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DEVELOPMENT POLICY:
NEW THINKING ABOUT AN INTERPRETATION

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Development Policy: New Thinking About an Interpretation

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I. Introduction

IT IS CURIOUS how in scientific disciplines very similar results of investigations into problems appear to emerge at the same time. It is as if the essential reality of a situation comes into increasing conflict with accepted ideas until, at a certain point, reality cannot be gainsaid. From various quarters attacks begin to mount and we begin to wonder why we were so simple-minded as to accept uncritically earlier concepts. Even so, we do not lightly reject these other views because, after all, a good deal of intellectual energy has gone into their formulation and propagation. We wait to be convinced; each new, available piece of research is scanned to see whether it supports the tenets of the old doctrine, or whether it adds to the growing swell of disillusionment. Finally, if we are honest, we are forced to admit that reality has *not* been explained by our older notions—there are too many discrepancies between facts and theory—and we embrace the new approach.

These reflections are engendered upon reading three books published at the end of 1970 or the beginning of 1971.¹ All deal with the results of many years of develop-

¹ *Industry and trade in some developing countries*. By IAN LITTLE, TIBOR SCITOVSKY, and MAURICE SCOTT. London: Oxford University Press for the OECD Development Center, 1970. *Towards full employment*. By the INTERNATIONAL LABOR ORGANIZATION. Geneva: ILO, 1970. *The employment problem in less developed countries: A review of evidence*. By DAVID TURNHAM with the assistance of INGELIES JAEGER. Paris: OECD Development Center, 1971.

ment efforts by developing countries and all are critical of present policies. Broadly speaking, we may say that the Little-Scitovsky-Scott book concentrates its criticisms on policies of import-substitution whilst the ILO and Turnham books focus upon the failure of policies to obviate growing unemployment.

Let us look at the Little-Scitovsky-Scott book first. This is an interesting example of what can be achieved by teamwork in economic research. The book was based on researches undertaken in various countries (Brazil, India, Pakistan, Mexico, Philippines, and Taiwan) by those who had extensive knowledge of the countries concerned. Their individual contributions were analyzed by the three authors (who also incorporated material on Argentina). The result is a well-documented multiple case-study of development, with theoretical implications far beyond the particular countries covered.²

Little-Scitovsky-Scott³ concern themselves first with a consideration of the factors which have led to the growth of import-substitution. One factor was the de-

² The research studies on the particular countries are: TIMOTHY KING, *Mexico: Industrialization and trade policies since 1940*; JAGDISH N. BHAGWATI and PADMA DESAI, *India: Planning of industrialization*; STEPHEN R. LEWIS, JR., *Pakistan: Industrialization and trade policies*; MO-HUAN HSING, JOHN H. POWER, and GERARDO P. SICAT, *Taiwan and The Philippines: Industrialization and trade policies*; all published for the OECD Development Center by Oxford University Press, 1970 and 1971.

³ Hereafter sometimes abbreviated to "LSS."

pression of the 1930s which depressed primary product prices and which encouraged a move for diversification. A second factor was the shortage of imported manufactured products during the Second World War which also stimulated domestic manufactures.

Again, emerging balance of payments deficits in the post-war period provided the justification for import restrictions which in turn provided protection to domestic industry. And as policies of industrialization began to be applied more consciously, increasing tariff rates were designed to protect "infant industry" and to encourage entrepreneurial initiative and saving out of enhanced profits. Such policies were deemed to be desirable and effective partly on the basis of historical analogies with policies pursued by some European countries and by the U.S.A. in the nineteenth century.

II. *The Evolution of the Planning Concept*

All of this led inexorably to the concept of planning and it is interesting as a preliminary to look back and see how pervasive and persuasive this idea has been.

"Twenty years ago," says Stanislaw Welisz [60, 1971, p. 121], "when development planning was in its infancy, well-known economists ranging in opinion from the liberal right to the Marxian left advocated planning as the fastest and least painful path to growth." In one of the earliest articles written about development in the post-World War II world, Rosenstein-Rodan [46, 1943, p. 204] submitted arguments "tending to show why the whole of the industry to be created is to be treated and planned like one huge firm or trust." Basically he believed that "active participation of the State in economic life is a new factor which must be taken into account as a new datum" and that the conditions existing in the nineteenth century which had stimulated development were no longer present.

Coming on the scene four years later, in 1947, Mandelbaum [37, 1947, p. 6] seemed to take it as axiomatic that the state would assume the major role in the growth process. Thus he claims that

the theory of State initiated and financed expansion of demand is by now so undisputed, and there are so many historical precedents to confirm it, that more need not be said, at the present stage, about this starting point. We assume that this method will be chosen whenever the need for industrialisation is so strongly felt that slow changes and exclusive reliance upon private initiative no longer suffice. . . . Even apart from the U.S.S.R. there are many instances in the recent history of industrialisation where the assumption by the State of entrepreneurial functions has accelerated the modernisation of equipment and reduced the disadvantages which formerly characterised the position of backward countries.

In the extract quoted, it is clear that Mandelbaum is unconsciously and illegitimately transposing the theoretical and practical successes of Keynesian analysis from the developed to the "backward countries." He also, like others writing in his era, uses the example of the U.S.S.R. without considering whether the conditions prevalent in that country were duplicated elsewhere. Nor, indeed, whether the techniques used for the industrialization of the U.S.S.R. were the most desirable or effective ones.

Gunnar Myrdal [40, 1956, p. 202], after quoting statements in favor of government planning in developing countries (by Rostow, Buchanan, Williams and Viner), went on to say that "there are compelling reasons to achieve a much more rapid economic development than could be hoped for without central planning and government initiative. . . . Leaving economic development to natural forces means in most cases continued stagnation or unnecessarily slow development."⁴

⁴ In more recent years, Myrdal has been less enthusiastic about planning. In a recent speech to Swedish trade-unionists he said: "As far as our own economy is concerned and much else which has to do with social planning, we have all suddenly become

It is interesting to note that Myrdal was awake to the possibility of corruption occurring in the process of administration when governments were major instruments of development [40, 1958, pp. 203-05]. And he does point out that the efficient and incorrupt state of "the northwest corner of Europe" was the "accomplishment of economic liberalism." Yet the possibility that corruption and government planning may go hand in hand was not explicitly discussed. It is, however, brought out in LSS when they say, for instance, that "graft and other forms of malpractice may be yet another cost [of reliance on administrative controls] likely to be the greater [when] more depends on the administrator's favor. The costs involved are not only the cost to society of corruption and the cost to the producer of paying the necessary bribes. A further cost is that corruption often renders it difficult or impossible for discriminatory measures to achieve their aim" [LSS, pp. 213-14]. The authors cite one example from Pakistan where, through deference to the principle of progressive taxation, a higher tax was levied on finer counts of yarn than on coarse, it being presumed that only the rich bought the former. The result was that tax inspectors were bribed to record the production of fine counts as coarse counts. Moreover, the authors report Pakistani complaints that officials have to be bribed not only to be partial in their decisions but to act and to perform their duties at all.

But to revert to the origins of the planning debate, Charles Bettelheim made perhaps the strangest argument in favor of

very economic-planning minded—in my opinion we have also succumbed to the temptation to centralize and regulate from the center too much in detail, but we are sadly lacking in what my friend and colleague, Bertil Ohlin, once called "framework economy."—"The Role of Research and Technological Progress in the Development of Underdeveloped Countries," *Research and the future*, TCO's Education Days 1970, Stockholm.

planning. For Bettelheim an economic plan consists of a "totality of arrangements decided upon in order to carry out a project concerned with economic activity" [11, 1959, p. 9]. And, in amplification, he augments this definition by saying: "there can be plans of production, allotment or distribution, investment plans—*partial* plans; but in the full sense of the word, an economic plan is a plan concerned with the *whole of economic life*, or the entire activity of an economic unit" [11, 1959, p. 3].

Given the academic respectability of the arguments in favor of planning, therefore, it is not surprising that many official publications of the United Nations reflected this attitude. One of the first of these dealing with developing countries was published in 1951 [57, 1951]. The U.N. distinguished four types of planning:

First . . . it [planning] refers only to the making of a programme for public expenditure, extending over from one to say ten years. Secondly, it refers sometimes to the setting of production targets, whether for private or for public enterprise, in terms of the input of manpower, of capital or of other scarce resources, or use in terms of output. Thirdly, the word may be used to describe a statement which sets targets for the economy as a whole, purporting to allocate all scarce resources among the various branches of the economy. And fourthly, the word is sometimes used to describe the means which the government uses to try to enforce upon private enterprise the targets which have been previously determined [57, 1951, p. 63].

In practice, of course, in the developing countries we have often seen all four forms of planning practiced simultaneously. In the above cited UN Report it is indeed difficult to discover outright statements recommending that planning techniques be followed, but the inference is always that government will effect the "major structural readjustments."

The usual reasons advanced for the necessity of planning are that market forces cannot be expected to work in the right direction in developing countries. Prices will

not reflect opportunity costs, external economies cannot be taken into account by the individual entrepreneur, etc. A clear statement of the planning viewpoint was included in the report of a 1965 U.N. Conference on planning [56, 1965, p. 12]:

It is an integral task of planning to achieve the best possible use of scarce resources for economic development. . . . The need for using appropriate criteria for selective projects arose because of the failure of the market mechanism to provide a proper guideline. In less-developed economies, market prices of such factors of production as labour, capital and foreign exchange deviated substantially from their social opportunity costs, and were not, therefore, a correct measure of the relative scarcity or abundance of the factor in question.

A more recent publication of the United Nations Industrial Development Organisation [24, 1970, p. 11] makes the following forthright comments:

Governments can not, and should not, take a merely passive role in the process of industrial expansion. Planning has become an essential and integral part of industrial development programmes, for market forces, by themselves, cannot overcome the deep-seated structural rigidities in the economics of developing countries. . . . Today the need for some degree of economic planning is universally recognised. It is, of course, an integral part of the economy of the Soviet Union and the other centrally planned countries. . . . In developing countries, planning is more feasible and more desirable than in developed market economies. The greater feasibility is a result of the smaller number of variables that must be taken into consideration, and the greater desirability stems from the fact that the automatic mechanisms for co-ordination of individual actions function less satisfactorily in developing than in developed economies. Planning in developing countries is made necessary by *inter alia*, the inadequacies of the market as a mechanism to ensure that individual decisions will optimize economic performance in terms of society's preferences and economic goals. . . . The inadequacy of the market mechanism as a means of allocating resources for industrial development sometimes results from government policy itself or because the theoretical assumptions (particularly with respect to the mobility of the factors of production) do not apply to the actual economic situation. Even more importantly, the market mechanism cannot properly allow for the external effects of investment.

The authors go on to say that since the role of government in the developing economies is to change the structure of the economy, fiscal and monetary policy is not enough; it is necessary to supplement them with direct public investment and licensing and controls for new enterprises and foreign trade. Planning in developing countries, they insist, must be "detailed."

Writing in the same issue of the *Industrialization and Productivity Bulletin*, Ignacy Sachs and K. Laski [47, 1970, p. 35] elaborate similar views. "Since," they say, "in an absolutely free market, there is practically no strategy to promote the process of growth other than recognizing profit as the major aim and regulator of economic activity, it follows logically that the emphasis in the strategy should be put on governmental policies." They qualify this in a footnote by saying that "assisting the free market forces by means of various Government policies is admittedly a strategy, though a weak one because it gives little guarantee of achieving definite objectives in a given time-span." But no attempt is made to develop this alternative "strategy."

In another United Nations publication [52, 1969, pp. 67, 68] we are given a summary account of the mechanism by which the government of Pakistan stimulated the industrial sector by an overvalued exchange rate. However, whilst the report suggests that some difficulties have now come to the fore in this program, it concludes immediately that these problems "may need direct controls for their solution." This advice is proffered with the knowledge that, as stated a few paragraphs further on, "the case against direct controls is based on their ineffectiveness."

The recommendations in favor of direct controls in the planning process come especially oddly at a time when we are witnessing a renewed interest in the possibilities of using the market mechanism as a vehicle for growth and development in the socialist

economies. For instance, in LSS (p. 313) we find the following apt quotation from Liberman dealing with the U.S.S.R.:

The substitution of voluntarism and naked administrative fiat for economic stimuli produced distressing disproportions, a lower efficiency in utilizing our fixed assets, deterioration of the quality of goods and, as a result, insufficient growth of the working people's property. . . . The essential principle of the reform . . . is that what is advantageous for society as a whole should be advantageous for each industrial enterprise. Toward this end a number of measures are being adopted, including: increasing the independence of enterprises; appraising their work by the criterion of profitability; . . . and establishing economically based, as opposed to arbitrarily set, prices.

It is pointed out by LSS that they are *not* maintaining that private ownership is essential for the operation of the market mechanism; all that is necessary is that the managers be made responsible for the running of enterprises.

We find similar discussions on the role of market forces in the cases of Czechoslovakia and Hungary. Dealing with the former country, George Feiwel [21, 1971, pp. 368-70], after pointing out that the central planner had "mobilized" the country's resources, continued:

Past achievements were at the cost of extensive utilization of the labor force and ever-increasing investments and material inputs, with little concern for efficiency. . . . Moreover, the path of development pursued resulted in deleterious unbalanced growth, with considerable fluctuations in the growth rates of production. [Also] the traditional planning system was conducive to waste of investment, not only because it was void of criteria for evaluating investment efficiency, but because micro units squandered capital offered to them virtually cost-free.

In the case of Hungary, Tamas Nagy [42, 1971, p. 430] writes:

On January 1 1968 Hungary launched an economic reform. Its aim was to create a type of socialist economic system in which the planned central control of the national economy was organically combined with the functioning of the self-regulating market

mechanism. . . . Our new socialist economic mechanism has proven its superiority over the old one.

It does indeed seem to be true, as Letiche [33, 1971, p. 448] said in discussing recent Soviet attitudes towards Keynes, that "the growing world-wide tendency to separate the fundamental capitalist-socialist debate from the planning-market debate clearly would have been approved by both Keynes and Schumpeter."

This brief survey of the rise and fall of the concept of direct planning provides a useful backdrop to a discussion of the books under review since developing countries for the most part have accepted almost automatically that conscious planning was the only feasible path. In the books being reviewed we are, in effect, witnessing the results of twenty years of planned development—and the result is sadly disillusioning for those who believed that planning was the only way.

III. *The Policy of Import Substitution*

What the planners used as the bedrock of all their efforts was the policy of import substitution. Import substitution seemed the easiest way of initiating industrialization because the market for the commodities concerned already existed in the developing countries. However, although it was easy enough to reduce imports of the goods immediately affected, it was not always realized that the process would lead to increased imports of different types of imports—of inputs for the newly-stimulated home industries. And to the extent that the policy was successful in creating higher incomes, more imports were also induced. Again, import substitution at one stage of production leads to its being attempted at another. The result, as LSS point out, is to provide "too much capacity at the final and too little at the intermediate stages of production" (p. 62). This leads to more imports of inputs than had been anticipated, which in turn leads to balance of payments

TABLE 1
SOME EXAMPLES OF NOMINAL AND EFFECTIVE TARIFFS
ON MANUFACTURES IN DEVELOPING COUNTRIES

		Percent		
		Nominal Tariff Rate	Effective Tariff Rate	
Argentina	1958 (b)	88	55	
	1958 (a)	141	162	
Brazil	1966 (a)	99	118	
	1966 (b)	58	58	
	1966 (e)	96	118	
Chile	1961 (e)	111	182	
India	1961 (a)	—	818	
Korea	1963-65 (b)	36	40	
Malaysia	1963 (b)	9	8	
	1965 (b)	10	11	
	1965 (e)	2	-6	
Mexico	1960 (a)	22	27	
	1960 (b)	39	61	
	1960 (e)	24	26	
Pakistan	1963-64 (a)	93	271	
	1963-64 (b)	(i)	53	95
		(ii)	42	45
	1963-64 (c)	85	271	
Philippines	1961 (a)	46	49(d)	
	1961-65 (b)	41	71	
	1965 (e)	25	61	
Taiwan	1965 (b)	29	48	
	1966 (a)	30	33(d)	
Tanzania	1963-66 (b)	26	37	
Turkey (overall)	1960s(b)	44	65	
	c. 1965 (c)			
	Refrigeration units	62	80	
	Electric motors	71	66	
	Ammonium nitrate fertilizer	71	186	
	Superphosphate fertilizer	27	925	
	Truck tires	131	170	
	Plastic	102	916	
	Electric cables	82	147	

Sources and notes:

- (a) LITTLE, I.; SCITOVSKY, T. and SCOTT, M. *Industry and trade in some developing countries*, pp. 163 and 174.
- (b) COHEN, BENJAMIN I. "The Use of Effective Tariffs," *J. Polit. Econ.*, Jan.-Feb. 1971, 79(1), p. 133 (reprinted by Yale University Economic Growth Center, Paper No. 160, 1970).
- (c) KRUEGER, ANNE O. "Some Economic Costs of Exchange Control: The Turkish Case," *J. Polit. Econ.*, 1966, 74.
- (d) 1965.

difficulties and to underutilization of capacity at the final stages of production. The conclusion reached is that import substitution has gone too far, in the sense that real contribution of industry to the nation's development was less than it appeared because protection, through distorting prices, raised the prices of stimulated manufactures in relation to the prices of outputs from other sectors. In some instances, the contribution to value added of the economy of a particular industry was actually negative.

In calculating the desirability or otherwise of the development of an industry, the LSS book utilizes the concepts of the *effective tariff rate*.⁵ This may be defined as the percentage by which the value added in the course of production, valued at domestic prices, exceeds the value added at world prices, allowing for differences between domestic and world prices for both inputs and outputs. Official exchange rates are usually used for the conversion. Some examples of nominal and effective tariff rates in various developing countries, and for some particular products in Turkey, are given in Table 1.

⁵ Based upon W. Max Corden and Bela Balassa the formula is:

$$e_i = \frac{t_i - \sum_j a_{ji} t_j}{V_i}$$

Where

- e_i = effective tariff rate on commodity i
 t_i = nominal rate of tariff on commodity i
 a_{ji} = the material input coefficient, i.e., material inputs as a proportion of the value of output, both measured at world prices
 t_j = nominal rate of tariff on material inputs
 V_i = value added as a proportion of the price of commodity i , at world prices.

[On effective tariffs see references 3, 4, 5, 7, 10, 17, 18, 29, and 32.]

- (e) BALASSA, BELA [2, 1971, p. 307] (The estimates quoted in Table 1 above are those calculated by Balassa on the basis of domestic input-output coefficients. They have not been adjusted for the extent of overvaluation of the domestic currencies).

As may be seen, there are a number of discrepancies in the estimates cited for the same country. This should make us accept with caution any one estimate which purports to measure the degree of effective protection—or, indeed, the general level of the nominal tariff. For one thing, the statistical measurement of the effective rate of tariff is very sensitive to the way in which non-traded inputs are included. Whilst Corden, for instance, insists that they should be regarded as part of the value added (because as distinct from importables they are not in perfectly elastic supply), Balassa treats them as traded inputs having a tariff of zero. But what does seem to emerge generally speaking is that the effective tariff rate is higher (often considerably higher) than the nominal tariff rate. In an extreme example in Table 1, superphosphates in Turkey, the effective tariff rate reached 925 percent. Moreover, there can be wide variations in the level of effective tariffs between industries in the one country; in Korea, for instance, the range was from 56.388 percent to -5.375 percent.⁶

Table 2 below shows the extent to which the contribution to domestic expenditure of industry is reduced, and that of agriculture enhanced, after we allow for the effect of protection. The most dramatic difference is seen in the case of Pakistan. In that country, the average annual subsidy to large-scale manufacturing and tax on agriculture, etc., is 6.6 percent of total domestic expenditure, which amounts approximately to Rs. 2,900 million (\$604 million).

IV. *Agriculture and the Internal Terms of Trade*

The study by Little-Scitovsky-Scott makes the point that import substitution "tends to shift the distribution of income in favor of the urban sector and the higher in-

⁶ *Effective protective rates of Korean industry, 1967*, cited by Benjamin I. Cohen [17, 1971, pp. 130 and 131].

TABLE 2
CONTRIBUTIONS TO DOMESTIC EXPENDITURE AS CONVENTIONALLY MEASURED AND AFTER ALLOWING FOR PROTECTION

(C=Conventional; A=After allowing for protection)

		Percentage contributions to total gross domestic expenditure at factor costs.		
			Agriculture, mining, etc.	Manufacturing
Argentina	1958	C.	16.4	31.8
		A.	24.8	22.5
Brazil ^a	1966	C.	30.8	27.9
		A.	38.9	21.3
Mexico	1960	C.	20.8	19.0
		A.	22.4	17.2
Pakistan	1963-64	C.	46.4	7.0 ^b
		A.	58.0	0.4 ^b
Philippines	1965	C.	33.9	19.0
		A.	37.4	15.2
Taiwan	1965	C.	27.1	18.7
		A.	29.5	16.0

^a Contributions to net domestic expenditure at factor cost.

^b Large-scale manufacturing only.

Source: LITTLE, SCITOVSKY and SCOTT, *op. cit.*, Table 2.12, p. 78.

come groups, whose expenditure pattern typically has the highest component of imports" (p. 63). Protection, in effect, taxes agriculture since it raises the price of industrial versus agricultural goods in the home market. Also, in consequence of the artificially high exchange rate, protection reduces the receipts in terms of the domestic currency from a given quantity of exports of agricultural products. This in turn discourages agricultural exports.

The study considers that in Pakistan one witnesses this adverse movement of the domestic terms of trade for agriculture most vividly (p. 6). Concretely, "the prices of

manufactures in relation to farm prices have, over much of the period, been twice as high on the average as world-market prices would be" (p. 42). In consequence, the effective tax on agricultural income was at the rate of 11 to 13 percent, and amounted to about \$500 million per annum.¹ In Argentina, the tax on agriculture was 30 to 40 percent of what their incomes would have been if world market prices had prevailed. These "taxes," of course, are equivalent to a bonus on manufacturing. However, some other investigations in Pakistan interpret the situation rather differently. Ronald Soligo [48, 1971, pp. 31-36] believes that it was the fall in agricultural prices rather than the rise in prices of manufactures which caused the adverse movement in agriculture's terms of trade in the early 1950s. For Soligo, "there is little evidence that the import controls imposed in late 1952 had any important effect in turning the terms of trade in favor of the manufacturing sector as a whole." In the 1960s Soligo found an *improvement* in the terms of trade for agriculture yet he warns that "one cannot interpret [this] as evidence that the policy of import substitution was 'successful' if we define 'success' to mean increases in efficiency." Moreover "one cannot conclude that per capita agricultural incomes . . . have improved."

But whatever the qualifications in interpreting the statistics for certain periods and for certain countries, the general pattern that emerges from the study, though not unambiguous, suggests that domestic terms of trade have moved *too greatly* against agriculture. The LSS study finds some evidence that an improvement in agriculture's terms of trade does have a favorable effect on output and the authors consider that it is

¹ As the LSS study points out with justifiable pride, this estimate of the cost of protection to agriculture and the equivalent subsidy to manufacturing is remarkably close to the estimate of \$604 million mentioned above (p. 11) and calculated by a very different method.

"more important that the terms of trade between agricultural outputs and inputs be favorable, than that the same should be true of the terms of trade between agricultural outputs and the consumer goods which farmers buy from the manufacturing sector" (pp. 347, 348). Of course, resources must be shifted from agriculture and complete *laissez-faire* will not do this. "We accept," the authors say, "that there should be some bias against agriculture," and they are prepared to recommend taxes on exports of agricultural products which are in inelastic world demand, and some taxes on manufactures consumed by farmers. Progressive land taxation, successfully used in Japan, is also suggested as the best method of transferring resources from agriculture since it does not discourage output (p. 349).

The notion that development implies necessarily the diversion of resources from agriculture is, of course, a long-standing one. We read in Mandelbaum [37, 1947, pp. 1 and 3], for instance, that "it is a firmly established generalisation that for every great region of the world living standards tend to be the higher, the smaller the relative importance of agriculture as a field of employment." Indeed, the stimulation of industry is a necessary condition for the improvement of agriculture: "The growth of industry in excess of the natural increase in population, by drawing surplus people from the land, would automatically raise agricultural output per head even in the absence of changes in land tenure, in crops, or in farming methods." This was written in 1947; we are far less sanguine today.

A little later, in 1955, the United Nations [58, 1955, pp. 2 and 3] says that "one element in the development process consists of a movement from agriculture to manufacturing, that is, industrialization in the narrow sense of the term." But the UN, unlike Mandelbaum, realizes the importance of associated improvements in the agricultural structure and goes on to say:

The development of manufacturing industries does not preclude the development of agriculture. On the contrary, they are mutually dependent: the problem facing the less developed countries is not one of choosing between primary and secondary activities but rather one of ensuring the balanced expansion of all appropriate sectors of the economy, first attaining and then maintaining an equi-marginal distribution of resources.

As to how this might be accomplished, the UN Report sees the "plan" as the most useful technique:

In some cases . . . particularly when the government has had the power to allocate factors of production and organize economic activities, the development process has not only accelerated but also, in a sense, realigned by high rates of investment in certain sectors of the economy. In general, the effect of this type of programme has been to expand secondary industry to a relatively greater extent (in comparison with primary activities, especially agriculture) than it is likely to have been under the free interplay of demand and other economic forces [53, 1953, p. 10].

Another example of the tendency of economists to associate development with industrialization, whilst failing to realize the many new problems raised by *twentieth century* developments is the following statement by Baran [8, 1952, p. 77].

Approached thus via agriculture, an expansion of total output would also seem to be attainable only through the development of industry. Only through increase of industrial productivity could agricultural machinery, fertilizers, electric power etc., be brought within the reach of the agricultural producer. Only through an increased demand for labor could agricultural wages be raised and a stimulus provided for a modernization of the agricultural economy. Only through the growth of industrial production could agricultural labor displaced by the machine be absorbed in productive employment.

The most thorough recent analysis of the debate between the "pro-agriculture" and "pro-industry" schools of thought has been made by June Flanders [22, 1969]. The "pro-agriculture" position (*i.e.*, the belief that many less developed countries are devoting inadequate attention to agriculture) can be said to lie behind both the LSS

study and the ILO's *Toward full employment*. This is true even though LSS explicitly disclaim any major concern with agriculture in the statement that the study "is concerned with agriculture only in so far as it is affected by industrialization and the policies designed to promote it" (p. 349). In general, June Flanders comes down on the side of the "pro-industrialists," arguing that "a rapid and large improvement in agricultural productivity will not come easily . . . and that they may involve very large inputs of capital and similar scarce resources which could be better spent on attempts to develop manufacturing activity (and exports) over a wider range" [22, 1969, p. 184]. She is led to the view—a view held by only a small minority of economists in recent years on account of its surface illogicality—that "there is a strong presumption . . . that food production is now a clearly and uniformly capital-intensive activity, and the pattern of world trade should involve significant increases in the export of food from the capital-rich (that is, developed) to the underdeveloped countries" [22, 1969, p. 171].

This latter statement would not be to the liking of the authors of the ILO study, although the following additional statement by June Flanders would probably merit their approval:

If various P (= Peripheral) countries must increase their food output (because the developed countries have failed to expand production and increase their exports of food) . . . it is not clear that this increase should not be attempted by expanding extensively as much as is possible, with a continuation of more or less traditional methods and only as much improvement in technique as can be disseminated fairly readily [22, 1969, p. 185].

V. *The Failure of the Development Effort*

V (1). *Unemployment*

The ILO study (Head of Mission, Dudley Seers) would have agreed with this last statement because from the study the Mis-

sion made in Colombia it was apparent that industrialization—as presently stimulated at any rate—has not provided sufficient jobs to absorb the rapidly growing labor force. Hence the authors conclude that “Colombia’s great asset, spare land, must be exploited and . . . the agricultural sector will have to provide some of the 5 million jobs that are needed” (p. 54). Nevertheless, the ILO study admits that there are limits to the expansion of agriculture and to the ability of this sector to absorb labor. It believes that, as does the LSS study, “manufacturing . . . will have to provide the increasing exports needed for a sustained growth of employment . . . [and] will have to absorb a bigger proportion of the labor force.” This implies that so far as manufacturing is concerned, the “rate of expansion must be much faster than during recent years, and that the number of jobs it creates per unit of investment must be higher” (p. 107).

Until recently problems of low labor utilisation and low earnings have not been among the central preoccupations of either economists and planners or the governments (including aid donors) whom they advise. Underemployment and inadequate incomes were held to come about simply because, *ex definitione*, less developed countries are poor in reproducible factors of production, in skills and in technical know-how. Once the process of growth is begun, once wealth, capital and knowledge increase and as education and businesslike thinking spread, so employment opportunities would begin to improve. Thus calculations of surplus labour with which an earlier literature concerned itself were often used to show how the need for additional manpower in the developing modern sector could be met. Today, the more likely question would be whether productive ways to absorb the surplus can be found [p. 9].

The reason for this change in the question posed is that an increasing number of studies have been giving us the facts on the level of unemployment. Some of these facts are shown in Table 3 below:

TABLE 3
URBAN UNEMPLOYMENT IN SOME DEVELOPING COUNTRIES
Percent of Labor Force

Country	Year	Age 15-24			Age 15+		
		Males	Females	Total	Males	Females	Total
Ceylon	1968	36.1	48.4	39.0	12.9	25.9	15.0
Colombia*	1968	21.8	24.3	23.1	10.8	18.5	13.6
Korea (S.)	1968	16.4	15.3	16.3	9.3	7.9	8.9
Malaya	1965	17.7	26.8	21.0	7.4	16.7	9.8
Philippines	1965	23.8	16.9	20.6	10.8	12.9	11.6
Singapore	1966	—	—	15.7	—	—	9.2
Taiwan	1966	5.8	8.1	6.9	2.1	6.8	2.6
Guyana	1965	36.5	49.0	40.4	18.4	27.7	21.0

* Bogotá.

Source: TURNHAM, DAVID and JAEGER, INGELIES. *The employment problem in less developed countries*. pp. 48 and 49 and article with the same title in *O.E.C.D. Observer*, December, 1970, 49, p. 9.

For it is in the growth of unemployment that past failures of development strategy manifest themselves most obviously. As Turnham and Jaeger say in their OECD study:

In another study by Dudley Seers [47a, 1970, p. 10], quoting H. A. Turner, it is pointed out that in fourteen developing countries the volume of open unemployment has been growing at the rate of over 8 per-

cent per year, or about three times the rate of growth of population. In Indonesia, almost one third of the labor force is affected by unemployment; each year, an additional one million are added to the numbers of unemployed [43, 1971, p. 4].

In a study analyzing the recent revolutionary situation in Ceylon, the number of unemployed is put at 585,000 (out of a population of some 12 million). Of the unemployed, 230,000 are under nineteen and 250,000 are aged nineteen to twenty-four. A further growing tendency is for the unemployed to number in its ranks a high proportion of well-educated people; in Ceylon, again, 167,000 of the unemployed have been to colleges and universities. It has been calculated that by 1975 between 800,000 and 850,000 will be without jobs and that this number could be expected to rise to 1,500,000 a decade later. To overcome the problem of the potentially unemployed it has been estimated that 170,000 new jobs would have to be created per annum for the next fifteen years [20, 1971].

The ILO study states that

half a million Colombians out of an active urban labor force of some three million are seeking work but unable to find it. Probably as many again would like to work but are not currently looking for it, having given up in frustration [p. 13].

Colombia has a population of some 21 million. The total labor force has been growing by 200,000 per annum, but the modern manufacturing sector has not even been absorbing 10,000 per annum (p. 34). Over the last few years, the rate of growth of employment has been 2 to 2.5 percent per annum. The implication is that, if this trend continues, the number of jobs will rise by 40 percent between 1970 and 1985 to a total of 7 million. However, this will then leave 4 million unemployed, equivalent to over one third of the labor force (p. 45).

For Latin America as a whole, a recent report of the Economic Commission for

Latin America [53, 1970, pp. 23-29] shows that the proportion of the active population in basic non-agricultural goods and services increased by only 1.1 percentage points between 1950 and 1960 (from 23.5 percent to 24.6 percent) and that it actually *declined* by 0.4 percentage points between 1960 and 1965 (to 24.2 percent). The forecast for 1969 was 24.8 percent—an increase of only 1.3 percent on the figure for nineteen years earlier. As a proportion of the *total population*, the proportion in this sector stays constant at around 8 percent over the whole period. In the modern sector of manufacturing, *i.e.*, “factory industry,” whilst the numbers employed rose by an average of 153,000 per annum between 1950 and 1960, the increase had dropped to 68,000 per annum between 1960 and 1965. (Some acceleration in the absolute absorption rate is forecast for 1965-69—a rise to 196,000 per annum.) For the manufacturing sector as a whole (*i.e.*, “factory” plus “artisan” industry) it is remarkable to find an actual *decline* in its relative importance—from 14.4 percent of the economically active population in 1950 to 14.0 percent in 1965 and 13.8 percent (estimate) in 1969. The increasing problem of absorption of the growing labor force may be seen in the following quotation:

In the 1960s a little over 60 percent of the increase in the labor force has actually been absorbed into economic activities—a lower proportion than the 62.5 percent recorded in the preceding decade [p. 25].

It follows that the signs of unemployment and underemployment have been becoming more obvious in the 1960s and the report suggests that there is “some truth” in the overall estimates of underutilization of human resources amounting to just over a third of the total labor potential. (The figure quoted for 1969—with underemployment expressed in terms of equivalent unemployment—is 30.4 percent, or 25.4 mil-

lion.⁸ In agriculture alone, the proportion of the labor force unemployed is quoted at 32.6 percent, equivalent to 11.5 million.)

In analyzing this, and other, data, Miller [39, 1971, pp. 221 and 236] comes to the conclusion, like Little-Scitovsky-Scott, that the failure of capitalist labor demand to grow is due to "dysfunctional social legislation; adverse terms of trade between the capitalist and subsistence markets; and efforts to generate capital investment by 'artificially' lowering the price of capital." In his interesting article which seeks to show that the urban capitalist market is in fact two independently operating sub-markets, Miller maintains that the Arthur Lewis model has not been applicable to Latin America: "Growth has been accompanied not by a diminution of the subsistence sector surplus of labour but by an expansion of it. Capital accumulation and investment have occurred in the capitalist sector without concomitant changes in that sector's employment. . . . Wage differentials between the two sectors have increased far beyond the 30 percent originally hypothesized by Lewis."

The sheer arithmetical magnitude of the problem of unemployment may be realized when one calculates that a manufacturing sector which employs 20 percent of the labor force would be obliged to increase employment by 15 percent per annum merely to absorb the *increase* in a total labor force growing at 3 percent per annum. Moreover, since productivity is constantly increasing, it is necessary to have a rate of growth of industrial output of around 3 percent per

⁸ Discrepancies exist between the table in the 1968 *Economic survey of Latin America*, and one, based on the same source, appearing in UNECLA, *Economic Bulletin for Latin America*, Second Half 1970, 15(2). Part of the discrepancy is due to the fact that the 1968 *Survey* regards those in "unspecified industries" as unemployed; the 1970 *Bulletin* leaves them out of the reckoning entirely. Thus the 1970 *Bulletin* calculates that "about 25 percent of Latin America's active population may be considered to be unemployed, i.e., some 17 million persons" (p. 107).

annum if numbers employed are to remain even constant. Some calculations made in the Turnham-Jaeger study show the considerable increases in output which would be necessary over the period 1965 to 1980 just to keep the 1980 unemployment down to 5 percent (Table 4).

Table 4 may be interpreted as follows: if the unemployment rate in all developing countries taken together was 5 percent in 1965, the rate of unemployment in them would be $5 + 10 = 15$ percent in 1980 on the basis of past trends in the growth of output, labor force,⁹ and productivity. If it were the target to keep unemployment down to 5 percent in the developing world as a whole by 1980, then output would have to grow by 6.4 percent per annum. This represents a growth rate 36 percent higher than the past trend of the growth rate,

⁹ The rate of growth of the labor force is, of course, directly related to the rate of growth of population. Turnham-Jaeger show that "compared with the rates of population growth of less developed countries today from 3.5 percent in the Philippines to 2.2 percent in Burma . . . nineteenth century rates (in Europe) are distinctly low." They add that "the only historical cases with rates of population growth comparable to those of the less developed countries today were the countries of migratory settlement, like the United States, Canada, Australia and New Zealand. In these countries population grew at annual rates close to 3 percent in the nineteenth century" (*op. cit.* p. 122). As for the rate of growth in the labor force, the statistics which are available (again from Turnham-Jaeger) show that in Germany, Great Britain, and Japan, and especially in France, the labor force grew significantly less rapidly than in today's LDCs. For instance in Germany 1830-1890 the annual growth rate was 1.4 percent, in 1890-1913, 1.6 percent. In Great Britain the 1870-1890 rate was 1.4 percent, in 1890-1915, 1.2 percent. In France, for both 1820-1870 and 1870-1913 the rate was 0.4 percent. In Japan for 1913-1937 the rate was 1.0 percent. By contrast, the annual rate of growth of the labor force in the LDCs in 1950-1965 was 1.7 percent. And projected rates of growth are: 1965-1980, 2.2 percent, 1970-1980, 2.3 percent (*op. cit.* pp. 31, 123). It is quite clear, therefore, that the problem of the absorption of the labor force is considerably greater for present LDCs than it was for the world's 19th century developing countries—and there is no longer the possibility of large-scale migration to help solve the problem."

TABLE 4
PROJECTED ADDITIONS TO 1965 RATES OF UNEMPLOYMENT BY 1980, AND FUTURE DESIRABLE
AND PAST ACTUAL OUTPUT GROWTH RATES

	Additional projected unemployment by 1980 (percent of labor force)	Required output growth rate 1965-1980 to reduce 1980 unemployment to 5 percent	Past Output Growth Rate	Percentage increase in the growth rate required
	(1)	% (2)	% (3)	% (4)
All Developing Countries	10	6.4	4.7	36.2
North Africa	18	7.7	3.9	97.4
Sub-Sahara Africa	6	6.0	4.1	46.3
West Asia	10	8.6	7.1	21.1
South Asia	9	5.8	3.8	52.6
East Asia	9	7.7	5.7	35.1
Middle America	11	9.2	5.8	58.6
South America	11	8.8	4.3	98.0

Source: Based on Turnham-Jaeger *op. cit.*, Table V.12, p. 116. The figures in Column 1 have been derived by taking a simple average of the four figures in the report which were based on different assumptions. This facilitates exposition.

1950-65. In North Africa and in South America we would have to have a growth of output approaching double the past growth rate if the same target is to be achieved.

The problem, ironically enough, is associated with the growth of productivity in consequence of the growth of output.¹⁰ As Turnham-Jaeger says: "a 'straightforward' growth increasing policy to reduce unemployment is likely to be self-defeating" (p. 117). However, they go on to say that in practice they do not believe that the high

unemployment rates suggested in Column 1 of Table 4 will emerge since "it is very likely that productivity growth will adapt to an important degree to the labour supply becoming available simply because most people will have to have some work" (p. 117). But this seems to be merely an expression of optimism; the statistics of *present* urban unemployment in Table 3 should leave no doubt in our minds that high unemployment rates in the 15 to 20 percent range are certainly possible.

The relationship between employment, productivity, and production is brought out again in Raul Prebisch's latest book [44, 1971], although he fails to draw the conclusion that perhaps expansion of output *will not* lead to the absorption of the unemployed. He states, for instance, that "the fact that industry has not completely fulfilled its labor-absorbing function, even with its present technical characteristics, is attributable to the relative slowness of its rate of expansion, which is closely linked to

¹⁰This is P. J. Verdoorn's famous relationship, dubbed by Colin Clark "Verdoorn's Square Root Law." Verdoorn, basing his analysis on the theory of "the learning curve," found that labor productivity is a function of the growth of real product and that the form of the relationship is $dP_L = \sqrt{dO}$ where P_L = real product per man-hour and O = aggregate real output. In one example quoted by Colin Clark the slope of the curves ranged from 0.7 to 0.65. (See Colin Clark, *Conditions of economic progress*, Third Edition. London: Macmillan, 1960, pp. 356-57.) The slope of the curves in Diagram 1 is about 0.75.

the rate of development of the economy as a whole" [44, 1971, p. 42].¹¹

But it has frequently been the case that the rate of growth of aggregate output has not been particularly low—in Latin American countries at any rate. Yet in consequence of productivity increases, industrialization has merely been associated with growing absolute unemployment.¹² Chart 1 shows the strong relationship between manufacturing output growth rates and productivity growth rates; it appears that about three-quarters of the increase in output is accounted for by the growth of productivity. It may be that we shall have to look for some of the solutions to the unemployment problem through changes in the capital/labor ratio prevalent in manufacturing, and also in income distribution.¹³

V (ii). Social Failures

But before we discuss capital intensity and income distribution let us look at a few more examples of and comments on the "failures" of development. Chung-Hyun Ro, the Director of the Institute for Urban Studies in Seoul, Korea, stated recently that in the capital city (population 4,600,000) 43 percent of the households were living in

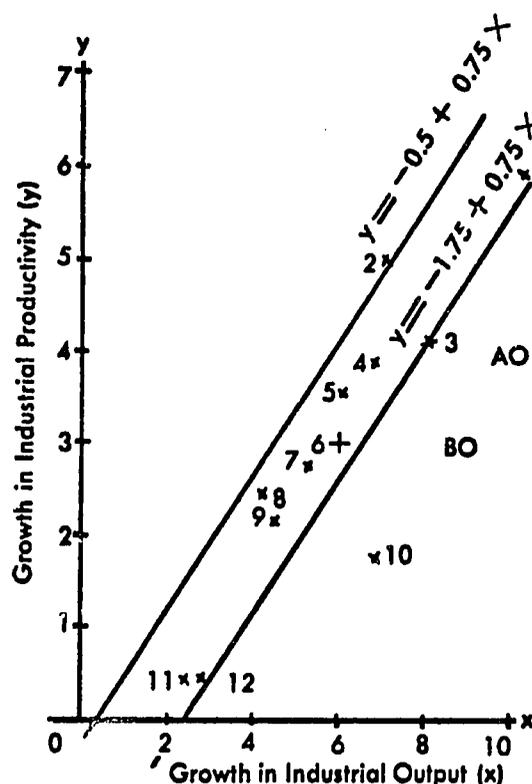
¹¹ It is also interesting to note that Prebisch believes that much import substitution has been unselective and has failed to overcome balance of payments difficulties. And in a section headed "The Hard Experience of Planning" he says: "there can be no doubt that the first flush of enthusiasm for planning has now worn off. . . ." In a later section he adds: "a long and very instructive list could be made of measures that have created problems worse than those they were intended to solve. . . . The need to take deliberate action to influence economic forces is often confused with arbitrary interference in the market mechanism. Private enterprise . . . is inefficient . . . because of the umbrella protection of excessively high tariffs" [44, 1971, pp. 211-14].

¹² Rates of unemployment have remained about constant (see Turnham-Jaeger, pp. 46 and 135-36).

¹³ For the most up-to-date and comprehensive study available on the problem of unemployment in the LDCs see the U.N. *World Economic survey 1969-1970* (New York: United Nations, 1971, pp. 125-35).

CHART 1
LATIN AMERICA: RELATION BETWEEN GROWTH IN INDUSTRIAL OUTPUT AND IN INDUSTRIAL PRODUCTIVITY, 1950-1968 AND PROJECTIONS FOR 1979-1980 AND 1989-1990

(Average percentage rates per annum)



- | | |
|-------------------------|--------------|
| 1) Venezuela | 7) Ecuador |
| 2) Brazil | 8) Chile |
| 3) Peru | 9) Argentina |
| 4) Central America | 10) Mexico |
| 5) Colombia | 11) Paraguay |
| 6) Latin America (mean) | 12) Uruguay |

Notes and sources to Chart 1

A and B: These are Prebisch's two hypothetical projections each for 1979-1980 and 1989-1990.

A corresponds to an 8 percent per annum growth rate of aggregate product.

B corresponds to a 7 percent per annum growth rate of aggregate product.

It is noticeable that A and B fall to the right of the regression band, which suggests that they might be unattainable. A, for instance, implies that an aggregate industrial output increase of 9.7 percent per annum will be associated with an increase in productivity of 4 percent per annum, allowing a 5.5 percent per annum growth in employment. How-

substandard or slum-type dwellings. In Pusan, the country's second largest city, 50 percent of the households are in a similar situation and an intense squatter problem gives rise to frequent instances of three or four families sharing one home. In Seoul in 1965, out of a total labor force of 1,012,000, the unemployed amounted to 230,000 or 23 percent¹⁴ [45, 1971, p. 9]. Chung-Hyun Ro, commenting on this situation, said that he believed that the major part of the population of South Korea had enjoyed no real improvement in its standard of living.

Marc Blaug, writing on education and development in India [12, 1971] stated that some 10 million people in 1970 were either matriculates (those having passed college entrance examinations) or graduates. And

depending on how conservatively we define unemployment, we can get estimates for the degree of educated unemployment that range from 3 to 13 percent of the stock of educated labor. . . . from what is known of casual employment among matriculates and graduates, a figure of about 6-7 percent is probably as near to the truth as any single figure can be. This implies a total number of 650,000 educated people who work only a day a week if at all, which is equivalent to more than *one-third of the current out-turn of matriculates and graduates from schools and colleges in a single year* [12, 1971, p. 8].

¹⁴ Cf. Table 3 where Korea is shown to have an unemployment rate of 16.3 percent for those aged 15-24 and 8.9 percent for those 15 and over, for the year 1968.

ever, the regression suggests that the 9.7 percent rate of increase of output will more likely be associated with a 6 percent rate of increase of productivity and thus only a 3.6 percent rate of increase of employment. For the Prebisch forecast to be borne out, industrial development, therefore, would have to become more labor-intensive.

Source: Derived from Dudley Seers, "Growth or Development?: A Review of the Prebisch Report on Latin America," *Bulletin of the Institute of Development Studies*, University of Sussex, Jan. 1971, 3(2), p. 43. The chart is based on material from R. Prebisch, *Change and development—Latin America's great task*. New York: Praeger, 1971, Tables 12 and 16, pp. 45 and 91.

He went on to say that although the growth of the Indian economy at an average rate of 3.5 percent per annum since 1950 has been able to absorb the 6 percent per annum rate of growth of the out-turn of educated people, in effect it has had no effect at all on the *backlog* of educated unemployed. The distortion in the allocation of skilled manpower is evidenced by the fact that some three quarters of all graduates and nearly the same proportion of matriculates work in the public sector whilst the majority of primary-school leavers work in the private sector. Blaug suggests that it is likely that the public sector hoards skilled labor "which is equivalent to saying that it pays them more than their marginal productivity" [12, 1971, pp. 9 and 10].¹⁵

A particularly revealing analysis comes out of the Indian Report of the Education Commission (1966), quoted by Blaug. The Commission concluded, he said, that "the proportion of middle school leavers who go on to secondary school, and matriculates who proceed to colleges and universities would have to fall." Unless this happened, they predicted that there would be 4 million unemployed matriculants and 1.5 million unemployed graduates by 1986 [12, 1971, p. 13].¹⁶

¹⁵ Cf. Adam Kuper, "There is little sign that the investment (in education) has paid off in economic terms. The educated are also the unemployed and the university-educated are employed by the government itself. . . . African education may be seen as a machine for producing graduate bureaucrats." "The New Men and the Universities in East Africa," *Bulletin of the Institute of Development Studies*, University of Sussex, June 1971, 3(3), pp. 19 and 20.

¹⁶ It is apparent from these statistics alone that there is something drastically wrong with the whole structure of education in developing countries—a structure which is still largely modelled on the educational pattern of the former Colonial powers. In his 1971 Report to the OECD Development Assistance Committee, the Chairman, Edwin Martin, said that "there is so much wrong with education that it is hard to know where to start." Very often the subject matter is irrelevant to the LDC, the quality of teaching is poor, and the drop-out rates high. More-

Summing up the employment situation in developing countries, the 1968 *World economic survey* of the United Nations says:

The conclusion can hardly be avoided that the task of creating sufficient employment opportunities over the next decade both to absorb the growing labor force and to lessen underemployment is likely to be beyond the capacity of many developing countries. Though much of the underemployment will remain dispersed and concealed throughout the rural areas and in the service industries, the pool of open urban unemployment, with all its attendant social ills and tensions, will surely swell [55, 1969, p. 10].

The Survey goes on to say that earlier prescriptions for development, with the emphasis on capital accumulation, industrial growth, and the transfer of resources from agriculture have not proven efficacious in practice. "Actual experience . . . has brought home the fact that industry only emerges as a major source of employment after a long period of growth. Though nu-

over, the character of the curriculum "serves only as a springboard to prestige jobs in an urban centre" [OECD/*Development Assistance* 1971 Review, p. 18]. The World Bank is devoting increasing attention to the financing of appropriate systems of education. Between 1963 and 1971 the Bank had made 57 loans to a total amount of \$431 million. Of this, 72 percent was for secondary education. It is significant that only 44 percent of the Bank/IDA lending had been provided for "general" education; the major part had gone on Technical, Agricultural and Teacher Training. Moreover, whilst the proportion of total student places for technical training provided by the loans in the period 1963-69 was only 24 percent, by 1970-71 this had increased to 34 percent. Teacher training took 4 percent of the Bank/IDA-financed student places in 1963-69 and 14 percent in 1970-71. As the Bank said: "Persistently growing unemployment among the educated at progressively higher levels . . . would seem to indicate structural imbalances, which cannot be ignored. In such cases, continued investments in the expansion of education systems without major reforms could become both economically and socially unprofitable" (World Bank, *Education: Sector Working Paper*, Sept. 1971, pp. 9, 30, 32, 33). Perhaps the last word should be said by Edwin Martin: "In [1968], despite an exceptionally rapid growth of education budgets, developing countries spent 50 percent more of public funds on their armed forces than on education" [OECD, *Op. cit.*, p. 30].

merous developing countries have made progress in industrialization, the proportion of the working population employed in industry has generally risen only moderately, and the absolute numbers engaged in agriculture have invariably continued to increase" [55, 1969, p. 10]. The example is cited of Japan where although the share of manufacturing in net domestic product had reached 22 percent by the mid-1950s, the working population in agriculture was only just stopping its increase by that date.¹⁷

V (iii). *Capital-Intensive Development*

The reports of Little-Scitovsky-Scott, the ILO, and Turnham-Jaeger are all critical of policies which have encouraged capital-intensive development. The LSS report says:

We are critical not only of the high capital cost of such projects [those financed by foreign aid, particularly when tying is involved] and their failure to generate enough employment; almost as bad is the gulf that is being created . . . between the highly capital-intensive and automated equipment and modern methods of large-scale industry and the primitive labour-intensive methods of small-scale craft industries and agriculture [pp. 90-91].

This tendency, the report maintains, has been fostered through imperfections in the capital market, legislation which by nominally protecting labor has made capital-intensive projects more desirable to entrepreneurs, the import-substitution policy, and investment licensing.

Turnham-Jaeger, in addition to repeating the above reasons for capital-intensive projects being stimulated, also suggests that "since most new techniques are invented in the developed countries where unskilled la-

¹⁷ Cf. Turnham-Jaeger, *op. cit.*: "It is not clear what part was played (historically) by labour substituting technical change in agriculture, but it is worth noting that the number of employed persons in agriculture began to decline only at a relatively late date, for example in Great Britain from about 1861, in Germany from 1910, and in France as late as 1921" (p. 129). This section comes in an interesting excursus on the historical experience of employment problems in today's developed countries.

bour is relatively expensive . . . they tend not to be well suited for developing countries where labour is cheap" (pp. 12-13). They add: "In general there have been both deliberate attempts to foster a capital intensive heavy industry base and the use of a range of policy instruments which tended to favour, not necessarily by design, capital intensive production" (p. 97). However, they do not seem entirely averse to this type of development, despite their realization of the employment issues involved. For they say that "the clothing, footwear, canned mushroom or artificial wig pattern of the typical export success story is not every country's idea of a foundation for a modern industrial structure" (p. 99).

The ILO study believes that "it is possible to influence choice of technique in favour of labour-intensive methods. . . . Many influences have operated to bias decisions in the opposite direction, in favour of mechanisation. . . . Policies have sometimes actually encouraged labour-saving techniques" (p. 55). The Mission got the impression that if more selective criteria on imports of machinery had been used, a substantially lower degree of capital-intensity could have been effected. The authors quote statistics which, using the quantity of installed horsepower in various industries as the criterion, imply that Colombia's degree of mechanization is 50 percent greater than that of some less-advanced developing countries (*e.g.*, India, Paraguay, Panama) and similar to that found in countries like Spain, Greece, Mexico, and Hungary.

The reasons given for emphasis on capital-intensive development are similar to those put forward by LSS and Turnham-Jaeger:

There have been times in recent Colombian history during which exchange rate, tariff and direct import control policies lowered unduly the relative price of foreign investment goods. . . . Sometimes exchange rates were left constant for long periods, while the price of labour was rising more or less in

step with inflation—and in the modern sector faster. This, by itself, must have particularly stimulated excessive purchases of imported capital goods in anticipation of the next, eventually inevitable and big, devaluación [p. 176].

So long as distortions from market realities are present, the ILO Mission believes that "inappropriate techniques will continue to be used unless project evaluations are based on the 'social' costs of resources" (p. 175). And, like Turnham-Jaeger, the writers complain that "Colombia does not have at present much knowledge about techniques other than those used in the United States or Western Europe" (p. 169).

In general, it may be said that the main reason for development having proceeded along capital-intensive lines lies in the import-substitution policies adopted. These policies have resulted in the rapid growth of manufacturing industries centered in urban areas. Only a small increase in employment has occurred, however, since the foreign technology that has invariably been used is labor-saving. Moreover, artificially low rates of interest and other imperfections in the factor market (*e.g.*, lack of knowledge of alternative techniques, enhanced wage levels through labor unions and government legislation) have caused the price of imported capital equipment to be too low. This has inevitably led to a high capital-labor ratio in manufacturing industry [28, 1970].

Arthur Lewis put the matter simply: "The waste (of capital) has come mainly in substituting capital for labour in moving things about; in the handling of materials inside the factory; in packaging; in moving earth; in mining; and in building and construction. The bulldozer, the conveyor belt and the crane usually achieve nothing that labour could not do equally well. They spend scarce foreign exchange solely in order to produce unemployment" [34, 1966, p. 60].

As for agriculture, information now com-

ing to hand suggests that the "Green Revolution" is being accompanied by an increase in mechanization. Yet, as the UN *Economic survey of Asia and the Far East*, 1969, puts it, "the consequent creation of additional redundant labour and the necessity for providing alternative employment opportunities have as yet been scarcely considered." The *Survey* makes the important point, however, that "there exists . . . a type of mechanization that is complementary to the use of labour, rather than a substitute for it" (pp. 7, 41).

The Asian Development Bank [1, 1969, pp. 44, 67] adopts a more hard-headed approach. In its recent report on agriculture it opposes restrictions on "modern farm implements, mechanical power and tillage equipment" merely because they are "thought to be labour-saving and might cause serious unemployment in the rural economy." Any restriction of their use, it believes, displays "little understanding of the negative effects on production growth that arise from a confounding of economic and political ends."

It is interesting to see how the largest developing country of all, China, tackles this problem of labor versus capital-intensive development. To consider the case of agriculture first: Nai-Ruenn Chen and Walter Galenson [13, 1969, pp. 121-22] report that

the relative abundance of rural labor and the extreme scarcity of capital makes the large scale use of tractors uneconomical. . . . The Party realized that to attempt the use of tractors on a widespread scale would aggravate the already serious problem of unemployment and underemployment. By adopting an agricultural policy which stresses full utilization of idle labor, the Chinese apparently have abandoned the possibility of employing tractors on a significant scale in the foreseeable future.

As for the technologically advanced sectors of the Chinese economy, John P. Emerson [quoted in 13, Chen-Galenson, 1969, p. 70] reports that "increased investment actually tended to reduce the rate of growth in em-

ployment, mainly because of technological displacement of labor."

With regard to the problem of creating the *right type* of industrial innovations for developing countries, Chen and Galenson [13, 1969, p. 72] make the following interesting forecasts:

It would not be surprising to discover that China has innovated in the direction of more labor-intensive manufacturing equipment. . . . Nor is it beyond the realm of possibility that China will emerge eventually as a supplier of capital equipment to smaller countries in similar situations.

Ozay Mehmet, writing in the *International Labour Review* [38, 1971, p. 37] says that "it is being increasingly realized in several developing countries, that while the income objective of development may be achieved, the employment objective is often frustrated owing, among other things, to the capital-intensiveness of industrialization." The article depicts, through a simple mathematical example, how a labor-intensive technique, which would have been rejected on the basis of market prices *as they actually are* (i.e., frequently distorted by various policies) can be socially justifiable when social benefit-cost criteria are used.

The problem of the optimum factor combination for economic development in developing countries is, of course, not a new one. In the early days of the literature on development it was discussed, *inter alia*, by Kahn [31, 1951], Chenery [14, 1953] and Galenson and Leibenstein [23, 1955]. For Kahn, the rule was plain: "The correct criterion for obtaining the maximum return from limited resources is marginal productivity—or, from the point of view of society as a whole, social marginal productivity (SMP), taking into account the total net contribution of the marginal unit to national product, and not merely that portion of the contribution (or of its costs) which may accrue to the private investor" [31, 1951, p. 39]. Any criterion which suggests that a developing country should econo-

mize on its scarce resources of capital by concentrating on labor-intensive projects was necessarily incorrect. Kahn was undoubtedly right *when* SMP and not merely MP is taken into account; and *when* social costs are treated as relevant and put into the cost-benefit analysis. Kahn goes on to say that

of course, the relative abundance of different factors is a significant determinant of the SMP of each. When capital is relatively scarce . . . its SMP will be higher and each investment will have to meet the more stringent test of a higher opportunity cost. In consequence, China will and should in general specialize in industries and use techniques requiring a lower capital:labor ratio than the United States. But this does not mean that in choosing between any two possible investments China must invariably select the one with the higher rate of capital turnover. Capital is not completely unavailable in China, hence infinitely expensive, nor labor in infinite supply, hence socially costless [31, 1951, pp. 39-40].

Chenery, accepting the SMP criterion as the appropriate one, suggested the use of certain parameters which, used in conjunction, would lead to an approximation of SMP. In passing, he notes that "the bureaucratic process . . . tends to favor large projects over groups of small ones because they are more easily handled and show more tangible results. The net effect of . . . various biases is often to lead developing countries to try to follow the line of development of the older industrial areas rather than seeking a pattern more suited to their own resources" [14, 1953, p. 96]. Chenery goes on to point out that he is advocating the conscious use of an SMP criterion for planning because the obstacles to desirable results emerging from free market forces were so great. But, of course, he is talking about "free market forces" as they exist within the framework of "the bureaucratic process" which by its nature and by its objectives *distorts* the free market.

Galenson and Leibenstein cannot accept the approach of Kahn and Chenery. They

suggest that "successful economic development under present conditions, particularly in the case of gross backwardness, hinges largely upon the introduction of modern technology on as large a scale as possible." They want to see "up to date equipment and relatively high initial capital/labor ratios" [23, 1955, p. 370]. Their arguments for this approach are reasonable—but events have overtaken them. The problems we have discussed earlier—particularly unemployment—indicate that "modernization" in its accepted form just cannot proceed rapidly enough.

But "modernization" might well allow for the substitution of labor for capital. In foreign trade, for example, "production in labour-intensive industries can be expanded beyond domestic requirements if export markets can be found" [55, 1969, p. 11]. It is certainly a reasonable assumption that with relatively low wage costs, greater comparative advantages in international trade are to be found in labor-intensive industries. But we cannot be sure even then that the unemployment problem would disappear. Moreover, comparative advantage is determined not only by relative labor and capital costs but by costs of intermediates and raw materials used. These clearly will vary with the resource endowments of the country concerned and with the stage of development (larger production probably enjoying increasing returns) of the sector.

To conclude this section on employment and the capital versus labor-intensity argument, it is interesting to detect a certain similarity in the views put forward at a comparatively early stage of the "development debate" by Bettelheim [11]—whose book was originally written in 1955—and Frances Stewart and Paul Streeten, writing in 1971 [49]. Bettelheim pointed out that "from the economic viewpoint, and especially from the viewpoint of economic development, employment cannot be considered as an aim *per se*" [11, 1959, p. 430]. He

then goes on in words which betray with their bluntness the lack of experience we had had with the modern development process at the time he wrote:

Unemployment is an essentially transitory phenomenon, a legacy of the past, a consequence of relative economic backwardness and of a low rate of investment (which itself is a result of the use of low productive techniques). Unemployment can be overcome in a relatively short time, provided that the investible surplus is fully mobilised and regularly increased through investments in techniques . . . to achieve a sufficiently high level of productivity. . . . A consequence of the short-term and transitory character of the unemployment problem is that it would be wrong to prepare an investment programme which would aim mainly at solving this temporary problem. . . .

Bettelheim was implicitly thinking of the historical association between the growth of productive forces and the growth of employment opportunities. The point is made again by Stewart and Streeten [49, 1971, p. 168] when they say that "observations of the relationship between the growth of output, employment and labour productivity over a large number of countries suggest that generally there is a positive association between the growth of output, employment and labour productivity." And they add the significant statement, which sums up their position in a nutshell, that "the path which maximizes the growth of output will also maximize the growth of employment. . . ." They reject, therefore, the argument which they admit is theoretically plausible—the argument that if we always choose the most capital-intensive technique in the belief that we are thereby providing for "tomorrow's" employment, "tomorrow" never comes and we always find ourselves faced with unemployment. Yet an appeal to the facts of historical experience may prove less reassuring when we reflect on the magnitude of the growth of population, productivity, and of the labor force in today's developing countries.¹⁸

¹⁸ See Table II 5, p. 31 in Turnham-Jaeger *op. cit.*,

V (iv). *Income Distribution*

Coupled with the growth of the unemployment problem in developing countries has been the fact of income disparities in many of them. The LSS study, for instance, states that "apart from Taiwan, income distribution in our other countries for which statistical data are available is becoming more unequal with the passage of time" (p. 45). The Turnham-Jaeger study suggests that "in many less developed countries, the bottom 50 percent of families receive roughly between one quarter and two fifths of average family income, and the poorest families receive a good deal less" (p. 73). The ILO report on Colombia says: "It . . . appears . . . that, on the whole, . . . concentration of income has not lessened during the last fifteen years: it might even have increased. . . . The poorest 50 percent obtain only about one sixth of all income, while . . . the people included in the 5 percent of the population with the largest incomes receive between one-third and somewhat more than two-fifths of total income" (pp. 140–141).

For India, the Mahalanobis Committee reported that between 1952–53 and 1956–57—"the period during which the tempo of development quickened—the proportion of income accruing to the top 5 and 10 percent had increased substantially and the share of the bottom 20 percent of the population had also increased, though slightly" [41, 1968, p. 570]. A more recent major study on income distribution in India, financed by

for projections of the labor force in developed and less-developed countries. In the less-developed countries the annual rate of growth of the labor force is expected to grow to 2.3 percent in 1970–80 compared with 1.7 percent in 1950–65. In the ILO study on Colombia (p. 33) the labor force is projected to grow at 3.2 percent per annum 1965–70 compared with 2.5 percent per annum 1951–65. The growing unemployment problem envisaged for Colombia is seen from the fact that total employment is expected to grow by 2.3 percent per annum 1965–70 compared with 2.1 percent per annum 1951–65.

the Ford Foundation and carried out by Dandekar at the Indian School of Political Economy, reported that "it is clear that the small gains of development during the past decade have been very unequally distributed and the gulf between the rich and the poor has widened" [19, 1971, p. 25]. Further, one participant at a Seminar on Income Distribution in India in February

1971, as reported by Bardhan and Srinivasan, stated that the proportion of the rural population with a consumption level below the "normative minimum" of Rs. 15 per head per month at 1960-61 prices "had increased sharply from 1960-61 to 1967-68" [9, 1971, p. 879].

Table 5 draws together some data on income distribution.

TABLE 5
INCOME DISTRIBUTION IN SOME LESS DEVELOPED AND DEVELOPED COUNTRIES

Income Receivers			Lowest 10%	Lowest 20%	Lowest 50%	Highest 20%	Highest 10%	Highest 5%
			Percentage of Total Income Received					
<i>Developing Countries:</i>								
Argentina	A (H)	1961	—	7	—	52	39	—
	B (H)	1963	—	7	—	50	37	—
	C (c)	(a)	—	—	21	—	—	31
Brazil	A (H)	1960	3	6	20	56	41	—
	C (c)	(a)	—	—	15	—	—	40
Ceylon	D (S)	c. 1954	—	5	26(b)	54	—	—
	D (I)	c. 1954	—	—	25(b)	57	—	—
	B (H)	1963	—	5	20	52	37	—
Chile	B (H)	1960	—	—	15.6	—	—	—
Colombia	B (H)	1960	—	6	20	57	43	—
	C (c)	1962(i)	—	—	18	60	42	28
	C (c)	1962(ii)	—	—	20	57	43	30
	C (c)	1964	—	—	14	65	50	40
Congo (Brazzaville)	B (I)	1958	—	—	—	54	44	—
Costa Rica	C (c)	(a)	—	—	18	—	—	35
El Salvador	C (c)	(a)	—	—	16	—	—	33
Gabon	B (I)	1960	—	—	—	71	60	—
India	B	mid-1950s	—	4-8	20-28	42-52	28-36	—
	D (S)	1955-56	—	7	30(b)	50	—	—
Madagascar	B (I)	1960	—	—	—	—	50	—
Mexico	A (H)	1950	3	6	19	60	49	—
	A (H)	1963	—	3	15	59	42	—
	C (c)	(a)	—	—	15	—	—	29

TABLE 5—Continued

Income Receivers			Lowest 10%	Lowest 20%	Lowest 50%	Highest 20%	Highest 10%	Highest 5%
			Percentage of Total Income Received					
Pakistan	A (H)	1963-64	8	7	25	45	80	—
Panama	C (c)	(a)	—	—	21	—	—	84
Philippines	D (I)	c. 1952	—	—	32(b)	47	—	—
	A (H)	1965	—	4	23(b)	56	40	—
Senegal	B (I)	1960	—	—	16	64	48	—
Taiwan	A (H)	1964	8	8	23	41	26	—
Venezuela	B (H)	1960	—	—	17	—	—	—
	C (c)	(a)	—	—	14	—	—	26
<i>Developed Countries:</i>								
Italy	A (H)	1948	—	—	19	51	37	—
Netherlands	C (c)	(a)	—	—	21	—	—	24
Norway	C (c)	(a)	—	—	25	—	—	15
Sweden	D (I)	1954	—	6	34(b)	43	—	—
United Kingdom	D (I)	1949	—	7	32(b)	47	—	—
	D (S)	1952	—	5	34(b)	44	—	—
	D (I)	1955	—	—	33(b)	44	—	—
	C (c)	(a)	—	—	23	—	—	20
United States	D (S)	1952	—	4	32(b)	46	—	—
	A (H)	1961-62	2	6	23	48	34	—
	C (c)	(a)	—	—	23	—	—	20

Notes and Sources:

- (I) Pre-tax income of individuals
(H) Pre-tax income of family units
(S) Pre-tax income of spending units

(a) Date not stated, but probably refers to early or mid-1960s.

(b) Lowest 60 percent.

(c) Generally not stated whether estimate refers to I, H, or S (except for Colombia where it is "personal income"), but probably refers to individuals.

Sources:

- A. LITTLE, SCITOVSKY, SCOTT, *op. cit.*, Tables 2 and 3, p. 46.
B. TURNHAM-JAEGER, *op. cit.*, Table IV-1, p. 74.
C. I. J. O., *op. cit.*, Table 14, p. 142.
D. GUNNAH MYRDAL, *Asian drama*, Vol. III, Appendix 14, Tables 1 and 3, pp. 2183 and 2184.

Note:

Where estimates A and B were identical, estimate B has been omitted from the above table, as source A was the origin.

For the ILO, income distribution affects the level of employment through its effect on the pattern of consumption through (a) different import content of the expenditures of the rich and poor and (b) different labor content of the expenditures. An unequal income distribution leads to a high demand for foreign consumer goods, leading to the lesser availability of foreign exchange for capital and intermediate goods necessary for the expansion of employment (p. 145).

Both the LSS study and that of Turnham-Jaeger refer to the traditional arguments in favor of inequality as a factor stimulating growth. Thus LSS state: "The proportion of income saved is believed by many to increase with the inequality of income distribution; and sufficiently high prices of manufactures enable manufacturing firms themselves to save out of undistributed profits much of what they need for investment. . . . When the policy of import substitution shifts the terms of trade and the distribution of income in favour of manufactures, it not only increases savings but also generates them in the hands of those best placed to invest them" (pp. 47-48). However, they are not completely convinced by this argument and suggest that, apart from the social justice point of view, it is wasteful because high incomes may lead not only to high savings but also to high consumption. Also, "there is a danger that high prices will lead to high costs rather than high profits" (p. 49). There is an alternative policy which can be pursued: that of using high interest rates to encourage household saving through an improved financial system, and using a less biased policy to stimulate manufacturing. The report of LSS shows how Mexico and Taiwan, alone of the countries studied, followed this policy with advantage (pp. 49-51).

Turnham-Jaeger admit that there is "some truth" in the argument that inequality increases savings but since there are few

good statistics "some understatement of both savings and investment at low income levels seems likely." Some studies have suggested that small farmers, for instance, have high marginal propensities to save. The Turnham-Jaeger study agrees with the LSS study that even if inequality does generate high savings there is no guarantee that they will be efficiently used. "Savings and investment are closely linked activities where financial intermediaries are absent or highly undeveloped." Savings often end up in the form of luxury housing, foreign assets or in "economically dubious activities" whose high profits have been made possible by high protection (pp. 13-14).

It can be seen that there is a considerable unanimity of view among the three reports on the question of income distribution. The agreement is the more remarkable when it is recalled that only a few years ago it would have been regarded as almost axiomatic that an unequal income distribution in the early stages of development was not only inevitable but also essential.

VI. *Exchange Rate Policy*

The usual policy of developing countries has been to maintain an over-valued exchange rate and to restrict imports with physical controls, tariffs, licenses etc., so as to bring about equilibrium in the balance of payments. In opposition to this policy, LSS believe that it is preferable to use the combination of borrowing, drawing down reserves and exchange rate movements to keep the balance of payments under control. A rough measure of the extent of overvaluation of currencies was calculated by LSS, and on this basis an estimate of the free-market rates has been made in Table 6 below.

The results of the policy of overvaluation have been neatly summarized in the following extract from the 1968 *Economic survey of Asia and the Far East* [52, 1969, p. 67]:

TABLE 6
OFFICIAL AND ESTIMATED FREE MARKET EXCHANGE RATES

Country	Year	Domestic Currency Units	Units of National Currency per \$ U.S.		
			Official Rate (c)	Degree of Overvaluation (percent)	Implied Free Market Exchange Rate
Argentina (a)	1958	Pesos	18.0	100	86.0
Brazil	(a) 1966	Cruzeiros	2,220.0	50	8,880.0
	(b) 1966	Cruzeiros	2,220.0	27	2,819.0
Chile (b)	1961	Pesos	1.058	68	1.769
Colombia (d)	1968	Pesos	15.89	22	19.89
Malaya (b)	1965	Dollars(M)	3.06	4	3.18
Mexico	(a) 1960	Pesos	12.49	15	14.86
	(b) 1960	Pesos	12.49	9	18.61
Pakistan	(a) 1963-64	Rupees	4.799	25	5.999
	(b) 1963-64	Rupees	4.799	50	7.199
Philippines	(a) 1965	Pesos	3.90	20	4.68
	(b) 1965	Pesos	3.90	15	4.49
Taiwan (a)	1965	\$ N.T.	40.10	20	48.12

Sources: (a) Little-Scitovsky-Scott, *op. cit.*, p. 417.

(b) Balassa [2, 1971, p. 814].

(c) I. M. F., *International financial statistics*.

(d) NELSON, RICHARD R. *The effective exchange rate, employment, and growth in a foreign exchange constrained economy*, prepared for Agency for International Development, Santa Monica, California, Rand Corporation, Memo. RM-5680-Aid, Nov. 1968. (Nelson, looking for an exchange rate which will boost investment and hence the rate of employment increase, calculates that "the magnitude of the required devaluation is . . . 22 percent" [p. 56].)

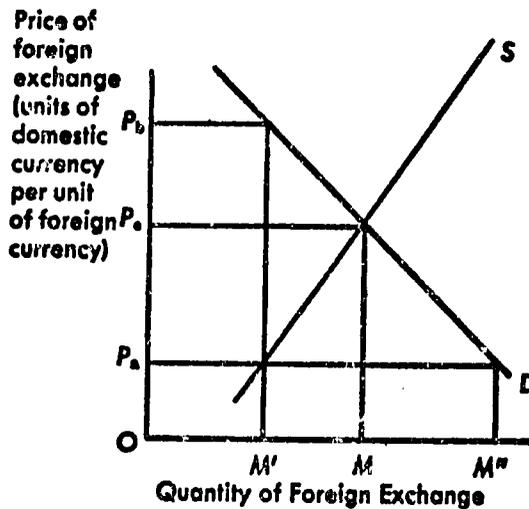
All exporters (who predominantly sold agricultural goods) were required to surrender foreign exchange earnings at the official rate of exchange. This clearly constituted a tax on the agricultural sector of the economy. At the official rate of exchange there existed a large unsatisfied demand for imports. Thus a strict rationing of the entitlement to import through licensing had to be made. The overvalued rate of exchange and the consequent unsatisfied demand for imports naturally meant domestic prices for imports substantially above international prices. This price differential was not absorbed by the government through license fees or import surcharges, but was allowed to be converted into monopoly profit for the license holder, and served as a major

source of investible funds in the private sector. The excess demand generated by the strict quantitative control of imports further opened up high profit opportunities for investors in import substituting industries.

The operation of exchange control can be illustrated diagrammatically as is shown in Chart 2.

In free market conditions the equilibrium price of foreign exchange would be P_0 , with OM units of foreign exchange supplied and demanded. With the government maintaining the artificially low price of foreign ex-

CHART 2
THE FREE-MARKET AND THE MANAGED RATE
OF FOREIGN EXCHANGE



change of P_a only OM' units of foreign exchange become available (because exports are overpriced). But at price P_a the demand for foreign exchange is M'' i.e., $D > S$ by $M'M''$. Hence the necessity for devising an allocation system to ration the available supply of OM' . If the available supply of foreign exchange were openly auctioned by the government to importers, the price of foreign exchange per unit would rise to P_b . The government would then make a profit of $P_a P_b$ per unit. But generally auctions have not been used; available supplies of foreign exchange have been allocated by some type of quota or licensing device. This has meant, in effect, that licenses either legally or illegally rise to P_b per unit of foreign exchange. Import-competing industries are now protected against foreign competition to a greater extent than they would be if a free market in foreign exchange prevailed; effectively they receive a subsidy of $P_a P_b$ per unit of their output sold. On the other hand, domestic exporters are obliged, in effect, to pay a tax of $P_a P_b$ per unit of output they sell (with inevitable discouraging effects on exports).

The costs of such a policy of exchange

control have been estimated for Turkey by Anne Krueger [32, 1966]. For the sample of industries she dealt with, she calculated that if T.L. 10 million of Turkish resources had been allocated evenly among the import substitution industries, the addition to Turkish output at world prices would have been \$ U.S. 292,000. On the average, it would have required T.L. 34.2 of domestic resources to have increased net output by \$ U.S. 1.00. However, if these domestic resources had been allocated over the potential export industries, the additional output would have amounted to \$ U.S. 986,000. On the average, it would have required T.L. 10.1 of domestic resources to have increased net output by \$ U.S. 1.00. If that additional output had been exported, the country could have afforded to import 3.4 times as great a value of imports as could have been produced domestically with the same resources. On the basis of a somewhat different type of calculation, Anne Krueger estimated that "the international value of Turkish manufacturing output per unit of new investment could almost double" with a system of free exchange rates compared with the managed rate [32, 1966, p. 475].

In the case of Pakistan, we have interesting studies by Lewis and Guisinger [36, 1968], by Winston [61, 1971] and by Islam [28, 1970]. From the first of these studies it appears that Pakistan would have to have a considerably devalued exchange rate to make a number of industries internationally competitive, i.e., where the rate of protection of value added is zero. At the 1967 exchange rate (Rs. 4.774 = \$ U.S. 1.00) only tea and petroleum products were competitive. With the rupee devalued to Rs. 10 = \$ U.S. 1.00, besides these two, we would have had footwear, printing, matches, sports goods, thread, sawmilling, tanning, cement, sewing machinery and electrical machinery/equipment also internationally competitive. A further twelve industries would have been competitive at exchange rates ranging from

Rs. 10—Rs. 20 to \$ U.S. 1.00. Commenting on this last group, Wellisz [60, 1971, p. 127] says:

Positing that 50 percent of the cost differentials can be justified by learning-by-doing or infant industry arguments—surely a generous allowance for external effects—these sectors could still be considered economically justifiable.

There are an additional five sectors out of the total of thirty-two for which it would be necessary to have exchange rates ranging from Rs. 21 = Rs. 1,138 to \$ U.S. 1.00 to make them internationally competitive. (The extreme rate would be necessary for silk and art-silk textiles; for wearing apparel the rate would have to be Rs. 99 = \$ U.S. 1.00.) Finally, there are three sectors (sugar, edible oils, and motor vehicles) which no exchange rate would make competitive because the value of tradable inputs exceeded the value of output at world prices.

G. C. Winston shows how, with the artificially high exchange rate in Pakistan, it is possible for people to make highly profitable financial transactions. At the same time, the allocation of investment and the structure of industry in the country is distorted. The unwarranted profits are made through the process of over-invoicing, which works in the following manner: a manufacturer who obtains a government license to construct a new factory privately arranges with the foreign supplier of the equipment for the invoices to be made out to a higher amount than the manufacturer actually pays. The manufacturer is then permitted by the foreign exchange authorities to buy exchange for the invoiced sum at the official rate of Rs. 4.775 = \$ U.S. 1.00. The excess payment made to the foreign supplier is then deposited by him in a foreign bank account on behalf of the manufacturer. This balance can then be sold on the black market, where the rate may be two to three times the official rate.¹⁹

¹⁹ Given the degree of difficulty inherent in determining any "free market" rate for an overvalued

A number of unfortunate consequences for the economy follow:

1. Manufacturers will try to obtain permits for as much industrial expansion as possible, even if they can make only ineffective use of the imported equipment.

2. There will be a tendency for the *degree* of over-invoicing to increase.

3. Efforts will be made to maintain the differential between the official and the free rate. It follows that devaluation and the removal of exchange controls will be strongly opposed.

4. Manufacturers will try to use as high a ratio as possible of imported to home-produced capital equipment, and to use highly capital intensive techniques. This increases the strain on the balance of payments and diminishes opportunities for the possible development of domestic intermediate industry and of an expansion in employment.

5. *New* capital equipment will be preferred over the maintenance of existing equipment, and a premium will be placed on the selection of complex processes rather than the simpler (and more labor-intensive) since it is easier to "get away with" over-invoicing if the exchange control officials are unfamiliar with the process.

currency and given the different purposes of and techniques for the calculations, it is not surprising that quite large differences among the various estimates emerge. For instance, the free-market rate for 1963–64 as calculated in Table 6 was Rs. 6.0–Rs. 7.2 to the dollar. Winston, however, states that the "black-market rate" in 1966 was "about 10 rupees to the dollar for . . . highly liquid funds" [62, 1970, p. 409]; by 1970, he suggests, an estimate of "15 rupees to the dollar [is] not extreme" [62, 1970, pp. 409–10]. Using Islam's estimate of the degree of overvaluation we can calculate a free rate of Rs. 9.2 for 1963–64 [28, 1970, pp. 56 and 58]. Lewis calculates "implicit exchange rates" for West Pakistan for 1963–64 as lying between Rs. 7.57 and 9.67, depending on the weighting system adopted [35, 1968, Tables 2 and 3, pp. 68 and 70]. Hogan states that "A 'free' market rate of about Rs. 11.90 = \$ U.S. 1.00 applied for some years to those goods brought into Pakistan with the import rights conferred by an export bonus voucher. During 1967 this rate moved to about Rs. 13.00 = \$ U.S. 1.00" [25, 1968, pp. 39, 40].

From all these points of view (and from others mentioned by Winston) it seems clear that an overvalued exchange rate has many implications for the entire development program of a country—implications which all point in an adverse direction. So far as the most immediate effect is concerned—the profit on the currency transaction—Winston estimates that, with a 20 percent over-invoicing and a free rate of Rs. 20 to the dollar, the financial profit reached 25 percent in 1970. “Now importing 1,000,000 rupees of invoiced capital goods earns a financial profit of 351,540 rupees. The investment worth 1,400,000 rupees in the official record represents capital goods with an actual pre-tariff value of 800,000 rupees” [62, 1970, p. 410].

In passing, it may be noted that for Balassa and Schydrowsky the very notion of a unique equilibrium free-market exchange rate corresponding to some “acceptable” measure of tariff protection is insubstantial. They consider that the extent of protection is itself affected by the rate of exchange, and a certain level of protection may be provided by any one of a number of different combinations of tariffs, subsidies, and exchange rates. If, therefore, a country alters its protective system or its monetary and fiscal policies, the equilibrium exchange rate also alters. They assert, in consequence, that “one cannot therefore speak of overvaluation without specifying the desired changes in the system of trade barriers or in domestic policies . . .” [7, 1968, p. 357]. However, much of the force of their argument is lost when they go on to admit that, “for given domestic economic policies, one may wish to inquire what the equilibrium rate of exchange would be in a free trade situation. . . . Needless to say, from the point of view of efficient resource allocation in a competitive economy, this would be the only equilibrium situation” [7, 1968, p. 357]. It is basically this concept, of course, that Little-Scitovsky-Scott and oth-

ers who have written on overvaluation have in mind. Moreover, despite the claim of Balassa and Schydrowsky to have “provided evidence for the superiority of the effective tariff measure over the cost of foreign exchange for the purpose of indicating the desirability of individual industries” [7, 1968, p. 359] there seems in reality to be mainly a semantic difference. For it is usually the case that the estimates of a “free Market” exchange rate which have been calculated have been erected on the basis of effective tariffs. A ranking of industries from the least to the most competitive internationally (as, for instance, in Lewis and Guisinger [36, 1968, p. 1188]), would seem to be similar whether on the basis of effective tariffs or “free market” exchange rates.

VII. *Capital Utilization*

An important implication for the degree of utilization of capital equipment emerges from this discussion on the overvaluation of the exchange. The artificial cheapness of imports of capital equipment, together with the incentives discussed above to use capital-intensive techniques and low equipment instead of maintaining and expanding the old, “may go far to explain,” says Winston, “why, in capital-scarce West Pakistan, existing industrial capital is used 33 percent of the time while in the capital-rich United States, it is used 50 percent of the time” [62, 1970, p. 416]. And as the same author adds in a later article: “It is a paradox of no small significance that in the typical underdeveloped country *the existing stock of industrial capital is left idle most of the time*” [61, 1971, p. 36].

Hogan, again referring to Pakistan, states that the evidence “does point to a significant proportion of the installed capacity in manufacturing lying idle. Furthermore, the bulk of [the] calculations is based upon single-shift operations—a surprising constraint for an economy lacking its own sources of foreign exchange and relying heavily upon

official loans and grants from overseas" [25, 1968, p. 34]. Hogan's estimate is that in 1965 the actual value of production in manufacturing industry was only 73.8 percent of the value of capacity output [25, 1968, pp. 33, 50].

The Little-Scitovsky-Scott report considers that "the creation of excess capacity is virtually built into the system" (p. 226) and it adds:

If capital formation is encouraged at the expense of the utilization of capital equipment, it is more likely to hamper growth than to speed it, since the underutilization of capacity increases the amount of capital involved in producing a given output. A 50 percent utilization of manufacturing capacity (which is not untypical of developing countries) doubles the amount of capital needed to obtain a given output. . . . One tends to be shocked by the absurdity of giving capacity creation priority over capital utilization at times when capacity is grossly underutilized. . . . If the ultimate aim is to increase output, the cheapest, quickest, and simplest, way of doing this is through the better utilization of existing capacity (p. 227).

The ILO Report looks at utilization of capacity from the point of view of employment and believes that: "the existing law and practice tend to encourage long hours of work on the part of labour, and short hours of utilisation of equipment." "In Colombia," the authors continue, "precisely the opposite is needed" (p. 199). Existing law and practice have also prevented the operation of multi-shift working, but members of Womens' Liberation will be encouraged to learn that "many countries have come to the conclusion that under modern conditions night work for women does not present the moral hazards that may have existed a couple of decades ago" (p. 207).²⁰

²⁰ Winston in his 1971 article [61, 1971], contrary to some of the conclusions he arrived at in his previous contribution cited above [62, 1970], believes that underutilization is "largely a rational response to a widespread preference for working at a 'normal' time of day" and is "the result of perfectly sensible economic decisions made by perfectly sensible people." It is not something due to "inefficiencies in planning and policies" [61, 1971,

The United Nations Industrial Development Organisation (UNIDO) convened a group of experts on the subject of underutilization in 1969 [54, 1969]. The summary volume of the various country reports, whilst admitting that data is still "restricted," "unreliable," and "not comparable as between countries," concludes that "as industry moves ahead in developing countries, there is a tendency in a number of developing countries for under-utilized industrial capacity to increase and the unfavourable effects on the economy as a whole to increase correspondingly."

Table 7 (below) brings together some of the available information on capacity utilization, although it should be reiterated that the data is not strictly comparable between countries, no common system of measurement having been used. The estimates differ in their scope, coverage, and methodology. One of the major problems is, of

pp. 38 and 57). However, it seems to me that his initial reaction to the phenomenon might come nearer to the heart of the matter. For the question at issue is not so much that people behave irrationally, and in consequence underutilize capacity, but that the very economic environment in which they make their, to them, rational decisions provides an inducement for underutilization. Winston would surely agree that the Pakistani industrialist he was writing about in his earlier article [61, 1971] and who was making financial profits out of the existence of exchange control was acting perfectly "rationally." The point is that these profits—inimical to development—could only be made *because of the existence of an overvalued exchange rate*. Moreover, his latest contention that underutilization is something to do with preference for daytime work ignores the fact that most of the statistics on the degree of underutilization have been in any case based on utilization within *single-shift* working. Nor does his view cover the points that according to some evidence underutilization in developing countries appears to be increasing and that the problem is more acute in developing than in developed countries.

But it is true that the subject has not yet been fully explored. Hopefully this will be forthcoming in a study currently being made by Karlis Goppers at the Institute for International Economic Studies, Stockholm. Goppers inclines to the view that it is essential to separate *planned* excess capacity from *unplanned*.

TABLE 7
DEGREE OF UTILIZATION OF INDUSTRIAL CAPACITY

Country	Date	Utilization of Capacity Percent
Argentina	1961-67	43-68
	1968	56.8
	1966	64.5
	1965	70.0
Chile	1967	55.8 (a)
		33.1 (b)
		50.8 (c)
		45.7-64.8 (d)
Costa Rica	1962	72
Ecuador	1959	41
	1961	
El Salvador	1962	73
Guatemala	1962	74
Honduras	1962	68
India	B. 1955-64	88.8
	A. (f)	61.9
Israel	1963	60
Nicaragua	1962	82
Pakistan	1965	73.8
Pakistan (West)	1965-68	33
Venezuela	(g)	50-75

Sources and Notes:

India. Estimate A: K. L. Saxena, *Excess industrial capacity in India and the possibility of its utilization for export purposes*, UNIDO ID/WG, 29/5, 27 January 1969 (mimeo), p. 18.

Estimate B: UNIDO, *Industrial excess capacity and its utilization for export*, ID/WG, 29/8, 21 January 1969 (mimeo), p. 6.

Other Countries. UNIDO *ibid.* pp. 20-21 and BRODERSONN, M. S. *The utilization of production capacity in Argentine industry*, UNIDO, ID/WG, 29/9, 12 February 1969 (mimeo), p. 14, and MERRAV, M. *Excess capacity-measurement, causes and uses: A Case study of selected industries in Israel*, UNIDO, ID/WG, 29/7 (mimeo), p. 19 (reprinted in UNIDO, *Industrialisation and productivity*, No. 15 1970), and WINSTON, G. C. [61, 1971, p. 38], and HOGAN W. [25, 1968, pp. 33 and 50].

- (a) large-scale industry
- (b) medium-scale industry
- (c) small-scale industry
- (d) total manufacturing
- (e) some sections of industry utilize less than 50 percent of capacity
- (f) average for the individual years 1951, 1955, 1960, 1965 and 1967
- (g) no date quoted in source

course, to decide on the period of time capacity which "should" be in use. The 1955-64 estimate for India, for instance, takes into account officially reported capacity estimates based on the number of shifts actually worked (single shift for 102 of the 140 industries covered, double shift for 6 and three shifts for 32 industries with continuous production processes). If multiple shift working had been adopted more generally where it was suitable, then the measured degree of underutilization on this basis would have almost doubled (*i.e.*, from 10.5 percent to 18.4 percent, 1961-64). Moreover, the averages shown in Table 7 conceal a wide variety of utilization ratios as between industries in any particular country. In the case of India only half the industries had a utilization rate of over 75 percent. In one-third of the cases the rate was below 35 percent; there were even instances of a rate of under 20 percent. In Israel, capacity utilization varied from 33 percent in the citrus products industry for 1961-62 on the basis of double-shift working, to 100 percent in the plastic moulding industry with double shifts in 1962-63.²¹ Furthermore, there are also wide differences among particular products within an industry in a country: in the chemical industry in Brazil,²² for instance, the degree of capacity utilization varied for the most part between 40 and 90 percent.

VIII. Effects of Developed Countries' Policies

Both the ILO Report and Little-Scitovsky-Scott believe that "in the long run it is clear that both industrial and developing countries would benefit from greater specialization along the lines of comparative

²¹ Note that the dates do not correspond with the year used for the average of all industry in Table 7, *viz.* 1966.

²² No overall industry figure for Brazil is available. The statistics quoted in the text come from R. A. da Silva Leme, *Excess capacity in Brazilian industry*, UNIDO, ID/WG 29/12, 5 February 1969 (mimeo), pp. 10-11.

advantage" (ILO, p. 338). Whilst both reports mention that nominal tariffs on imports into developed from developing countries are a barrier to trade, the ILO states that "tariff concessions by themselves would be of only limited value" so long as quantitative import restrictions remain (p. 337). The Little-Scitovsky-Scott report also believes that for certain products like textiles, clothing, and processed agricultural products, quota restrictions and other non-tariff barriers are of more importance than tariffs in effectively isolating the markets of the developed countries from actual or potential exports from the developing countries.

Just as Little-Scitovsky-Scott emphasized the drawbacks of high *effective* tariffs in the developing countries, so they point out how in the developed countries there is very often a large disparity between nominal and effective tariffs which is detrimental to the ability of the developing countries to increase their exports, and also undesirable from the point of view of an optimum allocation of resources within the developed countries. Some selected examples of nominal and effective tariffs are presented in Tables 8 and 9 on pages 787-788.

It may be of some interest to attempt a rough calculation of the amount by which the exports of manufactures from the developing to the developed countries would increase if all tariffs against them in the developed countries were removed. Balassa [5, 1965, p. 593] estimated that in the pre-Kennedy Round era of 1962, when the average nominal tariff of the major developed countries on all imports of manufactures was 10.9 percent (see Table 9), the elimination of duties would lead to the following relative increases in manufactured imports: Japan, 39.9 percent; United Kingdom, 30.9 percent; E.E.C., 28.2 percent; Sweden, 14.0 percent. For the U.S.A. Balassa estimated 38.2 percent, but this was increased later by Johnson [29, 1967, p. 163] to 54.1 percent to take account of the fact that the elasticity

of supply in that country is perhaps one-half higher than in the other countries. An average of these proportionate increases (using the higher U.S. figure), weighted by the total imports of each country in 1969 works out to be 35.3 percent. Thus Balassa might be interpreted as implying that an elimination of the tariff of 10.9 percent results in an increase of 35.3 percent in total imports of manufactures by the developed countries. In the post-Kennedy era, the comparable average tariff is 6.5 percent (Table 9). Therefore, proportionately, we might assume that the elimination of this 6.5 percent tariff would result in an increase of 21.1 percent in total imports of manufactures by the developed countries.

In 1969, the total imports of the developed market economy countries of chemicals, machinery and "other manufactures" (S.I.T.C. 5 + 6 + 7 + 8)—roughly "manufactures"—was \$120.2 billion. Of this sum, \$8.3 billion, or 7 percent, was from developing market economies.

Thus the total imports of manufactures into developed countries might be expected to rise to 121 percent of \$120.2 billion, which equals \$145.6 billion, a rise of \$25.4 billion on the 1969 figure. If we assume the same proportion to come from the developing countries for the marginal as well as for the average, *viz.* 7 percent, we find that \$1,775 million extra imports of manufactures might be expected to come into the developed from the developing countries on the elimination of tariffs. This increase of around 20 percent of present imports of manufactures from developing countries may be compared with the figure of 34 percent arrived at by Johnson [29, 1967, p. 103] as the potential increase—a figure based on 1962, *i.e.* pre-Kennedy Round, tariff data. And a more recent figure has been produced by UNCTAD—\$702 million [50, 1968, p. 202].

One further point should be taken into consideration when assessing the effect of

TABLE 8
SOME EXAMPLES OF NOMINAL AND EFFECTIVE TARIFF RATES IN DEVELOPED COUNTRIES
(Percent)

	United States		United Kingdom		E.E.C.		Sweden		Japan	
	Nom- inal	Effec- tive	Nom- inal	Effec- tive	Nom- inal	Effec- tive	Nom- inal	Effec- tive	Nom- inal	Effec- tive
A (1968)										
Thread and yarn	11.7	31.8	10.5	27.9	2.9	3.6	2.2	4.3	2.7	1.4
Textile fabrics	24.1	50.6	20.7	42.2	17.6	44.4	12.7	33.4	19.7	48.8
Clothing	25.1	35.9	25.5	40.5	18.5	25.1	14.0	21.1	25.2	42.4
Wood products	12.8	26.4	14.8	25.5	15.1	28.6	6.8	14.5	19.5	33.9
Leather	9.6	25.7	14.9	34.3	7.3	18.3	7.0	21.7	19.9	49.0
Rubber goods	9.3	16.1	20.2	43.9	15.1	33.6	10.8	26.1	12.9	23.6
Weighted average of 36 product groups	11.6	20.0	15.5	27.8	11.9	18.6	6.8 ^b	12.5 ^b	16.2	29.5
B										
Coconut oil (refined)	5.7	57.5	—	—	15.0	150.0	—	—	—	—
Jute fabrics	3.1	5.3	—	—	23.0	39.6	—	—	—	—
Cigarettes	47.2	89.0	—	—	—	—	—	—	—	—
Hard fiber manufactures	15.1	38.0	—	—	—	—	—	—	—	—
Copper wire	—	—	10.0	77.0	10.0	77.0	3.0	23.0	—	—
Shelled groundnuts	—	—	—	80.0	—	140.0	—	—	—	—
Processed product of crude oil and coke	—	—	—	80.0	—	140.0	—	—	—	—
Processed cottonseed	—	—	—	—	10.0	84.0	—	—	—	—
Processed soybean	—	—	—	—	10.0	160.0	—	—	—	—
C (1954)										
Canned seafood	13.6	23.4	—	—	—	—	—	—	—	—
Canned fruits and vegetables	16.3	23.7	—	—	—	—	—	—	—	—
Glass containers	31.2	58.2	—	—	—	—	—	—	—	—
Lighting fixtures	30.7	63.8	—	—	—	—	—	—	—	—
Watches and clocks	39.3	90.1	—	—	—	—	—	—	—	—
Unweighted mean: c. 50 product groups	14.0	19.0	—	—	—	—	—	—	—	—
Weighted mean: c. 50 product groups	11.2	15.6	—	—	—	—	—	—	—	—

^a Date not quoted, but probably refers to the early 'sixties.

^b Cf. Norway in 1954 when the nominal and effective rates were both four percent when based on domestic input-output coefficients, and two percent and six percent respectively when based on free trade input-output coefficients [2, Balassa, 1971, p. 315].

Sources:

- A. BALASSA, BELA, "Tariff Protection in Industrial Countries: An Evaluation," *J. Polit. Econ.*, Oct. 1966, 73(5), pp. 580, 585. (Selection from 36 product groups.)
- B. JOHNSON, HARRY G. *Economic policies towards less developed countries*, London: Allen and Unwin, 1967, p. 91.
- C. BASEVI, GIORGIO, "The United States Tariff Structure: Estimates of Effective Rates of Protection of United States Industries and Industrial Labor," *Rev. Econ. Statist.*, May 1966, 48(2), pp. 153, 154. (The effective rate used in Table 8 is the one calculated by Basevi using a tariff rate on residual inputs, i.e., on the "other material inputs" not specified in the source material from the Census of Manufactures, of 5.1 percent.)

TABLE 9
 AVERAGES OF NOMINAL AND EFFECTIVE TARIFFS ON IMPORTS OF MANUFACTURES FROM ALL COUNTRIES AND DEVELOPING COUNTRIES BY DEVELOPED COUNTRIES

Country	TARIFF AVERAGES ON TOTAL IMPORTS OF MANUFACTURES BY DEVELOPED COUNTRIES			TARIFF AVERAGES ON IMPORTS OF MANUFACTURES FROM DEVELOPING COUNTRIES BY DEVELOPED COUNTRIES		
	Nominal percent (1)	Effective percent (2)	(2) as percent of (1) (3)	Nominal percent (4)	Effective percent (5)	(5) as percent of (4) (6)
A						
<i>c. 1964</i>						
United States	11.6	20.0	172	17.9	35.4	198
United Kingdom	15.5	27.8	179	19.5	37.3	191
E.E.C.	11.9	18.6	156	14.3	27.7	194
Sweden	6.8	12.5	184	9.8	21.2	216
Japan	16.2	29.5	182	18.0	36.7	207
Total Above: Industrial Countries	11.4	19.1	168	16.3	32.8	201
B						
<i>"Pre-Kennedy"</i>						
Total Industrial Countries	10.9	19.2	176	17.1	33.4	195
<i>"Post-Kennedy"</i>						
Total Industrial Countries	6.5	11.1	171	11.8	22.6	192
"Post-Kennedy" as Percent of "Pre-Kennedy"	59.6	57.8	—	69.0	67.7	—

Sources:

- A. BALASSA, BELA, "The Impact of the Industrial Countries' Tariff Structure on Their Imports of Manufactures from Less Developed Areas," *Economica* (N.S.), November 1967, 34(186), p. 374.
- B. Little-Scitovsky-Scott, *op. cit.* p. 273, based on BALASSA, BELA, *The structure of protection in the industrial countries and its effects on the exports of processed goods from developing countries*, I.B.R.D. Economics Department, Report No. E.C.-152a, 28 February 1968 (mimeo), Table 6. (Also published by UNCTAD under the same title, with the reference TD/B/C.2/36.)

tariffs in developed countries: there is an almost consistent pattern that products at a higher stage of processing than a lower are protected by higher tariffs (see Table 10 below). Sweden, for instance, has a zero effective (and nominal) tariff on imports of hides and skins. But the effective rate goes up as we move through the processing stages: 4.3 percent for leather, 22.1 percent for leather goods except shoes, 22.8 percent for leather shoes. For all imports from non-Commonwealth countries taken together, the United Kingdom's effective tariff rate on Stage 1 (unprocessed) commodities is 3.6 percent; for the second stage it is 28.9 percent, for the third it is 36.6 percent and

for the fourth and highest, 38.3 percent. This tendency clearly discourages the growth of exports of increasingly sophisticated goods from developing countries.

The Report of Little-Scitovsky-Scott in analyzing the effects an opening of the market to greater exports from developing countries would have on developed countries concludes that: "the net impact on employment in developed countries would probably be approximately zero, since as many employment opportunities would probably be created as destroyed." In addition "the new employment would probably be at higher wages on average than the old" (since displaced labor would shift into

more productive employment) (p. 286).²³

The major problem, therefore, for the developed countries is that of transition—how most effectively and with minimum social cost to run down industries affected by increased imports from developing countries. In an example worked out on the basis of an assumed increase of \$1 billion²⁴ worth of manufactured imports from developing countries the proportionate falls in employment in the six sectors most involved are given. In textiles, for instance, the fall in employment in the U.S.A., the U.K. and the E.E.C. combined would be under one percent. Leather, the hardest hit, would suffer an employment decline of 2.1 percent in the U.S.A. and 1.9 percent of the U.K./EEC. But, as the report comments;

Even this . . . is well below the rates of labour turnover which are commonly found. It is also well below the rates of decline in total employment in Lancashire textiles and the European coal industry which we have already noted. . . . Experience shows that the problems can usually be dealt with by suitably generous compensation and by other measures . . . [pp. 287–89].

It is not only tariffs, however, which impede the flow of manufactured exports from developing countries, but also the “non-

²³ Cf. the ILO which estimates that over the period 1961–65 the total number of workers who were obliged to change jobs as a result of increased imports from developing countries were 27,000 in N. America, 35,000 in the EEC and 20,000 in EFTA. These figures, representing the adjustments in eight major industries combined “represented less than 0.2 percent of total manufacturing employment in 1965 in each industrial area.” The report concludes that “there is a considerable scope for the developed countries to expand their imports of industrial products, capital-intensive as well as labour-intensive, from developing countries without seriously reducing employment in the industries directly affected.” And for some industries “an increase in competing imports would provide a salutary impetus to shifting their workers and especially workers in the least efficient producing units to new or expanding industries . . .” [27, 1968, pp. 154, 155].

²⁴ Cf. the figure of \$1.775 billion calculated just above as being the possible increase of imports of manufactures into developed from developing countries if all tariff barriers were removed.

tariff barriers” (N.T.B.s). These, the Little-Scitovsky-Scott report maintains, “are often more important than the post-Kennedy tariffs” (p. 274), and a number of examples are quoted. For more detailed quantified estimates of the effects of N.T.B.s we can go to Walter [59, 1971, pp. 200–02]. He calculates that for six illustrative product groups (prepared meats, vegetables and fruits, ceramics, starch products and sugar confectionary) imports by the developed countries from the developing countries would have been \$750–\$820 million instead of the actual \$486 million in 1968 if N.T.B.s had not existed. As Walter goes on to point out, the developing countries suffer a *greater* disability in respect of N.T.B.s than the rest of the world: whilst 28 percent of *all* imports of manufactures and semi-manufactures of the developed market economy countries were subject to N.T.B.s in 1968, 33 percent of this category of imports from developing countries had to face these difficulties. Alternatively, Walter calculated, whilst the developing countries’ share in total imports of manufactures and semi-manufactures by the major developed countries was 16.5 percent, their share of imports subject to N.T.B.s was 20.9 percent. Furthermore, he finds that “those manufactured and semi-manufactured product groups for which a relatively strong LDC competitive position exists . . . also tend to be the ones most heavily subject to non-tariff applications.”

Without explicitly stating their support for preferential tariffs for developing countries, Little, Scitovsky and Scott seem to give the plan their assent (pp. 295, 296). It is not intended to cover the voluminous UNCTAD and other literature on the subject here, but one estimate of the effect of preferences may be of interest. Clague [16, 1971, p. 193] calculates the gain in exports of manufactures and semi-manufactures which might be expected by the developing countries from a 50 percent pref-

TABLE 10
GRADUATION OF TARIFFS IN SOME DEVELOPED COUNTRIES ACCORDING TO DEGREE OF PROCESSING OF PRODUCT

	Nominal %	Effective %
<i>Section A (Post-Kennedy Round)</i>		
<i>Sweden:</i>		
Fresh Fruit	2.5	2.5
Preserved Fruit	10.3	21.8
Cocoa Beans	3.6	3.6
Cocoa Powder and Butter	3.9	31.6
Chocolate	11.3	27.0
Leather: Hides and Skins	0	0
Leather	1.7	4.3
Leather Goods except Shoes	10.4	22.1
Shoes	11.9	22.8
<i>U.K.</i>		
Cotton: Raw	0	0
Yarn and Thread	6.1	19.3
Fabrics	18.7	46.6
Clothing	20.0	28.6
Wood: Wood in the Rough	1.4	1.0
Wood Simply Worked	6.8	18.8
Plywood	8.7	12.7
Wood Manufactures	8.1	13.2
<i>U.S.A. (pre 10% levy of August 15, 1971)</i>		
Fish: Fresh and Frozen	1.3	—
Fish Preparations	4.9	11.0
Rubber: Natural	0	0
Rubber Products	4.6	6.6
Wool: Raw	9.7	—
Wool Yarn	20.7	49.5
Wool Fabrics, Woven	20.7	60.9
Wool Clothing	16.6	2.4

Section B. Weighted Averages of Nominal and Effective Tariffs for Various Stages of Processing (Post-Kennedy Round)

Processing	Sweden		U.K.*		EEC		Japan		All Industrial Countries		Value of Imports of All Industrial Countries from LDCs	
	Nominal %	Effective %	Nominal %	Effective %	\$ mill.	Percentage						
Stage 1	1.5	1.5	3.6	3.6	4.7	—	5.6	—	4.6	—	5663	71.2
Stage 2	3.2	6.7	9.7	28.9	8.6	20.5	14.9	51.1	7.9	22.6	1897	23.8
Stage 3	11.1	23.2	19.2	36.6	15.2	28.4	20.1	37.8	16.2	29.7	231	2.9
Stage 4	13.5	20.8	23.6	38.3	17.4	26.7	20.3	38.5	22.2	38.4	169	2.1

* Imports from non-Commonwealth countries.

Sources—Section A: UNCTAD, *The Kennedy Round estimated effects on tariff barriers*, New York: U.N., 1968, Appendix Table A, pp. 209-13.

Section B: UNCTAD, *ibid.*, Annex Table 1, p. 205.

erence on these items in the tariff lists of the U.S.A., U.K., EEC, and Japan. Clague's trade data covered \$2.1 billion worth of exports of manufactures and semi-manufactures from the LDCs to the above countries, and excluded petroleum products, processed agricultural products, and non-ferrous metals. This 1965 figure was adjusted upward to some \$2.2 billion to take account of trade increases following the Kennedy Round. Some of his basic results are shown in Table 11 on the following page.

It appears, therefore, that exports of this category might increase by 17.7 percent. If we apply this percentage to the exports of manufactures and semi-manufactures of LDCs to *all* countries in 1967 (again excluding, as did Clague, exports of processed food, petroleum products and non-ferrous metals) we find that the value would grow from \$6,416 million to \$7,552 million, a rise of \$1,136 million.²⁵

It is interesting to note also that out of the total expected gain of \$396 million in Clague's more restricted analysis, the U.S.A. accounts for \$273 million. One also sees that trade creation exceeds trade diversion by a wide margin. This is due, Clague says, to his assumption (probably legitimate) that supply elasticities are high.

The low level of exports, and in particular of exports of manufactures, from the developing countries is seen in Table 12. (This table brings together a good deal of the information dealt with by Little-Scitovsky-Scott, and is supplemented with additional data.) Thus we observe that exports of manufactures from developing countries as a whole total no more than about \$4.25 billion, compared with \$88.5 billion from the OECD countries (*i.e.*, less than 5 percent). And total exports per head from the developing countries are barely 10 percent of the OECD figure.

²⁵ Calculations based on UNCTAD [51, 1971, p. 6].

Nevertheless, as Little, Scitovsky and Scott point out, a few countries *have* performed quite well so far as exports are concerned, their success being due to export-orientated policies. To use the statistics provided by Balassa [6, 1971, p. 180], Taiwan and Korea, for instance, stimulated their exports of manufactures around 1960. The annual growth rate in these exports from Taiwan in the last twenty years has been over 30 percent; in the case of Korea, the annual growth rate between 1960 and 1969 was 69 percent. In addition, manufactures both as a proportion of output and of exports in these two countries were, by 1969, quite appreciable. In Taiwan the respective percentages were 36 and 67; in Korea, 18 and 76. Perhaps even more importantly, the *marginal* ratio of exports to G.D.P. in both countries has been high. In the period 1960-69 the ratio was 39 percent in Taiwan and 29 percent in Korea.

In Pakistan, exports of manufactures as a proportion of total exports had reached 51 percent by 1969—the third highest of the nine countries covered by Balassa. And exports of manufactures grew by 14.5 percent per annum between 1960 and 1969 (compared with 35.0 percent per annum 1950-60). But this was accomplished only by high subsidies to manufactured exports and this, together with the costs involved through high protection of domestic industry (as discussed earlier) has caused inefficiencies in the allocation of Pakistan's resources. In fact, as Balassa says, "If national income is measured at world market prices rather than at the domestic prices distorted by protection, increases in per capita terms appear to have been small" [6, 1971, p. 183].

Exports have also been a useful factor in the development of Mexico, Malaya, Chile, and the Philippines, but in the cases of Argentina and Brazil, increases have been relatively minor. Balassa comes to the conclusion that

TABLE 11

EFFECTS OF 50 PERCENT TARIFF PREFERENCES FOR EXPORTS OF MANUFACTURES AND SEMI-MANUFACTURES FROM DEVELOPING COUNTRIES TO MAJOR DEVELOPED COUNTRIES
\$ million

Commodity Group	Estimated Post-Kennedy Round Imports of Manufactures and Semi-Manufactures from LDCs by U.S., U.K., EEC and Japan	Gain in LDC Exports		
		Total	Trade Creation	Trade Diversion
Finished Manufactures	1,517.7	332.5	282.8	49.7
Semi-Finished Manufactures	721.1	63.0	45.8	17.1
Total Manufactures	2,238.7	395.5	328.6	66.9

Sources: [16, Clague, 1971, p. 183].

while the protection of the manufacturing sector may permit rapid growth at an early stage of import substitution it will eventually have adverse consequences for economic growth. Discrimination among industries does not permit specialization according to comparative advantage; the high protection of domestic industry induces the establishment of high-cost import substituting activities; and the bias against exports retards the development of manufactured exports. . . . [And,] in the absence of exports, the expansion of industries producing non-durable consumer goods and their inputs necessarily slows down after imports have been replaced since domestic production cannot continue to grow faster than home demand [6, 1971, pp. 183, 181].

So we return to the question of the encouragement to the growth of exports of manufactures from the developing countries which can be provided by the developed countries. For without the knowledge that markets are available, the developing countries will continue to pin their faith in intensified import-substitution, with ever-diminishing returns. It is with this in mind that Little, Scitovsky and Scott end their section on the actions to be taken by the developed countries when they say:

Whatever the means, and wherever the forum, the essential need is for the developed countries to show by their actions that they intend to move towards freer trade in manufactures with developing countries. The fears of the latter that restrictions will

be increased, rather than reduced, should then be allayed, and an important motive for developing countries' bias in favour of industrialization via import substitution removed [p. 296].²⁰

IX. Conclusions

It is never easy during the course of an ongoing historical movement, if one is involved in that process, to pinpoint the climacteric, the watershed, and to realize that from now on a particular problem is going to be approached in a different way. But there can be little doubt that a thorough survey of opinion on the problem of economic development would show that at the end of the 'sixties and the beginning of the 'seventies a new consensus began to emerge. Like all new attitudes, it arose not in a vacuum but in response to the demonstrable failure of past beliefs and practices. For it is difficult to alter accepted notions—we have invested too much intellectual capital in them. It is difficult to admit that

²⁰ It is to be hoped that the American balance of payments "package" introduced on August 15, 1971 and involving a 10 percent surcharge on tariffs will not lead to either a continuation of the surcharge or to other restrictive trade measures by the U.S.A. or by the rest of the developed world. For in such a restrictive climate it is altogether too sanguine to hope for the realization of more sensible economic policies in either the developed or the developing countries.

TABLE 13
BASIC STATISTICS OF DEVELOPING COUNTRIES COMPARED WITH OECD COUNTRIES

	← Population →		Arable and Arable Equivalent Land per Head Hectares c. 1960	← GDP at →		Index of Real Consumption per Head USA = 100 1960	Manu- facturing Output \$ US bil. 1958	Exports: Total \$ US bill. 1965	Exports: Manufac- tures ¹ \$ US bill. 1965	Exports of Manufac- tures as Percent of Total Exports 1965	Exports of Manufac- tures per Head \$ US 1965	Total Exports per Head \$ US 1965
	millions	Rate of Growth % per Annum		Factor Total \$ US bill.	Per Head \$ US							
	1967	1963-69		1967	1967							
Argentina	23.8	1.5	2.37	14.0	600	23.8	2.51	1.49	0.14	9.4	6.21	66.10
Brazil	85.7	3.0	0.81	24.9	291	12.1	2.61	1.60	0.16	10.0	1.98	19.80
Mexico	45.7	3.5	1.21	23.8	520	13.4	2.23	1.03	0.19	18.4	4.45	24.13
India	511.1	2.5	0.37	39.5	77	3.1	3.48	1.69	0.81	47.9	1.66	3.47
Pakistan	107.3	2.1	0.25	12.9	121	2.3	0.67	0.53	0.19	35.8	1.85	5.15
Philippines	34.7	3.4	0.29	9.0	230	n.a.	0.39	0.77	0.08	10.4	2.47	25.81
Taiwan	13.1	2.8	0.07	3.1	233	7.4	0.18	0.45	0.23	51.1	18.49	36.17
Total Above Countries	820.9	2.6 ²	n.a.	127.2	155	n.a.	12.3	7.56	1.80	23.8	2.31	9.69
Total Developing Coun- ties A ³	2022	2.2 ⁴	n.a.	262	129	n.a.	20.6	34.83	4.25	12.2	2.21	18.14
Total Developing Coun- ties B ⁴	2742	2.2 ⁴	n.a.	332	121	n.a.	n.a.	37.0 ⁵	n.a.	n.a.	n.a.	14.21
Total OECD Countries	657	c. 0.8	n.a.	1466	2231	n.a.	2758	119.99	88.53	73.8	137	185
Total Developing Coun- tries as percent of OECD	307	275	n.a.	17.9	5.8	n.a.	7.5	29.0	4.8	—	1.6	9.8

¹ Including processed food but excluding petroleum products, base metals and rough diamonds.

² Weighted average of countries listed.

³ World excluding North America, South America, Japan, U.S.S.R., East Europe, and China.

⁴ Weighted average of growth rates of South America, Africa and Asia.

⁵ World excluding North America, South Africa, Japan, U.S.S.R. and East Europe.

⁶ Including an estimate for China of about \$ U.S. 2 billion (Cf. KLATT, K. W., "A Review of China's Economy in 1970," *The China Quarterly*, July-Sept. 1970, 43, p. 116, where he states: "Today, China's trade turnover stands at close on U.S. \$4,000 million").

Sources: Population: IMF *International financial statistics* and UN *Statistical yearbook*.

Growth rates of population: I.P.P.F. *Family planning in five continents*. July 1971.

Arable land: Little, I., Scitovsky, T., and Scott, M., *Industry and trade in some developing countries*. OECD, 1970, Table 2.1, p. 33.

GDP: UNCTAD *Handbook of trade and development statistics*, Supplement 1970. New York, U.N., 1970, Table 6.2.

Real consumption per head:

Manufacturing output:

Total exports:

Exports of manufactures:

Little, Scitovsky & Scott, *op. cit.*, Table 2.1

what once appeared axiomatic is in fact subject to the limitations of time and space and must now be doubted. For there was a time when it seemed entirely reasonable that forced industrialization of the "backward areas" of the world should be stimulated via heavy industry, detailed government planning and import-substitution, with a minimum involvement in the international economy. If this led to a bias against agriculture, well so much the worse for agriculture which, anyway, was not a "leading-sector" and whose function was mainly to provide "surplus labor" for the new manufacturing industries. Unemployment? Impossible! As labor flows out of agriculture it will automatically be absorbed in manufacturing. Growing inequality of incomes? Possible, but in any case desirable for the accumulation of savings. Forgotten was the rapid growth rate of population in twentieth century developing countries, with consequent rapid growth of the labor force. Nor was it realized how the very system of stimulating industry would involve the creation of an extremely capital-intensive type of industrialization and a low rate of absorption of labor. It was not understood, either, that behind high tariff walls would shelter inefficient industries—"infant industries" which would never grow up.²⁷

It was, to repeat, natural that following the depression of the 'thirties, a fillip should be given to ideas of autarky and that the depression and the Second World War should lead both to an enhancement of the

²⁷ Cf. Johnson [30, 1963, p. 31]: "The explanation for the propensity of economists to concede the argument for protection rather than present the case for more appropriate and theoretically reliable remedies seems to lie in two factors—the tendency of economists when confronted with policy problems to ignore the rather elusive principle of consumers' sovereignty and to adopt the apparently but illusively firmer welfare criterion of an increase in the value of production, and the historical emphasis of the theory of international trade on the real cost approach to economic welfare as contrasted with the opportunity cost approach, an emphasis ultimately derived from the labor theory of value."

role of government and to the path of import-substitution. And there was always the example of the Soviet Union in apparently proving that without a market mechanism, "electrification plus Soviets," and the heaviest of heavy industry meant "development."

However, reality has a way of winning out. The signs of failure of the old policies became ever more obvious. Planning, with its conscious manipulation of industries, sectors, exchange rates *et al.* is seen increasingly to have led to inconsistent policies and to wastage of the all-too-scarce resources of the developing countries. The result has been not only an inadequate increase in real consumption per head but also the creation of a structure of production which increasingly militates against such an increase in the future. In short, the problems are becoming more difficult, not less. It is time that we learned to strengthen and to make use of market forces instead of tilting ineffectively and disastrously against them. One must hope that at this critical juncture in the field of development economics the virtues of the new thinking will start to be appreciated in practice in the developing and the developed countries.

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