

Chapter 3-2

ECONOMIC POLICIES AND CAPITAL FORMATION IN PHILIPPINE AGRICULTURE

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INTRODUCTION

One widely accepted proposition in economic development literature is that "surplus" has to be extracted from agriculture to finance development and bring about capital formation in the rest of the economy. This proposition partly stems from the view that agricultural supply is not hurt by "surplus extraction", for example, through a policy that depresses agricultural prices. Moreover, agricultural investment is viewed as inferior to industrial investment because the agricultural sector is seen to have weak forward and backward production linkages with the rest of the economy. These views, and still many others, lend support to a development strategy that is biased against agriculture.

Recent empirical research shows, however, that countries that have not strongly discriminated against agriculture have generally performed better, both in terms of growth and income distribution, than those which have erected serious barriers to efficient agricultural development (Mellor, 1986). Moreover, the economic history of the now developed nations shows that public investments in agriculture play a critical role in agricultural and economic development (Hayami and Ruttan, 1985).

This paper describes the general character of postwar Philippine economic policies and how these policies have affected sectoral incentives and investments, both by the private and the public sectors. Specifically, it discusses policies that impinge on the relative profitability of agricultural production, on the choice of technology, and on relative factor use. It then examines the political economy of public sector investment in agriculture. The paper ends with a note on the implications of the analysis for policy reforms.

POSTWAR MACRO-POLICIES AND SECTOR PRODUCTION INCENTIVES

Investment and the choice of technology do not take place in a vacuum. Political factors and macro-policies condition the environment in which micro-level investment and technological decisions are made. In the Philippines, as elsewhere, the strong influence of these macro-policies on the nature of sectoral production incentives and relative factor use has only been recently recognized, at least empirically.

Policies and production incentives prior to the 1970s

Postwar economic policies can be divided into two distinct phases: the "intensive industrial import substitution" phase and the "outward-orientation" phase.^{1/} The first phase, spanning the entire 1950s and 1960s, was characterized by comprehensive import and foreign exchange controls and highly protective tariffs. In the early 1950s, import and foreign exchange controls were put in place initially to check the severe balance-of-payments problem resulting from expansionary monetary and fiscal policies in 1949, a presidential election year. However, their intended purpose was later extended to accommodate the Philippine policy-makers' objective of industrial import substitution.

These controls effectively led to a sharp rise in the domestic prices of imported goods. The imports of so-called "essential" consumer goods, raw materials, and capital equipment were later liberalized by the government vis-a-vis "nonessential" goods. But this system of protection created a strong bias in favor of the domestic production of import-substituting, finished industrial consumer goods. At the same time, imported raw materials, intermediate products, and capital goods were made artificially cheap by the overvalued currency. This protection system effectively penalized the primary export sectors (agriculture and mining), export-oriented industries, and intermediate and capital goods sector. Moreover, the system also encouraged large-scale, capital-intensive production, and the concentration of industrial establishments in and around Manila.

The floating of the exchange rate and the gradual lifting of import controls in 1960-62 did not qualitatively change the structure of protection. The protective tariff system, which took effect in 1957 but was made redundant at the time by the import and foreign exchange controls, became applicable. Thus, the export sectors and the agricultural sector continued to be penalized by the system of protection which favored the makers of nonessential industrial consumer goods.

Another major event was the enactment of the Investment Incentives Act of 1967 which provided for a comprehensive approach to industrial development. It also created the Board of Investments (BOI) which was empowered to determine preferred areas of investments and to administer the incentives for BOI-registered firms. However, the nature of the incentives, mainly tax exemptions and tax credits was such that they favored import substitution and promoted capital-intensive manufacturing.

Policies and production incentives since the early 1970s

The second phase, covering the 1970s and the 1980s, was marked by a major effort of the government to adopt an "outward-looking development policy." The main features of this policy were the adoption of a flexible exchange rate in 1970 (partly in response to the foreign exchange crisis of late 1969) and the broadening of fiscal incentives granted to preferred firms through the Export Incentives Act of 1970. Enacted to complement the Investment Incentives Act of 1967, the Export Incentives Act entitled BOI-registered firms to various kinds of exemptions from taxes, including export taxes, deductions of the firm's export revenue from taxable income, and a tax credit to practically all taxes — sales, specific, and import — on raw materials used in export production. These incentives amounted to a tax subsidy of about 15% of the input value of the BOI-registered firms (Tan, 1979). Moreover, these raised the rate of return on projects of BOI-registered firms by 5-16%.

These fiscal incentives, in addition to the (partial) devaluation of the peso, partly offset the adverse effects of the protection system on exports. However, the tariff system remained highly protective. Moreover, part of the gains of the devaluation and the world commodity boom in the early 1970s was siphoned off from producers of traditional export products. This was facilitated by the increased role of the government in the regulation of various sectors of the economy, particularly of foreign trade. Government parastatals dominated the foreign trade of major agricultural products (coconut, sugar, rice, corn, and wheat).

Several policy developments that can be considered either transitional or in the nature of emergency measures marked the 1980s. The government, with financial and technical support by the World Bank, initiated industrial structural adjustments, which included the

restructuring of the tariff system and the rationalization of fiscal incentives. Short-term considerations arising from the foreign exchange crisis beginning 1983, however, led to reversion to import and foreign exchange controls. With the ascension to power of the Aquino government, efforts were made to continue the import liberalization that was underway before the foreign exchange crisis of the early 1980s. Fiscal incentives through the Omnibus Investments Code of 1987 were also broadened to include incentive provisions for labor use. These developments, however, were insufficient to alter the bias of the protection system against exports and agricultural production.

Sectoral bias and resource transfers

Summary ways of measuring the effects of trade and exchange rate policies on sectoral incentives are shown in Table 1. Overall trade bias (OTB), defined as the ratio of the effective exchange rate of exportables to the effective exchange rate of importables, describes the overall nature of the country's commercial policies.^{2/} These policies are said to be anti-trade if $OTB < 1$: import substitution is being promoted relative to export production, hence reducing foreign trade. On the other hand, domestic policies are said to be protrade if $OTB > 1$: discrimination exists in favor of export production and against import substitution, hence increasing foreign trade. Broadly, a movement from import substitution to a neutral (bias-free) strategy (i.e., OTB is equal to unity) can be also interpreted as an "export-promoting trade strategy," for the simple reason that such a movement eliminates the bias against exports and improves their export performance (Bhagwati, 1986, 1988).

Table 1. Trade bias, effective exchange rate ratios, and exchange rate overvaluation.

| | Overall trade bias | Effective exchange rate ratio | | | Exchange-rate overvaluation (%) |
|-----------------------|--------------------|-------------------------------|--------|-------|---------------------------------|
| | | TX/NEC | NX/NEC | NX/TX | |
| 1950s | 0.40 | 0.58 | 0.66 | 1.15 | 116 |
| 1960s | 0.55 | 0.33 | 0.35 | 1.07 | 71 |
| 1970s | 0.83 | 0.29 | 0.35 | 1.22 | 29 |
| 1980-82 ^{a/} | 0.87 | 0.28 | 0.34 | 1.21 | 40 |

^{a/} Except for exchange rate overvaluation, figures refer to 1980.

Sources: Based on Tables 5, 7 and 14 of Romeo M. Bautista, "Production Incentives in Philippine Agriculture: Effects of Trade and Exchange Rate Policies" (Research Report 59, John H. Power, "Government Interventions and Philippine Agriculture" (paper prepared for the World Bank, 1987).

Notes: TX is traditional exports; NEC is nonessential consumer good imports; NX is new imports.

Because the OTB values were consistently less than one during the 1950-80 period, commercial policies tended to promote import substitution and penalized export production. The bias in favor of import substitution was highest during the 1950s, decelerated somewhat in the 1960s and, with the encouragement of export production by fiscal and other incentives, further decelerated in the 1970s and early 1980s. However, despite this deceleration,

the incentives granted to export producers during the 1970s and early 1980s did not fully offset the still significant price bias in favor of import-substituting production.

Price discrimination against traditional agricultural exports was particularly evident. The effective exchange rate for this product category relative to nonessential consumer goods declined from 0.58 in the 1950s to 0.33 in the 1960s and 0.29 in the 1970s.

On the other hand, the persistent overvaluation of the domestic currency was another source of disincentive against tradable goods production. Since an overvalued domestic currency acts as a tax on tradable goods, depressing their prices (in domestic currency terms) relative to nontradable goods, this distorted production incentives and encouraged the movement of resources toward nontradable or home goods production. And because home goods were a larger part of non-agricultural than of agricultural production, this caused a shift of resources toward non-agricultural production.

Between the mid-1970s and early 1980s, the overvaluation of the domestic currency effectively decreased the domestic prices of agricultural products by about 20% relative to home goods and by 25% relative to non-agricultural products (Bautista, 1987). Together with the trade restrictions, this policy-induced distortion reduced crop farm incomes by as much as 31% (Bautista, 1986). This reduction represented an effective resource transfer out of agriculture.

Of course, there had been corresponding resource transfers into agriculture through government spending (e.g., irrigation infrastructure). However, this inflow had been comparatively small. Estimates of the net resource transfers out of agriculture ranged from 14% to 23% of agricultural value added (or from 1% to 4% of gross national product) during 1967-82 period (Intal and Power, 1987).

The bias of commercial policies against agricultural production is by no means unique to the Philippines. This bias is likewise observed in many other developing countries (Table 2). In contrast, government policies in the developed countries have tended to favor (subsidize) the agricultural sector vis-a-vis manufacturing (Anderson and Hayami, 1986, Balisacan and Roumasset, 1987). Indeed, both cross-section and time-series evidence shows that nations tend to switch from taxing agriculture to subsidizing it in the course of economic development.

CHOICE OF TECHNOLOGY AND RELATIVE FACTOR USE

The system of fiscal and other incentives (given to BOI-registered firms) and the overvaluation of domestic currency led to the artificial cheapening of capital vis-a-vis labor and to the encouragement of large-scale enterprises and the neglect of small- and medium-scale enterprises. Production incentives arising from accelerated depreciation, tax exemption on imported capital equipment, tax credit on domestic capital equipment, expansion reinvestment allowance, and tax credit for withholding tax on interest served to reduce the user cost of capital anywhere from 50% to 70% in the 1970s (Gregorio, 1979) and from 30 to 80% in the early 1980s (Manasan, 1986). In addition, BOI-registered firms also had preferential access to low-interest credit. This also had capital-cheapening effect on relative factor prices, reducing the user cost of capital by 9% to 35%.

In relation to other countries in the Asian region, the cost of capital in the Philippines was quite low, reflecting the capital-cheapening effects of the fiscal and other incentives

given to private investment (Table 3). Interestingly, the country that has been most successful in the use of its capital, South Korea, was also that with the lowest subsidy on capital: the cost of capital was much higher than for the other countries.

Table 2. *Protection of agriculture compared with manufacturing in selected developing countries.*

| <i>Country and period</i> | <i>Year</i> | <i>Relative protection ratio^{a/}</i> |
|---------------------------|-------------|---|
| In the 1960s | | |
| Mexico | 1960 | 0.79 |
| Chile | 1961 | 0.40 |
| Malaysia | 1965 | 0.98 |
| Philippines | 1965 | 0.66 |
| Brazil | 1966 | 0.46 |
| Chile | 1967 | 0.30 |
| Korea | 1968 | 1.18 |
| Argentina | 1969 | 0.46 |
| Colombia | 1969 | 0.40 |
| In the 1970s and 1980s | | |
| Ivory Coast | 1970/72 | 0.44 |
| Philippines | 1974 | 0.76 |
| | 1985 | 0.76 |
| Colombia | 1978 | 0.49 |
| Sri Lanka | 1979 | 0.65 |
| Bolivia | 1980 | 0.92 |
| Brazil | 1980 | 0.65 |
| Mexico | 1980 | 0.88 |
| Nigeria | 1980 | 0.35 |
| Egypt | 1981 | 0.57 |
| Peru | 1981 | 0.68 |
| Turkey | 1981 | 0.77 |
| Korea | 1982 | 1.36 |
| Ecuador | 1983 | 0.65 |

^{a/} Calculated as $(1+EPRa)/(1+EPRm)$, where $EPRa$ and $EPRm$ are the effective rates of protection for agriculture and the manufacturing sector, respectively. A ratio of 1.00 indicates that effective protection is equal in both sectors; a ratio greater than 1.00 means that protection is in favor of agriculture.

Sources: Based on Table 4.1 of World Bank, World Development Report 1986 (Washington, D.C.: Oxford University Press, 1986) and on Tables 1 and 3 of Ramgopal Agarwala, "Price Distortions and Growth in Developing Countries" (World Bank Staff Working Paper No. 575, 1983.)

The low user-cost of capital vis-a-vis labor encouraged the growth of capital-intensive industries more than those intensively using the country's abundant labor resources. And as indicated earlier, much of this growth occurred in the non-agricultural sector, largely because the system of incentives favored this sector vis-a-vis agriculture. Apparently there was increasing use of capital per unit of labor from the mid-1950s to late 1960s, but a decreasing use in the 1970s (Table 4).

In agriculture, the capital-cheapening effect of trade and industrial policies encouraged farm mechanization to the detriment of abundant rural farm labor. Although there has never been any explicit policy with respect to farm mechanization, subsidized farm credit, low tariff rates on tractors and threshers, and currency overvaluation artificially reduced the user cost of capital vis-a-vis rural farm employment and thus promoted their adoption, particularly in rice and sugar production. Estimates show that user cost of farm machineries were, depending on the type of farm machinery, reduced by 47-62% (David, 1983b). (Moreover, the greater access by large producers to subsidized credit and irrigation water contributed to the relatively lower profitability of small farms.) These indirect subsidies, however, were insufficient to offset the price disincentives on agricultural products.

Table 3. *Cost of capital at zero or actual rates of inflation*
(Percentages)

| Country | At zero rate of inflation | At anticipated rate of inflation | |
|-------------------|------------------------------|----------------------------------|---------------|
| | | Ongoing firms | Pioneer firms |
| India | 3.59 | 3.34 | 2.53 |
| Indonesia | 2.40 | -1.80 | 2.60 |
| Republic of Korea | 2.91 | 7.82 | 6.60 |
| Malaysia | 1.50 | -0.30 | 0.85 |
| Pakistan | 1.92 | 4.53 | 4.53 |
| Philippines | 1.90 | 0.88 | 0.98 |
| Thailand | 2.00 | 1.60 | 1.11 |

Source: Liam Ebrill, "Taxes and the Cost of Capital: Some Estimates for Developing Countries" (mimeographed, 1984), Table 18. (Adapted from Vito Tanzi, "The Public Sector in the Market Economies of Developing Asia," *Asian Development Review*, Vol. 5, No. 2, 1987.)

Table 4. *Average annual growth rates of capital-labor ratio in manufacturing and agriculture.*
(Percentages)

| | Manufacturing | Agriculture |
|---------|---------------|-------------|
| 1956-60 | 4.77 | 0.88 |
| 1961-65 | 0.32 | 1.94 |
| 1966-70 | 1.98 | 2.94 |
| 1971-75 | -0.78 | -3.56 |
| 1976-80 | -6.76 | -0.60 |
| 1956-70 | 2.35 | 1.99 |
| 1971-80 | -3.97 | -0.42 |

Sources: Basic data from Richard Hooley, *Productivity Growth in Philippine Manufacturing: Retrospect and Future Prospects* (Monograph Series No. 9, Philippine Institute for Development Studies, 1985), and from Cristina C. David, "The Nature of Productivity Growth in Philippine Agriculture, 1948-82," (IRRI Agricultural Economics Department Paper No. 84-22, 1984).

What do all these mean for private sector investment in agriculture? Price discrimination against agriculture, coupled with relatively low public investment in agriculture (see below), decreased the relative profitability of agricultural production, thus discouraging private investment in the sector. Moreover, because the industries favored by the trade and industrial policies relied heavily on imported intermediate inputs and capital equipment, and because public infrastructure policy was disproportionately biased in favor of the urban centers, there was a strong inducement to locate plants near the main port, i.e., Manila (Herrin and Pernia, 1986).

PUBLIC SECTOR INVESTMENT IN AGRICULTURE; SOCIAL RETURNS AND SOME POLITICAL ECONOMY CONSIDERATIONS

The high complementarity of private investment and public sector investment in agriculture has been well-documented (Hayami and Ruttan, 1985; Balisacan, 1987b). As earlier noted, private investment in agriculture has been discouraged by both policies biased against agricultural production, particularly agricultural export production, and public sector investment that has likewise tended to discriminate against agriculture. On the latter, this investment includes productivity-enhancing technologies and rural infrastructure, including information and communication, or the so-called "public goods" and services.

Table 5. *Agricultural expenditures by subsector (in million P, 1972 prices).*

| Year | Rural Roads | Irrigation | Research | Extension | Price and Income Stabilization | Forest Dev't and Mgmt. | Agrarian Reform | Others | Total |
|---------------------|-------------|------------|----------|-----------|--------------------------------|------------------------|-----------------|--------|-------|
| 1976 | 92 | 479 | 64 | 167 | 180 | 117 | 111 | NA | 1,209 |
| 1977 | 199 | 503 | 78 | 170 | 168 | 93 | 102 | NA | 1,312 |
| 1978 | 122 | 484 | 101 | 244 | 144 | 117 | 88 | NA | 1,300 |
| 1979 | 119 | 883 | 98 | 198 | 184 | 135 | 85 | NA | 1,703 |
| 1980 | 153 | 783 | 134 | 157 | 63 | 132 | 80 | NA | 1,501 |
| 1981 | 171 | 774 | 148 | 205 | 129 | 118 | 67 | 23 | 1,636 |
| 1982 | 202 | 669 | 158 | 197 | 58 | 116 | 65 | 40 | 1,504 |
| 1983 | 145 | 542 | 172 | 179 | 69 | 104 | 75 | 38 | 1,325 |
| 1984 | 81 | 286 | 63 | 96 | 41 | 68 | 39 | 126 | 810 |
| 1985 | 75 | 240 | 76 | 101 | 62 | 64 | 51 | 77 | 747 |
| 1986 | 90 | 285 | 78 | 112 | 66 | 86 | 50 | 81 | 848 |
| Growth rates (p.a.) | | | | | | | | | |
| 1976-82 | 8.2 | 8.4 | 15.3 | 1.5 | -17.0 | 2.0 | -9.1 | | 4.4 |
| 1983-86 | -15.1 | -21.0 | -21.8 | -13.6 | 2.8 | -6.3 | -9.5 | 17.8 | -14.2 |
| 1976-86 | -4.2 | -7.5 | 0.7 | -6.2 | -13.5 | -4.8 | -8.8 | | -5.4 |

Source: National Economic and Development Authority

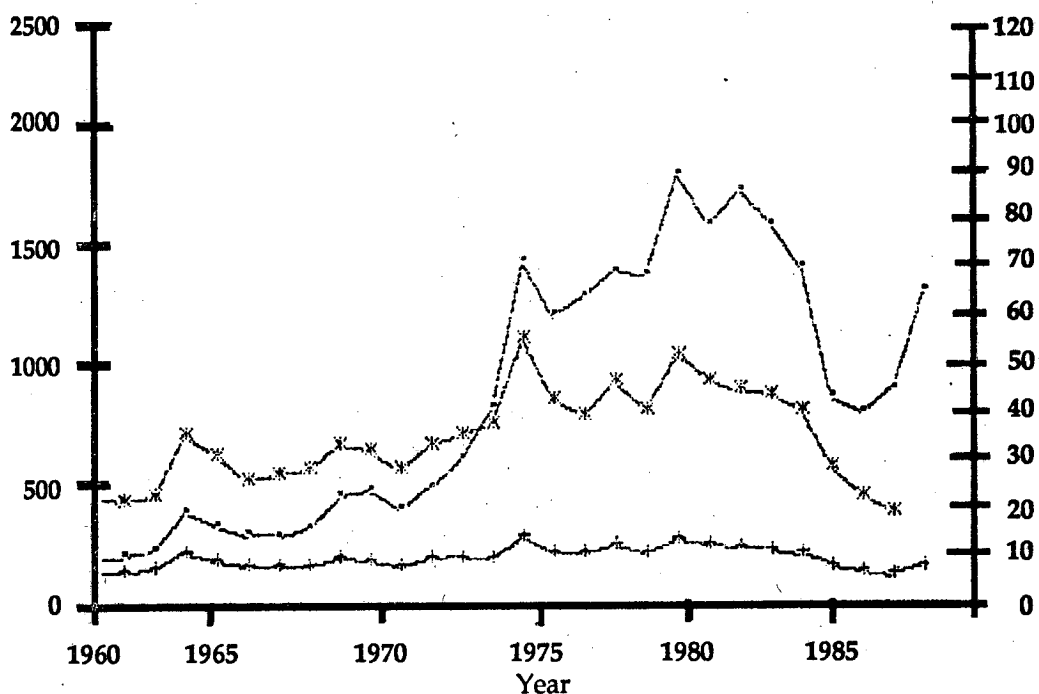
Public sector expenditures on agriculture grew at an annual average of about 7% in the 1960s, 14% in the 1970s and *negative* 14% during the 1980-86 period (Figure 1). These expenditures, when expressed as a proportion of total government expenditures (or, alternatively, of gross value added in agriculture), were actually low. Between 1980 and 1986,

these proportions were nearly the same as those prevailing in the 1960s, and were declining at about 15% annually. The decline tended to be larger during the crisis years (1983-86), i.e., the sector suffered more from budgetary cuts relative to the other sectors of the economy. In particular, real government expenditures on agricultural research and extension, irrigation, and rural roads declined by more than 10% annually during the crisis years of 1983-86 (Table 5).

The extent of what can be called "government expenditure dues" can be indicated by the ratio of the share of government expenditures on agriculture, to the share of agriculture in the gross domestic product. A ratio of one implies that the government is neutral to the sector with respect to its allocation of public funds. Public expenditures are biased against (in favor of) the sector when the ratio is less (greater) than one. These ratios, expressed in percentage, are depicted in Figure 1. One can conclude from this trend that public expenditures have been heavily biased against the agricultural sector over the last three decades.

Figure 1. Real public sector expenditures in Agriculture, 1960-87.

Million pesos (1972 prices)



Legend:

- Government expenditure in agriculture (P million)
- + Share to total government expenditure (%)
- * Government expenditure bias (%)

It is not that social returns to public investment in agriculture are low. On the contrary, increases in rural incomes and employment which may be induced by public sector investment

in agriculture can be substantial (Bautista, 1987; Balisacan, 1988). And considering that nearly 70% of the population and three-fourths of the total poor are located in this sector, increases in rural incomes represent the key to a broad-based, self-sustaining economic development.

The critical bottleneck appears to be in the domain of politics. On the supply side, the fact that the social returns to much of public sector investments (e.g., agricultural research and extension) accrue to society in the long run, these investments tend to be relatively unattractive among politicians (and bureaucrats) who may have short-term political horizons. This will particularly be the case where election intervals are relatively short. That is, the high marginal rates of time preference of politicians work against rural projects and programs that have their benefits felt beyond the electoral cycle.

The prevailing view of the policy-makers (or of their advisers, including those from multilateral agencies) about an "appropriate" development strategy may, of course, also influence the pattern of public sector investments. In the past, heavy public investment in the industrial sector can be explained partly by the policy-makers' perception on the "virtue" of industrial import substitution.

On the demand side, the relative inability of agricultural producers and rural workers to invest sufficient political influence for the effective translation of their *latent* demand for public goods and services works against their interest. Here, investment in political influence may take the form of resources (time and money) expended in political campaigns, political advertising, the cultivation of bureaucrats and politicians, employment of political party workers, and bribery (Balisacan, 1987a).

Consider, for example, the case of agricultural research and extension. Most rates of return in agricultural research and extension exceed 35%, leading Ruttan (1982), among others, to conclude that it is hard to imagine many investments in either private or public sector activities that would produce more favorable rates of return.

A major feature of most agricultural innovations is that once these innovations are produced privately, it would be difficult to exclude others from using the innovations. That is, since only a small fraction of the total benefits of agricultural research is captured by the farmer-innovator who shoulders the full cost of the innovation, it is likely that a small farmer would underprovide (underinvest in) agricultural research.

An alternative course would be for the government to provide agricultural research. But if that is going to depend on the effective (not latent) demand of agricultural producers, it is not likely that the government will invest sufficiently in agricultural research, for two reasons: first, because the benefits derived by the farmers from agricultural research are not matched by their low level of contribution (time and money) to the political effort; and second, because organization costs among many but geographically dispersed farmers may be extraordinarily high.

As industrialists and urban consumers are able to obtain more public support services for themselves, the agricultural producers will contribute even less to the political effort. The forces of urbanization and the concentration of industrialists in the urban areas make it cheaper for industrialists and urban consumers to organize, while organization costs for small farmers remain prohibitive.

Interestingly, where agricultural landholding is highly skewed as in the Philippines, public investment in agriculture is likely to be less. Because of organization costs, the contribution of latent beneficiaries with small stakes in group action may well be zero (i.e., contributing to group action that would have little net impact on individual welfare is hardly worth the optimizing effort). But for the large-stake beneficiaries, the sum of their contribution may well be greater than when landholding is equally distributed among a large number of small producers. Thus, where public policies are enacted to fragment landholdings (such as the Comprehensive Agrarian Reform Program of the Aquino Government), the flow of support services to agriculture may well be diminished, unless the government has the political will to rise above political pressure from vested interests in the society.

CONCLUDING REMARKS

Investment in the agricultural and rural sector has been severely limited both by the country's industrial policies which have decreased the relative profitability of agricultural production, and by the politics of public expenditure allocation which has tended to disadvantage the sector. Because of the high complementarity of private and public investments in inducing increased rural incomes, increased provision of public goods and services in the rural areas by the public sector is critical to a broad-based, self-sustaining economic development.

The underprovision of rural infrastructure and agricultural support services can be explained partly by the relative inability of small farmers and nonfarm rural workers to invest sufficient political influence for the effective translation of their latent demand into actual services. Given the limited resources of government, this underprovision will be greater as the industrialists and urban consumers become more effective in pressing for public support services that benefit them.

The solution to this underinvestment problem requires a truly committed government — one that can rise above the short-term electoral concerns of politicians. The role of such a government may well be to enact the "rules of the game" so that agriculture will receive a share of the public expenditures commensurate with its importance in national income and employment. Laws effecting public investments in the rural areas have more enduring effects on farm incomes vis-a-vis those of price support legislation which some politicians find a convenient source of political mileage.

Finally, the policy reforms that have taken place in the agricultural sector since the ascension to power of the Aquino government need now to be further complemented by economy-wide programs and measures that will strengthen the multiplier or linkage effects of rural growth. In particular, public policies and programs outside of agriculture, as well as those affecting the overall trade and macroeconomic environment, will have to be restructured toward making them supportive of agricultural and rural development. These reforms, together with that elusive "political will" noted above, ensure the much needed flow of resources toward the agricultural and rural sector.

NOTES

^{1/} The nature and effects of postwar Philippine economic policies have been well-documented. See, for example, Bautista, Power, and Associates (1979) and de Dios (1984). On the effects of these policies on agriculture, see David (1983a), Bautista (1987), and Intal and Power (1987).

^{2/} The effective exchange rate for exports would include not only the pesos earned at parity from a unit dollar's worth of exports, but also any export subsidy, tax credits, and any other special credits. Similarly the effective exchange rate for imports would add to the parity any import duty, import premiums resulting from quantitative restrictions, and other charges.

^{3/} The extent of the reduction in the user cost of capital depended on whether the BOI-registered firm was a pioneer or nonpioneer producer, a new or an expansion project, a domestically produced or imported capital, etc.

^{4/} This is simply a reinterpretation of the so-called "urban bias" in development literature. See, e.g. Lipton (1977) for an extensive exposition of the nature and evidence of the urban-bias problem.