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I. INTRODUCTION

The developing countries (LDCs) of Asia are a highly diverse group, encompassing a wide range of cultures, political and social structures, and economic organizations. Given the subject of this paper, our interest here is in the experiences of nonsocialist Asian economies in which agriculture has been a dominant sector (specifically, accounting for at least 25% of GDP and 50% of total employment in the early 1970s). Even within this group, comprised of nine LDCs in East and South Asia, significant differences in per capita income and in economic growth performance are shown (Table 1).

A large majority of the population in these countries, especially the lower-income countries, still live in rural areas, where agriculture and related production activities represent the principal means of livelihood, and in which productivity per person is typically the lowest in the economy. It seems inconceivable that sustained expansion of the national economy can be achieved without raising agricultural productivity and rural income. Yet experience in the past four decades suggests that the development strategies and policies adopted by many Asian LDC governments have paid insufficient attention to agricultural development as a means to promote overall economic growth.

Section II of this paper provides a stylized description of the evolution and major economic consequences of LDC development strategies, indicating also how some Asian developing countries have deviated from the general pattern and what the less hospitable external environment in prospect would imply for the choice of development strategy. The effects on agricultural production incentives, both direct and indirect (the latter through the induced real exchange rate changes), are then examined more closely for the nine Asian LDCs in Section II', drawing on empirical

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TABLE 1. Selected Economic Indicators

Country	GNP per capita		Agricultural share in GNP (%)		Average annual growth rate (%) 1965-1985	
	1985 (U.S. \$)	annual growth rate (%) 1965-1985	1965	1985	Agriculture	GDP
East Asia						
South Korea	2150	6.6	38	14	3.8	9.1
Malaysia	2000	4.4	30	21 ^a	4.4 ^b	6.8
Thailand	800	4.0	35	17	4.5	6.8
Philippines	580	2.3	26	27	3.9	4.3
Indonesia	530	4.8	59	24	4.0	6.8
South Asia						
Sri Lanka	380	2.9	28	27	3.0	4.3
Pakistan	380	2.6	40	25	3.0	5.4
India	270	1.7	47	31	2.8	4.2
Bangladesh	150	0.4	53	50	1.8	2.7

Sources: World Bank (1982, 1986, 1987).

Notes:

^a For 1983

^b For 1970-1985.

findings from recent studies. The distortion of agricultural incentives affect domestic output in the static sense through induced lower efficiency of resource use, as well as in the longer run through the negative effects on agricultural labor supply, capital formation, and technological innovation. Some broad implications for development strategy and policy are discussed in Section IV. The final section inquires into the political economy of protection/taxation, alluding to some individual country experiences and using regression analysis to examine the collective experience of several Asian developing countries.

II. PRO-INDUSTRIALIZATION BIAS OF PAST DEVELOPMENT STRATEGIES

Historically, as most present-day LDCs were formerly under colonial rule, their economies before independence were closely integrated with those of the colonizing countries. Rapid industrialization subsequently became a dominant objective of development strategy and policy for many of these countries, motivated by a desire to diversify the economy from a perceived overreliance on primary production and, more generally, to redirect the country's production capacity away from the "colonial" pattern towards providing a basis for modernizing the economy. To many political leaders and economic planners in developing countries, industrialization and economic development became virtually synonymous. Industry was expected to generate extensive employment opportunities, absorbing excess labor from the agricultural

sector; at the same time, labor productivity would increase throughout the economy and living standards of the population would improve.

The concomitant desire for economic independence led to an industrialization strategy based on import substitution, at least initially.¹ The domestic market was there for the taking, while export prospects looked bleak. Import-competing industries were promoted behind high tariff walls and/or quantitative import restrictions. Since the initial expansion of the manufacturing sector usually requires heavy imports of capital goods and materials, LDC governments also made available the needed foreign exchange at highly favorable terms.

The first phase of import-substitution policies focused on the protection of light industry, mainly producing labor-intensive, nondurable consumer goods that did not involve sophisticated technology. Most low-income LDCs, including the more recently independent African countries, are still at this stage in their industrial development. For others with a longer history of industrialization, the limited size of the domestic market (relatedly, the failure to significantly expand the effective demand of the rural population) eventually closed the growth opportunities in light consumer goods production. Their governments then took one of two alternative directions for industrial and trade policies. One is the extension of protection beyond light industry into the more skilled labor-, capital- and technology-intensive "upstream" industries, making them capable of producing previously imported capital goods and intermediate products that used to be processed abroad, as well as consumer durables. This second phase of import substitution was chosen by most Latin American countries in the 1950s and 1960s and also by many Asian countries in the 1960s and 1970s.

The other direction, taken by a smaller number of LDCs—most prominently, South Korea and Taiwan in the 1960s, was to encourage the exporting of unskilled labor-intensive, nondurable consumer goods into world markets. This was achieved largely through policy changes toward lower industrial protection and more realistic exchange rates as well as the development of export infrastructure. These countries benefited from the rapid expansion of the economies of the industrialized countries as well as the remarkable decline in industrial protectionism in the latter countries during the period through the early 1970s.

By the early 1970s, after the sustained large increases in labor-intensive industrial exports in the previous decade, relative factor supplies in the export-oriented LDCs had shifted away from the abundance of unskilled, low-wage labor. At that time, they began exporting more skill-, capital-, and technology-intensive goods, and this contributed significantly to the continued rapid growth of their economies.

The other, larger group of developing countries, those that entered the second phase of industrial import substitution, have remained basically inward-oriented, unable to export the capital- and technology-intensive products of protected upstream industries. Downstream, consumer good industries were forced to rely on poor quality and high cost material inputs, making them also uncompetitive in world markets. Owing to the low labor absorption in their domestic industries, severe problems of unemployment, underemployment and income inequality have persisted, preventing a broadening of the domestic market base. Neither domestic nor foreign

demand has therefore provided a significant, sustainable source of growth for their economies. In the 1970s, as manufactured exports came to be recognized as a "good thing," subsidies to industrial export producers began to be selectively granted. Such incentives, however, fell far short of fully offsetting the general bias in the protection structure against export production.

Indeed, agricultural export producers were in an even worse position; apart from the lack of access to such selective export subsidies and the price disincentive due to exchange rate overvaluation (arising in large part from the heavy protection of import-competing industries), agricultural products were generally subject to export tax (explicitly, or implicitly through the pricing policy of state marketing boards). As for food crop producers, various sources of "urban bias" in LDC policies tended to bring food prices down. This helped keep real wages low, reducing the cost to industrial enterprises of recruiting labor from the agricultural sector.

The above characterization of the evolution of LDC development strategies is admittedly somewhat stylized. For instance, South Korea protected some of its steel and chemical industries at an early stage, well before their export capacity was developed (Westphal and Kim 1981). Also, Asian developing countries differed in the duration, comprehensiveness and intensity of import-substitution policies adopted, as well as in the degree of production disincentives to agriculture. Even in the early years of its industrial development Malaysia had low tariff protection to domestic industry, exchange controls were not imposed, and quantitative restrictions were rarely adopted; this "was important in the continuing expansion of Malaysia's primary exports and contributed to the rise of a significant export manufacturing sector" (Lim 1981, p. 189). In Thailand the development strategy became more balanced between import substitution and export promotion and between industrialization and agricultural development in the first half of the 1970s (Akraśnee 1981). Although policies have also become less inward-looking in the other Asian countries since the early 1970s, their foreign trade regime has remained highly biased toward import-substituting industries.

In the Philippines, which has the longest history of import-substituting industrialization in the region, trade and exchange rate policies became more outward-oriented in the latter half of the 1970s; however, these policies reverted to having a strong anti-export bias later in the decade (Bautista 1987). Although significant incentives were accorded nontraditional exports in Bangladesh since the early 1970s, import-competing industrial production continued to be favored by the trade regime (Stern, Mallon and Hutcheson 1988). In Indonesia, after the easy stage of import substitution was completed around 1975, policymakers "chose to push the process of industrialization into the second phase of import substitution by promoting upstream industries" (Wie 1987, p. 89). In the case of India, whose restrictive trade regime and licensing policies in the industrial sector "led to economic inefficiencies and impaired her economic performance" (Bhagwati and Srinivasan 1975, p. 245), the development of heavy industries were promoted first, starting in the early 1950s, the lower-stream industries being forced to rely on inferior-quality domestically produced inputs and capital equipment.

The Sri Lankan government introduced a new policy package in 1977 aimed at liberalizing many aspects of the national economy, including the trade regime and industrial protection. While the "original objective of achieving neutrality in the overall industrial incentive structure" (Athukorala 1989, p. 78) has not been met, the policy reform presented a substantial departure from the previously very strong bias toward import-competing production. Finally, in the case of Pakistan, there has been slow but fairly steady progress in trade liberalization since 1960. Nevertheless, import quotas and high tariffs continue to exist, particularly on industrial consumer goods (Guisinger and Scully 1988).

An important point that bears emphasis is that industrial growth in the large majority of LDCs has not realized the expectations of its early advocates. The industrialization process has been isolated from the overall growth of the basically agricultural economy, benefiting only a small segment of the population. Its "modernizing" impact has not been felt in other sectors of the economy, which development policies have tended to neglect or discriminate against. After an initial spurt in domestic investment and output growth, import-substitution policies have resulted eventually in a marked slowdown in industrial expansion. Extensive employment opportunities have not generated, owing to the strong incentive bias favoring capital-intensive industries. Developing countries that promoted labor-intensive industrial exports have fared better, in terms of the higher rates of growth of industrial output and employment observed during the 1960s and 1970s.

Recent unfavorable developments in the international economy, including the slower economic growth in developed countries and rising protectionism against labor-intensive manufactured imports,² give cause for pessimism about "the feasibility of continuing to rely on manufacturing export-led growth as the major development dynamic for most LDCs during the next decade" (Adelman 1984, p. 938). In terms of development strategy for the next 5 to 10 years, an adverse external environment would imply, for many LDCs that are not already established exporters, that foreign trade is not likely to serve anymore as the primary source of economic growth. On efficiency grounds it is essential to adopt an open development strategy in which a neutral trade regime is an important component. Gains from trade should still be sought, and exporting of labor-intensive manufactures and primary products need to continue (especially since capital-intensive producer goods have to be imported). But the principal engine of growth now has to be internally driven.

Given the dominance of agriculture and the rural sector in the national economy, it is hard to envisage a more appropriate development strategy than one that gives primary emphasis to agricultural growth. Under this strategy, agriculture and the rural sector assume a pivotal role in the development process. Agricultural growth in itself is not the ultimate objective; it only serves as an intermediate objective. However, accelerated agricultural growth and in the generation of inter-sectoral linkages with the rest of the economy are considered to represent the key to rapid, broad-based, and self-sustaining economic development (Mellor 1976, 1986).

III. EFFECTS ON AGRICULTURAL PRODUCTION INCENTIVES

Considering the potentially substantial contribution of agricultural growth to a developing country's overall economic growth and development,³ it is unfortunate that most LDC governments have accorded the agricultural sector a low priority in past development strategies which, as indicated above, sought to promote domestic industry through import restrictions and export subsidies.

Restrictions on foreign trade affect relative prices and production incentives in two ways. One is through the differential effect on the domestic prices of tradable goods. The other is through the effect on the real exchange rate which in turn affects the domestic prices of tradable goods relative to home (nontradable goods). For example, import duties and quotas directly raise the domestic price of import-competing products relative to exportables, encouraging a shift away from export production. The same policy instruments have the effect of reducing the demand for imports which lowers the price of foreign exchange, making the domestic prices of tradable goods fall relative to home goods and hence indirectly biasing production incentives against both import-competing and export goods. Distinguishing between agricultural and nonagricultural tradable goods it has been estimated, for example, that an implicit tax of 6.6 percent is imposed on exportable agricultural goods (relative to nontradables) on average for every 10 percent uniform tariff rate on industrial imports in the Philippines (Bautista 1987).

Apart from the setting up of import barriers to protect domestic industry, other government policies not specifically directed to the agricultural sector have affected relative production incentives in Asian developing countries. Since the early 1970s, many of these countries have actively encouraged the expansion of manufactured exports, providing export producers such subsidies as low-interest credit, labor training subsidy, import duty drawback, and export credit insurance, which partially compensated for the general policy bias against exports.⁴ For example, industrial exports were given direct subsidies at average rates of 4 percent in Bangladesh and 16 percent in the Philippines during 1979–1980, while agricultural exports were taxed 3 to 4 percent on average in both countries. On the other hand, import-competing industries were being directly protected by tariffs and other import-related taxes of 28 percent in Bangladesh and 26 percent in Philippines (Bautista 1988).

A country's monetary and fiscal policies, foreign borrowing, and nominal exchange rate management may critically affect the real exchange rate and hence the profitability of agricultural tradable good production. In Indonesia, for example, the increased inflow of oil revenues in the mid-1970s led to the Dutch disease syndrome and squeezed profitability in the non-oil tradable goods sectors, both by directly bidding resources away from them and by the appreciation of the real exchange rate induced by the increase in money supply and the inflation rate while the nominal exchange rate was held fixed. However, during the first half of the 1980s, Indonesian policies (large government surplus, tight monetary control, and the March 1983 devaluation) succeeded in countering the downward pressure on the real exchange rate due to rising oil export receipts (Dorosh 1986).

There are, finally, the agricultural sector-specific policies that directly affect production incentives for farmers, which can reinforce or mitigate the indirect penalty due to industrial and macroeconomic policies. At one time or another, Asian governments have directly suppressed producer prices of specific farm products through the imposition of export taxes, operation of agricultural marketing boards, or both. An important objective of Malaysian agricultural pricing policy, for example, has been to set levels of taxation on rubber and palm oil sectors to finance public investment within and outside those sectors (Jenkins and Lai 1988).

A recent World Bank study provides quantification of the effects, both direct and indirect, of agricultural pricing policies on a comparable basis for eighteen developing countries (Krueger, Schiff and Valdés 1988). Table 2 presents estimates of the "direct" nominal protection rate (DNPR), representing the deviation of the domestic price from the border price at the official exchange rate, for the major

TABLE 2. Estimated "Direct" Nominal Protection Rates, 1970-1984 (in percent)

<i>Country and Commodity</i>	<i>1970-1974</i>	<i>1975-1979</i>	<i>1980-1984</i>
South Korea			
Rice (F)	44.5	108.5	99.5 ^a
Barley (F)	34.8	88.6	117.6
Beef (F)	35.2	111.0	138.4
Malaysia			
Rice (F)	4.4	38.8	76.0 ^a
Rubber: Estate (X)	-9.0	-35.0	-19.0 ^a
Smallholder (X)	-18.8	-24.6	-20.0 ^a
Palm Oil (X)	-11.6	-15.8	-3.6 ^a
Philippines			
Rice (F)	6.0	0.8	0.6 ^b
Corn (F)	18.2	24.4	37.7 ^b
Copra (X)	-11.2	-15.2	-36.3 ^b
Thailand			
Rice (X)	-31.8	-23.6	-16.0
Corn (X)	-2.4	-3.6	-3.0
Rubber (X)	-14.2	-20.6	-18.2
Sri Lanka			
Rice (F)	87.9	33.2	13.7
Tea (X)	-29.7	-43.4	-40.3
Rubber (X)	-29.6	-42.5	-45.7
Pakistan			
Rice (F)	-46	-47	-49
Wheat (F)	-22	-25	-31
Cotton (X)	-27	-26	-12

Sources: Moon and Kang (1987), Jenkins and Lai (1988), Intal and Power (1988), Siamwalla and Setboonsamg (1987), Bhalla (1982), Hamid *et al.* (1988).

Notes: F and X denote food and export crops, respectively.

^a 1980-1983.

^b 1983-1982.

import-competing food (F) and export (X) crops in the six Asian countries included in the World Bank study.⁵ They indicate generally negative price protection (i.e., taxation or "disprotection") against export crops due to sector-specific policies. The import-competing agricultural food products, on the other hand, had been accorded positive protection in most cases. The contrasting directions of protection for export and food crops are dramatically exemplified in Malaysia and Sri Lanka which shows significantly negative DNPRs for rubber and significantly positive DNPRs for rice.

It is notable that Pakistan, the lowest income country among the six Asian countries included in the table, shows the only negative price protection for food crops (rice and wheat). The Asian LDCs not included, namely, Indonesia, India, and Bangladesh are similarly placed in the per capita income scale (see Table 1) and, based on the findings in other studies, also tended to disprotect their food crops. The nominal protection rate has been estimated to be as follows: (1) in Indonesia, for rice and corn, -16.7 and -18.7 percent, respectively, during 1974-1979, and 2.8 percent and -8.2 percent, respectively, during 1980-1986 (Rosegrant *et al.* 1987); (2) in India, for rice and wheat, -19 and 0 percent, respectively, during the late 1970s (Binswanger and Scandizzo 1983) and -37 and -28 percent, respectively, during 1980-1985 (Gulati 1987); and (3) in Bangladesh, -24 percent for wheat and -17 percent for rice in the late 1970s (Binswanger and Scandizzo 1983).

As pointed out above, domestic agricultural prices are also influenced indirectly by government policies that affect the real exchange rate. Average estimates of the degree of real exchange rate overvaluation during 1970-1984 for the six Asian countries included in the World Bank study are shown in Table 3. They range from 0.4 percent for Malaysia in 1975-1979 to 33.5 percent for the Philippines in the early 1980s. The relatively slight exchange rate overvaluation observed for Sri Lanka is attributable to this country's high export taxes (which tend to offset the distortionary effect of import tariffs): In the case of Malaysia, the obvious explanation is its atypically low industrial protection. During the 1970s, the degree of exchange rate distortion decreased markedly in South Korea and Pakistan, but

TABLE 3. Real Exchange Rate Overvaluation (in percent)

	1970-1974	1975-1979	1980-1984
South Korea	21.4	8.1	6.1
Malaysia	2.3	0.4	6.0 ^a
Philippines	24.2	32.1	33.5 ^b
Thailand	15.9	24.1	25.5
Sri Lanka	0.7	11.2	14.3
Pakistan	31.1	21.8	19.6

Sources: Moon and Kang (1987), Jenkins and Lai (1988), Intal and Power (1988), Siamwalla and Setboonsamg (1987), Bhalla (1988), Hamid *et al.* (1988).

Notes:

^a For period 1980-1983.

^b For period 1980-1982.

increased sharply for the Philippines, the latter arising from the massive trade deficits incurred in the second half of the decade.

Table 4 contains estimates of the "total" nominal protection rate (TNPR) for the six Asian LDCs included in the World Bank study, which additionally take into account the "indirect" effects of trade and macroeconomic policies through the induced appreciation of the real exchange rate. A striking observation is that South Korea moved quickly during the 1970s from negative (or very low) to highly positive TNPRs, presumably related to that country's phenomenal income growth and sharp decline in agricultural GDP share. Except for rice in Malaysia (another high-income Asian LDC) and in Sri Lanka before the adoption of the 1977 liberalization policy package, the other countries generally maintained high levels of total price disprotection not only for export crops but also for food crops. In a few cases (rice and corn in the Philippines), the direct protection accorded the latter products was being exceeded by the negative indirect price effect arising from real exchange rate overvaluation, yielding therefore, a negative total protection rate.

TABLE 4. Estimated "Total" Nominal Protection Rates, 1970-1984 (in percent)

	1970-1974	1975-1979	1980-1984
South Korea			
Rice	3.5	73.1	73.9
Barley	-3.2	55.3	91.4
Beef	-3.1	75.8	110.5
Malaysia			1980-1983
Rice	-6.2	33.4	58.5
Rubber: Estate	-17.8	-26.8	-26.8
Smallholder	-26.6	-28.0	-22.4
Palm Oil	-20.2	-19.4	-14.0
Philippines			1980-1982
Rice	-14.4	-26.0	-27.7
Corn	-3.8	-9.2	-1.7
Copra	-27.4	-37.8	-54.3
Thailand			
Rice	-42.4	-36.0	-30.2
Corn	-17.2	-18.2	-22.0
Rubber	-28.0	-33.8	-34.0
Sri Lanka			
Rice	43.9	-16.2	-20.8
Tea	-46.9	-64.4	-59.1
Rubber	-46.0	-63.1	-62.7
Pakistan			
Wheat	—	-61	-56
Cotton	—	-60	-42

Sources: Moon and Kang (1987), Jenkins and Lai (1988), Intal and Power (1988), Siamwalla and Setboonsang (1987), Bhalla (1988), Hamid *et al.* (1988).

The quantitative importance of the indirect price effects of trade and macro-economic policies in other Asian countries, transmitted through real exchange rate overvaluation, has also been found in other studies. Binswanger and Scandizzo (1983) obtained the following comparative estimated values of the "nominal protection coefficient" ($NPC = 1 + DNPR$) and the "adjusted net protection coefficient" (ADNPC) (the latter measure is based on shadow exchange rates instead of official exchange rates):

		<i>NPC</i>	<i>ADNPC</i>
India:	Rice	0.81	0.65
	Wheat	1.00	0.80
Bangladesh:	Rice	0.83	0.69
	Wheat	0.76	0.63

In Indonesia, the real exchange rate appreciation induced by the Dutch disease associated with the huge oil export revenues during the mid-1970s had a major impact on the relative domestic prices of non-oil

tradable goods. The sharp decline in the (purchasing power parity-adjusted) real exchange rate index of the Indonesian rupiah, - from 100 in 1972 to 63 in 1976, - led not only to a substantial squeeze on the profitability of the import-competing sectors (Warr 1984, p. 54), but also "discouraged traditional labor-intensive agricultural exports . . . because of a lack of international competitiveness" (Paauw 1981, p. 157).

IV. IMPLICATIONS FOR DEVELOPMENT STRATEGY AND POLICY

Price disprotection of agricultural products affects domestic output not only through reduced allocative efficiency in the static sense (given factor supplies and technologies) but also, and more importantly, through the longer-run negative effects on agricultural labor supply, investment, and technological change. It is well known that rural-urban labor migration is a function of the intersectoral income differential that in turn is determined by agricultural prices, among other influences. Investment in farms is largely private, which can be presumed to respond to price incentives. Public investment is also likely to be affected by relative price changes. Thus, higher prices for farm products will attract more private capital, both physical and human, into agriculture. Moreover, the higher rates of returns for agriculture-related projects will make more attractive government expenditure in them, including rural infrastructure facilities and agricultural research and extension to develop and disseminate improved technologies.⁶ Finally, farmers will adopt new technologies only if they can expect their income to improve. Hence it is important for agricultural technology diffusion and productivity growth that price incentives are in place.

Agricultural growth can therefore be enhanced by eliminating, perhaps gradually, the policy-induced price biases against agriculture, as observed above. The removal of export taxes, both explicit and implicit, and of any price disprotection to food crops, would be significant steps in the right direction for many low-income Asian LDCs. On efficiency grounds, it is preferable to rely as much as possible on land, income and consumption taxes, rather than on trade taxes that distort production incentives. If revenue considerations dictate that export taxes and import tariffs cannot be avoided, the tax rate should at least be made uniform across all commodities.

It bears emphasizing that the real exchange rate is an important determinant of

agricultural production incentives. "Getting prices right" for agriculture then requires that the conduct of trade and macroeconomic policies, not just sector-specific pricing policies, be examined for their effects on the real exchange rate. It will be necessary to prevent the real exchange rate from being overvalued, so as not to impair the price competitiveness of agricultural tradable goods production. This would require that import restrictions unduly protective of domestic industry be liberalized and that a sustainable trade balance be maintained. A more realistic exchange rate policy would in the long run encourage not only export production but also efficient import substitution in agriculture as well as in the rest of the economy.

An additional consideration is the stimulus to nonagricultural production to be induced by increased rural incomes due to rising agricultural prices and productivity. This form of rural growth linkage is at the heart of recent proposals to adopt an agriculture-based development strategy.⁷ The effectiveness of such a strategy depends crucially on the expansion of the real income of rural households that initially results from agricultural growth. This will generate, as a first-round effect, an increased demand for food as well as for labor-intensive industrial products and services that bulk large in the consumption of rural households. Additionally, such a demand stimulus will set in motion a sequence of employment and income multiplier effects on the rural, regional, and national economies. Therefore, beyond the direct promotion of agricultural growth, strengthening the multiplier or linkage effects on the rest of the economy is a key element in an agriculture-based development strategy.

Whether supply will be able to match the increased demand for food and other labor-intensive goods that results from rising rural income depends on the availability of production inputs and their prices. For instance, if intermediate inputs to agricultural and nonagricultural production are made artificially scarce or expensive by a restrictive foreign trade regime and/or an underdeveloped domestic transport system, the full benefits from increased final demand in terms of output growth and labor absorption will not be realized. It is also clear that improvement of the rural infrastructure will be critical not only to the generation and diffusion of improved agricultural technologies, but also to the development and integration of rural markets.

The total employment effect of a given increase in rural income will be greater, and output growth will be more broadly based, the more skewed the consumption pattern is toward food and other labor-intensive products. Households of less affluent, small agricultural and nonagricultural producers are most likely to fit this pattern. Families of the more prosperous owners of large farms and industrial enterprises in developing countries tend to spend more on capital-intensive goods, whether locally produced or imported. It is therefore important that improvements in price incentives, production technologies and infrastructure facilities should reach the small producers in regionally dispersed areas.

The magnitude of the employment and output multiplier effects of agricultural growth on the national economy is in large part determined by the labor intensity of nonagricultural production. On the supply side the need to stretch the LDCs' scarce capital resources demands the "appropriate" choice of labor-intensive industrial technologies and products (Mellor 1986). At the same time, a broad-based, self-sustaining growth process requires substantial participation by the low-income, wage-

earning population, as indicated above. Unfortunately, trade and price policies in many LDCs have discriminated against labor-intensive industries including small enterprises and regionally dispersed industries. This is especially true where there are direct controls on foreign trade and the allocation of foreign exchange, but tariff policy and fiscal incentives for industrial promotion also tend to have an anti-employment bias. Price and trade policy reform should do away with distortionary incentive effects on factor use, size structure, and location choice.

It may also be necessary to mobilize resources (e.g., credit, transport, electricity, technology, labor training) in support of rural industries, considering that they are in general smaller scale, less capital-intensive, and make greater use of local materials in comparison with their urban counterparts (Ranis and Stewart 1987). Without positive measures to assist non-farm production in the rural areas, the demand stimulus of rising agricultural incomes may simply be dissipated on products of urban-based, capital intensive industries and on imported goods.

V. DETERMINANTS OF AGRICULTURAL PRICE DISPROTECTION

Why have many Asian LDC governments adopted policies detrimental to agriculture and the rural population? What is the nature of the political-economic forces that constrained policymaking in the past? What factors will impede movement in the direction of policy reform? The answers to these questions would differ by country, considering that these countries are a very heterogeneous group. While an intensive examination for each country is beyond the scope of this paper, some indication of the relevant political-economic considerations deemed significant in previous studies is warranted. Also, considering that the product-specific protection estimates from the country studies included in the World Bank project are based on the same methodology, it is interesting to attempt a quantitative investigation on the determinants of agricultural protection for this group of Asian developing countries. For this purpose, regression analysis is done below, using pooled cross-country and time series data.

INDIVIDUAL COUNTRY EXPERIENCES

The unique case of South Korea, in which agricultural price disprotection in the early 1970s soon turned to a rapidly increasing positive protection through the mid-1980s, has been rationalized in terms of the "social and political difficulties involved in intersectoral resource adjustments" (Honma and Hayami 1987, p. 59) accompanying the rapid shift in the country's comparative advantage from agriculture to industry. As the share of agriculture to GNP declined from 37.6% in 1965 to 26.4% in 1970 and 14.4% in 1980 (Table 2 in Moon and Kang 1987, p. 6), agricultural protection policies became more affordable at the same time that the political pressure for protection intensified due to the slower growth of farm income relative to industrial wage earnings.

Due to the perception that industrial protection will mainly benefit foreign- and Chinese-owned enterprises (Hoffman and Tan 1984, p. 54), the Malaysian government opted for only a mild form of import substitution policy in the 1960s. Together with a generally favorable balance of payments performance through the late 1970s, the limited protection domestic industry meant that the real exchange rate was not distorted significantly. The indirect effect on agricultural incentives due to domestic currency overvaluation was therefore insubstantial in Malaysia. However, the export crops (rubber and palm oil), also dominated by non-Malays, represented a major source of government revenue and were heavily taxed. On the other hand, there was a rapid increase in direct price protection of the politically powerful Malay-dominated rice farming sector, especially after the introduction in 1971 of the New Economic Policy.⁸

Agricultural pricing policies in Sri Lanka had been somewhat similar to that of Malaysia. A highly productive tree crop sector (tea and rubber) was severely taxed, which enabled the government to finance its large social expenditures until the mid-1970s. The political cost of doing this was relatively small, considering that only a small segment of the labor force—comprised mostly of Tamil workers—is employed in the tea and rubber plantations. On the other hand, rice production, dominated by the politically influential Sinhalas, was given positive direct protection. Because of the declining surplus from the tea crop sector (resulting in part from the deteriorating external terms of trade) and lack of offsetting resource flows from other sources, remaining in power for politicians “meant a resort to deficit spending and other quick-fizxes” (Bhalla 1988, p. 90) that eventually led to an economic crisis and the adoption of a “liberalization strategy” in 1977.

In Thailand, where the principal export crop (rice) is also the staple food, the government usually makes adjustments on nominal protection rates so as to stabilize domestic agricultural prices. “Only when the average distortion becomes very large, as they did for rubber in the early 1980s, was there a movement towards correction” (Siamwalla and Setboonsarng 1988, p. 54). Consistent with this, real exchange rate overvaluation and its associated effect on agricultural incentives have also been fairly stable over the years.

Price stabilization of food, especially the importable rice and corn, has also been a major policy objective in the Philippines. This is evidenced by the significantly negative effect of the border price obtained from price intervention regressions with the difference between domestic and border prices as the dependent variable (Intal and Power 1987). Also, there appears to have been no conscious coordination between direct and indirect price interventions over time, except in the use of export taxes (explicit and implicit) accompanying each major peso devaluation. The direct effects of sector-specific policies on agricultural incentives has been generally smaller than that of the indirect (real exchange rate-related) effects, the significant sources of the latter being the heavy industrial protection throughout most of the postwar period and current account deficits since the mid-1970s. The Philippine experience demonstrates the political difficulty, due to the hardening of vested interests over time, of shifting to market-oriented policies after a protracted period of highly distortionary trade and macroeconomic policies.

From the economic stagnation of the 1950s and the greater part of the 1960s, the change in Indonesia's political regime in 1967 ushered in a period of rapid growth, fueled by the expansion of extractive exports and of domestic demand for manufactured consumer goods. There was much scope for industrial import substitution, and this was favored by the new policy measures protecting import-competing consumer good industries (Anwar 1980). Both agricultural export production and import-substituting industries were adversely affected by the real appreciation of the rupiah associated with the 1973–1974 oil boom, the inappropriate macro-economic policies adopted, and the subsequent financial crisis of Pertamina. Additionally, the interventionist tendencies of the government have had unfavorable effects on the national economy, "which owed something to Indonesia's cultural background" (p. 240).

In Pakistan, there has been a sustained, albeit slow, reduction in direct and indirect price intervention in the agricultural sector, including "increases in procurement prices, deregulation of trade and industry, reduction in import subsidies, and elimination of the rationing system" (Hamid, Nabi and Nasim 1988, p. 71). An important area where policy reform has not been as successful is in the monopolistic state control of rice and cotton exports. This would seem to indicate that loss of government revenue and of jobs in the bureaucracy can be a major deterrent to the effective implementation of liberalization policies.

The Indian government recognized the pervasive bias against exports in the early 1960s, at which time export subsidies (in the form of tax exemptions and concessions, cash subsidies, import replenishment, etc.) were initiated. A nominal devaluation of 57.5% took place in June 1966, which was widely considered to be due to the pressure of foreign aid donors. Because the country's export did not improve and general price inflation intensified during 1966–1967, the public assessment of the devaluation was extremely critical. As argued by Bhagwati and Srinivasan (1975), however, better economic performance did not follow because (1) real liberalization was not achieved, owing to the removal of export subsidies and imposition of import duties, and (2) unfavorable developments (chiefly, the droughts of 1965–1966 and 1966–1967) occurred that were exogenous to the devaluation. Even so, "not merely did the government face a political storm over it but the political capacity to repeat such a package was damaged" (p. 164).

The common tendency of Asian developing country governments to selectively subsidize nontraditional (mostly industrial) export producers is demonstrated by the Bangladesh experience in the 1970s (Stern, Mallon and Hutcheson 1988). Although politically more expedient than a direct attack on the existing sources of policy biases (particularly import restrictions) favoring vested import-competing interests, such practice invariably (1) fell far short of fully compensating for the incentive biases against nontraditional export production and (2) exacerbated the price disprotection to agricultural tradable goods. The apprehension of policymakers in Bangladesh about exchange rate reform was that it would cause a reduction in export earnings, foreign demand for the country's principal export (jute) being perceived to be price inelastic.

MULTIPLE REGRESSION ANALYSIS

In examining more systematically the determinants of agricultural protection (taxation) based on the collective experience of Asian developing countries, regression analysis is done below, using as the dependent variable the nominal protection rate that embodies only the direct price effect of sector-specific policies. Preliminary regressions using the total protection rate as the dependent variable yielded relatively unsatisfactory results. It would seem then that real exchange rate management and sector-specific policies have not been regarded by Asian developing country governments as perfectly substitutable instruments. This does not preclude the possibility, however, that the degree of real exchange rate misalignment is a systematic determinant of the nominal protection rate. It can be a positive or negative influence depending on whether the real exchange rate instrument is used to reinforce or mitigate the effects of sector-specific policies on agricultural prices.

Two explanatory variables that frequently appear in the political economy literature on agricultural protection are income per capita and agricultural share in GDP (Anderson 1986). The need to tax agriculture is obviously greater in a low-income developing country and where the other sectors are only a minor contributor to total production. In the political market, the smaller sized, better educated, urban-based industrialist class is able to lobby the government more effectively than the numerous farmers in widely scattered rural areas with underdeveloped transport and communication infrastructure. As a country grows richer and domestic industry expands, agricultural taxation becomes less of an imperative: also, as the number of agricultural producers declines and rural infrastructure improves, there is less difficulty in organizing for political lobbying to advance farm interests. Furthermore, opposition to higher agricultural prices is weakened by the reduced dependence of the real income of urban workers on food prices. All this is expected to result in decreasing (increasing) levels of agricultural taxation (protection).

It should be pointed out that the reverse direction of causation is also possible. A country's income per capita and agricultural share in GDP can be affected significantly by the nominal protection on its major agricultural products. Strictly speaking, therefore, one can infer from the regression results only statistical associations rather than behavioral relationship. On the presumption, however, that there are other more dominant factors (unrelated to agricultural protection) underlying the observed intercountry and intertemporal differences in income per capita and agricultural share, it is reasonable to attribute some causality to the estimated nominal protection rate equation. In the Asian developing country context, the earlier discussion suggests two other considerations that may have a bearing on product-specific agricultural taxation levels. One concerns the dominant presence of a minority or majority ethnic group in the production sector that seems to partly explain within-country differences in protection rates for some agricultural products, for example in Malaysia the Chinese in the rubber and palm oil sectors, and the Malays in rice. The other relates to the observed higher disprotection rates for export crops relative to food crops. This may be due to the comparative ease, administratively and politically,

of taxing (commercial) export crops vis-a-vis (subsistence) food crops. As an offsetting factor, following Lipton's (1977) notion of urban bias in developing country policies, low prices for the latter crops can be viewed as a form of political settlement between the government and urban constituents, the cost being borne by rural-based food producers. Accordingly, dummy variables to capture these influences are included in the regressions.

The regression results presented in Table 5 are based on cross-country data for the three subperiods 1970-1974, 1975-1979 and 1980-1984 involving the major agricultural products of the Asian developing countries included in the World Bank project, which add up to 57 observations.⁹ Because of the low *t*-value of the coefficient estimate for the dummy variable relating to the dominant presence of a majority ethnic group (see equation 1), this variable is excluded in the other estimated equation (2). In either specification, the negative effect of the minority class dummy is found to be statistically significant, i.e., lower protection (higher taxation) rates are associated with the production of crops dominated by a minority ethnic group.

Allowing for the possibility that the relationship between the nominal protection rate and agricultural share in GDP is nonlinear, the square of the latter variable is also included in the regression. The estimated coefficients of the linear and squared

TABLE 5. Regression Results (Dependent variable: DNPR)

	Equation 1	Equation 2
Constant	347.8 (3.99)	350.4 (3.97)
GNPC	0.025 (1.33)	0.025 (1.34)
SHA	-19.9 (-3.00)	-18.3 (2.95)
SHA2	0.288 (2.30)	0.259 (2.20)
EXCR	-0.690 (-1.56)	-0.843 (-2.21)
DEXP	-34.5 (-4.08)	-37.1 (-4.91)
DMAJ	9.82 (0.70)	—
DMIN	-27.6 (-2.39)	-29.8 (-2.68)
\bar{R}^2	0.718	0.721

Notes: DNPR = direct nominal protection rate, in percent; GNPC = gross national product per capita, in 1973 U.S. dollars; SHA = share of agriculture in gross domestic product, in percent; SHA2 = square of SHA; EXCR = real exchange rate overvaluation, in percent; DEXP = dummy variable: 1 for export crops, 0 for food products; DMAJ = dummy variable: 1 for sectoral dominance of major ethnic group, 0 otherwise; DMIN = dummy variable: 1 for sectoral dominance of minor ethnic group, 0 otherwise.

Numbers in parentheses are *t*-values of coefficient estimates.

\bar{R}^2 is the adjusted coefficient of multiple determination.

terms of the agricultural share (SHA) are seen from Table 5 to be negative and positive, respectively, and both statistically significant. The effect of a decline in agriculture's share in GDP on the nominal protection rate (DNPR), other things the same, is given by $(19.9 - 2x.288SHA)$ based on equation (1) or $(18.3 - 2x.259SHA)$ based on equation (2). This is a positive effect, that is, NPR increases with diminishing SHA, except when agriculture's share exceeds 34.5 or 35.3 percent.

Agricultural protection is also found to increase with increasing GNP per capita, but only at the 19% level of statistical significance. Considering that the correlation coefficient between GNP per capita and agricultural share in GDP is somewhat high (0.585), interpretation of the estimated coefficients of these variables in terms of their separate quantitative effects should be made with caution.

It is notable that the coefficient estimates for the real exchange rate variable have a negative sign, indicating that on balance the price disprotection to agricultural products due to sector-specific policies in the Asian developing countries have been reinforced by real exchange rate overvaluation. Also, it seems clear from the regression results that export crops have been taxed much more heavily than food products, other things the same. This provides corroborative evidence, based on the collective experience of Asian developing countries, of the substantial policy bias against agricultural export production previously observed in individual country analyses (e.g., Bautista 1985).

The final observation to make is that about 72% of the variance of the nominal protection rate is explained in either of the two estimated equations, which is quite satisfactory for a cross-country regression of this type.

Based on the above regression results, one can expect that agricultural price disprotection in Asian developing countries will be reduced over time in the course of economic growth as the weight of agriculture in their economies becomes smaller, as the importance of food prices in urban household expenditure declines, and as the cost of transportation and communication in the rural sector decreases relative to the urban centers. For some of these countries, agricultural taxation has the potential to seriously impair their growth prospects, in which case hastening the reduction of the existing agricultural price bias would seem warranted. This can be facilitated by increasing the political cost to governments of taxing agriculture relative to the political benefit. The means by which this can be done would best be analyzed at the individual country level, since the precise nature of the political market for agricultural protection/taxation differs from country to country. In general, the net political benefit would improve if greater political weight were given rural producers. A move toward decentralization of the political decision-making process would undoubtedly help, given the existing situation of highly centralized political systems that cater to urban interests in most Asian developing countries.

NOTES

1. One exception in Asia is Sri Lanka, whose first decade of independence was characterized by

free trade and heavy dependence on tree crop exports; it was only in the late 1950s that industrial development via import substitution was actively promoted by the government. Also, the rapid growth of some economies in Latin America after independence was fueled by expanding primary production and exports. The drastic deterioration of their terms of trade during the Great Depression of the 1930s prompted the shift in development strategy toward import-substituting industrialization.

2. "Trade in textiles was the first victim, followed closely by trade in footwear, leather goods, steel, shipbuilding, cars and consumer electronics" (World Bank 1987, p. 133). Since the mid-1970s, even as tariff rates were being lowered as part of the GATT-sponsored Tokyo Round of multilateral negotiations, the number and restrictiveness of nontariff barriers—in the form of voluntary export restraints, bilateral quotas, and various administrative measures—have grown significantly. "Such restrictions cover large volumes of imports and affect developing countries' exports in particular" (World Bank 1987, p. 10). Particularly hard hit were exporters in the "lower middle-income economies" (by World Bank definition, with GNP per capita in 1985 from 400 to 1,600 US dollars), whose average annual export growth rate was reduced from 6.8 percent in 1965–1980 to only 1.1 percent in 1980–1985.

3. The now-classic statement on the crucial importance of agriculture to economic development is Johnston and Mellor (1961). See Mellor (1976) and Adelman (1984) for quantitative assessments in India and South Korea, respectively.

4. Some of the incentive policies are effective only to the extent that the exporter uses imported inputs, introducing therefore an effective penalty to the use of domestically-produced inputs. This is reflected in the high import content of the major nontraditional export products such as garments and consumer electronics, and in the crucial importance of Export Processing Zones for the industrial performance of some countries (e.g., Malaysia and the Philippines), inhibiting the development of intersectoral linkages within the domestic economy.

5. Some adjustments were made for transport costs, storage costs, and quality differences. This measure does not include the protection or penalty from the pricing of intermediate inputs. Due to data limitations, not all country studies in the World Bank project were able to derive estimates of the "effective protection rate" that would have quantified the extent to which domestic agricultural value added had been protected. It would appear, however, that the protection structure is not significantly affected by taking into account the cost of intermediate inputs, because of the latter's relatively small share in the value of agricultural output and because "most input subsidies were inframarginal" (Krueger, Schiff and Valdés 1988; p. 258).

6. For example, Hayami and Kikuchi (1978) have shown that irrigation investment by the Philippine government in the 1970s correlated very well with the import price of rice which was a major determinant of the profitability of irrigation construction. "Although rice research in India has been going on for decades, fertilizer-responsive varieties were long neglected . . . (due to) the prevailing overpriced fertilizer and underpriced paddy" (Schultz 1978, p. 16).

7. See Mellor (1976) for an early statement.

8. The declared objectives of the New Economic Policy, namely, the eradication of poverty and the restructuring of Malaysian society so as "to eliminate the identification of race with economic function," have in practice been viewed as one of promoting the economic advancement of the Malays relative to other Malaysians.

9. Average values of GNP per capita and agricultural share in GDP during each subperiod for the five Asian countries were calculated from basic data in various editions of *World Tables*, a World Bank Publication.

REFERENCES

- Adelman, I. "Beyond Export-led Growth." *World Development* 12 (9), September 1984.
- Akrasane, N. "Trade Strategy for Employment Growth in Thailand." In *Trade and Employment in Developing Countries*, edited by A. O. Krueger, et al. Vol. 1, Individual Studies. Chicago: University

- of Chicago, 1981.
- Anderson, K. "Economic Growth, Structural Change and the Political Economy of Protection." In K. Anderson and Y. Hayami, *The Political Economy of Protection*. Allen and Unwin, 1986.
- Anwar, M. A. "Trade Strategies and Industrial Development in Indonesia." In *ASEAN in a Changing Pacific and World Economy*, edited by R. Garnaut. Canberra: Australian National University Press, 1980.
- Athukorala, P. "The Impact of the 1977 Policy Reforms in Domestic Industry." *Upanathi* (Journal of the Sri Lanka Association of Economists) 1(1), January 1986.
- Bautista, R. M. "Effects of Trade and Exchange Rate Policies on Export Production Incentives in Philippine Agriculture." *Philippine Economic Journal* 24(2, 3), 1985.
- Bautista, R. M. *Production Incentives in Philippine Agriculture: Effects of Trade and Exchange Rate Policies*. Research Report 59. Washington, D.C.: International Food Policy Research Institute, 1987.
- Bautista, R. M. "Agricultural Incentives and Macroeconomic Linkages in Asia." A paper presented at the 1988 conference of the International Association of Agricultural Economists, pp. 24-31. Buenos Aires, Argentina, August 1988.
- Bhagwati, J., and T. N. Srinivasan. *Foreign Trade Regimes and Economic Development: India*. New York: Columbia University Press, 1975.
- Bhalla, S. S. "The Politics and Economics of Agricultural Price Policies in Sri Lanka." A paper prepared for the World Bank. Washington, DC, February, 1988.
- Binswanger, H. P., and P. L. Scandizzo. "Patterns of Agricultural Protection." ARU Report No. 15, Agriculture and Rural Development Department, World Bank. Washington, DC, 1983.
- Dorosh, P. W. "Linkage Between the Macro-economy and Agriculture: A Study of Indonesia's Food Sector from 1949 to 1984." Ph.D. Dissertation. Department of Food Research, Stanford University, 1986.
- Guisinger, S., and G. Scully. "The Timing and Sequencing of a Trade Liberalization Policy: The Case of Pakistan." A paper prepared for the World Bank, Washington, DC, March, 1988.
- Gulati, A. "Effective Protection and Subsidies in Indian Agriculture: Case of Wheat and Rice." *Indian Journal of Agricultural Economics* 42(4), October-December, 1987.
- Hamid, N., I. Nabi, and A. Nasim. "A Comparative Study of the Political Economy of Agricultural Pricing Policies: The Case of Pakistan." A paper prepared for the World Bank, Washington, DC, February 1988.
- Hayami, Y. and M. Kikuchi. "Investment Inducements to Public Infrastructure: Irrigation in the Philippines." *Review of Economics and Statistics* 60(1), February 1978.
- Hoffman, L. and S. E. Tan. *Industrial Growth, Employment and Foreign Investment in Peninsular Malaysia*. Kuala Lumpur: Oxford University Press, 1980.
- Iionma, M. and Y. Hayami. "Agricultural Protection of East Asia in International Perspective." *Asian Economic Journal* 1(1), March 1987.
- Intal, P. S., and J. H. Power. "Government Interventions and Philippine Agriculture." A paper prepared for the World Bank, Washington, DC, December 1987.
- Jenkins, G. P., and A. K. Lai. "The Political Economy of Agricultural Pricing Policies in Malaysia, 1960-1983." A paper prepared for the World Bank, Washington DC, February 1988.
- Johnston, B. F. and J. W. Mellor. "The Role of Agriculture in Economic Development." *American Economic Review* 51(4), September 1961.
- Krueger, A. O., M. Schiff, and A. Valdés. "Agricultural Incentives in Developing Countries: Measuring the Effect of Sectoral and Economywide Policies." *World Bank Economic Review* 2(3), September 1988.
- Lim, D. "Malaysia." In R. M. Bautista et al., *Capital Utilization in Manufacturing*. Oxford University Press for the World Bank, 1981.
- Lipton, M. *Why Poor People Stay Poor: Urban Bias in World Development*. Cambridge, Mass.: Harvard University Press, 1977.
- Mellor, J. W. *The New Economics of Growth: A Strategy for India and the Developing World*. Ithaca: Cornell University Press, 1976.

- Meilor, J. W. "Agriculture on the Road of Industrialization." In *Development Strategies Reconsidered*, edited by J. P. Lewis and V. Kallab. New Brunswick: Transactions Books, 1986.
- Moon, P. Y., and B. S. Kang. "A Comparative Study of the Political Economy of Agricultural Pricing Policies: The Case of South Korea." A paper prepared for the World Bank, Washington, DC, December 1987.
- Paauw, D. S. "Frustrated Labour-Intensive Development: The Case of Indonesia." In *Export-Led Industrialisation and Development*, edited by E. Lee, Geneva: International Labour Organisation, 1981.
- Ranis G. and F. Stewart. "Rural Linkages in the Philippines and Taiwan." In *Macro-Policies for Appropriate Technology in Developing Countries*, edited by F. Stewart. Boulder: Westview Press, 1987.
- Rosegrant, M. W., et al. *Price and Investment Policies in the Indonesian Food Crop Sector*. Washington, DC: International Food Policy Research Institute, and Bogor, Indonesia: CAER, August 1987.
- Schultz, T. W. "On Economics and Politics of Agriculture." In *Distortions of Agricultural Incentives*, edited by T. W. Schultz. Bloomington: Indiana University Press, 1978.
- Siamwalla, A., and S. Setboonsarng. "Pricing Policies of Four Major Agricultural Commodities in Thailand: 1960-84." A paper prepared for the World Bank, Washington, DC, December 1987.
- Stern, J. J., R. D. Mallon, and T. L. Hutcheson. "Foreign Exchange Regimes and Industrial Growth in Bangladesh." *World Development* 16(2), December 1988.
- Warr, P. G. "Exchange Rate Protection in Indonesia." *Bulletin of Indonesian Economic Studies* 20(2), August 1984.
- Westphal, L. E. and K. S. Kim. "Korea." in B. Balassa and Associates, *Development Strategies in Semi-Industrial Economies*. Johns Hopkins University Press for the World Bank, 1981.
- Wie, T. K. "Industrial and Foreign Investment Policy in Indonesia since 1967." *Tonan Ajia Kenkyu* (Southeast Asian Studies) 25(3), December 1987.
- World Bank. *World Development Report 1982*. Oxford University Press, 1982.
- World Bank. *World Development Report 1986*. Oxford University Press, 1986.
- World Bank. *World Development Report 1987*. Oxford University Press, 1987.