilibrating the labor market and in doing so would stem the flow of migration. When wages are maintained at protected levels and are prevented from adjusting, labor market equilibrium is nonetheless brought about in some other way. In the case of migration-fed unemployment, the unemployment rate itself brings it about. One starts with a supply price of migration (a wage at destination that would just barely induce the migrant to move). Initially, the wage at destination is above this supply price, and the migration occurs. But as unemployment at the destination mounts, the supply price of migration increases. That is, in the presence of greater unemployment, the same destination wage becomes less attractive, and the incentive to migrate is reduced. With enough unemployment the tide of migration is stemmed; but unemployment at the destination remains high as a continuing equilibrium phenomenon as long as the wage paid at the destination remains above the supply price of migration that would prevail in the absence of unemployment.

I like this particular way of viewing the adjustment process via migration-fed unemployment, because it is framed directly in terms of supply prices and demand prices. The demand price is the fixed wage at the destination; the supply price is that wage which would just barely induce (or compensate) migration. As unemployment mounts, this supply price rises, and the adjustment becomes complete when this supply price equals the fixed destination wage.

This demonstrates very simply the usual result that under conditions of migration-fed unemployment the social opportunity cost of labor will end up being equal to the fixed destination wage. Raising the latter would only increase unemployment until the supply price of migration again equaled the wage. Not only do we reach this result simply, but once again we see the power of the three postulates. The answer is a profound expression of postulate 2. If demand price exceeds supply

price and is not allowed to adjust, then something else (here unemployment) will develop so as to bring supply price up to demand price."

Social Opportunity Cost in Nonmarket Situations

Except in the preceding section, I have till now dealt with a world of market prices—prices that may be distorted by taxes, tariffs, or subsidies, but nonetheless prices that clear the market. Here I turn to cases where this is no longer true—cases of licenses, quotas, arbitrary rationing, and the like. To begin with foreign exchange, consider a country with a fixed exchange rate system that uses licensing rather than monetary policy as the principal mechanism of adjustment. That is to say, export proceeds are required to be turned over to the exchange authority, which then doles them out among the many applicants. If there is enough foreign exchange to fill all applications at the going exchange rate, the licensing system is redundant and the problem reverts to the cases discussed earlier. But if—as has actually been the case in many countries for long periods—there are far fewer dollars available than are desired, a problem of allocation appears, which is somehow resolved by the licensing authorities. Characteristically in such cases the demands for some “essential” imports will be fully met, others not so fully, others quite partially, and some (the prohibited list) not at all. It is plausible to assume that the tariff structure probably already recognizes this hierarchy, with perhaps zero duties on “essentials,” moderate duties on the next group, and progressively higher ones on the remaining two.

What do the three postulates tell us here? Only for the first group would demand price and supply price be equal to market price. For the other groups the demand price would be above the supply price even if all the desired dollars were made available. Because dollars are not made available, there must be some unsatisfied demanders willing to pay prices well above the world market price plus the tariff. If such demanders are given incremental dollars, their demand prices should be treated as a measure of the benefit (postulate 1).

The easiest case to deal with is that in which there is an open market for the domestic resale of the licensed items. In this case the appropriate demand price is the one prevailing in that market. The social opportu-

9. In this discussion I follow most treatments of this topic and simplify the problem by abstracting from the types of distortions (income taxes, product taxes, unemployment compensation, and so on) treated earlier.
nity cost of foreign exchange will in such cases be a weighted average of the market prices of the various categories of imports. The problem is that the weights here are not derived from the structure of demand and supply and from the normal elasticity of response of different items within that structure to changes in the degree of ease or pressure in the foreign exchange market. Instead, the weights are derived from the policy decisions of the licensing authorities, which—particularly with respect to items not in the "essential" category—tend to change with great frequency; items "serve sentences" on the prohibited list only until enough political pressure can be mustered to take them off. In a case where imported goods can be freely resold in the local market, it would be easy to estimate the social opportunity cost of foreign exchange if there is a stable, consistent, and predictable licensing policy. I know of no case, however, where these conditions have been met. If policy is governed by sufficient rationality to do all these things well, it seems highly likely that the authorities would then take the next logical step of following monetary and exchange rate policies that would render the licensing system superfluous.

When there is no open market (either legal or parallel) for the licensed items the problem becomes one of estimating their value to the users. The principle of measuring the social opportunity cost of foreign exchange remains the same: when the licensing authority gives foreign exchange to a new project, it must come at the expense of other demanders. The opportunity cost is then the value (demand price) that those other demanders would place on the amounts of which they are being deprived. This is obviously impossible even to try to determine, so the estimation of the social opportunity cost of foreign exchange becomes a very crude process indeed. The only solid base to work from in this case is that we know that any licensed import is worth at least the world price plus the prevailing tariff to all license applicants, because that is what they will have to pay even if they get the license.

On the side of the social opportunity cost of capital, interest rate ceilings of various kinds are probably the most frequent source of deviation from a market solution. The key element in these situations is that banks and other financial institutions are sometimes faced by a demand for credit that far exceeds the available funds—especially since the same demanders get in line at many banks. Characteristically, service charges, minimum compensating balances, and other devices appear. They may be powerful enough to produce a market solution—that is, one in which no arbitrary rationing is involved. In this case the actual total payments by the users of credit would have to be determined in order to estimate their demand price according to postulate 1, but no other serious complications emerge.

Frequently, however, the equivalent of a market solution is not
worked out, and banks and other financial institutions are left with a substantial range of discretion. This opens the door to bribery and corruption, which indeed frequently occur. But there are more subtle ways, generally fully or nearly within the law, of doling out credit in these circumstances. For example, when a borrower hires a banker's relative at a good salary, his subsequent loan applications may more readily be approved. Thousands of ruses of this type exist, and given the controlled interest rate the banker can fairly argue that his choice among alternative solvent borrowers has cost his stockholders nothing. The net result is that credit is rationed in inefficient ways, and the marginal productivity of capital, overall, is lower.

To determine the influence of this situation on the social opportunity cost of capital one must inquire what happens when financial institutions are left with lower lending capacity owing to some savings having been diverted to finance a new project. No clear answer exists for this case, but the most reasonable assumption is that, given the ability of financial institutions to ration funds, their basic behavior patterns will not change significantly. Thus we can say, roughly at least, that in these rationing situations the social opportunity cost of the diverted funds will be greater than the controlled interest rate, and less (because of the inefficiency factor noted above) than the typical gross-of-tax productivity of capital ($p$ in the simplest case) that would prevail in an open capital market.

The above are a few examples of how one can attempt to cope with what I have called nonmarket situations in the measurement of social opportunity cost, using the three basic postulates as a guide.

The Social Rate of Discount

The social rate of discount has been at the center of controversy for many decades. Early debates raged over whether to use the marginal productivity of capital, the market interest rate (usually the government bond rate), or the marginal rate of time preference. These concepts correspond broadly to $p$, $i$, and $r$, as presented earlier. The recent discussion has been less simplistic. The major contending views, at least as I see them, all recognize that both $p$ and $r$, when they are different from $i$, reflect distortions, and all recognize that when this fact is properly taken into account it leads to situations in which social project evaluations yield different results from private ones. In my opinion, the major contending views are all basically compatible with the three basic postulates. The squabbles are not between saints and sinners, but rather among factions within the same church. Their resolution, in consequence, turns on issues of efficiency, relevance, convenience, robust-
ness, communicability, and the like, rather than fundamental error or heresy.

Three alternative approaches to the social discount rate will be treated; they bear a curious sort of triangular relationship to each other. For example, two of them are based on the convention that marginal funds come from the capital market, while the third adopts the alternative convention that they come from fiscal sources. In a different pairing, two of them use weighted averages of \( p \) and \( r \) as the discount rate; the third uses \( r \) alone.

Consider first the dichotomy between the view that the funds for public sector projects come from fiscal sources, and the alternative view that they come from the capital market. The proponents of fiscal sourcing (Eckstein, Eckstein-Krutilla, and Haveman,\(^{10} \) among others) argue that most government funds come from fiscal sources and that most of the increment in government funding over time has been, and almost inevitably is, mainly on the fiscal side. In this they are correct. They then proceed to postulate a set of weights \( f_1 \) and \( f_2 \) reflecting the fractions of an increment of fiscal revenues that come at the expense, respectively, of investment and consumption. Their final formula, a social discount rate equal to \( f_1 p + f_2 r \), is identical in form to the one derived earlier in this paper. The only difference is that the weights \( f_1 \) and \( f_2 \) here derive from a hypothetical fiscal experiment rather than a hypothetical capital-market experiment.

As noted earlier, in a functioning capital market we have reason to expect that the reactions to market pressure or ease will on the whole remain quite similar from one case to the next. In particular, we can be quite sure that just about everywhere the elasticity of investment with respect to market pressure substantially exceeds that of saving. In contrast, experience all over the world suggests that each tax change is very different from the last. The weights \( f_1 \) and \( f_2 \) may bound all over the map, depending on whether one is imposing value added taxes, tightening income tax loopholes, lowering high or prohibitive tariffs to gain more revenue, and so on. To me, it would be perfectly sensible to have a fiscal weighted-average measure of social opportunity cost if, say, the value added tax was the only or principal tax, and if changes in the fiscal situation of the governments were met by changing its rates. In that world, I, too, would be a proponent of this position.

But the world we observe shows a whole panoply of fiscal adjust-

ments with little or no predictability about what the next one will be like. I find it impossible to conjure up even a semirealistic mental experiment in which a specified fraction of fiscal revenues typically comes at the expense of consumption, with its complement coming at the expense of investment. In contrast, it is natural for these fractions to be relatively stable for dollars drawn from the capital market. Because of the relative stability of the weighting structure, this argues in favor of the convention that the marginal source is the capital market.

Of course, a stable weighting structure would not mean much if the idea of the capital market as the marginal source of funds did not make sense. But in fact, on a day-to-day, month-to-month, and even yearend-to-yearend basis, the capital market is in most countries the marginal source of funds. Most government budgets, even on the day they are first presented, contemplate the borrowing of some funds. In addition, as actual events produce deficits greater than planned, governments almost always turn to the capital market for the difference. When the future smiles and deficits are smaller than expected, the extra money is in effect returned to the capital market. In sum, the capital market is the marginal source when funds are short and the depository for marginal funds when they are abundant.

A third advantage of adopting the convention of treating the capital market as the source of funds at the margin is that one can readily adapt it to incorporate capital funds from abroad. The weighted average would now be \( f_{1p} + f_{2r} + f_3MC_f \), where \( f_1 + f_2 + f_3 = 1 \) and where \( MC_f \) is the estimated marginal cost of foreign funds. One should employ here the marginal cost of foreign funds because of the presumption that the supply curve of such funds is not infinitely elastic. With an upward sloping curve, the marginal cost of funds will exceed the average cost, a fact which obviously should be taken into account in calculating the social opportunity cost of capital.

Thus the arguments for building the calculation of the social opportunity cost of capital on a capital-market sourcing model are that (1) the weights are relatively stable, (2) the capital market is the de facto marginal source and destination of funds in the short and middle run, and (3) the calculation can be readily adapted to incorporate sourcing from the world capital market.

Having elected to hold with a capital-market sourcing convention, let us now consider the relative merits of using the social opportunity cost

12. The textbook formula is \( MC = AC[1 + (1/e)] \), where \( AC \) is average cost and \( e \) is the price elasticity of the average cost curve—in this case the upward rising supply curve (of foreign funds) facing the country in question.
of capital \((f_1\rho + f_2r)\), on the one hand, or the marginal rate of time preference \((r)\), on the other, as the discount rate in social cost-benefit analysis.

The best starting point is to realize that modern defenders of the use of \(r\) as the rate of discount (Feldstein; Dasgupta, Marglin, and Sen; and Squire and Van der Tak) do not neglect the existence of the distortions that proponents of the weighted-average approach (Baumol, Bruce, Dreze, Sandmo, Sjaastad and Wisecarver) take account of in the discount rate.\(^{13}\) Instead of being reflected in the discount rate, these same distortions show up in the "shadow price of investable funds" in the case where \(r\) is used for discounting. The procedure is as follows. Assume that one dollar is extracted from the capital market. A fraction \(f_1\) of this is from displaced investment, which in turn would have generated future income at the rate of \(\rho\) a year. The complementary fraction \(f_2\) comes from newly stimulated saving, the supply price of which is \(r\) a year. There is therefore an annual opportunity cost of \(f_1\rho + f_2r\) for each year in the future, as a consequence of withdrawing one dollar this year from the market. This future flow of opportunity costs, discounted back to the present at the rate \(r\), has a present value of \((f_1\rho + f_2r)/r\). This is the shadow price of investable funds for those who use \(r\) as the discount rate.

If \(\rho = 12\) percent and \(r = 4\) percent, with \(f_1 = 0.75\) and \(f_2 = 0.25\), we would have a weighted-average opportunity cost of capital of \((0.75)(12\text{ percent}) + (0.25)(4\text{ percent}) = 10\) percent. This is what the weighted-average advocates would use for discounting. In doing so, their investment criterion would be that the discounted value of benefits should exceed the discounted value of costs.

In contrast, the advocates of discounting by the marginal rate of time preference \((r)\) would use 4 percent as the discount rate, but would

require that the present value of benefits be more than 2.5 times the capital costs of the project. The factor 2.5 is exactly $(f_1p + f_2r)/r$; discounted at 4 percent, this is the present value of what is given up for every dollar withdrawn from the capital market.

If the two sets of criteria (10 percent discount rate requiring that benefits exceed costs, and 4 percent discount rate requiring that benefits exceed 2.5 times costs) were properly implemented, I do not believe there would be many serious contradictions in their implications for longer-term investment projects. However, I have never had any doubt about preferring the first approach. Three grounds for this preference are: communicability of the procedure, implications with respect to current expenditures, and implications for handling situations with different rates of time preference for different groups.

With respect to the first, I have always felt that the most basic function of project evaluation was to shoot down the worst projects. Unfortunately, most of the worst projects have strong supporters, usually within and outside of government. To my mind, the project evaluation team weakens its position if it adopts a criterion that requires benefits to be, say, 2.5 times costs.\(^\text{14}\) It is hard to beat down a project with the argument that its benefits are only twice its costs, and that this is not enough!

With respect to the second point, I have from the beginning been greatly impressed by a powerful argument raised by Sjaastad and Wisecarver in a paper that merits the most serious attention.\(^\text{15}\) Once the capital market is accepted as the marginal source of funds, it should be recognized as the marginal source of funds not only for capital outlays, but also for current spending. Most particularly, any money saved through greater efficiency in the police force or in the schools can be used to pay off debt; used in this way it will (in our numerical example) produce a benefit equal to 2.5 times its nominal amount. The logic of the case presses one ineluctably to the conclusion that for current outlays as well, the critical ratio of benefits to costs should be 2.5. In short, the factor $(f_1p + f_2r)/r$ represents the social value of one dollar of liquid funds, either taken from or placed in the capital market. Any

\(^{14}\) To be sure, within the context of the methodology, the factor 2.5 is necessary in order adequately to reflect the present value of the future costs entailed in borrowing. Once this factor is used as a shadow price to multiply capital costs, the correct rule is that benefits should simply exceed costs, so adjusted. But non-professionals will still wonder about projects being rejected simply because the present value of their benefits is only 1.5 or 2 times actual capital outlays, and powerful forces behind bad projects would surely use such circumstances to convince the public and the relevant authorities that the projects were in fact quite good.

\(^{15}\) "The Social Cost of Public Finance."
funds sourced in the capital market will have a shadow price of 2.5 per dollar, in our numerical example. And since the capital market is being taken as the marginal source of funds (as in truth it really is, in most cases), the 2.5 factor should apply to all cash costs across the board. Cutting out any cash outlays—either current or capital—would likewise permit achievement of benefits at the ratio of 2.5 to 1. A powerful and persuasive argument, to which I have yet to see a convincing rebuttal!

The third reason for preferring the weighted-average discount rate to the marginal rate of time preference is my own (in the sense of my not having encountered it in other writings or discussions). To my mind, the weighted-average discount rate moves quite naturally from the simple \( f_1 \rho + f_2 r \) to the more disaggregated \( \sum_j f_j \rho_j + \sum_k f_k r_k \). In each case the \( \rho_j \) are the demand prices of displaced investments and the \( r_k \) are the supply prices of newly stimulated savings. A project undertaken today must be able to repay the cost of its assets and to cover these demand and supply prices; otherwise it has not paid its way. There is nothing in the weighted-average approach that insists there be only one \( r \), and the presence of any number of different \( r_k \) presents no conceptual difficulty or embarrassment.

Contrast with this the use of \( r \) as the discount rate. Its justification stems from the standard treatment of intertemporal consumption decisions in economic theory—the rate of return to the saver, after all taxes, is the rate that he uses in deciding upon his savings. The weighted-average approach builds on this also, but the time preference advocates turn this into the cornerstone of their discounting procedure, on the ground that it is by using \( r \), not \( \rho \) or \( i \), that consumers make their intertemporal choices. Here is where I encounter difficulties in passing from a case in which there is a single \( r \) (a single uniform tax rate separating \( i \) and \( r \) for all consumers) to one in which there are two or more \( r_k \) for different groups (for example, two or more marginal tax rates). If \( r \) is used as the discount rate because it is the fundamental guidepost for consumers as they make their intertemporal consumption decisions, then when different consumer groups use different rates, it would seem that each group's benefits should be discounted at its own rate.

To my knowledge none of the advocates of using \( r \) as the discount rate has broached this problem—I merely say it is a problem that flows naturally out of the conceptual basis of the time preference approach. The underlying problem is that when there are different rates of discount for different groups, postulate 3 needs to be more tightly specified. Suppose groups A and B have different \( r_k \)'s, and suppose there are two projects (say, parks), each of which gives to one of the groups a certain path of in-kind benefits through time. Let these benefit paths be
identical for the two groups. If we simply subtract one benefit profile from the other, year by year, the difference is zero each year. But if we discount future benefits back to the present, the group with the lower discount rate (presumably the wealthier of the two) will have a higher present value of benefits. And if we accumulate the benefits forward to some future time, measured as of that point in time the group with the higher discount rate will have the higher present value of benefits. So by subtracting the benefits of A from the benefits of B year by year we perceive no difference; by discounting to the present we find group A with greater benefits; by accumulating to the future we find group B with greater benefits. All this runs counter to the standard proposition of capital theory and project evaluation that the ranking of projects should not depend on the point in time to which benefits and costs are discounted or accumulated; it matters only that the projects being compared be evaluated as of the same point in time. This proposition is always true if a single rate is used for discounting and accumulating—even when that rate varies from one year to the next. But it obviously is not true with different rates applying to different groups of economic agents.

Actually, those who propose using time preference discount rates always work with a single rate, which avoids the ambiguity just referred to. I concur and suggest that in social project evaluation postulate 3 should apply within the year, canceling costs against benefits as they occur, and that a single discount rate (possibly varying from year to year) should be used to carry net benefits or costs from one time period to the next. To my mind, the weighted-average social opportunity cost of capital \( C_2 = \sum \frac{f_i P_i}{(1 + r_k)^i} \) is ideally suited to this role. For the reasons already expounded, a time preference rate is not.

### Concepts versus Numbers

Practitioners whose main experience is in the field, together with others who function daily in the world of affairs, may wonder at the

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16. There seems to be no good reason to treat costs differently in the two cases, as they are supposed to follow identical time paths.
17. I am assuming that there are different groups with different values of \( r_k \). The weighted-average social opportunity cost has a precise meaning—the amount needed to compensate all losers when money is drawn from the capital market. Using as the discount rate a weighted average of just the \( r_k \)'s will do the trick in a mechanical sense—that is, it will eliminate the ambiguity of working with separate \( r_k \)'s—but no clear concept lies behind such a weighted average covering only marginal rates of time preference.
level of precision that has characterized most of the discussion so far: demand prices, supply prices, distortions, weights based on elasticities that are impossible to observe directly and virtually impossible to estimate exhaustively (that is, it is impossible to estimate all the items necessary for the construction of a system of elasticity-based weights). We have weights that depend on saving and investment behavior, for which econometric explanation is still a matter of controversy even in advanced countries. We have weights that depend on the responsiveness of individual classes of exports and imports to the tightening and easing of general pressure on the exchange market, items that to my knowledge have not been estimated at all.\*8

What then do people actually do? In point of fact, most of the time they use extremely crude estimates based on readily available data. The simplest measure of the social opportunity cost of foreign exchange is the market exchange rate augmented by the so-called force of tariff—the ratio of actual tariff receipts to the c.i.f. value of imports. This measure (1) neglects the export side altogether, (2) makes no attempt to distinguish between import categories that are especially sensitive and those that are especially insensitive to changes in the real exchange rate, and (3) completely ignores the possibility that important distortions (such as petroleum and gasoline taxes) that do not fall directly on trade may nonetheless have a measurable impact on the social opportunity cost of foreign exchange.

The great thing about having a conceptual framework is not only that it helps us to think through problems in a clear way. It also tells us how to try to improve on estimates and measures that are extremely crude and approximate. Starting with a force-of-tariff first approximation, the steps to be taken are those suggested by points 1–3 above. First, we must ask whether exports belong in the weighted average. If the exchange policy is one of simply doling out by licenses whatever foreign exchange comes in, it may well be that no export adjustment should be

18. In deriving the relevant weights in the foreign exchange case, the origin of the pressure is conceived of as additional purchases of foreign exchange in the market. These purchases raise the real exchange rate, either because the nominal rate is flexible or because of the natural workings of the adjustment process under a fixed exchange rate. If the real exchange rate is denominated by \( e \), the derivatives that are relevant for constructing the weights \( f_i \) and \( f_i' \) are \( \frac{\partial M_i}{\partial e} \) and \( \frac{\partial X_i}{\partial e} \). For example, \( f_i \) would be equal to \( -\frac{\partial M_i}{\partial e} \) divided by the same denominator. (\( \frac{\partial M_i}{\partial e} \) is typically negative when \( e \) is defined, as it is here, as the local-currency price of, say, the dollar.) In short, we are asking how each item in the foreign exchange market responds to the general pressure of a tightening of the real exchange rate. This is not the same thing as how each item responds to a change in its own price or to an increase in pressure in just its own market.
made. But if the real exchange rate is determined to a substantial degree by market forces, then one should try to infer how elastic is the response to exchange rate pressure of different categories of exports, and to determine what distortions (such as taxes and subsidies) are relevant for each major category. At the very least, a broad “average distortion” for all exports taken together (for example, the ratio of export taxes or subsidies to their total f.o.b. value) can be estimated and introduced along with the force of tariff to produce a weighted-average estimate (including exports) of the social opportunity cost of foreign exchange.

Second, to break down imports into categories that have different relative sensitivities to changes in the real exchange rate, the practical procedure is to start with simply a value-weighted average of all tariffs. (If exports are not in the picture this actually yields the force-of-tariff ratio.) Then one classifies the categories into those that are judged to be, say, very sensitive, somewhat sensitive, average, somewhat insensitive, or very insensitive to changes in the real exchange rate. Having done so, one adjusts the weights accordingly—doubling or tripling, say, the weight attached to the very sensitive group and perhaps cutting by half or two-thirds the weight attached to the most insensitive group. Any category subject to a quota that is unlikely to change but likely to be continually effective would receive a zero weight, for these imports, even though they may be quite important, are not displaced when the real exchange rate tightens nor do they expand when it eases. A similar treatment can then be applied to exports. Obviously, throughout the process of adjusting weights, care must be taken not to alter their sum.

The third step of adjusting the social opportunity cost of foreign exchange for internal distortions is relatively easy. If, say, the country produces no petroleum, then the petroleum and gasoline taxes imposed internally function in the same way as tariff surcharges—one simply combines them with the tariff to get a picture of the total government revenue generated by each dollar of petroleum imports. In case there is domestic production of a good (such as alcoholic beverages) that is subject to excise tax, an increase in the real exchange rate will give rise to some substitution toward the domestic product, hence the government’s loss in excise taxes will be some fraction of what one would predict on the basis of the reduction in imports.

The basic conceptual framework also guides us as we struggle to come up with empirical estimates of the social opportunity cost of capital. The fact that the concepts are framed in real terms suggests beginning with direct rather than indirect measures of the real return to capital. Rates of total return (including real capital gains) in financial markets (especially stock markets) are notoriously volatile and subject to the vagaries of transitory swings in expectations. Much more steady and reliable are measures of the national or sectoral rate of return,
based on estimates of the real capital stock (usually built up via a perpetual-inventory process) together with data on the real returns accruing each year to the capital factor. Considerations of differential taxation suggest distinguishing where possible between predominantly corporate and predominantly noncorporate sectors, and singling out those with special tax treatment such as housing, mining (at times), and agriculture (quite frequently).

The underlying concept is one in which the government draws its marginal funds from the capital market. In most countries, this probably means that there is no systematic mechanism by which one government project derives part of its funds by displacing other investments throughout the public sector. One project may indeed displace another—even in its entirety—but such displacement is likely to be sui generis for each particular project, not systematic and similar for all classes of public projects.

Consequently, when we try to estimate \( p \), the marginal productivity of displaced investment, we probably should try to measure what I call the social rate of return to private sector capital. The case where government project A in fact displaces government project B can then be looked upon as a combination of two modules: one in which project A is undertaken and is financed by resort to the capital market, the other in which project B is canceled and its funds returned to the capital market.

Some countries have only rudimentary capital markets, often pretty much limited to the banking system itself. In such cases, government resort to the capital market usually means that a roughly equivalent amount of credit is crowded out of the private sector. Therefore the first approximation of the marginal productivity of displaced investment should be the real social rate of return to capital by those segments of the private sector that are the typical recipients of bank credit. Where monetary policy does not permit government borrowing from the banking system to crowd out enough investment, the typical result is that part or all of the government's borrowing gets reflected in inflation. It is then likely that a significant part of the government's outlays will in the end come at the expense of consumption. Inflation processes are exceedingly complex, however, with institutional arrangements (such as indexing) varying widely among countries. In an inflationary environment, therefore, the weights such as \( f_i \) and \( f_k \) should probably be treated as a problem to be solved separately for each country.

With respect to the labor market—perhaps the most vexing case of all—the underlying concepts are essential guideposts to those who undertake the difficult task of empirical estimation. From the very outset, the concepts tell us to seek the ultimate pattern of sourcing from
which an increment to labor demand is filled—and not to take too seriously the provenance of the particular workers that are hired by a project. They may be lured away from other employers; they may quit a job because the project is near their home or otherwise appealing; or they may be picked up by the project out of a temporary spell of unemployment. This direct sourcing pattern may be next to meaningless: if they left another job, the likelihood is they will be replaced; if they were unemployed, they would probably soon have found some other job.

At the other extreme, the concepts warn us away from a demographic-historical approach that considers the ultimate sources of new labor supply to be natural increase, migration into the region, and changes in the rate of labor force participation. The problem with this approach is that most of such changes would have taken place regardless of the presence or the absence of any particular project. What we are seeking is the chain of causation by which the presence of a particular project draws labor (directly and indirectly) from where it would have been (in equilibrium) in the absence of the project. In short, we must think about sourcing in economic rather than demographic-historical terms.

To think in economic terms means to think about markets—in this case the market for the particular type and class of labor involved. One must determine whether the market is a national or a regional one and, if the latter, to what degree increments of demand are likely to be met via migration. One must try to identify the structure of the market and the characteristics of its supply and demand. For highly specialized and highly skilled jobs, the likelihood is that the bulk of any new demand will be met by bidding workers away from other employers. For relatively unskilled, undifferentiated tasks the existing pool of those who hold such jobs has little significance—new taxi drivers, hotel maids, or grocery clerks can come from anywhere.

By fortunate coincidence, dealing with the social opportunity cost of labor is simplified by the fact that most labor market distortions (such as payroll taxes and income taxes) are relatively modest in size (at least compared with many tariffs and with some taxes on the income from capital) and also quite widespread through the labor force. Perhaps the biggest distortions in developing countries are those between the most highly protected sectors (typically multinationals) and the rest of the economy. But this creates relatively little difficulty, because we can be quite sure that the other sectors do not obtain any net labor from the most protected ones. If a worker leaves a highly protected sector, there is always a long list of candidates waiting to replace him. The only time the highly protected sector's wage enters the calculation of social
opportunity cost is when the new jobs that are being created are actually in that sector. In such a case the protected-sector wage enters as the upper limit to the supply price of the quasi-voluntary unemployed.

Similarly, although the problem of determining empirically the social opportunity cost of the unemployed in a cyclical setting poses challenging conundrums to the analyst, it is of relatively minor importance in real-world project evaluations. The reason is that project evaluations are most of the time forward-looking operations. The project being evaluated may not even be initiated until two or three years later, and its economic life may then stretch for ten or twenty or even fifty years. Whether or not cyclical unemployment is currently observed, the best prediction for future years is that the situation will be "normal" or "average." As far as I can see, the issue of the social opportunity cost of labor in a setting of cyclical unemployment comes up largely with respect to programs (perhaps of temporary job creation) specifically designed to deal with the unemployment situation. The context is one in which there will be a relatively rapid absorption of the unemployed, with a duration roughly commensurate to the recession being experienced. The typical longer-term investment project simply does not fit into this context.

With respect to chronic unemployment, two varieties have been discussed: quasi-voluntary unemployment linked to the presence of protected sectors, and migration-fed unemployment. Neither of these, in my view, presents conceptual or measurement problems of a serious nature.

Distributional Weights and Basic Needs

At the outset of this section I want to reemphasize that all three basic postulates form the roots of the grand tradition of applied welfare economics; all three are needed to produce the series of classic results recounted at the beginning of this paper; all three have been employed by a long lineage of great economists. Nonetheless, it is the third postulate that has most often been questioned and that has raised

19. The principal problem here is to determine what supply price of labor to use. Labor supply, particularly of adult males, is known to be extremely inelastic in most countries, yet in repeated surveys the unemployed state their supply price to be close to the going wage for their age-education-experience category in their own labor market; that is, the stated supply price takes on the attribute of the expected demand price in the market. The question is, to what extent should we accept such statements of supply price at face value, thus attributing little gain in utility to the unemployed person when he or she finds a job?
doubts in the minds of some thoughtful people—economists and non-economists alike. The purpose of this section is to address such doubts and to discuss some of the issues surrounding them.

Let me begin at the end. The great economists who have employed the three postulates have been neither naïve nor crass. From their writings one can readily discern that they do not believe that the postulates and their implications are all that count. Each society has its own values, and each has many important objectives apart from economic efficiency. No one, to my knowledge, has argued that the three postulates should overthrow society’s values or should supplant important noneconomic objectives. But the three postulates do provide a disciplined and coherent framework for thinking through the economic aspects of a wide range of problems. The appropriate analogy is with accounting—another example of a complex structure of analysis and consequences that rests ultimately on a few fundamental postulates. Accounting tells how to calculate net profit and net worth (wealth). It does not attempt to do the absurd by saying that profits and wealth should never be compromised or sacrificed for other objectives. Accountants know and recognize this. So do economists when it comes to considering the consequences and implications of the three basic postulates in comparison with other objectives.

One must be careful here, however. Traditional accounting, though far from revealing the meaning of life, is important enough in many different contexts to be taken seriously. And it is part of the role of accountants to call the attention of others to the relevance and usefulness of their discipline. So, it seems to me, it is (or should be) with applied welfare economics. It is significant and relevant for many matters of interest to society. It gives a disciplined and structured response to important questions. It embodies some of society’s values, but not all. And in many (even most) cases its results are not incompatible with society’s other values. In my view, part of the role of economists is to present the answers given by applied welfare economics to the problems at hand, as the particular contribution of the economics profession to society’s decisionmaking process. If economists do not present what economics as a discipline has to contribute, who else will?

The approach just described is modest, in the sense that it makes no excessive claims for the postulates and does not try to graft onto them other objectives that might expand their scope. A significant strand of literature, however, follows a different line, specifically with respect to the distribution of benefits and costs. This literature explores the use, within applied welfare economics, of distributional weights. Use of such weights entails multiplying the net gains or net losses of particular groups by specific factors—higher for groups whose welfare is deemed more meritorious, lower for those whose welfare is less prized (presum-
ably by society as a whole). In principle, welfare weights could be classified according to any criteria—ethnic or national origin (Malays and Chinese in Malaysia), educational or class background (untouchables in India), type of economic activity (independent farmers and farm laborers in many countries), and so on. But most of the literature has focused on income or wealth as the criterion to be discussed and has typically assumed that the welfare weights are a declining function of the criterion variable.

Such declining weights have been rigorously applied by several authors (Atkinson, Atkinson and Stiglitz, Diamond, Dixit and Sandmo, and Mirrlees), particularly to deal with the problem of the optimal choice of an income tax schedule. A few attempts have been made to incorporate distributional weights in actual project evaluations. Most of these have been flawed by the application of the weights to the changes in income of the various groups, rather than to the changes in surplus (net benefit or cost). All the logic of distributional weights leads to the use of change in consumer and producer surplus as the base to which the distributional weight should be applied. An increase in labor along an infinitely elastic supply curve, for example, implies no increase in welfare to the suppliers; hence there is no relevant base to which to apply the group’s distributional weight.

After giving considerable thought to the problem, over a period approaching a decade, I have come to the conclusion that systems of distributional weights do not adequately represent the way citizens feel about redistribution efforts channeled through the public sector. Instead, I feel that a system of “basic needs externalities” reflects people’s values and beliefs much better than distributional weights. Basic needs externalities are based on the idea that citizens and taxpayers look for


specific and concrete results when public funds are channeled into helping others. They want to see the recipients turn out to be better educated, better cared for medically, better fed, and better housed. In short, citizens and taxpayers are not interested in having their money used simply to gratify the recipients; they want to see it used to advance the welfare of the recipients as they (the donors) perceive that welfare. This helps explain why the most universally popular government transfer programs have entailed transfers in kind rather than in cash, as in the case of universal free primary education and free or heavily subsidized medical care for the indigent. It also explains why public support has been weak for programs in which transfers in kind can be converted into cash with relative ease. Subsidized food, or the food stamps with which to acquire it, can be resold; subsidized housing, with space judged to be "adequate," may quickly become overcrowded by an inundation of "cousins." In such cases the recipients are maximizing their own welfare by transforming their in-kind transfer into cash, but the donors are unhappy because their purpose (improving the welfare of recipients as the donors perceive it) has not been served.

This and much other behavior, as well as many other opinions and attitudes on the part of citizens and taxpayers, can be rationalized in terms of basic needs externalities. Citizens, the argument goes, are concerned enough to have their money spent to ensure better education, medical care, nutrition, and housing for the less fortunate members of society. But donors are not interested in seeing their money go to finance more elegant dowries for brides, more elaborate funeral ceremonies for grandparents, or more frequent return trips of workers to their native villages. Even if these are the things the recipients prefer, they give rise to no external benefit as perceived by the donor, hence donors (taxpayers) do not want to see their money used directly or filtered indirectly to pay for such things.

Elsewhere I have suggested ways of getting crude quantifications of the basic needs externality for such things as education, medical care, and nutrition.22 These quantifications are justified by the existence of a basic needs externality, but they are also influenced by a modified version of the least cost principle. The least cost principle tells us not to accept any project (or other action) if a cheaper way of achieving the same or equivalent benefits can be found. This dictum needs to be modified, at least for basic needs externalities, because in most countries there is an almost infinite number of situations in which equivalent benefits from basic needs externalities might be found. The modified least cost principle, then, states that the costs society is willing to incur

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22. Ibid.
in order to meet a basic need should vary inversely with the intensity or urgency of that need. For example, we would typically be willing to incur a greater cost to bring a given group from 85 to 90 percent of some nutritional or health standard, than to bring a similar group from 95 to 100 percent of that standard. Similarly, poor countries can attempt to subsidize only the earlier stages of education for broad groups of the population; the higher the level, the more selective the criteria must be.

In line with this modification principle, the project authority could set, for each basic need, a cutoff level above which no basic needs externality is deemed to exist. And since the externality in the end turns out to be a justification for society to pay some or all of the bill, it is appropriate that the income or standard of living of the recipient households should enter in an important way in defining the cutoff level. For most developing countries, for example, it does not make sense for society to subsidize the diets of the top 50 or 60 percent of the population. Cutoff levels for the attribution of any basic needs externality would presumably vary with the type of need. They might be set at the 75th percentile of the income distribution for primary education, at the 40th for secondary education, and at the 25th for higher education. For basic medical care, they might be at the 60th percentile, while for housing only at the 20th. For society to attribute a basic needs externality, in the terms in which we are speaking, it must be willing and able to bear part or all of the cost.

In addition to establishing a cutoff point for each externality, the modified least cost principle would define a maximum externality (as a percentage of the normal cost of providing the service in question) that society is willing to attribute, even in quite urgent cases. The reason behind this is similar to that which motivated the original version of the least cost principle. If we attribute a maximum externality of 100 percent of normal costs in cases of very low nutrition levels, we can be quite sure that, as a result, society will pay double the normal cost at least some of the time in order to meet the need in question. The logic of cost-benefit analysis is simple and ineluctable. If the normal cost of meeting a given (say, nutritional) need is 10 per unit, and if we attribute a 100 percent externality to meeting that basic need, there are two plausible extreme cases in which that externality would cause the acceptance of a project that would otherwise be rejected. At one extreme is the case in which there are no benefits of the usual type—the externality is the only benefit. In such a case the project would be accepted if its costs were less than or equal to the usual 10 per unit. At the other extreme is the case in which the usual type of benefit is equal to 10 per unit; here the existence of the externality will render a project acceptable if costs range up to 20 per unit. In both cases society ends up
paying a cost of up to 10 per unit as the "price" for meeting the basic need in question.

Could not cheaper ways of meeting this or an equivalent basic need be found? Almost certainly so, and the surest way to bring about a search is to disallow the attribution of externalities as large as 100 percent in the first place. When we attribute a given externality as a benefit, we say in effect that it is worthwhile to incur a corresponding amount of costs in order to produce that benefit. Without a systematic process of searching for alternative, cheaper ways of obtaining given amounts of benefits, the attribution of an externality is an invitation to incur up to that amount of extra costs so as to achieve the external effect.

The modified least cost principle embodies the idea that society is willing to accept the risk of inefficiency in the most urgent cases, such as famine, starvation, and pestilence. But the willingness to accept this risk declines as the basic need being met becomes less urgent, until—at the cutoff point—society simply refuses to attribute any externality, thereby refusing also to invite the conscious acceptance of extra or higher costs.

The practical implementation of the schema just described can be made very simple. The budget bureau, the finance or planning ministry, the project evaluation office, or even the national cabinet would decide that for, say, the lowest percentile of households a basic needs externality of 30 percent of the normal cost of additional nutrients would be assigned. This percentage would decline to zero at the 40th percentile of households (the cutoff point). Thirty percent, in this case the maximum allowable externality, is also the maximum amount of excess cost that the procedure would permit to be incurred. Society would be accepting some inefficiency (by standard criteria) for meeting basic needs. But this acceptance would be tempered by the placing of explicit and conscious limits on the extra costs to be incurred on this account.

Although the use of distributional weights by definition entails the rejection of postulate 3, the attribution of basic needs externalities is fully compatible with it. The positive externality involved in improving the education, health, nutrition, and housing of the disadvantaged takes its place alongside other externalities such as air and water pollution and traffic congestion. All of these, like basic needs externalities, have the attributes of public goods (or public "bads"), but all can be easily fitted as positive or negative distortions into the framework of $\Sigma_j D_j \Delta X_j$.

Once this is recognized, it helps solve what many people consider a troublesome conundrum. As shown above, when the relevant group has an infinitely elastic supply of labor, no distributional weight benefit
can be attributed, even when the employment of low-income workers expands dramatically at the given supply price. This bothers many people, because they firmly believe there should be a social gain. The answer is clear; the people who are troubled by the no-benefit result do not think in terms of distributional weights. Their intuition, it seems to me, runs more along the lines of basic needs externalities. A rise in employment—even along an infinitely elastic curve, and either through increases in numbers employed or in hours worked per person—will increase the cash income of the affected families. These added funds, in turn, will almost certainly be spent in meeting at least some additional basic needs. When we value these increments of welfare as externalities using \( \sum_i \Delta X_i \), we find that the added employment did indeed bring a social benefit. The basic needs approach thus solves the conundrum.

Epilogue

I have tried in the preceding pages to outline an approach to social project evaluation that is conceptually sound, simple, and deeply rooted in the grand tradition of economic science. It is presented as what economic science has to say or to offer in the area of cost-benefit analysis as society struggles with the many difficult choices it faces.

In the process I have recognized several times that it is an austere analytical structure that emerges when we build upon the three basic postulates. No more than the accountant's rules does that structure reveal the fundamental purpose and meaning of life or the ultimate values that a particular society ought to treasure or to seek.

These things are the source of vast amounts of misunderstanding and confusion. Neither economics as a science in general nor the three basic postulates in particular tell us that individuals and societies should seek to maximize their incomes. Economics postulates that individuals and families seek to maximize their own welfare (as they perceive it), including the various ways—such as basic needs externalities—in which the welfare of others impinges on their own. This welfare-seeking behavior by each individual economic unit forms the foundation stone of the three basic postulates. These, in turn, give rise to an analytical structure that extends to society as a whole a procedure for weighing social benefits against costs that is compatible with welfare-seeking at the level of the individual unit.

The resulting structure is austere. It does not answer all questions. It does not incorporate all of society's values. It does, however, incorporate the value of economic efficiency in the sense of trying to maximize perceived welfare—not income. One very important question for doubters to ask themselves is, how many of society's other goals and
values are really antagonistic to economic efficiency? I, and the whole
tradition of economic science, see relatively little problem of incompati-

bility. But some incompatibility there may nonetheless be, as when a
society chooses to favor certain groups (such as disadvantaged minor-

ties) in ways that may not fit neatly as basic needs externalities under
the three postulates.

Even in such cases economic science can help us toward an answer.
For at the very core of economics is the notion that when we are striving
after two or more good ends, but reality tells us that we cannot have
more of all of them, we should be prepared to sacrifice something of one
in order to get more of another. This is the most fundamental of
economic principles. It tells us that in the presence of multiple social
goals we should first strive to seek compatibility between those goals
and economic efficiency; but if there remains some incompatibility, we
should be prepared to make at least a minimal sacrifice of economic
goals to gain advances toward other important ends.

But I still remain a defender and champion of the three postulates and
of the traditions of economic science that they represent. So far, I have
mainly used the same terms as the philosophical doubters. In their
discussions, the other values that vie with economic efficiency are
somehow almost always deemed to be good values, with high ethical
and moral connotations. Almost always they are values that carry us to
a world that is somehow better than the one we reach using the three
basic postulates.

But what I see, and what I believe was seen by most representatives of
the great tradition of applied welfare economics in the past, is a world in
which good and evil exist side by side, and pervasively. The noneco-
nomic goals pursued in the real world are not all based on the high
principles of ethics and philosophy. Many, far too many, reflect the
darker side of human nature.

One important noneconomic goal in most countries—at the very
least it is a goal to which the three postulates have been able to
contribute very little—is national defense. This is a perfect example of
what I mean, for under the label of national defense we have seen things
that run the full gamut from the most honorable to the most vile. Those
who struggle nobly against aggression and oppression argue their cause
in terms of the value of national defense. Those who perpetrate these
very acts of aggression argue their own cause using the same vocab-
ulary.

Almost by its very nature social project evaluation is enmeshed in the
structure and processes of government. Most often it is public sector
projects that are analyzed—the analysis being done by one public
agency, the approval of another being required, and the implementa-
tion being done by a third.
When we speak, then, of noneconomic goals let us not forget the many projects that have been carried out just to satisfy the caprice or whim of some powerful figure or clan. Let us not forget the corruption that pervades the decisionmaking and contracting process in many parts of the world. And even when these elements are not present, let us not forget how project choice gets intertwined with the political process almost everywhere: how the granting and withholding of projects is used to reward political supporters and to punish enemies, and how in electoral situations governments tend to distribute projects with the aim of winning over constituencies that may be doubtful or wavering.

All kinds of objectives compete with the three postulates, and I have no doubt that, in the final analysis, the less-than-noble motives enter with greater frequency and importance than the lofty ones. Viewed in this light, the three basic postulates provide a way of insulating the methodology of social project evaluation from the banal, crass, even vile pressures just alluded to. They lead to the sort of professionalism discussed in the introduction to this essay. Just like the principles of accounting, the methodology based on the three postulates enables one group of project evaluators to review or “audit” the world of another. The methodology itself should always lead to the same answers; the only serious problems lie in estimating and quantifying future costs and benefits. This aspect is what makes it possible to think of a “professionalized” discipline of social project evaluation in spite of the many human failings that characterize the environment in which project decisions are made and executed. I believe, too, that the development of a rigorous professionalized discipline provides the best hope for improving actual performance and gradually overcoming the institutional weaknesses and personal temptations that have been important sources of the blemishes on record from the past.
Comment

Partha Dasgupta

IT IS UNBECOMING of one economist to pay tribute to another. It must be, for we don’t see it being paid all that often. But what is normal practice is not necessarily commendable practice, and I am most grateful for the opportunity to pay tribute to Arnold Harberger.

In economics the line that separates “originality” from “professionalism” is a hazy one. Some years ago Harberger put together an intellectual frame for the purpose of constructing an approach to the social evaluation of investment projects. The approach which he then constructed and elaborated upon over the years is a single-minded one. Not for him the two hands of the typical economist. For Harberger there is no other hand! It is difficult to overemphasize how educational this attitude—which he modestly calls “professionalism”—has been to economists of my generation. It was a revelation to see unambiguous recommendations flowing from the Harberger approach to project evaluation, and, at least for me, equally impressive was the fact that one could readily trace the recommendations to the welfare axioms underlying the framework. The opening passages of Harberger’s reflections are an eloquent reaffirmation of this attitude. From this professionalism we academic economists have gained a great deal.

“Reflections” is quintessential Harberger. He reflects for a bit over a page and a half and then cannot resist getting down to business—the business of setting down on paper a few basic welfare postulates and applying them to a whole host of situations that recur in the course of project evaluation. The style is beguiling, precisely because it is direct and shorn of adornment. So much so that while I was reading the essay the first two times I was gradually being persuaded that this was indeed the way to go at things. I might have retained this feeling had it not been for a third reading, when I experienced a gestalt-switch—only such a

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term as this can account for the differences between Harberger and me in the field of project evaluation.

At least part of the motivation that propels Harberger's axioms is his perception of the economic world in which social project evaluation is undertaken—what one might call Harberger's "duck." There are distortions, to be sure. Otherwise there would be no need for social project evaluation. But on the whole, Harberger's world is rife with markets, and they provide him with a first step, a lead-off point, for the construction of a system of accounting prices for goods and services. When he says "To think in economic terms means to think about markets" I take him literally, and I believe he wants to be taken literally. Certainly, this view provides him with the rationale for his approach to project evaluation, in particular for the sequence of intellectual moves that he makes and so lucidly elaborates in his essay: from competitive market prices to social (or accounting) prices, with corrections added all along the way.

It is possible to gaze at this same world and perceive it differently; not as a "duck," but as a "rabbit." This is the gestalt-switch I remarked on earlier. Some sixteen years ago, when Stephen Marglin, Amartya Sen, and I began writing the so-called UNIDO Guidelines, we viewed project evaluation, at least in its initial stages, as a tactical weapon for national economic planning. We therefore started not with markets, but with social objectives and economic and political constraints. Of course, this is not to say that we failed to notice that there are markets for all sorts of commodities in developing countries, or that markets are often desirable, or that there are economic environments in which the market prices of goods and services coincide with their accounting prices. The point is that many commodities do not have markets, certainly nothing resembling competitive markets, so that starting from market prices as a first approximation on which to add corrections may not be the most fruitful approach to project evaluation. The idea we therefore pursued was to study the impact of an investment project on multiple social objectives (such as aggregate consumption, welfare distribution, employment, and the provision of merit goods). As I write this I sense that it sounds banal, for what else would anyone be doing when evaluating projects? At one level the idea is banal. Yet, at another it does provide a "rabbit": it immediately alerts us to the fact that social objectives are social objectives. If project appraisal is viewed as part of an exercise in planning, it makes no sense—indeed, it is misleading—to separate objectives into "economic" and "noneconomic" ones as Harberger does. Learning to avoid such distinctions is itself a good discipline.

Studying the impact of a project on social objectives also tells us that the much-discussed concept of the social discount rate is really a derived concept, being the percentage rate of fall in the accounting price of the numeraire commodity in the planning exercise. This means that the numerical value of the social discount rate depends not only on social objectives and the set of constraints, but also on the numeraire that has been chosen. In the Little-Mirrlees Manual,\(^2\) government income was taken to be the numeraire; in the UNIDO Guidelines, it was aggregate consumption. At the theoretical level both are aggregates and thus crude. But since both books were attempting to be practical, there was no point in narrowing down the numeraire commodity to a fine set of attributes. In this way of looking at the matter the problem that bothers Harberger at the end of his section on social discount rates is no conceptual problem at all and, on the face of it, it makes no sense to suggest that “when different consumer groups use different [discount] rates . . . each group’s benefits should be discounted at its own rate.” It is simplest to regard the same commodity entering the consumption basket of different income groups as different commodities. Their accounting prices will therefore differ, since the social objectives will ensure that different groups are treated differently at the margin, at least in terms of their consumptions. But these accounting prices are quoted in terms of the numeraire at, say, the initial date of the plan. All benefits and costs would then, perforce, be discounted to the initial date and at the social discount rates, one for each time interval. Alternatively, the accounting prices could be quoted in terms of the same numeraire, at some future date. In this case one would be obliged to evaluate a project by compounding all benefits and costs—that is, the accounting values of the goods and services associated with the project—occurring at all dates prior to the chosen future date and by discounting all benefits and costs occurring after that date back to this chosen date. The paradox that Harberger identifies in his discussion of social discount rates does not arise if the logic of accounting prices is followed.

One way in which the UNIDO Guidelines differs sharply from the Little-Mirrlees Manual is that the idea of entertaining multiple social objectives emanates from ethical pluralism. An example of what this implies is that we did not advocate that income distributional weights be deduced from a social welfare function founded on ethical monism, such as utilitarianism.\(^3\) This distinction is often not appreciated, but it

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seems to me to have immense practical implications. For one of the
tasks that can be performed with the help of project evaluation is social
criticism. Governments of all sorts and of all inclinations profess one set
of things and do another. How else can one illuminate the lack of
congruence between goals and achievements but by exercises such as
the evaluation of actual project choice and rejection? The moral lan-
guage that governments use—insofar as the language can be so re-
garded—would appear almost invariably to reflect pluralist philoso-
phy. In any event, not only must welfare be promoted, but also rights
(to work, to food, and so forth) ought to be respected and promoted.
Project evaluation must then inevitably be conducted amid conflict
among the claims of various social goals. It is therefore best to assess the
impact of a proposed project on each such objective separately and then
to compare these impacts by the help of relative weights.

There are intrinsic reasons why these weights may not be intuited in
precise terms: one should expect only a partial ranking of projects.
Judged from this perspective, Harberger’s attempt at measuring the
social benefits from the supply of primary education, medical care,
nutrition, and so forth on the basis of the “external benefits” enjoyed by
the “donors” (that is, the taxpayers) looks curious. Citizens, we may be
forgiven for inferring, do not have a right to economic and social
policies that further the provision of such basic goods, now and in the
future. If the taxpayers do not enjoy any external benefits (or what
amounts to gratification) from their provision to the less fortunate,
there would appear to be little case for making such provision in the
Harberger scheme of things. Projects that make basic goods more
available will not, it would appear, look promising in his social cost-
benefit analysis. But this cannot be morally defensible. Rights cannot be
converted to the dictates of charitable feeling. We are asking what are
the right things to do, not what the taxpayers want to see done—unless,
of course, the two happen to coincide. It is a straitjacketed political
philosophy that sees social justice being built, whether for moral or
pragmatic reasons, on the generosity of the wealthy.

I began by saying that Harberger’s prescriptions are precise. This is
where their attraction lies. However, the conceptual frame that I myself
am drawn to, while precise, does not lead to precise prescriptions: there
are far too many moral “hands” to consider, as against Harberger’s
solitary one. This is, of course, where the gestalt comes in.
Comment

Deepak Lal

Since I first met Arnold Harberger in the late 1960s, I have been arguing with him on the subject of his present paper. Arguing with a pioneer—which Harberger assuredly is—cannot but be good training for one’s intellectual muscles, and over the years I have learned a great deal from him and his writings.

The present paper lucidly summarizes his well-known views on social project evaluation. Their centerpiece is his so-called three basic postulates of applied welfare economics, which he says he derives from the grand tradition of Marshall, Pigou, and others. The only recent and probably less well-known addition to this corpus comes as the result of his conversion to “basic needs externalities” as a form of merit good, which he includes in his recommended method of social project evaluation.

He has always justified the rules and procedures he advocates on the pragmatic grounds of their simplicity and ease of communication, and for being derivable from the grand tradition of welfare economics. I have never had any worries about their simplicity, but the claim that his rules follow from the grand tradition has always troubled me—as I suspect it has others. It still does, despite my having come to accept many of his specific rules (those on the shadow price of labor and the social opportunity cost of public funds, but not on the shadow pricing of commodities, discussed below). After the ebbing of the passions (which surprisingly this subject generates) of my misspent youth, I think I now know where the trouble lies, and these comments will provide an elucidation!

As in Harberger’s paper, the starting point must be to ask: What are social project evaluators supposed to be doing? Harberger describes
them as people "who strive selflessly to see to it, insofar as they can, that projects not meeting adequate standards are rejected, while those in the social interest are accepted" (emphasis added). This seemingly bland and unexceptionable statement conceals a number of assumptions, two of which I have emphasized, but others are implicit and unclear. The most important one concerns the nature of the government or state which the project evaluators are to serve or advise.

A detailed typology of actual and possible government forms (in terms of the objectives they seek to subserve) is beyond the scope of this paper. But I have recently found it useful to think of two polar types: the benevolent (platonic guardian) and the self-serving (predatory) state. The objectives of the former are well known as they form the staple of every elementary economics textbook. The objectives of the latter are more murky but must by analogy with biological predator-prey models involve the self-serving extraction of the maximum continuing flow of resources (which includes intangibles such as power and prestige) for the members and associates of the government. Predators will share an interest in enlarging the incomes of their prey (say, through economic growth) insofar as this raises the potential flow of their own income. For the predatory state the welfare of its subjects—as conceived by economists—may be at best only a very minor direct component of the state's objective function. More important, however, is the likely opportunistic nature of government behavior in the predatory state, which in turn implies that compared with the more principled benevolent state, its orderings over social states are likely to be fickle.

In reality, most states will of course not fall into either of these extreme categories, but for the purpose of clarification it will be useful to maintain this stark contrast. The most important point which follows from it is that in what Harberger calls the grand tradition of Marshall, Keynes, Pigou, and others the implicit assumption was that, by and large, the economics were being worked out for a benevolent state. This in itself was not an unreal or absurd assumption. As Skidelsky's biography of Keynes shows—by its excellent description and dissection of the intellectual and social milieu of Edwardian and post-Edwardian Britain—English economists of the day could reasonably assume that the governments they were advising were either benevolent (made up of people like themselves) or, even more important, could be directly influenced to serve the commonweal as viewed by these self-proclaimed platonic guardians.¹

The consequent "social welfare planning" approach of Pigou and

¹ Robert Skidelsky, John Maynard Keynes, vol. 1, Hopes Betrayed, 1883–1920 (London: Macmillan, 1983). Despite the major contributions of French and American economists, the grand tradition was developed primarily by English—and even more narrowly, by Cambridge—economists.
Meade in England and a host of mathematical economists, beginning with that celebrated animal DOSSO\(^7\) in the United States, has indubitably been fruitful. It has erected an elegant, sophisticated, and subtle body of theory. This body of thought leads from Ramsey, Samuelson, Meade, Little, and Diamond-Mirrlees to Atkinson and Stiglitz, to the derivation of second-best welfare theoretic rules for most aspects of public policy—including optimal taxation and, more important for present purposes, the appraisal of public investments.

Most theorists will not dispute that \emph{in principle} the correct set of rules for project appraisal in a distorted economy being run by platonic guardians is the manual put together by Little and Mirrlees—the "Arthashastra" for the benevolent state.\(^3\) There are obvious variants of their general shadow pricing rules, which can be derived by making special or simplifying assumptions concerning this or that aspect of a particular economy; Little and Mirrlees themselves provide a number of useful ways of doing so. But these are all variations on a theme, which at the most general and theoretical level must conform to the so-called Little-Mirrlees rules.\(^4\)

It may be useful to recapitulate these, because it will allow me to make the few purely technical points I have against Harberger's position. The most important, distinctive, and in my judgment useful of the Little-Mirrlees rules is the border price rule for shadow pricing tradable commodities (and its foreign exchange equivalent derivation for the shadow price of nontraded goods). Given Harberger's desire to advocate and use simple rules derivable from the grand tradition, it is strange that this rule is not even mentioned in his paper.

On the shadow pricing of labor, I believe there is no difference between the rules advocated by Little-Mirrlees and by Harberger. Furthermore, his modified supply price rule for the shadow wage \emph{has} incontroversibly been shown by Christopher Heady to be derivable from the grand tradition.\(^5\) When we come to inter- and intratemporal distributional shadow prices, however, more serious problems arise.

The most serious is for Harberger's third postulate—in effect to


\[^3\] I. M. D. Little and J. A. Mirrlees, \textit{Project Appraisal and Planning for Developing Countries} (New York: Basic Books, 1974); see Deepak Lal, \textit{Prices for Planning} (London: Heinemann Educational Books, 1980), and references therein for support for this assertion. The "Arthashastra" is an ancient Indian text written to advise a prince on the best ways to stay in power.

\[^4\] This of course means accepting the usual simplifying assumptions of neoclassical theory—but this is not generally the point disputed by the various manuals in this debate.

neglect income distributional effects—which he claims is derived from the grand tradition. The trouble with this is that in *The Economics of Welfare*, for instance, which is surely part of the grand tradition, A. C. Pigou unequivocally states "it is evident that any transference of income from a relatively rich man to a relatively poor man of similar temperament—must increase the aggregate sum of satisfaction." Pigou’s utilitarian summation of interpersonal utilities was discarded by the subsequent Paretian welfare economics, which introduced its own rigmarole of compensation tests. Subsequent developments in the grand tradition culminated in the general adoption by theorists of some form of Bergson-Samuelson social welfare function in their study of welfare economics. The modern literature on investment planning and optimal taxation for a benevolent state builds on this work, and it is this work with its explicit concern with distribution which is in the grand tradition. Harberger’s third postulate clearly is not. But does that matter?

To answer this we need to get back to our forlorn project evaluator. Clearly if he is a servant or adviser of a benevolent state of platonic guardians, the government will have informed him of its social welfare function and the implicit or explicit distributional weights it would like applied to the changes in its citizens’ income induced by the project. The project evaluator would still have to choose between the two leading manuals of project evaluation that take account of the distributional effects. If he chose the *UNIDO Guidelines* and adopted their numeraire (consumption) and discount rate (the social rate of discount or consumption rate of interest) he would face the paradox noted by Harberger: there would be a multiplicity of consumption rates of interest (CRIS), one for each of the income groups. For this reason Little and Mirrlees chose investment (or more precisely income in the hands of the government) as their numeraire; it is relatively homogeneous compared with a consumption aggregate that depends on a changing distributionally weighted average of consumption by different individuals or

7. Pigou in fact straddles the classical and neoclassical branches of welfare economics in the grand tradition. As J. R. Hicks notes ("The Scope and Status of Welfare Economics," *Oxford Economic Papers*, vol. 27, no. 3, November 1975, p. 237), Pigou is concerned "like the Classics, with the Social Product. A Social Product of goods, not of utilities. Where he differs from the Classics is in his method of valuation; he does not value by cost, but by marginal utility. He is recasting the classical structure in terms of utility theory." After this move is made, however, at some stage in the resulting neoclassical analysis the distributional implication of economic changes will necessarily arise.
groups. As I have shown, given the platonic guardians’ social welfare function and the relevant technological and resource constraints, a unique accounting rate of interest (loosely speaking, the investment rate of return) can be defined, and the multiple CRIs enter only indirectly in the determination of the intratemporal distributional weights to be used in the cost-benefit calculus.

The happy project evaluator should not rush to assume that, as a result, he can return the UNIDO Guidelines to the shelf, however. Using a single CRI or social discount rate on the “consumption as numeraire” method is not necessarily illogical as Harberger suggests. Squire and van der Tak have shown that distributional weights can be used, in effect, to discount each individual’s discount rate (a particular CRI of, say, B in Harberger’s example) to make it commensurable with that of a reference individual or group (say, A in Harberger’s example) in each time period; this reference group’s own discount rate (CRI) can then be used as the unique CRI to discount that period’s distributionally weighted aggregate consumption.10

Thus as long as a project evaluator in the grand tradition does not blindly follow the UNIDO Guidelines, but adopts Squire and van der Tak, there would be nothing illogical in using a unique CRI or social discount rate in his calculus. Better still, he could adopt the Little-Mirrlees numeraire and discount rate that finesses this whole problem. An added advantage over the UNIDO Guidelines is that he would be able to use the simple border price rule. Despite Partha Dasgupta’s undoubted demurral on this point, his own work and that of others have shown this rule to be robust in many second-best conditions.11 It is surprising Harberger fails to adopt it since it allows the finessing of various conceptual and estimation problems concerning the shadow exchange rate.

But the premise of a benevolent state on which the above discussion has been based is highly unrealistic. Suppose instead that the state which Harberger’s still “selfless” project evaluator is advising is predatory (in my sense). Being selfless and keen to serve the social weal, the evaluator is now faced by a serious dilemma. He knows that the

government's objective function has little resemblance to the social 
welfare function of which he and his peers are now (more than just 
merely) platonic guardians! He might decide that by getting the govern­
ment to accept a procedure (but how?) for investment appraisal that 
implicitly or explicitly smuggles in the benevolent social welfare func­
tion—which necessarily includes distributional weighting—he can still 
do good by stealth. This seems to be the implicit posture of many 
real-world project evaluators, and the passage I cited at the beginning of 
these comments suggests it might also be Harberger's. This would be 
one way (though highly implausible) of dealing with the obvious di­
lemma facing the project evaluator when advising quasi-predatory 
governments whose real objective function is so different from that 
advocated in the grand tradition on the assumption of a benevolent 
state.12

Of course, as is more than likely, the project evaluator may not be the 
selfless and socially conscious individual Harberger seeks. The use of 
flexible distributional weights, camouflaged for rhetorical purposes as 
deriving from the grand tradition, could then yield what in practice 
most governments probably seek: social cosmetic analysis!

It is in the context of predatory states that the acceptance of Har­
berger's third postulate makes good sense. As independent auditors and 
accounts are required to keep self-serving private corporations honest, 
so an independent project evaluation agency (if it can be established) 
has the task of keeping the government and its public enterprises 
honest. In this task, controversial and perhaps elastic ethical judg­
ments—which must be involved in distributional weighting—will in­
evitably make the results of project evaluation appear to be discretion­
ary and hence arbitrary to a great extent. Business accountants have 
resisted the use of inflation accounting (despite the economist's impec­
cable case in its favor) because of the hypothetical and hence speculative 
estimates of the value of the capital stock at replacement cost that 
would be required (compared with the verifiable historic cost esti­
mates); similarly, it can be argued that controversial and speculative 
distributional weighting should be eschewed to maintain the integrity 
of the auditing function of project evaluation as a routine exercise. This 
is the "professionalism" I suspect Harberger seeks, much like that of 
accountants or blacksmiths or dentists.13

12. Amartya Sen's well-known discussion of "control areas" in project evalua­
tion is related to this problem; see his "Control Areas and Accounting Prices: An 
13. Keynes looked forward to the day when economists, like dentists, would 
become involved in merely routine tasks; see his *Essays in Persuasion* (New York: 
This argument in favor of Harberger's third postulate has nothing to do with the grand tradition. In fact, it is relevant precisely because the beautiful and elegant edifice built by the grand tradition is irrelevant for most of the world's states that are not governed by social welfare functions administered by platonic guardians.

A similar rejection of the grand tradition is also required to justify Harberger's recommendation—which, in my view, is correct—that our public expenditure auditors should, in calculating the social opportunity costs of public funds, adopt the "capital market" rather than the "fiscal sourcing" method.\textsuperscript{14} The latter, however, is indubitably the correct method in the grand tradition for a benevolent state to adopt. For such a state, on the basis of Atkinson and Stiglitz's excellent textbook on public economics, would have established a second-best optimal set of taxes.\textsuperscript{15} It would in its fiscal decisions logically balance the social costs of increasing various distortionary taxes against the social benefits of the uses to which the resulting revenue is put. A marginal increase in public investment (or expenditure in general) would require within this framework of stable taxes (contrary to Harberger and of course the real world) an estimate of the marginal costs of raising the requisite revenue through distortionary taxation (including that implicit in the levying of the inflation tax through inflationary public borrowing). The fiscal sourcing method would be the correct one to use to estimate the social opportunity cost of public finance.

But it is not these platonic guardian states that we observe. Apart from the instability of actual fiscal policy that Harberger cites for his preferred "capital market" route to estimating the social opportunity cost of public funds, there is a much more telling fact against the alternative recommendations based on the grand tradition. Those of us who have been brought up to accept arguments justifying various forms of government action as a solution to the "assurance paradox" must find the recent savings behavior in developing countries paradoxical. It has been argued (and incorporated in the project evaluation literature) that the social rate of discount (\textit{crt}) must be lower than the private rate of time preference on the grounds that society as an immortal collectivity would wish to save more than mortal individuals. The latter would thus sign a social compact to save more than they would be willing to do atomistically. Governments as a result were charged by the grand tradition with using the choice of public projects as an indirect means of raising national savings above the suboptimal levels resulting from

\textsuperscript{14} And surely Harberger is right in wanting to extend the scope of social cost-benefit analysis to the government's current as well as capital account.

individual choices. Apart from the obvious "project illusion" on which this argument must be based, it is not applicable if a predatory rather than a benevolent state is assumed as the executing agency of this social compact.

No vast empirical research is required to test the assumptions of this view. All we need point to is the amazing "stylized fact" that (except in Sub-Saharan Africa since 1973) household savings in developing countries have consistently risen over the past two decades to levels which, on Arthur Lewis's view in the *Theory of Economic Growth*, should have led to self-sustaining growth in most of the developing world. At the same time, one distinguishing feature of the past decade has been the prodigal behavior of the public sector nearly everywhere—in the more developed countries as much as in the developing countries. Instead of supplementing national savings, the governments of most developing countries have been depleting the potential savings pool available from households through budget deficits and the losses of public enterprises.

From the perspective that views most states as being closer to the predatory end of the spectrum, this is hardly unexpected. Countries and societies may be immortal (though even that is dubious), but governments certainly are not. Concerned about their tenure, which is probabilistically much shorter than that of the average individual's lifetime (and that of his offspring), the average government's rate of time preference is likely to be much higher (as their recent savings behavior shows) than that of private individuals. The resulting crowding out of private expenditures entailed by their predatory raids on the pool of national savings to finance current public expenditures is best measured, as Harberger rightly argues, through its effects on the capital market. But, concerned as he seems to be with wrapping the mantle of the grand tradition around himself and his rules, he does not state that the capital markets route is to be preferred in estimating the social opportunity cost of public funds precisely because of the irrelevance of that tradition in the real world.

The task of the project evaluator in a predatory state (assuming it allows him a role) is at best analogous to that of the business accountant. He needs relatively uncontroversial rules to allow him to present an audit of the net effects on efficiency and growth of the actions of the public sector. These rules should be precise and simple and not subject

to elastic interpretation of facts or ethical predilections. Passages in Harberger’s paper suggest that this is in effect the role he envisages for his project evaluator, and, as I have argued, his basic three postulates could be justified from this perspective. But I fear it is more than likely that Harberger envisages his project evaluator doing good by stealth—using the grand tradition for both deriving his rules and stiffening his spine. If this is so, then some of the rules Harberger advocates, and in particular his third basic postulate, are clearly illogical. His conversion to basic needs does not meet the objections from the practitioners of the grand tradition. For Harberger, basic needs are included in the social cost-benefit calculus as merit goods, and he seeks to justify this as an alternative to the use of distributional weighting. But this is not an appropriate either-or choice. Merit goods as well as distributional weights are required by the grand tradition. If the state is not benevolent the inclusion of both these subjectivist elements in the public sector audit can be questioned on the grounds given above. But if the grand tradition is being appealed to, both must necessarily be included. (It is not at all obvious, however—and certainly not uncontroversial—that the basic needs of Harberger and others are merit goods.)

Harberger is one of the few economists I know with the imagination and skill to tailor conventional economic theory to the needs of policymaking for a real world in which benevolent states run by platonic guardians are scarce. The rules he has derived for project evaluation (with some exceptions noted above) must be seen in this light.

Perhaps being realistic and keen to influence policy he wants to use the persuasive aura of a particular rigorous and well-established normative tradition of the economics of benevolent policymaking. At the moment there is no other equally well-worked-out system of policy analysis for the alternative model of a predatory state. The positive economics of policymaking in a self-serving state that goes by the name of the “new political economy” is still in its infancy, as is the development of the welfare economic implications of the recent literature on “rent seeking,” or as it has come to be relabeled, “directly unproductive activities.” The pioneers who develop this will doubtless be honored in future volumes in the “Pioneers” series. We might then have more relevant and robust rules for project evaluation for predatory states than are provided by current manuals in the grand tradition. Meanwhile, we could do worse than accept Harberger’s three postulates—for the reasons I have given—as the best rules currently available for project evaluation in quasi-predatory states, but with the explicit incorporation of the one robust, simple, and extremely important rule to be derived from the grand tradition (which does not depend on the assumption of a benevolent state): the border price rule.

I hope that these comments may help others to overcome the worries
that have plagued me for so long about the Harberger procedures for social cost-benefit analysis. I have tried to show that his rules have wrongly been found unacceptable because he has misleadingly (as in this lecture) wrapped himself in the mantle of the grand tradition. Pioneers are usually heretics, and it would certainly aid understanding, even though it might reduce their worldly influence, if they revealed themselves for what they are. My chief conclusion therefore is that if Harberger's views are to be cogent it would be best if he were to come out of the closet and repudiate the grand tradition.
Celso Furtado

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From 1962 to 1963 he was the Minister of Planning in the Brazilian government and prepared Brazil's three-year development plan. His political activity has continued within the Democratic Brazilian Movement party (PMDB).


His publications have been influential for the analysis of structural inflation, development planning, the school of dependency, and for policy studies by the Economic Commission for Latin America.
Underdevelopment: To Conform or Reform

WHY HAVE COUNTRIES that emerged as a result of the economic expansion of Europe—and that were organized to facilitate that expansion—lagged so far behind in their development? This question is at the heart of my thinking about underdevelopment. The theory of growth that blossomed immediately after World War II was a conventional dynamization of macroeconomic models; it followed Keynesian or neoclassical lines, depending on the nature of the implicit production function. But inquiry into the reasons for backwardness is meaningful only in the historical context, which demands a different theoretical approach.

Why are these countries underdeveloped? Is this an evolutionary stage or a structural configuration that tends to perpetuate itself? The need to think in historical terms has led me to pose a methodological question: what can the social sciences, and especially economics, contribute to the study of history? European historians of the *Ecole des Annales* asked a similar question. They sought help from the social sciences. I, as a social scientist, sought it from history.

The Economist as Historian

I believed that, because of its nature, underdevelopment could not be explained by growth theories. Why, in some of the economies engendered by the expansion of commercial capitalism, has the process of accumulation been slow or taken place primarily outside productive activities? Why are new techniques assimilated much more quickly in consumption than in production? These questions resulted from applying the economist’s tools to a type of diachronic analysis that went beyond the economist’s field of inquiry. Thus this look at underdevelopment begins with a new reading of history, based on economic concepts and instruments, and attempts to broaden the conceptual framework of economics itself.
In looking at history as an economist, I became convinced that the conventional conceptual framework was a result of observing social structures that had been formed by industrial capitalism. Consideration of the social structures that resulted from the international expansion of capitalism led inevitably to a critical assessment of this conceptual framework. Prebisch's indictment of the "false universalism" of economics in 1949 pointed in that direction.

The behavior of human communities through time (history) involves an element of deliberateness that is seen in the exercise of options. But a continuum of possibilities, a margin for choice, presupposes the availability of resources beyond what is essential. A community's surplus resources can take the form of a stock that can be used only once, but they may also be a flow, as in lines of commerce with other communities. These surplus resources underlie the process of accumulation. And so, a return to the concept of the social surplus introduced by the Physiocrats in the mid-eighteenth century was my point of departure in looking at economic development in its historical context.

The "Anomalies" of the Brazilian Economy

Because coffee production afforded obvious comparative advantages to Brazil, it tended to expand rapidly when demand and transport conditions were favorable. But this activity was severely affected by climatic factors, which in turn caused price instability; prices tended to be manipulated by foreign speculators.

To cope with this problem, coffee producers compelled the Brazilian government to intervene in the market by creating buffer stocks and preventing overproduction. Since the beginning of the century, that intervention has kept the price of coffee on world markets more or less stable and comparatively high. As a result, dependence on international financiers of the buffer stocks mounted. That dependence was translated into restrictive monetary and fiscal policies that curtailed the development of the domestic market.

The inference drawn from these events was that government intervention was decisive in determining the domestic income level and the terms of foreign trade. Regulation of the economy by market forces alone led to instability and deterioration of the terms of trade. Although

government intervention introduced rationality, economists of the time regarded such an intervention as an anomaly and went beyond their usual field of inquiry to study it.

What persuaded me to abandon the conventional view of the Brazilian economy's backwardness was my study of the "anomalous" behavior of that economy during the Great Depression of 1929–33. By developing indicators of the long-run performance of agriculture and manufacturing, I was able to show that agricultural production for export rose sharply in 1929–31, even as international prices were plummeting. Furthermore, manufacturing output rose significantly beginning in 1931, a time when the economy was being strangled by the severe curtailment of imports. What happened was that with large coffee harvests in 1930 and 1931 the government was obliged to amass huge stocks (burning much of them), which—in the absence of external credit—it financed by expanding the money supply. The contraction of income owing to the fall in export prices was thus offset by an accumulation of stocks by the government, even as imports were being cut back severely. The price of imported manufactures rose sharply because of depreciation of the currency. This price rise acted as a protective barrier to trade and explains the buoyancy of local manufacturing production beginning in 1931. The "anomaly" lay in the early recovery of a primary-export economy during a period when the world depression was worsening. I presented my findings in an article written in July 1949.²

The importance of the state's regulatory function, whether or not exercised, became fully apparent in this case. True, the economy was able to overcome the heavy depressive pressure from outside during the crisis; but the productive and accumulative capacity of the manufacturing sector had been previously underutilized. The regulatory action of the state was decisive in both cases. It was fitting, therefore, to hypothesize that the country's "backwardness" could be explained by history, since economic policies—which were largely responsible for that backwardness—were due not to destiny but to the action of identifiable social forces.

As the economy became more complex, macroeconomic regulation became more uncertain. In the past, the protection of interests associated with coffee and other export commodities had given the signals. With the advance of industrialization, conflicting forces began to vie for

control of decisionmaking centers. Under such circumstances, the impact of a macroeconomic decision could not always be assessed, nor could its consequences be foreseen. Hence inflation began to play the role of an adjustment mechanism.

In the immediate postwar period, the government fixed the parity of the cruzeiro at an obviously overvalued rate to protect coffee prices on the world market. The industrial sector interpreted this as a threat. Low import prices also meant a shortfall in state revenue because ad valorem import taxes were the main source of such revenue; additional inflationary pressure was thus created. The consequences were a rapid exhaustion of foreign exchange reserves and the introduction of quantitative controls on imports that favored the industrial sector. In this way, a policy aimed at protecting the coffee sector, because it generated inflationary pressure, became a policy favorable to the development of industry. Inflation took the place of the nonexistent industrialization policy at a time when industrialization was being held up as a national objective. There could be no greater anomaly than inflation with beneficial effects. 3

Industrialization had been discussed widely in Brazil during World War II. The scarcity of manufactured goods caused by the interruption of foreign supply gave ammunition to critics of the long-held view that Brazil was an essentially agricultural country.

When I began working at the ECLA in 1949, my first paper focused on the Latin American industrial sector. 4 In that study I measured the impact on international trade of a hypothetical increase in the supply of manufactured goods in four Latin American countries (Argentina, Brazil, Chile, and Mexico). If their per capita supply were to reach 50 percent of the level attained by Canada in 1939 and be obtained through imports, the value of the imports would have had to exceed the total value of world exports of manufactured goods at that time. Thus, by taking the situation to an absurd level, I tried to show that there was no alternative to industrialization if Latin America were to enjoy consumption levels comparable to those of developed nations.

In 1950, we discussed the empirical data compiled by a group of ECLA and World Bank engineers who had analyzed the textile industry in seven Latin American countries. On the basis of the engineers' measure-

4. This was my own contribution to the first Economic Survey of Latin America, which covered the year 1948 and was presented at the 1949 ECLA conference in Havana. ECLA, Economic Survey of Latin America (Lake Success, N.Y.: United Nations, 1949), pp. 51–54.
ments of productivity, we concluded that most of the plants were obsolete and would have to be rebuilt. This meant that much of the equipment would have to be scrapped and that employment in the sector would be reduced substantially. As a result of our discussions, we introduced the concept of global and sectoral social productivity, both average and marginal. Thus the debate about technological alternatives began, and the methodological groundwork was laid for integrated development policies.¹

The view of productivity as a holistic social phenomenon brought me back to the concept of the system of productive forces introduced by Friedrich List a century earlier.² Productive activities could be seen as an articulated whole. Understanding of this whole had to precede that of its parts. This approach shed new light on the nature of external relations, whose role was that of "dynamic center" or force behind the changes on which the development of these economies was based during the primary-export phase.

Structuralism and Dependence

This broad historical picture underlay what eventually became known as the structuralist approach. It is not related directly to the French structuralist school, which was based on static social analysis and resulted in the formulation of a "syntax" of disparities in social organizations. Our structuralism, as developed in the 1950s, stressed the importance of noneconomic parameters in macroeconomic models.³ Because the behavior of economic variables depends heavily

5. The ecla staff ideas on technological choice were discussed in the paper "Problemas Teóricos y Prácticos del Crecimiento Económico," presented at the ecla conference in Mexico City, May 1951. Prebisch edited the work. The ideas on an integrated approach to development policy were compiled in "Introducción a la Técnica de Programación," presented at the ecla conference held in Quitandinha, Brazil, in 1953. This paper was drafted by a team under my direction.


7. Theorizing based on the structural approach began in connection with the problem of inflation. The early works on this topic include Joan Noyola Vasquez, "El Desarrollo Económico y la Inflación en México y Otros países Latinoamericanos," Investigación Económica, vol. 16, no. 4 (Mexico City, 1956); Celso Furtado, "The External Disequilibrium in the Underdeveloped Economies," The Indian Journal of Economics (April 1958); Oswaldo Sunkel, "La Inflación Chilena: Un Enfoque Heterodoxo," El Trimestre Económico (Mexico City, October-December, 1958); Aníbal Pinto, "Estabilidad y Desarrollo," El Trimestre Económico (Mexico City, January-March, 1960). My own ideas can be found in two essays written in

(Note continues on following page.)
on those parameters—which take form and evolve in a historical context—one cannot separate the study of economic phenomena from their historical context. This observation is of particular relevance to socially and technologically heterogeneous economic systems, such as those of underdeveloped economies.

Without an in-depth analysis of the agrarian structure, it is impossible to explain why income tends to be concentrated or why the food supply is rigid, both of which cause inflationary pressures. Without a perception of the kind of lagging industrialization involved (oriented toward import substitution), economists cannot comprehend the "technological inadequacy" that aggravates underemployment.

Because noneconomic factors—the landownership system, the control of firms, the composition of the labor force, and so on—form the structural matrix of the economist's model, we who stressed the study of those parameters were called structuralists. In a certain sense, the Latin American structuralists returned to the Marxist tradition insofar as it emphasized the analysis of social structures as a way to understand the behavior of economic agents.

This attempt to extend the conceptual framework to include internal and external factors conditioning the decisionmaking process led ultimately to the theory of dependence. This theory is based on a broad approach to capitalism as an economic system that is expanding vertically and horizontally and is a constellation of heterogeneous social forms. The theory allows us to consider the diversity of the accumulation process in time and space, and how that diversity affects the countries that have been slow to industrialize. This inclusive approach allowed us to increase our knowledge of the links between external relations and internal forms of social dominance. It also shed light on

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other matters, such as the nature of the state and the role of transnational firms.

Apart from colonial domination, the phenomenon of dependence is manifested initially in the cultural area: consumption patterns are transplanted as a result of the surplus generated through static comparative advantages in foreign trade. It is the highly dynamic nature of the modernized component of consumption that brings dependence into the technological realm and makes it part of the production structure. Indeed, it is when countries attempt to substitute domestic manufactures for imported goods through industrialization that the production apparatus divides into two parts: one tied to traditional economic activities for export or for the domestic market, and the other comprising industries that produce for the modernized sector of consumption.

If we consider the underdeveloped economies as closed systems, we may be persuaded that such a discontinuity in the productive apparatus simply attests to a “disequilibrium at factor level” and thus that the technology is “inadequate.” If so, we will be ignoring that the goods demanded by the modernized minority can be produced only by means of that technology, and that for this minority no other choice exists. To the extent that the consumption patterns of the minority match the patterns in the countries that are leaders in technological progress and that have a high level of capital accumulation, any attempt to adapt technology will be rejected.

When we consider that dependence is constantly reinforced by the introduction of new items, the production of which demands even more sophisticated techniques and increasing allocations of capital, it becomes possible to understand why industrialization advances simultaneously with the concentration of income. In such circumstances, economic growth tends to depend on the ability of the classes that appropriate the surplus to compel the majority of the population to accept a high level of social inequalities. Only the political process can alter this picture.

The main idea that synthesizes my reflections as an economist on history is the development-underdevelopment dichotomy.9 The ideas

9. In the first essay in Development and Underdevelopment I called attention to the need to study the dynamics of demand in tandem with the process of accumulation. See Celso Furtado, “Desenvolvimento Econômico e Formação de Capital,” Revista Brasileira de Economia (Rio de Janeiro, January 1952). This essay was written as a comment on the 1950 lectures by Ragnar Nurkse, given in Rio de Janeiro under the same title. See also Nurkse’s reply to my comments, published in the same journal, March 1953. A slightly modified version of this article was published in International Economic Papers, no. 4 (London, 1954).
set out in my book on the subject are summarized in the following two sections.\textsuperscript{10}

A Theory of Social Surplus

To act with greater efficiency, humankind adopts techniques that in general increase its functional capacity through the use of tools. Whether techniques become a part of human knowledge or take the form of actual tools, they are transmitted only through a process of accumulation. The development of the human capacity to act (and produce) is therefore based on a combination of invention and accumulation. Accumulation by society takes two forms: the improvement of individuals (considered as a means or factor of production) and the equipping of those individuals (fabrication of implements and structures in which to keep them, establishment of farms, access to those farms, and so on).

If development is limited to the dissemination of known and proven techniques, it is the same as accumulation. But to limit the study of development to accumulation is to forget that techniques are nothing more than forms of behavior whose rationality is not independent of predetermined purposes. The replacement of the horse by the automobile is not only an evolutionary change in the system of transportation; it is the transformation of a way of life. Thus to speak of the dissemination or transmission of technology is a euphemism, since what is being disseminated is a life style that entails a dissociation from the value system that formerly prevailed in the receiving society.

The study of economic development has concentrated on the process of accumulation as it relates to productive forces. But behind the quantitative indicators that capture the interest of economists is the vast historical spread of industrial civilization: the adoption by all nations of the “modern ways” that originated in the countries where industrialization first took place. And so the role of creativity and decision-making at the level of the social goals has been little discussed, like every relationship between accumulation and the values that guide the life of a society. This masks the hegemony exercised by certain models of development geared to the interests of dominant economies.

What conditions are necessary for accumulation to occur in a given

society? At what point can one speak of a "horizon of options"? What is the ultimate limit of the accumulation process? To answer these questions is to formulate a theory of social surplus. There can be little doubt that accumulated resources—the final use of which is deferred to the future—are not essential to the immediate survival of the society concerned. It is obvious, too, that nonessential resources have many possible uses, and that accumulation as a factor of production is merely one of them. The theory of surplus is linked to the theory of social stratification; it is thus also linked to the study of the forms of domination that give rise to inequalities in the distribution of social products and that define the options for utilizing the surplus.

The concept of surplus can be based on the simple and universal observation that the social division of labor increases its productivity. Even with rudimentary differentiation, society as a whole is a greater productive force than the sum of its individual parts. Once human communities reach a certain size, they produce more than they need to reproduce themselves. Exchange between communities and more intense specialization create further opportunities for the social division of labor.

An increase in the social productivity of labor alone is not enough to produce a surplus. If the additional resources are used immediately to satisfy needs that members of the community regard as essential, it is meaningless to speak of a continuum of choices. Options exist because systems of social dominance limit the satisfaction of some basic needs. It is social stratification that allows the creation of the surplus—that is, of resources with alternative uses—and opens the way to accumulation. Therefore, the resources that permit the development of productive forces are the same as those that allow the population to be mobilized for war and that lead to social inequality.

It thus follows that the form of accumulation varies in different cultures. Accumulation is the binding force of social stratification and it legitimizes the power structure, but it is also the vector of technical progress. Whatever its orientation, it poses a problem that transcends development theory and is part of the comparative study of cultures, especially their morphogenetic aspects. Why did the ancient Egyptians use their accumulated surplus primarily to build pyramids and forge other connections between the power structure and the supernatural? Why did aesthetic creativity tend to absorb much of the accumulation of ancient Greece? There can be little doubt that both the Egyptian sphinxes and the Doric columns of the Parthenon were intended to bestow prestige (and therefore legitimacy) on a system of power. It is a fact that the values that prevail in a society (and guide its creativity) are not independent of social structures.

The comparative study of cultures clearly shows humanity's vast
inventive capacity, which seems to be underutilized. The usual subject of cultural history is the exceptional moments when that capacity is unleashed and adds to the cultural heritage.

Throughout history, the creative energies of cultures have tended to focus on the same areas: religion, aesthetics, and pure and applied knowledge. Channeled in this way, creative energies are resources placed at the service of the community, often to reinforce the structures of social domination, but occasionally to contest them. In some cultures, the language used to legitimize or oppose power has been primarily religious, in others aesthetic, and in still others strictly rational.

Our own civilization is characterized by the importance of the production apparatus, which has grown enormously complex. The control of this apparatus and the ability to make it operate efficiently are the underpinnings of power. Creative force is directed chiefly toward the development of techniques that ensure the stability of the power structure when faced with internal and external pressures.

Whenever societies have reached a certain degree of complexity, the surplus has been appropriated in two ways: authoritarian and mercantile.

Every system of social domination—including, among the simplest kinds, mobilization of the population for war or for production—necessarily entails the generation of a surplus. The extreme case of a surplus generated by authoritarian means is the slave system. Tax systems have the same origin, but have been legitimized through the consent of those being taxed. More subtle authoritarian ways of appropriating the surplus are rules that make professions hereditary, hinder individuals’ geographic mobility, prevent the circulation of goods, and restrict access to arable land and water. Even more sophisticated forms are patent systems, control of information, control of access to prestigious schools, and the like.

The mercantile appropriation of the surplus is based on exchange. Although it, too, leads to social stratification, its point of departure is not domination but an increase in productivity through specialization, which in turn is made possible by trade. Trade can exist when relations are symmetrical, that is, when partners are independent of each other. It is true that any exchange presupposes a flow of information, control of which by either of the trade partners disrupts the symmetry of the relationship. But in this case appropriation of the surplus has an authoritarian element.

In all complex societies, the two primary forms of surplus appropriation are combined in a variety of ways. Most of the time the authoritarian form supports the flow of trade. Thus, agricultural production based on slave labor was long the source of internationally traded surpluses. Determining where one form ends and the other begins may
not be easy, as in the case of an economic agent holding a strategic position or in the technological vanguard. How can we fail to recognize that a company such as IBM can control certain prices and thereby capture a surplus that is not precisely of the mercantile kind? How can the mercantile aspect be separated from the authoritarian in the case of a public utility monopoly? What can we say about the speculator who, by manipulating information, derives a capital gain from the revaluation of assets?

Although the two primary forms of surplus appropriation have coexisted everywhere, the predominance of one or the other has molded the profile of society. Historically, the authoritarian form has been the leading determinant of social structures and the mercantile type has always played a complementary role. Even during the advanced capitalism of nineteenth-century England, the dominant class consisted mainly of large landowners. Civilizations with a primarily mercantile base, as history shows, have always existed in symbiosis with others in which the surplus was appropriated essentially by authoritarian means.

Still, it is not hard to see how the authoritarian avenue of appropriation quickly exhausts its possibilities: the increase in the tax burden has its limits, the monopolist's rent limits the market, and so on. Conversely, because it furthers specialization and the division of labor, the mercantile form causes new resources to be generated. To summarize, mercantile activity generates resources that augment the surplus, whereas the authoritarian form causes a transfer of resources. (The reality is certainly more complex, since the labor discipline and the security of transport and communication facilities inherent in the authoritarian approach can have a positive impact on productivity.) The different effects of the two forms on the productive forces are especially important since the development of these forces helps to advance the mercantile form of appropriation.

Trade is not based only on specialization. It also requires the storage, shipment, and protection of products. A whole infrastructure of transport, warehousing, and insurance facilities underlies trade activities. This infrastructure and the goods whose use is postponed to meet the needs of trade constitute an immobilization of the surplus. When that surplus is used to extract another surplus—either as an instrument of trade or as a vector of production techniques—it is given the name of capital goods.

The bourgeois revolution was simply the ascent of the European merchant class to positions of power. From that position the merchant class was able to dismantle the traditional system of authoritarian appropriation of the surplus, or at least to relegate it to a subordinate position.

In such a process, the wage system comes to predominate both in
manufacturing and in agriculture. Land and human labor are thereby transformed into instruments of production; they are given a value in exchange that places them on the same plane as the final goods that traditionally were traded. Commercial activity, previously limited to the exchange of goods, tends to expand vertically, embracing the whole production process. Productive activity ceases to be a set of stable relations between individuals—in the context of a guild or a seignorial type of ownership—and becomes a combination of factors that are largely interchangeable and whose prices are quoted on the market. Since everything can be traded, mercantile appropriation of the surplus becomes generalized, which makes it possible to regard an increasing number of human activities as economic in nature.

Authoritarian appropriation of the surplus is accompanied by a hierarchical social organization with little mobility, in which individual agents perform a function that is determined when they enter the society. Technology is part of the cultural heritage and is transmitted from generation to generation as one of the activities that maintain the life of the family. In this framework it is difficult to conceive of an increase in productivity other than as a function of exogenous factors such as weather, war, and so on.

Mercantile activity is based on calculations of buying and selling prices, transport and storage costs, and so on. All of this is reckoned in terms of a generally accepted common denominator, money. The notion of productivity is nothing more than the expression of these calculations. If productivity can be increased through inventiveness and skill, then mercantile activity produces wealth. In societies where production is governed by mercantile criteria, the level of employment depends on market forces. The survival of workers is no longer ensured by the social organization as it was when occupations or right of access to arable land were inherited. Individual security can be recovered only by a sustained effort to organize the working masses and to give them access to the power structures that control the economic system.

Thus, the evolution of capitalistic society has two clearly defined phases. The first is marked by a shift away from social domination based on authoritarian appropriation of the surplus and by the ascent of the merchant class to a position of power. The second is defined by the organization of the wage-earning masses and their growing importance in the structures of power.

The Center-Periphery System

The nucleus of modern industry was formed in Europe in the second half of the eighteenth century—the seed of an economic system that was
to reach global dimensions. Undeniably, control of the system of production by the bourgeoisie accelerated the process of accumulation for productive purposes. Although we can understand the circumstances that opened the way to that control and concentrated its effects geographically, we cannot explain the causal relationships. In parallel with the consolidation of the industrial nucleus, there was an expansionary movement that had an even greater impact. That first industrial nucleus was the springboard for a process that unified civilization (in its material aspects) throughout the world. The space around the industrial core was altered by external inducements. These changes, however, were far from uniform. One can distinguish three processes of social transformation caused by the expansionary force of the first industrial nucleus.

**Expansion and Increasing Complexity of the Original Nucleus**

The activities of individual craftsmen and the feudal system of social control tended to break down in a spreading circle around the nucleus. The process was most rapid in the British Isles, spurred by the early penetration of the capitalist form of production into agriculture. But the same phenomenon occurred in Western Europe, especially in Belgium, the Netherlands, and northern France. Economic and social changes were followed by political transformations that divided the territory into protected markets, with the local bourgeoisie claiming exclusive access to their respective national markets. Each nation set up a sovereign state, with increasing responsibilities for regulating the nation's economic subsystems. The wave of nationalism that swept over Europe in the nineteenth century accompanied the struggle for markets, the rise of the merchant classes, and their control of productive activities. What is now called the center of the capitalist system was the immediate projection of the original industrial nucleus in Europe and the outcome of the interaction of economic and political forces. In the political sphere, the national systems of power that came into existence governed and defined economic subsystems in space, fostering complementarities and external economies. Competition among these national subsystems enhanced greatly the expansionary force of the center toward other areas. The resulting wave of imperialism marked the second half of the nineteenth century and led to the two world wars in the first half of the present century.

**Occupation of Temperate Regions with Low Population Density**

The movement of millions of Europeans to temperate areas of North America, Oceania, and South Africa was the second transformation
caused by the expansion of the original industrial nucleus. In this process the natural resource base was broadened. The additional resources made it possible to continue the expansion of agriculture with constant or even increasing returns. For example, the spectacular growth of the English textile industry would have been impossible without the low cost of cotton production in the United States. The physical base for the direct expansion of the center was thus made considerably larger. The productivity of both labor and capital rose, while more favorable institutional conditions were being created.

The history of industrial capitalism is distinguished by this tremendous geographical expansion of the original core. It explains why labor became scarce, why real wages soon rose, and why markets expanded greatly. The new territories offered a social mobility that was favorable to individual initiative and institutional innovation. In brief, if capitalism has led to increasingly homogeneous societies despite the hierarchical rigidity of its economic structures, it is certainly because of this broadening of the geographical base.

**Expansion of Commercial Channels and the International Division of Labor**

The third transformation caused by the expansion of the industrial nucleus was limited to commercial activities. Nations with the most diverse economic systems were induced in one way or another to specialize as a means of gaining access to the markets of the center. They then derived new surplus as a result of their incorporation in the international division of labor. At first, the authoritarian form of appropriation of the surplus continued to govern productive activity. Throughout the entire periphery, the breakdown of traditional forms of social dominance was partial, depending on how the new surplus was appropriated and used. These differences in the evolution of social structures explain the heterogeneity that is the hallmark of the capitalist system and indicate why large areas remained dependent.

It is a historical fact that the capitalist system was built on the center-periphery, development-underdevelopment, dominance-dependence polarity. No one has viewed this as a necessary and unavoidable consequence of the expansion of the capitalist form of production. But that historical fact influenced the subsequent development of capitalistic structures. Because of it, accumulation at the center was even more rapid, further widening the center-periphery gap. It is the reason why social structures have become even more diverse. Given the historical way in which industrial capitalism spread, it cannot be defined solely as a generalization of the mercantile form of appropriation of the surplus.
Also inherent in its present structure is an international division of labor that reflects and strengthens the dominance-dependence relationships.

Geographical specialization became the primary determinant of economic activity early on, and there can be little doubt that the international division of labor is the outcome of the efforts of the industrial nucleus to broaden channels of commerce or to create new ones. The initiative lay with the economy that was industrialized and generated technological progress. The rapid accumulation there triggered the changes that took place everywhere. In the periphery of the system were the regions that, in this context of change, had their economic and social structures reshaped from abroad through specialization of the production system and insertion of new patterns of consumption.

Because of the diversity of climates and cultural traditions, trade with the periphery allowed an immediate diversification of the basket of goods available at the center. In other words, it had the same effect as an accumulation of productive forces. Furthermore, access to the natural resources of the periphery was even more advantageous for the process of accumulation at the center than was the geographical expansion already mentioned. Indeed, the failure to change social structures on the periphery made the local population a reserve of cheap manpower, and the exploitation of natural resources became an instrument for the exploitation of local labor.

The nature of the ties between each region and the center varied widely. In some cases, the merchants of the center were interested only in buying traditional products of the region. Immediately, payment for these goods posed a problem: how to avoid expending precious metals. The most common practice was to use return voyages to create bilateral trade links by selling products manufactured at the center. They may or may not have competed with local handicrafts, but in every case they disseminated new cultural values.

More often, penetration into what would become the periphery called forth new lines of production there, especially in the agricultural sector. The ensuing abandonment of subsistence crops and the occasional movement of populations prompted changes in social structures. Rarely, however, did those changes bring an end to the traditional forms of social domination. Often, indeed, the latter were reinforced by the concentration of landownership and the greater instability of the incomes of small farmers who were brought into channels of commerce.

In some cases, penetration by the interests of the center took the form of direct control of part of the production system. In the exploitation of mineral resources, new structures of production were introduced in a complex network of relationships with the dominant economy. The
latter absorbed the bulk of the new production and furnished many of the inputs required by the new economic activities. The plantation forms of agriculture—for example, the banana plantations of Central America—were an intermediate form between the mining enclaves and the situations mentioned in the preceding paragraph.

In all of these cases, the interests of the center controlled international marketing and its logistical base. As a rule, the transport infrastructure that allowed the production of the periphery to enter international trade was also controlled by center interests. Thus, a substantial part of what we now call international trade originated in the outward-directed activities of the original industrial nucleus, from whence came the transforming forces that created the center-periphery system.

Insofar as the international division of labor made it possible to overcome certain obstacles to the accumulation process at the center, it generated a surplus. In other words, by extending its area of influence and indirectly incorporating natural resources and labor into its own production system, the center was realizing productivity gains. The first consistent theory of modern economic science—Ricardo’s theory of comparative prices formulated in the early nineteenth century—was developed to explain this increase in productivity. But while no one could doubt the existence of a surplus created by the international division of labor, the way in which that surplus was appropriated was far from obvious. The portion that reverted to a particular country varied with the circumstances, and what came to be called trade policy was an effort to increase that portion for someone’s benefit.

In countries under colonial domination, appropriation of the surplus by the colonial power could be nearly total, which attests clearly to the importance of the political aspect of the problem. But even in the colonial system, there were limits to external appropriation of the surplus because the efficiency of production often depended on retaining part of it locally. New links with the dominant economy were thus created. In fact, the surplus retained in the periphery came to play a key role in its acculturation, operating as a vector of the cultural values of the expanding industrial core.

We can identify four clearly distinct situations:

1. Appropriation of the surplus solely for the benefit of the center. The total or partial return of the surplus to the area from which it came or its transfer elsewhere depends on decisions that serve the interests of the metropolitan economy. This extreme case is marked by maximum social immobility in the peripheral nation. If internal pressure to raise wages or taxes exists, new jobs may no longer be created or there may be an influx of labor from regions with even lower wages. Such extreme cases have occurred only when the productive sector generating the
surplus was under strict foreign control and local political activity was nonexistent or dictated from abroad.

2. Appropriation of part of the surplus by elements of the local dominant class. This includes landowners (when the exports are agricultural commodities) as well as other groups whose activities generate the new surplus or relate to its local use. Typically, the local recipients of the surplus operate within a residual space. Initiative remains with foreign interests, whose operations gain flexibility and efficiency to the extent that they are supported by local agents. This local bourgeoisie arises as a result of incorporation in the international division of labor and tends to identify itself culturally and ideologically with the center. Its part of the surplus operates as an instrument of acculturation. Under these circumstances, the process of modernization becomes most intense, and sophisticated foreign patterns of consumption are imitated without a parallel development of local means of production.

3. Appropriation of part of the surplus by local groups that use it to expand their own sphere of action. This can have a variety of consequences: destruction of traditional handicrafts, overthrow of traditional forms of social dominance based on the control of land, and even disputes over the share of foreign interests in the export, import, and financial sectors. The action of these bourgeoisies, although circumscribed by important external factors, duplicates the earlier rise of the European bourgeoisies. The main difference is that the power struggle among the groups of the periphery does not have the same social consequences. In fact, the classes struggling for social dominance do not become an instrument for social reorganization in the periphery, as they did in the parts of Europe where the industrial revolution took place. Thus we can see why the major differences between the center and the periphery tend to lie in the social area.

4. Appropriation of part of the surplus by the state. This has occurred everywhere in varying degrees, depending on the social forces that dominate the state and on its role in the activities required to internationalize the economy. Where export activity is based on the exploitation of nonrenewable resources, conditions are especially favorable to appropriation of the surplus by the state, which, as a bureaucratic structure, tends to play an even greater role in the evolution of society.

The history of the periphery shows a whole range of situations that combine these four typical ways in which the surplus is appropriated. The first form evolves in a complex way, since—although colonial status is rejected everywhere—new forms of control of productive activity tend to be imposed by foreign interests allied with local groups. The perpetuation of traditional forms of social domination that we see
in much of the periphery is due largely to the formation of such alliances. The last form (4) takes on growing importance as the state takes over critical functions in the entire peripheral world. Nonetheless, forms 2 and 3 lie at the heart of the history of the periphery: form 2 because it subordinated the entire process of accumulation (and in particular the development of productive forces) to modernization; and form 3 because it opened the door to awareness of the dependence created historically by the international division of labor. Because of this latter process, form 4 itself undergoes a significant evolution.

While the periphery was being incorporated into the international division of labor—in other words, during the formative phase of that system—the primary dynamic impetus in the peripheral economies did not come from the development of their own productive forces. Rather, it was due to the expansionary force exerted by the center, which ordered the reallocation of resources and how they were used and imposed modernization. In this way the expansion of the industrial nucleus caused changes in the structural configuration of regions with which it came into contact. Strictly speaking, it was investment at the center (and the associated technological advances) that gave dynamism to the emerging system as a whole. This investment affected the periphery by expanding demand, which could be met by the use of available resources. Different kinds of changes were taking place at the center and in the periphery. In the center, productivity gains were based on the development of productive forces and therefore on technological progress. In the periphery, increases in productivity reflected specialization in the context of a wider market.

In the economies of the center, the transformations occurred simultaneously in the economic structure and in social organization. Social pressures caused the income of labor to increase with its physical productivity, insofar as productivity meant a rise in the average real income of society. The increase in labor income altered demand patterns and therefore the allocation of productive resources. It also influenced the use of the surplus and thus the direction of technological advance.

In the peripheral economies, changes in the system of production were induced from outside. Precisely because these changes were limited—in the formative phase—to a reordering of the use of resources already available, they had little or no impact on the social structure. The real transformation was in the formation of the surplus. The method of appropriation determined the profile of domestic demand, and the response to changes in that demand was expressed through imports. In a number of cases, the expansion of the surplus was accompanied by a simplification of the productive system: productive activities tied to the domestic market were eliminated in favor of a single
export, even as domestic demand, supplied by imports, was becoming considerably more diverse.

To sum up, the distinguishing feature of the formation of the periphery was the impetus to modernization of demand for final goods under conditions of social immobility due to the lagging development of productive forces. What has come to be called underdevelopment is simply the manifestation of this disparity between the dynamism of demand and the lag in accumulation in the productive system. The lag is explained by the way the periphery became part of the international division of labor, while the dynamism of demand is explained by the transplanting of the consumption patterns of the center.

In countries that became part of the world economic system through modernization, delayed industrialization took place in competition with imports and not with previously existing economic activities. Far from reflecting the level of accumulation attained, the development of the production system took the form of an adaptive process in which external and internal forces shaped the pattern of final demand. Thus the social structures of these countries are different from those that came into existence when accumulation and the diversification of demand took place concurrently.

The mechanization of infrastructures, the transformations imposed on agriculture by the new export orientation, and the change in domestic demand, as well as the impact of industrialization on civil construction, clothing, and other sectors in which artisans were a major component, are evidence of a thorough destruction of types of work that the rate of accumulation cannot offset. The acceleration and chaos of urbanization in all underdeveloped countries is the most visible sign of this breakdown of old social patterns. The concept of disguised unemployment was the first indication of an awareness of the problem. But it was the studies on urban marginality conducted by Latin American sociologists in the 1960s that permitted a better statement of the problem and brought to light the specific nature of the social structures that arose in countries with belated industrialization.

The masses of the population whose traditional occupations are rendered obsolete by the change in forms of production seek refuge in urban subcultures that have only a sporadic connection with the market. As reserves of labor, however, these masses have a tremendous impact on the market. Operating largely within an informal system of production, the marginal populations are evidence of a social stratification that has its roots in modernization. The inadequacy of technology perceived by Latin American economists in the 1950s was better defined in the 1960s, from a sociological standpoint, as a polarity of modernization and marginality.

Where modernization has been based on the exploitation of non-
renewable resources (the extreme case of the oil-exporting countries lends itself most readily to analysis), the surplus retained in the country of origin has tended to be captured by a local power structure. For that reason, the foreign connection has been a prime determinant of how the power structure evolved, fostering its reinforcement and centralization. This consolidation of power in centralizing institutions, coupled with the social “destructuring” to which I have referred, gives the state features that are dimly seen in their original form. Since the state in its essence is an instrument to appropriate the surplus, the development of social structures tends to be heavily influenced by the way in which the state allocates the resources under its control.

Frustrations of a Reformer

My reflections on underdevelopment during the 1950s have three implications for economic policy:

- Abandonment of the criterion of static comparative advantage as the basis for incorporation in the international division of labor
- Introduction of planning as a guiding instrument for the government, whose functions in the economic area are likely to expand as the struggle to overcome underdevelopment becomes more intense.
- Strengthening of the institutions of civil society (chiefly rural and urban labor unions), which may be expected to enlarge the underlying social bases of the state and to oppose the prevailing patterns of income distribution.

The first implication came from criticisms of the traditional international division of labor and of the laissez-faire policies that perpetuate it. This view was widely adopted in Latin America, not so much because it became part of the doctrine, but because the prolonged depression of the 1930s and the war economy had greatly affected production structures. In fact, when governments attempted to return to free foreign exchange immediately after the war, the required adjustment put an end to much of the industrial activity that had developed under the protection offered by the disorganization of international trade during the war. But if it was necessary to escape the trap of static comparative advantage, it was no less necessary to find a new form of incorporation in world trade that would stimulate technological progress. And that called for government action of the kind Japan took by establishing the Ministry of International Trade and Industry, a path later followed by some Southeast Asian countries. Actually, what was involved was the
The deliberate creation of comparative advantages in sectors enjoying an elastic foreign demand.\textsuperscript{11}

The reason for the ensuing problems was not protectionism as such, which is always necessary in the initial phase of industrialization. Rather, it was the absence of an active export policy that forced abandonment of the passive attitude that is a feature of the primary-export economies. The oil crisis had to occur for Brazil to adopt (in the mid-1970s) an industrial policy aimed at creating dynamic comparative advantages. The positive effects of this policy are alleviating the impact of the external debt crisis.

The second implication concerns the need to introduce some type of planning within the broad effort to break out of underdevelopment. Since we have come to realize that underdevelopment is a harmful structural configuration within which economic growth has a high social cost, we must advocate reforms of the structural rigidities that have hindered authentic development. Such a restructuring demands a guiding force that can come only from the state. The complexity of the government's task calls for a comprehensive approach, in time and space, which is possible only through planning.\textsuperscript{12}

Industrialization should contribute to the diversification of exports and at the same time operate as an instrument to expand the domestic market. In fact, reduction of social inequality depends on the creation of new employment by industrial activities, on an increasing domestic supply of wage goods at decreasing relative prices, and on the opening of new outlets for export. A country such as Brazil, with a low income level and a large population, cannot establish an industrial system that is internationally competitive in all sectors. Nor can it do without a comparatively integrated industrial system. Therefore, incorporation in the world economy must be selective, which requires planning.

In summary, the restructuring necessary to overcome underdevelopment is based on a more comprehensive ordering than that afforded by markets, and such an ordering is possible only through planning. Within the structural framework created by the primary-export economy, economic growth tends to perpetuate and aggravate the social


\textsuperscript{12} This theme has been presented in many papers, from the aforementioned “Introducción a la Técnica de Programación” to the Three-Year Development Plan that I prepared in 1962 as minister of planning of Brazil. I included an appendix to that plan setting out the principal structural reforms required for authentic development in Brazil.
inequalities characteristic of underdevelopment. This does not mean expanding the entrepreneurial role of the state, which was done in Brazil for other reasons, including a lack of planning. It means breaking down resistance to the reduction of social inequality and giving preference in accumulation to meeting the basic needs of the population.

In this second aspect, Brazil’s experience has been disappointing. In the latter half of the 1950s, Brazil adopted sectoral planning that made it possible to concentrate investment in basic activities and to establish institutions to channel savings into those sectors. But the government took no further steps toward comprehensive and coordinated planning, although the role of the state as an entrepreneur continued to expand. In the absence of planning, state enterprises became increasingly autonomous and tended to overinvest in areas with controlled prices and inelastic demand. The inflationary disequilibria that are now such a heavy burden on the Brazilian economy are rooted in the inconsistency that the lack of planning has caused in public investment.

The third implication concerns the role of the institutions of civil society in the development process, which is defined as an improvement in living conditions through greater social homogeneity and a broadening of the aspirations of the society’s members. The liberal revolutions in England and France led to progressively pluralistic forms of political organization, the basis for the development model that was to prevail in the industrialized Western world. But the liberal revolution was a phenomenon of the seventeenth and eighteenth centuries. Those attempted in the nineteenth century failed. A substitute was the reform of institutions, with the consensus of the ruling classes themselves, in order to expand the social bases that support the state. This indirect path was taken (with some setbacks) by countries such as Germany, Italy, and Spain. It did not have the desired results until the second half of the present century.

The structural distortions of underdevelopment hinder the movement toward a pattern of social organization propitious to authentic development. Under these circumstances it is natural that control of the state takes on decisive importance. On the one hand, there is the risk of populism, the manipulation of social forces by individuals who seize power and seek legitimacy by meeting the immediate demands of the masses, with adverse effects on productivity and accumulation. On the other hand, there is the threat of authoritarianism supported by the privileged classes, a mere defensive reflex or an attempt at modernization. In both cases there is an interruption of social development in the sense of a reinforcement of civil institutions. The greater passivity of social forces allows the rulers greater discretion. In Brazil, this situation led to the fantasy of "emerging power" and fostered the paranoia of the so-called pharaonic projects. Thus, the intensification
of economic growth itself aggravated the antisocial aspects of under­
development.

Reflecting on these problems in the early 1960s, I became convinced
that an essential condition for the development of Brazil was preserva­
tion of an open society in which the underlying bases of the state can be
broadened.13 I said then that Brazilian society was open in the urban
sector and closed in the rural sector, which was an unstable situation. In
the confrontation that followed, either the forces leading to greater
openness or those operating in the opposite direction could have pre­
vailed. History shows that the second force became dominant, with the
interruption of political development for two decades. This has led to
increasing social problems.

Other cultures offer examples of rapid political gains following a
long period of immobility, as though society had a subconscious in
which creative forces were at work to broaden the horizon of future
possibilities. In any event, the rich fermentation of political ideas and
initiatives in Brazil in late 1984 can be perceived as a yearning to make
up for lost time.

Comment

Vittorio Corbo

It is a great pleasure for me to comment on Celso Furtado's contributions to the field of economic development. He is one of the leading members of the structural school of development economists. Although I agree with part of his characterization of developing countries, I have some disagreements with respect to the causes determining that state of affairs. In these comments, I will concentrate on the issues raised in his present paper.

Celso Furtado deals with a range of topics and touches at different times on, for example, economic history, the sociology of development, and economic development. I will, however, limit my comments mainly to the economic policy implications of his reflections on underdevelopment in the 1950s. I will not deal with the structuralist interpretation of inflation.¹

The structuralist school, linked to the ECLA in the 1950s, is represented by economists such as Raúl Prebisch, Osvaldo Sunkel, Juan Noyola, and Hans Singer, who have at times expressed views similar to those of Furtado. Their main policy recommendation was for government intervention to foster industrialization, an approach that meant moving away from an allocation of resources based on comparative advantage. Instead, they proposed resource allocation by comprehensive planning, rather than a price system. Similar views have recently

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1. I deal with the structuralist views on inflation in Inflation in Developing Countries (Amsterdam: North-Holland, 1974). In my earlier work, I spent a considerable amount of time trying to understand the structuralist model of inflation. Focusing on the Chilean economy, the typical example, I concluded that standard macroeconomics could go a long way in explaining inflation. With inflation of more than 50 percent a year, one does not need to be a monetarist to conclude that the monetarization of the fiscal deficit was at least three-quarters of the story.
been expressed by the Cambridge Group. A recent evaluation of their policy recommendation has been done by Bela Balassa. ²

I will address first the policy recommendations of Furtado, and then I will offer some reflections based on the experience of the past twenty years.

Furtado’s Recommendations

From his analysis of the development process in Latin American countries, especially Brazil, Furtado derives three key policy recommendations for countries wanting to develop:

• Abandonment of the criterion of static comparative advantage as the basis for incorporation in the international division of labor
• Introduction of planning as a guiding instrument for the government, whose functions in the economic area are likely to expand as the struggle to overcome underdevelopment becomes more intense
• Strengthening of the institutions of civil society (chiefly rural and urban labor unions), which may be expected to enlarge the underlying social bases of the state and to oppose the prevailing patterns of income distribution.

Abandonment of the Criterion of Static Comparative Advantage

For Furtado, the recommendation that static comparative advantage be abandoned is based on two arguments: first, the conditions existing at the end of World War II and, second, the need to pursue industrialization as a way of stimulating technological progress.

It is clear that Latin American countries emerged after World War II with a strong bias against international trade and with an emerging manufacturing sector. This isolationist view arose mostly from the impact of the Great Depression and World War II on Latin America. During the pre-Depression period, especially in the half century before World War I, Latin American countries had been participating fully in world trade. In this period, export growth was the dynamic force behind their growth. Aggregate demand was highly diversified, with that for industrial products (mainly food, textiles, machinery, and equipment) the major component. Agriculture and mining constituted the major components of the production sector. Sectoral equilibrium

between supply and demand was provided through international trade. Restrictions on trade were minor and mainly took the form of export taxes on primary products. At that time, tax revenue came primarily from the foreign trade sector and was redistributed in part to areas of the economy where economic activity was less pronounced.

The crisis in the foreign trade sector brought about by the Great Depression substantially decreased the value of exports and increased real foreign debt (through worldwide price deflation). Latin American economies were forced to adjust. There were in principle three policies or policy combinations available for reaching equilibrium in the external sector. The first, which was similar to a gold standard policy, was to depress the level of income in order to reduce the level of imports. The second was to alter the real exchange rate and thus combine a cut in absorption with demand and supply switching. The third possibility was selective switching through import restrictions combined with expansionary demand policies. This last approach brought together discriminatory controls on imports and compensatory fiscal and monetary policies to sustain or expand aggregate demand.

The first course was judged politically infeasible for countries that had a high proportion of their population in the urban sector. Since most of the urban labor force owned no agricultural land, they had nothing to fall back on if their employment in the industrial sector was terminated as a consequence of contractionary measures. This step would have had undesirable political repercussions. The second option was also disregarded. During and following the Depression, most industrialized countries had closed their doors to international trade. Their stance reduced significantly the market for Latin American exports. Furthermore, because most imports of developing nations did not have close domestic substitutes, their import elasticities were very low. Within this framework, a real devaluation was not favored as the main instrument to restore external balance.

Thus, Latin American countries favored the third option—a mix of discriminatory switching and aggregate demand policies. This approach was implemented with discriminatory controls on imports of consumer goods (quotas, tariffs, and so on) and compensatory fiscal and monetary policies designed to maintain the level of aggregate demand. This set of policies has been called the model of domestically oriented growth. Specifically, the dynamic growth element, instead of being the export sector as it had been until the 1930s, was private and public investment in import-substituting industries. A last point is that by the end of 1933 all Latin American countries except Argentina had stopped full service of their external debt.

After the effects of the Depression were over, the new industrialist and labor forces in the emerging manufacturing sectors strongly
opposed any reduction in the restrictions on imports established during the Depression. Moreover, the creation of a domestic industry geared to the production of previously imported nondurable consumer goods and some raw material inputs obviously decreased imports of these goods. At the same time, however, imports of other raw materials and capital goods required for those same industries increased. To relieve the pressure on the external accounts, new lines of "nonessential" imports were restricted, a move that accelerated the process of import substitution and its cost. Finally, World War II created a boom in the prices of mineral exports and a natural suspension of the flow of exports from the industrial countries to Latin America. These conditions provided additional stimulus to the import-competing sector.

This was the situation in which most Latin American countries found themselves after World War II. In Furtado's view, given these conditions, a return to a more neutral set of incentives, between producing for the domestic market and producing for the international market, was not an appropriate policy for Latin America. Thus, the emergency adjustment option chosen between the Great Depression and World War II became the permanent—and inward-looking—development strategy of the next thirty years. Instead of reducing or just keeping the level of trade barriers, Latin American countries embarked on a development strategy that created strong incentives for further industrialization in a large range of industries. Arguments for protection were derived from the Prebisch-Singer hypothesis of a secular deterioration in the terms of trade of raw materials vis-à-vis manufactured goods, as well as the hypothesis that import-competing manufacturing creates dynamic externalities. These are the arguments used by Furtado.

In his paper Furtado does not mention the large literature of the past twenty years that rejects both hypotheses. With respect to a secular deterioration in the terms of trade, Lipsey and Kravis concluded that there is no evidence of any such secular deterioration in the terms of trade of primary commodities vis-à-vis manufactured products. As to the dynamic externalities of import-competing manufacturing, again the evidence shows that export-oriented manufacturing and agriculture can create as many dynamic externalities as import-competing manufacturing. Moreover, studies conducted in the 1960s produced a framework for evaluating the effects of the tariff structures on value

added, as well as the economic effects of different types of distortions. In addition, the difference between promotion and protection was made explicit. These new developments in applied welfare economics were used in later studies to evaluate the trade regimes of developing countries.

These studies highlighted the large economic costs associated with the import substitution strategy and strong anti-export bias that arose out of these policies. The costs were inversely related to the size of the economy and directly related to the intensity of the import substitution. To make matters worse, according to recent work the strategy of import substitution in general also hindered the growth of employment. In sum, the accumulated cost of thirty years of protectionism exceeded by far the short-run costs that would have been incurred by creating a more neutral trade regime. As such, it is ironic that Jacob Viner, in a series of lectures in Rio de Janeiro in 1950, had already rejected most of the arguments for protection of import-competing industry and had recommended eliminating the discrimination against exports and improving the operations of the price system. In sum, it has been found that countries that have followed an export-led growth strategy have achieved a higher rate of growth.


The Role of Planning

In his paper, Furtado also reflects on the central role of "comprehensive and coordinated planning" in the allocation of resources. He bases his conclusion on his hypothesis that structural rigidities have led to a low response to economic incentives by agents in developing countries. Again, most of the evidence on agents' response to incentives shows, to the contrary, that there is a high response to price. Instead, the problem has been that agents have faced relative prices far removed from relative scarcities.

Even if all the rigidities claimed by Furtado existed, it is highly questionable whether countries with so many rigidities could have used comprehensive planning. It is even more difficult to imagine how comprehensive planning was going to influence the vast proportion of economic activity in private hands. In fact, most comprehensive planning in Latin America took the form of some Harrod-Domar growth projection, sometimes with a little disaggregation based on a borrowed input-output table. In a number of instances, the plans were derived through an exercise in linear programming. Most of the time, however, there was no ultimate relationship between the plans and actual investment decisions.

One area that does require planning is government expenditures. But here what is needed is social cost-benefit analysis of government expenditures. By contrast, the best planning for productive activities is merely to provide appropriate infrastructure and price stability. When relative prices do not reflect relative scarcity, the role of government policy should then be to correct the market prices rather than to create further distortions.

In fact, many countries that have used comprehensive planning in the past now realize its inefficiency and are promoting a larger role for markets in resource allocation. China and Hungary are two cases in point. Another interesting one involves the Democratic People's Republic of Korea (North Korea) and the Republic of Korea (South Korea). In the 1950s and early 1960s, North Korea's output was growing at a rate much higher than that in the South, and that performance was used as evidence of the benefits of central planning. At that time the Republic of Korea was pursuing a Latin American--style of import substitution strategy. After reducing substantially the incentives against export activities in the early 1960s, however, the Republic of Korea reached sustainable GDP growth rate on the order of 10 percent a year and overtook the North in terms of per capita income.

Lately, the Republic of Korea has provided another good argument against planning. Toward the middle of the 1970s it decided to promote industries with dynamic comparative advantages whose development could not be left solely to the marketplace. After six years of market
intervention in favor of heavy and chemical industries in the early 1980s, the government announced the failure of its policy and its decision to minimize the costs of its mistake by adjusting its policies to create a better environment for export growth.

Strengthening the Institutions of Civil Society

I cannot agree more with Furtado that successful economic development requires a strengthening of the institutional framework. One way is to ensure that educational and social programs reach the poorest and most disorganized groups in society. It is evident that today the poorest and weakest social institutions are in agriculture. The reason in part is the system of protection that imposes heavy taxes on agriculture. Indeed, protectionist policies are important determinants of the backwardness of agriculture and agricultural society in developing countries. Understanding the connection between the distortions that affect agriculture adversely and the adequate provision of education and health to this sector should go a long way toward strengthening social institutions in Latin America. Indeed, it is well known by now that the countries with higher growth and more equal income distributions are not those with stronger labor unions, as favored by Furtado, but rather those that discriminate less against agriculture and labor-intensive manufacturing (the Republic of Korea is again a good example). On the contrary, strong labor unions have played quite a role in the dismal performance of the Argentinian economy.

The Recent Experience of Developing Countries

Most Latin American countries in the 1950s and 1960s pursued industrialization through strong promotion of industries that produced for the local market. Import substitution was implemented through a set of policies designed to shift the domestic terms of trade between agriculture and industry in favor of the latter. The trade regime was given a major role in the implementation of these policies. The result was discrimination against exports. Through a combination of overvalued currency, tariffs, and quotas, the trade regime gave birth to a structure of effective rates of protection that, besides being biased against exports (especially agricultural and mining products), was characterized by considerable dispersion of the rate of protection among industrial products. As documented in the studies by the OECD, Balassa and Associates, and the NBER, these policies not only failed to halt the
steady growth of imports, they also led to the stagnation of exports and
a series of undesirable effects. First, an inefficient, ever growing bureaucracy emerged to enforce the
often contradictory regulations enacted to support an overvalued cur-
rency. Second, although the creation of a domestic industrial sector
gear to the production of previously imported nondurable consump-
tion goods led to a decline in imports of these goods, it also led to an
increase in imports of the raw materials and capital goods required to
produce these goods. One consequence of this shift in the composition
of imports was a greater dependence on importing. The availability of
raw materials and capital goods became essential to the smooth func-
tioning of the economy: if the supplies of foreign inputs were to be
interrupted, not only would consumption levels fall as before, but also
there would be unemployment and underutilization of the capacity of
domestic industry. Third, resources were misallocated, as indicated by
the substantial dispersion in the computed domestic resource cost of the
various import-competing industries. This outcome was attributable
mainly to the protectionist policies that closed the door on external
competition. Fourth, there was a lack of competition within the indus-
trial sector: either the small size of the market precluded the existence of
many efficient firms, or the very few firms present did not compete
among themselves. Finally, in many cases, the subsidization of the
import of capital goods that resulted from the use of a multiple ex-
change rate system led to distortions in factor prices that penalized
employment.

Interest in export promotion has been rekindled in the light of the
limitations on the amount of net capital inflows to developing coun-
tries, the recent realization of the relatively high opportunity cost of
"producing" foreign exchange through import substitution, and the
favorable export performance of some developing countries. The
advantage of export promotion policies, especially for small developing
countries, goes beyond the static gains in terms of resource allocation
derived from the exploitation of comparative advantage. Other benefits
are the emergence of economies of scale as a result of specialization; an
increase in overall efficiency because of quality control, the develop-
ment of new organizational and production techniques, and other
knowledge acquired from international trade; and the development of
international competition in the small home market.

An employment argument also favors export expansion. Usually it

8. See note 4 above.
creates more employment per unit of value added than does import substitution.\textsuperscript{9}

The surprising overall economic record of the Republic of Korea, Turkey in the early 1980s, and Taiwan in the 1960s and 1970s shows clearly the advantage of export-led growth for economies with abundant labor, the situation in most Latin American countries.

Finally, once the easy import substitution stage was over, most countries that followed Furtado's recommendations have experienced low growth and have adapted with much more difficulty to external shocks.\textsuperscript{10}

During the current debt crisis in Latin America, there is much to learn about the advantages of reducing the bias against exports by modifying trade regimes. Furtado's recommendations of rejecting comparative advantage and increasing protectionism could lead once again to a costly mistake.

\textsuperscript{9} Krueger and others, \textit{Individual Studies}.
\textsuperscript{10} Balassa and McCarthy, \textit{Adjustment Policies in Developing Countries}.
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