# The Economic Impact of Rent Seeking and Military Expenditures:

## *A Comparison of Third World Military and Civilian Regimes*

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ABSTRACT. The general stereotype of modern *Third World* military regimes is that of ultra-*conservativism* combined with *military* force to dismantle organizations of popular expression. These organizations through their *rent-seeking activities* are assumed to have reduced overall rates of economic growth. Empirically, the paper does find some support for this line of argument. However, it is apparent that the traditional stereotypes are inappropriate. The two *regime* types differ largely in terms of contrasting styles of economic management. Military regimes create an environment where *military* expenditures tend to have a positive overall impact on *economic growth*. Civilian regimes having less control over rent seeking groups do not appear to be able to combine rent seeking activities and military expenditures in a manner conducive to overall economic growth.

I

### Introduction

A RELATIVELY NEW THEME being incorporated in the economic development literature is the notion that the more permissive a society is in tolerating rent seeking, the slower its overall economic growth. Rent seeking arises in the context of artificial interferences with markets and refers to the resource-wasting activities of individuals and groups who seek transfers of wealth through the aegis of the State. In short, the process of rent seeking involves the creation of societal institutions designed to establish and preserve market power.[1]

Rent-seeking societies are characterized by a distortion of incentives. Weede notes that in these societies: "Many types of productive work are insufficiently rewarded, whereas successful engagement in distributional and political struggles commands great gains, even if they can be obtained only by generating a social loss, in other words, price distortions, allocative inefficiency and less growth. Such a linkage between the socioeconomic order and economic growth should sound plausible or at least familiar to many economists."[2] In this vein Jadgish Bhagwati notes that:

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> No policy of economic development can be carried out unless the government has the capacity to adhere to it . . . Quite often, however, democratic governments lose equanimity and determination in the face of opposition. . . . This is the dilemma of most democratic governments. It is here that socialist countries . . . have an immense advantage: their totalitarian structure shields the government from the rigorous and reactionary judgements of the electorate. . . . Another advantage of the socialist countries is their passionate conviction and dedication to the objective of economic growth, which contrasts visibly with the halting and hesitant beliefs and actions of most democracies. The firm . . . sense of direction . . . is in pointed contrast to extensive revisions and changes in policies and methods which are prompted by minor setbacks in most democratic governments and which produce a sense of drift and helplessness. The political economy of development poses, in this respect, a cruel choice between rapid (self sustained) expansion and democratic processes.[3]

Along these lines, the economic policies of many Third World authoritarian regimes are said to include the following distinctive components[4]:

1. greatly reduced control of prices, lower protection, reorientation of the practices of public firms toward accumulation of a surplus for investment and attempts to keep interest rates positive in real terms;
2. serious efforts to limit budget deficits and the growth of the money supply, more effective taxation, and changes in patterns of public expenditures toward more support for the military and for investors at the cost of reduced social programs;
3. wage controls and strict limits on independent action by unions;
4. highly favorable conditions for foreign investors and reassurance to property owners against political action adverse to them.

Most developing countries are so badly afflicted with distortions of allocative criteria and incentives and governed so ineptly in terms of economic policies, the conscientious economists concerned with solving specific problems sometimes find a great appeal in the idea of "strong governments." Strong governments which do heed efficiency criteria can get impressive results in terms of economic growth. They may in some cases be able to generate sufficient growth of employment to create labor shortages and rising real wages for a widening majority of the population. Where this has worked, chiefly in Southeast Asia, it is possible to conclude that to get prices "right" can be consistent with both increased equality and low degrees of repression.[5]

In general, however, the expansion of defense expenditures often said to be associated with military regimes may erode away any economic gains derived from authoritarian economic progress. In fact, a much longer standing theme in the literature is the view that economic development and military development are competing claimants on scarce, tangible resources. The more guns produced or procured, the less butter available (or for that matter, the less machinery, the fewer textile plants) and so on. Military development, in other words, is likely

to divert resources that otherwise would be available for development or for personal consumption.[6]

This view of the competitive relationship between defense and development is common to neoclassical micro-economics and to Keynesian macro-economics. It is the predominant relationship that exists between economic and military development in static allocative terms, and under conditions that are more or less in equilibrium (*i.e.,* resources are more or less fully employed, political externalities and expectations are assumed to be constant and so on).[7]

As Sheahan has noted,[8] the problems with respect to emphasis on efficiency criteria are double-edged. On the one hand, societies which rely primarily on market systems, and which are not highly repressive in the first place, must achieve coherent relationships among prices and wages if the economy is to respond to obstacles well enough to grow, to alleviate poverty and to maintain political acceptance. According to Sheahan, those regimes which neglect efficiency considerations are not likely to make much economic progress and are, therefore, likely to have fewer defenders when political strains become intense. "On the other hand, measures to increase efficiency may run so profoundly counter to the preferences of the majority of politically conscious people that their implementation may require systematic repression. Personal freedom may be taken away to make free markets possible."[9]

Combining the above themes, one might conclude that while strong military regimes in developing countries may have the potential to generate higher growth rates through reducing rent-seeking behavior, offsets tend to negate these benefits; *i.e.,* these regimes have a propensity to allocate a relatively large volume of funds to defense related activities. It is possible that these offsetting factors have to some extent been responsible for the fact that researchers[10] have had little success in discerning significant differences in the overall economic performances of Third World military and civilian regimes.

The purpose of this paper is to shed more light on the debate over the relative merits of military or civilian models of economic management in the Third World. The hypothesis tested is that while there are few differences in overall economic performance between civilian and military regimes, there are fundamental differences in the way in which each deals with rent seeking, and the manner in which their respective military expenditures impact on the economy.

## II

## Methodological Problems

THE DEGREE to which a society suffers from distributional struggles, rent seeking, and contrived transfers is not easily measured. The only systematic attempt to

do so was undertaken by the World Bank for 31 developing countries in the 1970s.[11] Fifteen were military regimes, 16 civilian regimes. Because rent seeking aims at price distortions favorable to certain influential groups, the World Bank price distortion index is assumed here to serve as an over-all proxy for rent seeking.

If price distortions result from rent seeking and result in less growth, one might deduce that the relationship between price distortion and lower rates of

TABLE 1

DEFENSE EFFORT OF DEVELOPING COUNTRIES, 1980
COMPARISON OF MILITARY AND CIVILIAN REGIMES

| Category | Regime Type | |
|---|---|---|
| | Military | Civilian |
| Military Expenditures (in US$ million) | 735.9 | 1355.5 |
| Military Expenditures per soldier (in US$ 000s) | 6776.5 | 26504.1 |
| Military Expenditures per capita (in US$ 000s) | 38.5 | 216.0 |
| Armed Forces (in 000s) | 123.1 | 84.7 |
| Armed Forces Per Capita (in 000s per 000 population) | 5.3 | 6.0 |

Source: Based on data contained in Ruth Leger Sivard, World Military and Social Expenditures, 1983 (Washington, D.C. World Priorities, 1983).

All data are for 1980.

growth should be stronger than that between rent seeking and less growth—that the former relationship must produce a biased estimate of the latter. This is not necessarily so, however, because of the offsetting effect of rent seeking. Rent seeking not only results in price distortions, but perhaps more importantly, simultaneously diverts effort and resources from productive purposes into distributional struggles and political conflict. This latter effort should retard growth even when rent seeking does not succeed in distorting prices.[12]

The World Bank price distortion index[13] for the 1970s concentrates on distortions in the prices of foreign exchange, capital, labor, and infrastructural services (particularly power). For example, if a country's trade-weighted exchange rate does not depreciate during periods of higher inflation at home than abroad (and competitiveness thereby eroded), *prima facie* evidence exists as to the presence of a major price distortion. In this situation, the overvalued domestic currency creates an urban bias,[14] and discriminates against the rural population.

Similarly, a distortion of capital prices is assumed to exist wherever real interest rates are negative; when if combined with overvalued exchange rates and low tariffs on imported capital goods, low interest rates provide incentives for capital intensive rather than labor intensive industrialization. This may occur despite the fact that most developing countries suffer from a lack of capital and an abundance of unskilled or even semi-skilled labor. Minimum wage laws, high social security taxes, and cheaper provision of infrastructural services by State agencies are clues to further price distortions. As with distortions in capital and exchange markets, these distortions reduce both allocative efficiency and growth.[15]

Another methodological problem concerns the classification of countries as military or civilian. Various attempts have been taken to identify the military component in politics. Here, a logical approach is to classify countries on the basis of subjective estimates of the degree of military influence in the day-to-day decision making of the government.[16] A government directly controlled by the armed forces is an extreme example of militarization of the political process. But even long-established democracies where civilian control of the military is a firm tradition are not immune from military influence.[17] The basis of this influence is not hard to find: within the central government structure, the military bureaucracy has the largest personnel component and administers the largest share of the public budget—factors which clearly affect the military's political influence.

For purposes of this study, countries are considered under military control[18] if they meet one or more of the following criteria: key political leadership by military officers; existence of a state of martial law; extrajudicial authority exercised by security forces; lack of central political control over large sections of the country where official or unofficial security forces rule; or control by foreign military organizations.[19]

The countries that fall into this group in the early 1980s share some common features. Most have long records of military rule: the average in 1982 was 16 years out of the prior 23.[20] Interestingly enough, relative to their populations,

TABLE 2
IMPACT OF MILITARY EXPENDITURE AND PRICE DISTORTIONS ON PRIVATE CONSUMPTION: MILITARY AND CIVILIAN REGIMES

(Standardized Estimates)

| Equation | Independent Variables | | | | | | | Statistics | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | MEP | RBB | DI | EX | RI | RW | IN | $r^2$ | F | DF |
| **Military Regimes** | | | | | | | | | | |
| (1) PRB = | -0.47 | -0.28 | 0.62 | | | | | | | |
| | (-2.85) | (-1.74) | (4.26) | | | | | 0.773 | 12.50 | 14 |
| (2) | -0.53 | -0.49 | | 0.53 | | | | | | |
| | (-2.36) | (-2.36) | | (2.52) | | | | 0.624 | 6.08 | 14 |
| (3) | -0.50 | -0.39 | | | 0.47 | | | | | |
| | (-2.18) | (-1.84) | | | (2.30) | | | 0.595 | 5.39 | 14 |
| (4) | -0.42 | -0.08 | | | | 0.54 | | | | |
| | (1.97) | (-0.32) | | | | (2.40) | | 0.606 | 5.64 | 14 |
| (5) | -0.47 | -0.37 | | | | | 0.44 | | | |
| | (-2.05) | (-1.67) | | | | | (2.16) | 0.579 | 5.04 | 14 |
| **Civilian Regimes** | | | | | | | | | | |
| (6) PRB = | -0.62 | -0.39 | 0.09 | | | | | | | |
| | (-3.69) | (-2.28) | (0.56) | | | | | 0.671 | 8.14 | 15 |
| (7) | -0.71 | -0.36 | | 0.34 | | | | | | |
| | (-5.05) | (-2.78) | | (2.47) | | | | 0.776 | 13.85 | 15 |

NOTE: See text for definition of symbols; ( ) = t statistic
$r^2$ = correlation coefficient
F = statistic
DF = degrees of freedom

military regimes had less men under arms than other Third World countries. They also tended to spend less on defense and related activities (see Table 1).

To test whether price distortions tend to be implemented in fundamentally different fashions by civilian and military regimes, a number of regressions were undertaken, utilizing various macroeconomic indices as dependent variables. Military expenditures were also included in the regression equations to test whether or not they impacted differently on the economy, depending on whether they were undertaken by a military or civilian regime.

In a previous study,[21] Weede utilized military participation ratios to determine the impact defense efforts had on growth.

Weede's main proposition was that increased defense burdens have tended to increase the overall rate of growth in developing countries. According to Weede, if a country faces a serious security dilemma, ruling elites perceive the need for a strong economy capable of supporting a strong army.[22] As Weede noted[23] for ruling elites, nothing less than their privileged position is at stake in serious international rivalries. Lost wars and foreign disasters tend to lead to elite displacement. International rivalry creates incentives for efficiency and cohesion within ruling classes, because the cost of failure goes up.

Decision-makers routinely respond to perceived foreign threats by increasing their armed forces, often by also introducing conscription.

Under these circumstances, large parts of the population are affected as young men from all social classes are drafted. They are taught military skills, discipline or readiness to obey orders, and patriotism. The more serious the threat to national security is, the more young men are likely to be affected and the more seriously the armed forces take their training tasks. Foreign military threats are likely to increase patriotism and national cohesion throughout the populace. Presumably, given their pressing need for men for conventional combat, ruling elites care more for the "common man" than those regimes which do not face a clear and present danger.

According to Weede, it follows that a series of threats to national security and the resulting high military participation ratios produce positive economic effects. It does not follow, however, that developing countries grow faster if they spend excessive amounts on expensive and imported military equipment, particularly in the absence of serious external military threats (or for that matter if they are ruled by a military dictatorship).[24]

> The lower the level of external threats the lower the military participation ratios, the more the military may indulge in bodyguarding dictators, torturing dissenters, or becoming corrupt under the pretext of fighting corruption and the less the military is able to contribute positively to human capital formation.

Weede tests and provides empirical support for four propositions[25]:

TABLE 3
IMPACT OF MILITARY EXPENDITURE AND PRICE DISTORTIONS ON INVESTMENT: MILITARY AND CIVILIAN REGIMES

(Standardized Estimates)

| Equation | Independent Variables | | | | | | Statistics | | |
|---|---|---|---|---|---|---|---|---|---|
| | MEP | MS | EX | DI | RI | RW | $r^2$ | F | DF |
| **Military Regimes** | | | | | | | | | |
| (1) GDIB = | 0.22 | 0.80 | -0.28 | | | | | | |
| | (2.44) | (7.28) | (-2.66) | | | | 0.922 | 39.43 | 13 |
| **Civilian Regimes** | | | | | | | | | |
| (2) GDIB = | 0.17 | 0.34 | | -0.51 | | | | | |
| | (0.83) | (1.41) | | (-2.16) | | | 0.563 | 4.72 | 14 |
| (3) | 0.21 | 0.25 | | | -0.46 | | | | |
| | (1.05) | (0.51) | | | (-2.17) | | 0.564 | 4.74 | 14 |
| (4) | 0.01 | 0.43 | | | | -0.49 | | | |
| | (0.04) | (2.06) | | | | (-2.37) | 0.576 | 4.99 | 14 |

NOTE: See text for definition of symbols; ( ) = t statistic
$r^2$ = correlation coefficient
F = statistic
DF = degrees of freedom

1. rent seeking and price distortions depress the economic growth rates of less developed nations;

2. rent seeking and price distortions do not equalize the distribution of income in developing countries;

3. high military participation ratios improve the income share of the less privileged groups and decrease the income share of the privileged groups in developing countries.

All of these propositions were strongly supported by his data and analysis.

As noted above, it is important to distinguish between expenditures on armaments and total allocations to the defense sector. Here, the largest proportion[26] of defense expenditure is not spent on armaments, but rather on personnel, with a substantial additional proportion allocated to operations and maintenance. While it may be true that external factors influence the amount of actual weaponry purchased, their effect is less obvious in the case of personnel. Of course, large powers might encourage small countries to expand their military capability in order to act as a proxy for the presence of the large power in the region. However, it seems too superficial to generalize that external factors are responsible for the acceleration of defense expenditures as opposed to armaments in developing countries.[27]

A related factor is that expenditure on recurrent items, especially wages, is much less prone to change than "development" expenditure.[28] A perceived threat is met not principally by expanding the size of the military forces, but by purchasing more sophisticated equipment, building bases, etc. This often occurs after a period when development expenditures have been fairly steady. Whereas defense manpower is a domestic expense, the purchase of new equipment usually has a high import component. Not only is defense in competition with other uses as regards government expenditures, but also with respect to foreign exchange.[29]

The concern in developing countries as to the extent to which defense expenditure is used as a counter cyclical measure is of much less interest in developing countries where growth is of greater importance than macroeconomic stability.[30] Given the operational problems in measuring an external threat and the conceptual difficulties of utilizing military participation ratios, and in light of recent research tending to indicate that certain groups in developing countries may experience positive economic benefits from military expenditures,[31] we have used various measures of military expenditures in our regression equations.

TABLE 4
IMPACT OF MILITARY EXPENDITURE AND PRICE DISTORTIONS ON INPUTS:
MILITARY AND CIVILIAN REGIMES

(Standardized Estimates)

| Equation | Independent Variables | | | | | Statistics | | |
|---|---|---|---|---|---|---|---|---|
| | SPCY | EGB | DI | EX | DA | $r^2$ | F | DF |
| **Civilian Regimes** | | | | | | | | |
| (1) ZGB = | 0.45<br>(2.42) | 0.61<br>(2.96) | 0.52<br>(2.56) | | | 0.582 | 5.56 | 15 |
| (2) | 0.42<br>(2.19) | 0.57<br>(2.76) | | 0.49<br>(2.35) | | 0.557 | 5.04 | 15 |
| (3) | 0.33<br>(1.71) | 0.48<br>(2.42) | | | 0.45<br>(2.27) | 0.548 | 4.84 | 15 |
| **Military Regimes** | | | | | | | | |
| (4) | -0.11<br>(-0.28) | 0.29<br>(0.62) | -0.36<br>(-0.93) | | | 0.309 | 1.64 | 14 |

NOTE: See text for definition of symbols; ( ) = t statistic
$r^2$ = correlation coefficient
F = statistic
DF = degrees of freedom

III

## Empirical Results

THE FIRST MACROECONOMIC AREA in which either rent seeking and/or military expenditure might be likely to produce a significant impact is the share of private consumption in Gross Domestic Product. Based on the usual stereotypes developed in the literature, we might expect increased defense expenditures in military regimes to come from increasing the tax burden,[32] thus reducing the disposable income and hence the resources available for consumption for large segments of the population. While the same might be the case for civilian regimes, we might expect them to be more inclined to compensate their constituencies through rent facilitating price distortions.

The share[33] of private consumption in GDP, (PRB) was regressed on military expenditures per capita, (MEP), the resource balance as a share of GDP, (RBB), and a series of price distortions.[34]

The results (Table 2) indicate that military expenditures in both civilian and military regimes tend to reduce private consumption. In some cases these reductions were offset to a certain extent by capital inflows (RBB); however, this variable was not statistically significant for several of the regressions for the military regimes.

Price distortions, on the other hand, played a significant role in influencing the share of public consumption in military regimes. The overall price distortion index (DI) was highly significant in the regression equations, while distortions in the exchange rate (EX), interest rate (RI), wage rate (RW), and overall price distortions (IN) individually shifted income to various groups, enabling them to increase their overall levels of consumption. Interestingly enough, the size of the standardized coefficients for the price distortion measure was nearly the same magnitude (but opposite sign) as that on military expenditure, indicating that the two combined had a neutral impact on private consumption. Only the exchange rate was statistically significant in contributing to the share of consumption in civilian regimes.

Significant differences were also found between civilian and military regimes with regard to both the impact of price distortions and military expenditures on the productivity of investment. Here, the productivity of investment (ICOR) is defined as the growth in real investment over the 1970–81 period divided by the growth in real GDP over the same time period. The average share of government consumption in GDP, (PCB) over the 1970–81 period was included as a control variable to account for any impact on production associated with expanded government involvement in the economy.

TABLE 5
IMPACT OF MILITARY EXPENDITURE AND PRICE DISTORTIONS ON AGRICULTURAL GROWTH: MILITARY AND CIVILIAN REGIMES

(Standardized Estimates)

| Equation | Independent Variables | | | | | | | Statistics | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | MEP | GDIBG | AGA | PM | DA | DI | DT | $r^2$ | F | DF |
| **Military Regimes** | | | | | | | | | | |
| (1) AGB = | -0.26<br>(-1.39) | 0.43<br>(2.15) | | -0.46<br>(-2.28) | | | | 0.598 | 4.45 | 14 |
| (2) | -0.32<br>(-1.72) | 0.55<br>(2.93) | | | -0.46<br>(-2.44) | | | 0.615 | 5.86 | 14 |
| (3) | -0.46<br>(-2.61) | 0.07<br>(0.32) | | | | -0.77<br>(-3.24) | | 0.697 | 8.44 | 14 |
| (4) | -0.46<br>(-2.40) | | 0.44<br>(2.26) | -0.43<br>(-2.23) | | | | 0.681 | 6.41 | 12 |
| (5) | -0.42<br>(-2.19) | | 0.46<br>(2.41) | | -0.43<br>(-2.18) | | | 0.676 | 6.25 | 12 |
| (6) | -0.56<br>(-2.56) | | 0.21<br>(1.02) | | | -0.56<br>(-2.56) | | 0.714 | 7.47 | 12 |
| **Civilian Regimes** | | | | | | | | | | |
| (7) AGB = | 0.35<br>(1.66) | 0.32<br>(1.43) | | | | | -0.56<br>(-2.51) | 0.443 | 3.18 | 15 |

NOTE: See text for definition of symbols; ( ) = t statistic
$r^2$ = correlation coefficient
F = statistic
DF = degrees of freedom

For military regimes:

$$\begin{aligned} \text{ICOR} = {} & 0.25\ \text{SPCY} - 0.88\ \text{PCB} - 0.77\ \text{GDPGB} - 0.49\ \text{RW} \\ & (1.18) \quad (-3.72) \quad (-3.91) \quad (-2.40) \\ & \text{r2} = 0.722; \quad \text{DF} = 15 \end{aligned} \tag{1}$$

For civilian regimes:

$$\begin{aligned} \text{ICOR} = {} & 0.42\ \text{SPCY} - 0.14\ \text{PCB} - 0.67\ \text{GDPGB} + 0.60\ \text{RW} \\ & (2.64) \quad (-0.61) \quad (-2.75) \quad (2.59) \\ & \text{r2} = 0.576; \quad \text{DF} = 13 \end{aligned} \tag{2}$$

where SPCY = the average share of military expenditures in GDP, 1970–81; GDPGB = average annual growth in real GDP, 1970–81, PCB = the average share of government consumption in GDP, 1970–81, and RW = the distortion in wages.

The major difference between military and civilian regimes with regard to the productivity of investment appears to lie in: (a) the ability of military regimes to maintain productivity levels in the face of rising military expenditures, and (b) the use of wage distortions by military regimes to increase the productivity of investment. In contrast, civilian regimes experience declines in productivity associated with increased defense expenditures, while increased wage distortions also tend to reduce productivity.

Inflation is another performance area where we might expect differences between military and civilian regimes. Here, inflation refers to the overall increase in prices, occurring either as a result of pressures on the government to increase its deficits, or as the result of various private sector monopolies utilizing their market power to increase prices over the level generated in a competitive market.

In general, military regimes might be expected to impose higher price controls and be more concerned with reducing the rate of inflation than their civilian counterparts. Inflation (INFB) over the 1970–81 period was assumed to be affected by: the share of "nonessential" government expenditures (PCB), here defined as the average share of public consumption in GDP, 1970–81; the military burden (SPES), here defined as the average level of military expenditures per soldier, 1970–81; and the overall index of price distortions (DI).

The results for military regimes were:

$$\begin{aligned} \text{INFB} = {} & 0.21\ \text{SPES} - 0.27\ \text{PCB} - 0.31\ \text{DI} \\ & (-0.76) \quad (-1.00) \quad (1.11) \\ & \text{r2} = 0.233; \quad \text{DF} = 15 \end{aligned} \tag{3}$$

TABLE 6
IMPACT OF MILITARY EXPENDITURES AND PRICE DISTORTIONS ON ECONOMIC GROWTH: MILITARY AND CIVILIAN REGIMES

(Standarized Estimates)

| Equation | Independent Variables | | | | | | | | | Statistics | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GDIGB | PCB | ME | DI | EX | RI | IN | RW | PT | $r^2$ | F | DF |
| **Military Regimes** | | | | | | | | | | | | |
| (1) GDPGB = | 10.35 | -0.31 | 0.32 | -0.50 | | | | | | 0.912 | 23.36 | 13 |
| | (2.34) | (-2.84) | (2.75) | (-3.64) | | | | | | | | |
| (2) | 0.56 | -0.13 | 0.28 | | -0.39 | | | | | 0.902 | 20.61 | 13 |
| | (4.48) | (-1.13) | (2.27) | | (-3.30) | | | | | | | |
| (3) | 0.58 | -0.28 | | | | -0.36 | | | | 0.895 | 19.26 | 13 |
| | (4.53) | (-2.39) | | | | (-3.12) | | | | | | |
| (4) | 0.47 | -0.34 | 0.47 | | | | -0.35 | | | 0.862 | 14.02 | 13 |
| | (2.69) | (-2.41) | (2.86) | | | | (-2.27) | | | | | |
| (5) | 0.71 | -0.24 | 0.26 | | | | | | | 0.743 | 30.77 | 35 |
| | (7.84) | (-2.68) | (2.85) | | | | | | | | | |
| **Civilian Regimes** | | | | | | | | | | | | |
| (6) GDPGB = | 0.77 | -0.11 | -0.48 | | | | | | | 0.503 | 9.77 | 32 |
| | (5.13) | (-0.86) | (-3.21) | | | | | | | | | |
| (7) | 0.74 | 0.08 | -0.10 | -0.38 | | | | | | 0.794 | 9.64 | 14 |
| | (4.53) | (0.48) | (-0.67) | (-2.55) | | | | | | | | |
| (8) | 0.88 | 0.11 | -0.19 | | | | | -0.41 | | 0.817 | 11.14 | 14 |
| | (5.78) | (0.69) | (-1.36) | | | | | (-2.92) | | | | |
| (9) | 1.08 | 0.34 | -0.02 | | | | | | -0.56 | 0.876 | 17.62 | 14 |
| | (7.83) | (2.31) | (-0.16) | | | | | | (-4.17) | | | |

NOTE: See text for definition of symbols; ( ) = t statistic
$r^2$ = correlation coefficient
F = statistic
DF = degrees of freedom

While for civilian regimes:

$$\text{INFB} = 0.68\ \text{SPES} + 0.25\ \text{PCB} + 0.48\ \text{DI}$$
$$(4.34) \qquad (2.73) \qquad (4.45)$$
$$r2 = 0.912; \qquad \text{DF} = 13 \qquad [4]$$

Clear distinctions between the inflation process in military and civilian regimes seem to exist, with civilian regimes much more prone to experience increases in inflation with increased military expenditures. Civilian regimes also appear to experience additional inflationary pressures stemming from rent seeking activity, whereas their military counterparts do not.

The share of investment in GDP in 1981 (GDIB) was estimated as a function of the military burden (MEY), defined as the average share of military expenditure in GDP, 1981, the average marginal savings rate 1970–81, (MS), and the various price distortion indices described above. The results (Table 3) indicate that military regimes experience a positive relationship between military expenditures and investment, whereas investment in civilian regimes derives little stimulus from military expenditures.

The only price distortion statistically significant in affecting investment in the military regimes was the exchange rate (EX). Civilian regimes, on the other hand, experienced reductions in investment associated with the composite distortion index (DI); the interest rate (RI), and the distortion level of wages (RW).

Imports were also found to exhibit significant differences between civilian and military regimes. Here the growth of imports (ZGB) over the 1970–81 period was assumed to be a function of exports over the same period (EGB), the average level of military expenditures per capita 1970–81 (SPCY), and the various price distortions. While none of these variables was statistically significant (Table 4) for military regimes, civilian regimes experienced increases in imports with military expenditures, exports and several of the price distortions—the composite distortion index (DI), the exchange rate (EX), and the distortion index for pricing in agriculture (DA).

At the same time, military governments do not appear to have encouraged increases in imports at the expense of local production (such as food in the case of civilian regimes). Nor have military regimes yielded, as have civilian regimes, to pressure to cheapen imports through over valued exchange rates.

Another striking contrast between civilian and military regimes exists in the relative importance of factors affecting the growth of their respective agricultural sectors. For purposes of estimation, the growth of agricultural output (AGB)

(1970–81) is assumed to be related to (a) the overall rate of investment, (GDGB), during the same time period; (b) agricultural growth (AGA) in the previous time period (1960–70), and (c) the average burden MEY over the 1970–81 period, and various measures of price distortion.

The military regimes show (Table 5) a generally negative impact of both military expenditures and rent seeking on agricultural growth. For these countries, the level of protection for manufacturing (PM), the distortion level for pricing in agriculture (DA), the composite distortion index (DI), and the distortion level for infrastructure pricing tended to reduce the rate of growth in the agricultural sector. In contrast, none of these factors were at work in the civilian regimes.

Finally, civilian and military regimes were found to exhibit several important differences in the relative significance of several factors affecting their overall rates of growth. The overall rate of (GDPGB) for 1970–81 was assumed to be a function of the rate of investment (GDIGB) over the same time period.

The average share 1970–81 of public consumption in GDP (PCB) was included as a control variable to assure that any effects of government expenditures, in general, on growth were not attributed to military expenditures. Finally, the average level of military expenditures over the 1970–81 period was included in the regression along with the various measures of price distortion.

The results (Table 6) show several interesting patterns:

1. Military expenditures tend to impact positively on growth in the military regimes whereas their impact may be negative in civilian regimes.

2. While the composite price distortion index tends to be negative when regressed on growth in both regimes, the relative importance of the components of the distortion index tend to vary considerably between military and civilian regimes.

3. In military regimes, the exchange rate distortion (EX); the distortions in interest rates (RI), and the distortions in the overall price level (IN) tend to reduce growth.

4. In civilian regimes, it was the distortion in wages (RW) and infrastructure pricing (PT) that tended to retard growth.

## IV

## Conclusions

THE GENERAL STEREOTYPE of modern Third World military regimes is that they are ultra-conservative and use military force to dismantle organizations of popular expression, to restrain real wages, to promote integration into world trade and

financial markets, and to hold down social reform as well as mass consumption, in the interest of favoring capital accumulation and upper class concentration of income.[35] The empirical results presented here, while not necessarily at odds with this image, places Third World military regimes in a somewhat different light compared with their civilian counterparts:

1. Military regimes appear to be in somewhat better control of military expenditures than their civilian counterparts in the sense that defense allocations in these regimes do not produce the generally adverse economic effects such as the lower investment, higher growth in imports, declines in the production of investment and rates of inflation found in civilian regimes.

2. While both military and civilian regimes experience rent seeking behavior, different groups seem to be favored in each regime type, with civilians favoring urban consumers and military regimes favoring industrial groups.

3. The net effect of these two contrasting styles of economic management appears to produce differing environments whereby defense expenditures tend to have a positive overall impact on growth in military regimes and perhaps a negative impact on growth in civilian regimes.

4. While still conjectural at this point, it appears that military regimes may be able, through shifting income from agriculture to finance defense expenditures, to preserve the income levels of key economic groups during periods of military build-up.

5. Civilian regimes, having less control over rent seeking groups (and perhaps military pressures for additional equipment), do not appear to be able to combine rent-seeking activity and military expenditures in a manner conducive to overall growth.

The analysis above suggests that several choices are open to developing countries.

One is to insist on a pure version of economic efficiency, overriding organized groups, seeking to transfer income to themselves via price distortions. For many parts of the Third World, this may imply a military regime.

The other is a civilian regime, which may opt to spend less on defense, but will most likely be forced to give in to pressures of organized groups, whether industrialists or urban labor or large landowners, allowing them to dictate economic policies in favor of their respective interests.

A third choice may be to sacrifice allocative efficiency in favor of compromises that lessen inequality and promise wider popular support. Here the government would presumably keep working toward improved efficiency to the degree that these measures could be accompanied by offsetting policies designed to lessen the associated negative impacts on particular social groups.

It is not clear from the results presented above, however, whether this path can be best implemented through military or civilian rule.

**Notes**

1. *Cf.* J. M. Buchanan, "Rent Seeking and Profit Seeking," in J. M. Buchanan, R. D. Tollison and G. Tullock, eds., *Toward a Theory of the Rent-Seeking Society* (College Station, Texas: Texas A&M Univ. Press, 1980), pp. 3–15; Anne O. Krueger, "The Political Economy of the Rent-Seeking Society," *American Economic Review* (June 1974), pp. 291–303; An interesting application of this concept to a developing economy is given in Charles D. DeLorme, David Kamerschen and John M. Mbaku, "Rent Seeking and the Cameroon Economy: Krueger's Analytic Technique Helps to Account for Development Lag in Colonial States," *American Journal of Economics and Sociology* (October 1986), pp. 413–23.

2. Erich Weede, "RentSeeking, Military Participation and Economic Performance in LDCs," *Journal of Conflict Resolution* (June 1986), p. 292.

3. J. Bhagwati, *The Economics of Underdeveloped Countries* (New York: McGraw-Hill, 1966), pp. 203–4.

4. John Sheahan, "Economic Policies and the Prospects for Successful Transition from Authoritarianism in Latin America," Center for Development Economics, Williams College, *Research Memorandum, Rm-97* (January 1985), p. 15. See also J. Sheahan, "Market-Oriented Economic Policies and Political Repression in Latin America," *Economic Development and Cultural Change,* January 1980, pp. 267–92; and Gordon Richards, "The Rise and Decline of Military Authoritarianism in Latin America: The Role of Stabilization Policy," *SAIS Review,* Summer/Fall 1985, pp. 155–71 for descriptions of the economic orientations of military regimes in Latin America.

5. J. Sheahan, "Market-Oriented Economic Policies and Political Repression in Latin America," *op. cit.,* pp. 268–69.

6. S. Deger and R. Smith, "Military Expenditures and Development: The Economic Linkages," *IDS Bulletin,* October 1985, p. 49.

7. *Ibid.*

8. J. Sheahan, "Market Oriented Policies etc." *op. cit.,* p. 268.

9. *Ibid.*

10. See, for example Robert L. Ayres, "Political Regimes, Explanatory Variables, and Public Policy in Latin America," *Journal of Developing Areas,* October 1975, pp. 16–21; Robert W. Jackmann, "Politicians in Uniform: Military Governments and Social Change in the Third World," *American Political Science Review,* December 1976, pp. 1078–79; R. D. Mckinley and A. S. Cohan, "A Comparative Analysis of the Political and Economic Performance of Military and Civilian Regimes," *Comparative Politics,* October 1975; R. D. McKinley and A. S. Cohan, "Performance and Instability in Military and Nonmilitary Regime Systems," *American Political Science Review,* September 1976, pp. 850–64. An excellent survey of work in this area is given in Karen Remmer, "Evaluating the Policy Impact of Military Regimes in Latin America," *Latin American Research Review,* 1978, pp. 39–54.

11. Ramgopal Aqarwala, "Price Distortions and Growth in Developing Countries," *World Bank Staff Working Papers,* Number 575, July 1983.

12. Weede, *op. cit.,* pp. 300–01.

13. Aqarwala, *op. cit.,* p. 7 and pp. 57–63. The World Bank defines price distortions as those prices that exist when prices of goods and services as well as capital and labor do not reflect their scarcity.