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Military Expenditures in Latin America:
Patterns of Budgetary Tradeoffs

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I. Introduction

The economic climate in the 1970s was particularly unstable not only because of oil price changes but also because of wide-ranging fluctuations in commodity prices and induced changes in patterns of world demand. One of the consequences of this relative economic stagnation has been an increasing difficulty for governments to finance their customary budgets.

As debt service costs have risen and revenue has levelled off or deelined, governments have been forced to re-evaluate programs in an effort to curtail government spending.

The purpose of this paper is to examine empirically the extent, direction and form of budgetary tradeoffs between defense and other social-economic programs in Venezuela and several of the other major Latin American countries. An attempt will be made to answer several specific questions:

1. Is there a significant relationship between defense and social-economic expenditures over time?;
2. Does defense spending cut spending in other social-economic programs in Venezuela and other major Latin American country? ;
3. Are there any common elements among countries with similar

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defense and non-defense budget allocations?, and

4. Do military regimes differ from civilian regimes in the manner in which defense and non-defense budgetary allocations are made?

II. Tradeoff Literature

To date, analyses of budgetary tradeoffs have concentrated almost exclusively on the developed countries, proceeded from a variety of theoretical perspectives, and produced conflicting, mixed results. Peroff and Podolak-Warren concluded that the "number of studies which indicates the existence of a tradeoff approximates the number that shows that none exists."

While the bulk of the research on budgetary tradeoffs between defense and social program expenditures has focused on the industrial countries of North America and Western Europe, Hayes has suggested that the problem of tradeoffs between defense spending and social investments "is perhaps even more serious in the developing countries." In a major United Nations report, the Secretary General argued that when the needs of economic development are so pressing in a major United Nations report, the Secretary General argued that when the needs of economic development are so pressing in developing countries, it is "a disturbing thought that these countries have found it necessary to increase military spending so speedily, particularly when their per capita income is so low." The report concluded that military expenditures undoubtedly absorb resources that are "substantial enough to make a considerable difference both in the level of investment for civil purposes and in the volume of resources which can be devoted to improving man's lot through social and other services."[1] The clear implication of this UN report for the developing countries is that increased defense spending may have negative consequences for socio-economic development programs such as health, education, social security, economic services and so forth.

In a study of the costs of defense in the U.S. between 1938 and

1969, B.M. Russett concuded that each dollar increase in defense spending resulted in a subtraction of "forty-two cents from personal consumption spending, twenty-nine cents from fixed capital formation, ten cents from exports, five cents from federal government civilian programs and thirteen cents from state and local government activities."

Unfortunately, Russett's analysis is distorted by the data of the World War II years, in which percentage allocations to defense were two to three times larger than in other years. In a re-analysis of the data, Hollenhorst and Ault divided the 1939-1968 series into three wars plus peacetime. The majority of the significant tradeoff relationships occur in the World II period. Other significant tradeoffs vary across the four periods and in several instances negative relationships become positive. The authors conclude regarding Russett's question "Who Pays for Defense?" that:

> in an "intense" war period (World War II) probably everyone pays. In peacetime, however, and in the "lesser" wars of the recent past (Korea, Vietnam) the consumer pays nearly the entire bill, while the proportion of GNP consisting of state-local government expenditures and some types of fixed investment expenditures have, at times, increased along with increases in defense spending.

Russett, himself, in a more detailed analysis which omits the World War II period found a substantial reduction in the number of significant substitution relationships.

For a variety of reasons, the U.S. is relatively a typical in both the pattern and content of its defense spending. While this in no way reduces the importance of the concern over possible negative tradeoffs with other program expenditures, it does make the U.S. case inappropriate as a model for cross-national hypothesis testing (Hayes).

Smith found from his analysis of a set of OECD time series that there was a negative association between military expenditures and investment and that this result was robust whether the data were treated as time series, cross section, or pooled, and for a variety of assumptions about stochastic structure. Frederick Pryor performed an analysis similar to the Russett research using data

two different years, he found no statistically significant substitution relationships (negative regression coefficients) in either year. Using time series data for 1950-1962, he found that "defense expenditures do not have a statistically significant relationship with non-military budgetary expenditures in any country." (Pryor, p. 122) Breaking down the non-military component into GNP aggregates (private consumption, domestic investment, domestic plus foreign investment, and current civilian government expenditures) he found extremely mixed relationships. Only in those countries with relatively high defense budget components were substitution relationships found, and only with current government civilian expenditures, excluding transfers. When transfers were included, no substitution relationships were found for the same nations.

Eighty percent of world military expenditures were accounted for by six nations, five of these included in the Pryor sample. The finding that substitution relationships occur only in those countries with high defense budgets is therefore striking. With one exception, none of the countries studied by Pryor would be classified as developing, but the UN notes[2] that the military budgets of developing countries are increasing at almost twice the rate of the developed countries. Is this pattern of tradeoffs in the Third World similar to that of developed countries? Benoit's major study of the impact of defense on economic growth in a sample of forty-four developing countries concluded, much to the author's surprise, that" the evidence simply did not allow one to concluded that any...adverse net effect on economic growth had occurred as a result of defense activities?" While Benoit's aggregate measure of economic growth obscures some of the more critical issues of distribution of economic resources, the conclusion he draws suggests that we must question the assumptions with which we approach the problems of tradeoffs imposed by military allocations (Hayes).

Most scholars studying the developing states have approached the guns-versus-butter question from a slightly different point of view — the comparison of policy outputs of military and civilian regimes and the consequence of militarism for modernization. Along these lines, political scientists have employed various

methodologies and examined a wide range of variables for the purpose of evaluating the performance of military and civilian governments in Latin America (Nordlinger, Schmitter, Weaver). Of the many hypothesis advanced and tested, one of the more interestng has been the respective roles of military and civilian regimes in the arms race vs. their promotion of socio-economic well-being. Although approaches for examining a defense/social welfare tradeoff or a pro-defense vs. pro-economic development stance among regime types have varied, pollitical scientists during the last several decades have generally treated regime type as the independent variable and various macropublic policy indicators as dependent variables. Similar methodologies have been employed by historians. Sociologists, in what is becoming a rapidly growing body of literature, have addressed various issues pertaining to the sociology of the military in developing countries, although most of their attention has been confined to regions outside of Latin America (Pluta).

Eric Nordlinger summarizes the "prevailng interpretation":

> The likely consequences of military rule are economic growth, the modernization of economic and social structures and a more equitable distribution of scarce economic values and opportunities. As sponsors of these types of change, soldiers in mufti are depicted as progressive forces whose politicization is to be commended if not recommended, rather than being condemned as usurpation of civilian authority.

Nordlinger, himself, disagrees with this interpretation, arguing that "except under conditions (for example, particularly low levels of economic development and political mobilization) soldiers in mufti are not agents of modernization" but rather act in pursuance of their military corporate interests and protect" a particular type of political stability" and middle class interests and identities.

Schmitter finds conflicting hypotheses in the literature on the impact of military intervention: (1) the military is dedicated to the preservation of order and maintenance of the social status quo: (2) the military is dedicated to national development goals including "important increments in the role of public authority in areas such as investment health and education, income redistribution and industrial management." (3) the military

political system "...and the substance of policy making is relatively indifferent to military or civilian hegemony." (pp. 430-32) Using both cross sectional and logitudinal data on a variety of political and economic indicator for twenty Latin American countries, Schmitter concluded that (pp. 492-93):

> Indicators of overall system performance (outcomes) are much less predictably affected by regime-type or changes in regime-type than are indicators of direct governmental allocations (outputs)...but "no regime type seems to exclusively responsible for developmental success' in Latin America...The military in power definitely tend to spend more on themselves — above all when they are on-again, offagain regimes...Civilian regimes definitely spend less on defense (when they are not plagued by frequent interruptions and threats) and more on welfare.

Both types of regimes have erratic records on public investment, a fact which Schmitter acknowledges is "probably due to vagaries in resource availability more than to internal dynamics" (p. 493).

On the other hand, in a major study Pluta concluded that little apparent relationship existed between regime type and either level of defense spending or size of armed forces. Pluta found that civilian governments, however, did tend to import a higher real dollar value of arms. Four of the five social measures used by Pluta indicated that civilian governments have taken a more active interest in social programs than their military counterparts. Civilian governments spend more for education and health and reductions in infant mortality are more substantial under these regimes. They also have greater newsprint consumption and, hence, the demand for reading materials and the flow of (written) information is greater, indicating a greater interest in education on the part of civilian rulers.

Pluta notes that the finding regarding regime type and the level of military spending is not surprising and is supportive of similar conclusions advanced in earlier studies. The ambiguous relationship between regime type and size of armed forces may simply be a reflection of the reime type/defense budget ambiguity. However, the relatively high level of civilian government arms purchases may suggest a number of factors including perhaps, less

the military, in effect, to reduce the likelihood of armed revolt and/or opposition to civilian-initiated reform programs (Pluta).

In another study of civilian and military regimes in Latin America, Dickson found that: (1) military regimes appear to have been more fiscally conservative than civilian ones and (2) civilian regimes appear to have been more developmentally-oriented than military ones. In justification, military regimes were inclined to spend less and run lower deficits, even though they spend more on the military. They showed a lower rate of increase in the cost of living and maintained a stronger international liquidity position for the Central Bank. Civilian regimes, for their part, spent more, did more for education and effected higher savings and investment rates, although the military had an edge in electrical production.

In contrast, in her analysis of budgetary allocations to defense and a variety of socioeconomic programs in Brazil between 1950 and 1967, Hayes concluded that military spending did not necessarily yield negative consequences for social and economic investments. She found that "substitutions between military allocations and allocations to other sectors do occur frequently, but that the burden of these substitutions is distributed across all categories at one time or another." Further she judged that "substitutions are not severe." Overall defense spending "accompanied substantial increases in spending for infrastructure development and aspects of this associated with greater Central Government activity." She did find, on the other hand, that increased defense spending has some negative effects on social spending but that this "was mild because social investment was not a major priority of any of the regimes examined." Nevertheless, Hayes reported a correlation of -0.23 between defense and social development (education, healthy, welfare) expenditures, measured as percentages of the total public budget. In addition, a -0.23 correlation was registered between spending on military personnel and social development expenditures. Although "theoretical generalizations cannot be made and hypotheses cannot be accepted or rejected on the basis of evidence from a single case," Haye's research seems to indicate a mildly negative trade-off between defense and education expenditures.

that "education and defense spending both rise and fall at the same time." Correlating defense and education spending in absolute terms, as percentage changes from year to year and, relative to total budget and gross domestic product for individual country years and for regimes, Ames and Goff reported rather high positive correlations in the rate of + 0.29 to + 0.96. They reported two slightly negative correlations between defense and education expenditures measured relative to total budget, -0.08 and -0.03 for the pooled analysis and for the individual regimes respectively. Mindful of serious auto-correlation problems in their analysis, Ames and Goff concluded that, although other unspecifiable policy areas may lose out in the budgetary process, clearly neither education or defense "gain at the expense of the other"(pp. 179-180).

The evidence of the negative impact of military allocations in either developed and developing states is far less conclusive than Bruce Russett's emphatic, "I assume that defense spending has to come at the expense of something else" (p. 133). To the extent that this generalization is sometimes correct, the evidence is inconclusive as to whether the burden varies from country to country or that political (regime differences) or economic (levels and rates of development) factors have some influence on the frequency, the locus (who pays) and the weight (degree of substitution) of the tradeoff burden.

In the following analysis, an attempt is made to build upon previous research reported to date and to specify more precisely the extent, direction, and form of defense-economic social spending tradeoffs in the Latin American countries in the 1970s and early 1980s.

Clearly, in the context of this paper the objective of this analysis is not to enter the controversy about whether the military is a modernizing agency of change, a nation-builder or active in the construction of economic and social overhead capital or, alternatively, whether the military is an impediment to development — a consumer of large amounts of public money in non-productive goods and services. The results of previous analysis (Looney and Frederiksen) of military goods producers in Latin America indicated that there were positive impacts of increased military expenditures on growth, while the non-producers experienced

were given including the positive spin-off benefits associated with indigenous military production and the role of budgetary stabilization in producing countries. The work below attempts to extend this analysis — i.e., have the producing countries systematically different budgetary tradeoffs than the non-producing countries and, if so, what are the implications for predicting likely defense expenditures in the future.

More specifically, when public policy demands exceed the available public resources, budgetary tradeoffs are bound to occur between and among different policy areas; one policy area may gain at the expense of other policy areas in the allocation of scarce resources. Budgetary tradeoff patterns range on a continuum between two extremes. It may be that increases in defense spending come at the expense of, say, health spending or education spending; that is, as defense spending increases, spending on education or health may actually decrease producing a negative tradeoff. This result is sometimes referred to as a substitution effect. Positive tradeoff occurs if defense spending increases are matched by real increases in health or education spending. For any particular Latin American country, the actual tradeoff will certainly fall somewhere between these two extremes. Of course, it is always possible that defense spending bears no relationship, negative or positive, to education spending, producing a pattern in the middle of the tradeoff continuum — no tradeoff.

III. The Methodology

Two basic methodological concerns relating to tradeoff analysis have been discussed at some length in previous studies. The first relates to the type of data format or design that is most appropriate to a proper assessment of tradeoff hypothesis. Which design should be used—a cross sectional or time series design? The second concern refers to the definition and measurement of the expenditure variables. The present analysis rests upon a time series design wherein expenditure terms are based on ratios, i.e., defense and other budgetary expenditures as a percentage of total public expenditures.

of the statistical problems encountered in this type of design. Others have used cross sectional designs; these analyses have produced mixed findings, often showing no negative or substitution effects. Peroff and Podolak-Warren have argued that cross sectional analysis is an inadequate approach to this problem in this type of analysis since it only indicates "whether different countries exhibit different priorities at a single point in time. In order to determine the nature of budgetary tradeoffs in a particular country, budgetary patterns over time must be examined. In the present case, analysis is based on thirteen annual time series data set for the 1972-83 time period. The length of the time series varies slightly from country to country. The data are all taken from the Internatinal Monetary Fund, *Government Financial Statistics Yearbook* and the Stockholm International Peace Research Institute, *World Armaments and Disarmament SIPRI Yearbook.* The advantage of these sources are that similar conventions for categorizing data by expenditure type are constant across all of the countries.

Similar to several other tradeoff studies, reliance is made on regression analysis to examine each separate time series.[5]

In a regression analysis with non-military sending by type as the dependent variable, defense spending as the independent variable and various measures of government expenditures or income as the control variable, the unstandardized regression coefficient for the defense spending term indicates the direction and magnitude of the tradeoff between defense and other types of government expenditures.

The general hypothesis proposed here is that tradeoffs between military and other types of expenditures over time may be a more valid indicator of government priorities than examining the levels of military expenditure between, for example, military and non-military regimes. The identification of a regime as military or civilian is often tenuous ;for instance, how much influence does the military still exert over the nominally civilian government of Argentina today? (Cox). In addition, studies which claimed military regimes reduced social expenditures may have been based

[5] Regressions were performed using defense expenditures from both the IMF and Stockholm International Peace Research Institute. The results were similar for both sets of

on spurious correlations; since, historically, military coups in Latin America have often been spurred by economic crises, social service reductions may have been as much a response to the dictates of austerity as an idieological choice.

A review of the tradeoff literature indicates that there has been some controversy over how the expenditure variables should be measured in order to test properly for budgetary tradeoffs. Peroff and Podolak-Warren point out that the "choice of measure clearly affects the results of the analysis — depending on whether the budget is expanding, stable or contracting." They argue that a negative tradeoff may not be detected between absolute or per capita measures of defense and non-defense policy expenditures, if the budgetary process is, in fact, an expanding sum game represented by a growing public sector. Therefore, the current study measures defense and non-defense expenditures in terms of percentages of the total public budget in order to asses policy commitments and relative policy priorities in each of the countries included in the analysis.

As noted above, non-defense measures are treated as the dependent variable in the regression analysis that follows; defense spending is entered as the independent variable. It is expected that as defense spending increases, non-defense expenditures will decrease; that is, a substitution effect or negative tradeoff is hypothesized.

In order to improve the specifications of the regression models and to obtain less biased estimates of the budgetary tradeoffs, government expenditures as a percentage of gross domestic product was included as a variable.

The public finance literature indicates the importance of real per capita income as a variable in the rise of public spending and as a significant factor in budgetary tradeoffs. Moreover, real per capita income is a measure of the level of economic development and the resources available to the public sector. As a result, this variable was also tested in the regression equations.

Clearly, however, real per capita income may not be the appropriate control variable for all expenditure items and for all countries. Several other logical control variables were (1) government expenditure as a share of gross domestic product, (2) total

per capita, and (4) real gross domestic product.

The regression equation with the highest overall r-square was selected for each defense-government expenditure potential tradeoff.

The following linear tradeoff equation[4] was estimated for each of the thirteen country time series. The signs of the coefficients represent the expected direction of the relationships:

$$Y_i = a - b_1 X_1 + b_2 X_i + u$$

where Y_i = non-defense spending/total Central Government spending; i = (1) public services, (2) health, (3) education, (4) social security-welfare, (5) housing, (6) other community services, (7) economic services and (8) other purposes; X_1 = defense spending/total Central Government spending; X_i = control variable where i = (1) total Central Government expenditures/gross domestic product, (2) real Central Government expenditures (total Central Government expenditures deflated by the constant price index for 1980 = 100.00, (3) real gross domestic product (1980 = 100.00), (4) real Central Government total expenditures per-capita, (5) real gross domestic product per capita.

IV. Empirical Results

In general, the results for the 13 countries were quite good in terms of the correlation coefficients obtained and a number of statistically significant relationships were found between defense expenditures and other government expenditures. On a country by country basis, the statistically significant relationships found were:

Venezuela (Table 1)
Negative tradeoffs between defense and other government expenditures:
(1) public services,

[4] A similar formulation was used by J. Viner in his analysis of budgetary tradeoffs for

(2) social security-welfare,
(3) housing, and
(4) other purposes.
Positive tradeoffs between defense and other government expenditures:
(1) economic services.

Brazil (Table 2)
Negative tradeoffs between defense and other government expenditures:
(1) housing, and
(2) other community services.
Positive tradeoffs between defense and other government expenditures:
none.

Argentina (Table 3)
Negative tradeoffs between defense and other government expenditures:
(1) public services, and
(2) education
Positive tradeoffs between defense and other government expenditures:
(1) other purposes.

Chile (Table 4)
Negative tradeoffs between defense and other government expenditures:
(1) public services;
(2) education,
(3) social security, and
(4) other purposes.
Positive tradeoffs between defense and other government expenditures:
(1) health,
(2) housing, and
(3) economic services.

Ecuador (Table 5)

(1) social security,
(2) economic services, and
(3) health.
Positive tradeoffs between defense and other government expenditures:
none.

Dominican Republic (Table 6)
Negative tradeoffs between defense and other government expenditures:
(1) public services, and
(2) other purposes.
Positive tradeoffs between defense and other government expenditures:
none.

Mexico (Table 7)
Negative tradeoffs between defense and other government expenditures:
(1) education.
Positive tradeoffs between defense and other government expenditures:
(1) economic services.

Peru (Table 8)
Negative tradeoffs between defense and other government expenditures:
none.
Positive tradeoffs between defense and other government expenditures:
none.

Bolivia (Table 9)
Negative tradeoffs between defense and other government expenditures:
(1) economic services, and
(2) other purposes.
Positive tradeoffs between defense and other government expenditures:

(3) health, and
(4) other community services.

Paraguay (Table 10)
Negative tradeoffs between defense and other government expenditures:
(1) economic services.
Positive tradeoffs between defense and other government expenditures:
(1) public services,
(2) health, and,
(3) social security.

Costa Rica (Table 11)
Negative tradeoffs between defense and other government expenditures:
(1) health.
Positive tradeoffs between defense and other government expenditures:
(1) other government services.

Uruguay (Table 12)
Negative tradeoffs between defense and other government expenditures:
none.
Positive tradeoffs between defense and other government expenditures:
(1) health,
(2) social security,
(3) other community services.

El Salvador (Tabl 13)
Negative tradeoffs between defense and other government expenditures:
(1) public services,
(2) education,
(3) health,
(4) social security,
(5) housing, and

expenditures:
(1) other purposes.

Several patterns emerge:

1. In general, those countries with negative tradeoffs appear to have them for all of the social expenditures-public services, education, health and social security-welfare. Thus, with the exception of a positive tradeoffs in Chile between defense and health, all the statistically siginificant tradeoffs for Venezuela, Brazil, Argentina, Chile, Ecuador, Dominican Republic, Mexico, Peru and El Salvador were negative between this category of government expenditures and defense.
2. With the exception of a negative tradeoff for Costa Rica between defense and health, Boliva, Paraguay, Uruguay and Costa Rica all had positive tradeoffs between defense and public services, education, health and social security-welfare.
3. Countries that tended to have negative tradeoffs between defense and social services (public services, education, health, social security-welfare) tended (with the exception of Chila) to have a positive tradeoff with economic services.
4. Countries with a positive tradeoff between defense and social services trended to have a negative tradeoff with economic services.
5. With the exception of El Salvador and Argentina, all countries that had a statistically significant relationship had a negative tradeoff between defense and other purposes.

V. Summary-Interpretation

In general, if we rule out El Salvador as a somewhat special case due to the long-running civil war there, what do the two other groups of countries — (1) Venezuela, Brazil, Argentina, Chile, Ecuador, Dominican Republic, Mexico and Peru — and —

Table 1

VENEZUELA: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1972-1983

Equation	Budget Categories: Public Services	Education	Health	Social Security Welfare	Housing	Other Community Services	Economic Services	Other Purposes	Control Variables: Government Expenditure Per GDP	Government Expenditure	Government Expenditure Per Capita	RHO	Statistics: r^2	F	DW
(1)	-1.28								-0.07			-0.36			
	(-3.36)								(-3.47)			(-1.31)	0.613	6.33	1.74
(2)		-0.78							-0.05			0.05			
		(-1.43)							(-2.14)			(0.19)	0.375	2.40	1.79
(3)			-0.21							-0.09		-0.34			
			(-1.62)							(-5.23)		(-1.81)	0.956	88.30	1.22
(4)				-0.60							-0.01	-0.09			
				(-2.33)							(-2.33)	(-0.28)	0.497	3.96	2.85
(5)					-1.94					0.03		-0.07			
					(-2.19)					(-2.12)		(0.22)	0.378	2.43	1.93
(6)						0.10			0.03			0.93			
						(0.83)			(0.66)			(8.51)	0.086	0.37	1.11
(7)							4.91				0.01	-0.30			
							(2.56)				(2.44)	(-1.03)	0.458	3.39	2.25
(8)								-1.78	-0.03			-0.22			
								(-2.04)	(-1.01)			(-0.76)	0.423	2.94	2.22

es: Estimations made using Cochrane-Orcutt two stage iteration process for serial correlation; see text for definition of symbols.
( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year
a from international Monetary Fund, *Government Finance Statistics Yearbook*, various issues; International Monetary Fund, *International Financial Statistics Yearbook*, 1984.

Table 2

BRAZIL: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1972- 1982

	Budget Categories								Control Variables				Statistics		
Equation	Public Services	Education	Health	Social Security Welfare	Housing	Other Community Services	Economic Services	Other Purposes	Government Expenditure Per GDP	Government Expenditure	Government Expenditure Per Capita	RHO	r^2	F	DW
(1)	-0.03 (-0.78)								0.09 (0.06)			0.08 (0.25)	0.205	0.77	1.55
(2)		-0.04 (-0.08)							-0.04 (-1.90)			-0.14 (-0.04)	0.930	40.16	1.94
(3)			-0.05 (-0.37)								-0.08 (0.24)	-0.43 (-1.53)	0.377	1.81	2.14
(4)				-0.03 (-0.26)						-0.03 (-0.50)		-0.27 (-0.87)	0.338	1.53	2.25
(5)					-0.07 (-2.00)				-0.10 (-2.02)			0.09 (0.30)	0.395	1.96	2.30
(6)						-0.05 (-2.32)					-0.02 (-3.42)	-0.05 (-0.14)	0.721	7.78	1.93
(7)							-0.02 (-1.64)		-1.09 (-1.45)			0.78 (4.00)	0.337	1.53	1.40
(8)								-0.09 (-1.32)			-0.03 (-0.14)	-0.07 (-0.24)	0.639	5.31	1.72

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:

( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year

y Data from Stockholm International Peace Research Institute, *World Armament and Disarmament; SIPRI Yearbook, 1984;* other data from In-
ɔnal Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Financial Statistics*
ok, 1984.

Table 3

ARGENTINA: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1972-1982

	Budget Categories								Control Variables			Statistics		
Equation	Public Services	Education	Health	Social Security Welfare	Housing	Other Community Services	Economic Services	Other Purposes	Gov't Expenditures Per GDP	GDP	RHO	r^2	F	DW
(1)	-0.03 (-2.27)								-0.04 (-3.19)		0.51 (1.77)	0.720	7.73	2.32
(2)		0.08 (-4.35)							-0.03 (-1.47)		0.08 (0.24)	0.766	9.86	1.80
(3)			0.01 (-1.94)							0.03 (-1.44)	0.22 (0.75)	0.429	2.25	1.96
(4)				-0.01 (-1.46)					-0.03 (-1.44)		0.85 (4.91)	0.265	1.08	1.37
(5)					-0.08 (-1.05)					-0.08 (-2.00)	0.495 (1.80)	0.375	1.80	1.84
(6)						0.018 (1.39)			-0.04 (0.31)		0.37 (1.22)	0.264	1.07	1.63
(7)							-0.03 (-0.35)		-0.07 (-0.75)		0.38 (1.25)	0.087	0.28	1.54
(8)								0.14 (4.08)	-0.03 (-0.60)		-0.58 (-2.26)	0.809	12.71	2.49

: Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:

( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year

ıry Data from Stockholm International Peace Research Institute, *World Armament and Disarmament; SIPRI Yearbook, 1984;* other data from In-
ːional Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Financial Statistics*
ıook, *1984.*

Table 4

CHILE: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1973-1982

	Budget Categories							Control Variables				Statistics		
Equation	Public Services	Education	Social Security Welfare	Health	Housing	Other Community Services	Economic Services	Other Purposes	Government Expenditure	Per Capita GDP	Government Expenditure Per Capita	RHO	r^2	F	DW
(1)	-0.58 (-2.27)								-0.02. (-5.23)			-0.25 (-0.80)	0.867	19.55	2.06
(2)		-0.95 (-5.25)									-0.01 (-2.11)	-0.21 (-0.66)	0.899	26.72	1.14
(3)			0.28 (2.40)								-0.08 (-0.17)	-0.09 (-0.30)	0.517	3.21	3.14
(4)				-4.37 (-3.28)					-0.06 (2.18)			0.02 (0.06)	0.902	27.72	1.20
(5)					0.84 (3.36)				0.03 (0.44)			0.36 (1.19)	0.678	6.32	3.01
(7)						-0.02 (-0.21)			0.02 (0.89)			0.23 (0.71)	0.201	0.78	1.60
(7)							5.09 (8.17)		0.03 (2.60)			0.09 (0.28)	0.932	41.11	1.37
(8)								-1.56 (-2.70)	0.08 (-5.82)			0.24 (0.76)	0.850	17.12	2.38

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:
( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year

from International Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Financatistics Yearbook, 1984.*

Table 5

ECUADOR: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1973-1982

	Budget Categories						Control Variables				Statistics		
ation	Public Services	Education	Social Security Welfare	Economic Services	Other Purposes	Health	Government Expenditure Per Capita	Government Expenditure GDP	GDP	RHO	r^2	F	DW
)	-0.12 (-0.50)						-0.02 (-1.62)			0.05 (0.14)	0.404	2.03	2.25
)		-0.004 (-0.09)								0.06 (0.19)	0.245	0.97	1.53
)			-0.06 (-3.26)						-0.07 (-1.94)	0.55 (1.98)	0.640	5.34	1.82
)				-0.24 (-3.79)					-0.01 (-19.20)	-0.35 (-1.14)	0.986	226.96	2.58
)					-1.05 (-1.88)				-0.09 (-0.70)	0.32 (1.03)	0.398	1.98	1.09
)						-0.11 (-2.81)		-0.03 (-3.00)		0.26 (0.82)	0.634	5.20	2.05

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:
( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year

from International Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Financatistics Yearbook, 1984.*

Table 6

DOMINICAN REPUBLIC: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1973-1982

	Budget Categories								Control Variables				Statistics		
Equation	Public Services	Education	Health	Social Security Welfare	Housing	Other Community Services	Economic Services	Other Purposes	Government Expenditure Per Capita	Per Capita GDP	Gross Domestic Product	RHO	r^2	F	DW
(1)	−0.57 (−2.79)									−0.03 (−0.38)		−0.60 (−2.24)	.0.588	4.28	2.37
(2)		0.33 (0.64)							−0.04 (−1.61)			0.55 (2.01)	0.387	1.90	1.21
(3)			−0.09 (−0.19)						−0.02 (−0.78)			0.09 (0.28)	0.101	0.33	2.35
(4)				0.12 (0.42)					−0.01			−0.70 (3.02)	0.171	0.62	2.35
(5)					0.51 (0.62)					−0.07 (1.67)		0.31 (1.00)	0.384	1.87	2.06
(6)						−0.025 (−1.77)				0.06 (1.13)		−0.35 (−1.12)	0.506	3.07	2.06
(7)							−1.49 (−1.16)			−0.01 (−2.26)		0.06 (−0.19)	0.527	3.34	2.77
(8)								−0.98 (−2.32)			0.02 (2.37)	0.13 (0.40)	0.655	5.19	2.50

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:

( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year

ry Data from Stockholm International Peace Research Institute, *World Armament and Disarmament; SIPRI Yearbook, 1984;* other data from In-ional Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Financial Statistics ook, 1984.*

Table 7

MEXICO: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1973-1982

	Budget Categories							Control Variables				Statistics		
Education	Public Srrvices	Education	Health	Social Security Welfare	Economic Services	Other Purposes	GDP Per Capita	Government Expenditure	Government Expenditure Per Capita	GDP	RHO	r^2	F	DW
(1)	−0.014 (−1.46)							−0.03 (−1.29)			0.25 (0.80)	0.263	1.07	1.98
(2)		−0.041 (−4.56)							0.01 (5.44)		−0.41 (−1.37)	0.834	15.16	1.59
(3)			0.014 (1.93)						−0.05 (−0.500)		0.47 (1.61)	0.754	9.22	2.05
(4)				−0.011 (−0.60)						−0.09 (−4.11)	−0.64 (−2.68)	0.977	130.74	2.07
(5)					0.011 (2.04)		0.09 (1.40)				0.09 (0.29)	0.466	2.62	1.53
(6)						−0.024 (−1.66)	−0.07 (−0.96)				−0.12 (−0.37)	0.491	2.89	2.26

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:

( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year

ary Data from Stockholm International Peace Research Institute, *World Armament and Disarmament; SIPRI Yearbook, 1984;* other data from In-tional Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Financial Statistics book, 1984.*

Table 8

PERU: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1973-1981

	Budget Categories						Control Variables						
							Government				Statistics		
uation	Public Services	Education	Health	Social Security	Housing	Other Purposes	Expenditure Per Capita	GDP	GDP Per Capita	RHO	r^2	F	DW
(1)	-0.04 (-0.61)						-0.08 (-1.15)			-0.27 (-0.85)	0.267	0.72	1.97
(2)		-0.03 (-0.15)						-0.02 (-2.87)		0.19 (0.56)	0.640	3.65	1.23
(3)			0.02 (0.51)						0.08 (0.36)	-0.23 (-0.69)	0.05	0.11	1.99
(4)				-0.02 (-1.55)				-0.15 (-3.61)		0.06 (0.18)	0.815	8.82	0.86
(5)					0.09 (0.73)			-0.04 (12.37)		-0.54 (-1.84)	0.975	80.05	1.58
(6)						-0.02 (-1.05)			-0.06 (-6.76)	0.04 (0.10)	0.908	19.80	2.65

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:
( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year

ry Data from Stockholm International Peace Research Institute, *World Armament and Disarmament; SIPRI Yearbook, 1984;* other data from Inional Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Financial Statistics ook, 1984.*

Table 9

BOLIVA: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1973-1982

	Budget Categories								Control Variables						
				Social		Other			Government			Statistics		
Equation	Public Services	Education	Health	Security Welfare	Housing	Community Services	Economic Services	Other Purposes	Expenditures Per Capita	Government Expenses	RHO	r^2	F	DW
(1)	0.44 (6.33)								0.05 (0.67)		0.72 (3.13)	0.874	20.94	2.44
(2)		0.62 (3.00)							0.03 (2.57)		0.25 (0.78)	0.752	9.10	1.60
(3)			0.62 (3.38)						0.01 (2.13)		-0.53 (-1.88)	0.209	7.33	2.44
(4)				0.65 (0.48)					0.01 (2.70)		0.19 (0.60)	0.484	2.82	2.16
(5)					0.08 (1.56)				0.03 (1.15)		0.02 (0.06)	0.418	2.07	2.18
(6)						0.06 (2.23)				0.04 (1.62)	0.29 (0.91)	0.476	2.72	1.80
(7)							-1.01 (-2.23)			0.02 (-3.90)	0.51 (1.82)	0.771	10.14	2.38
(8)								-3.30 (12.81)	-0.01 (-15.66)		-0.33 (-1.06)	0.985	201.25	2.62

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:
( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year

rom International Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Finan-atistics Yearbook, 1984.*

Table 10

PARAGUAY: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1972-1982

	Budget Categories								Control Variables				Statistics		
Equation	Public Services	Education	Health	Social Security Welfare	Housing	Other Community Services	Economic Services	Other Purposes	GDP Per Capita	Government Expenditures Per GDP	Government Expenditures	RHO	r^2	F	DW
(1)	1.83 (2.75)								0.08 (2.68)			−0.35 (−1.20)	0.536	3.47	2.25
(2)		0.35 (1.45)								−0.03 (−0.76)		0.12 (0.38)	0.353	1.63	1.65
(3)			0.37 (2.44)						0.03 (4.49)			−0.04 (−0.12)	0.766	9.86	2.51
(4)				2.71 (2.51)							0.03 (3.27)	−0.80 (−4.35)	0.615	4.79	2.52
(5)					0.18 (1.00)				0.03 (3.97)			−0.06 (−0.20)	0.796	11.75	1.91
(6)						0.05 (1.92)			0.40 (3.90)			−0.40 (−1.40)	0.749	8.97	2.20
(7)							−4.74 (−4.98)		−0.02 (−3.76)			−0.71 (−3.24)	0.725	11.07	2.33
(8)								−1.36 (−1.66)			−0.03 (−4.20)	−0.4 (−0.37)	0.798	11.87	2.03

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:
( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year
Data from Stockholm Internatinal Peace Research Institute, *World Armament and Disarmament; SIPRI Yearbook, 1984;* other data from In-nal Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Financial Statistics ɔk, 1984.*

Table 11

COSTA RICA: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1972-1982

	Budget Categories								Control Variables			Statistics		
Equation	Public Services	Education	Health	Social Security Welfare	Housing	Other Community Services	Economic Services	Other Purposes	Government Expenditures Per Capita	GDP Per Capita	RHO	r^2	F	DW
(1)	−17.59 (−0.89)								−0.01 (−1.56)		−0.38 (−0.66)	0.12	0.56	0.86
(2)		1.24 (1.41)								0.01 (0.26)	0.92 (9.81)	0.872	27.43	1.02
(3)			−12.13 (−3.18)						0.02 (0.49)		0.94 (12.83)	0.561	5.11	0.84
(4)				7.60 (2.48)						−0.02 (−1.50)	0.80 (4.23)	0.667	8.03	1.23
(5)					−1.37 (−1.85)				0.05 (−1.87)		−0.39 (−1.23)	0.464	3.47	2.00
(6)						0.55 (4.14)			0.02 (3.68)		−0.72 (−2.46)	0.941	63.94	1.21
(7)							1.56 (0.69)		−0.02 (−1.83)		−0.04 (−0.11)	0.357	2.22	1.72
(8)								−20.50 (−0.96)	−0.01 (−1.65)		−0.39 (−0.68)	0.147	0.69	0.86

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:
( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year
ɔm International Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Finan-tistics Yearbook, 1984.*

Table 12

URUGUAY: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1973-1983

	Budget Categories								Control Variables						
Equation	Public Services	Education	Health	Social Security Welfare	Housing	Other Community Services	Economic Services	Oher Purposes	Government Expenditure Per Capita	GDP	GDP Per Capita	RHO	Statistics r^2	F	DW
(1)	0.10 (0.33)								-0.03 (-2.78)			0.68 (2.91)	0.546	3.61	2.74
(2)		0.05 (0.23)							0.05 (0.07)			0.85 (5.27)	0.01	0.03	2.65
(3)			0.62 (3.26)							-0.05 (-1.21)		-0.65 (-2.75)	0.617	4.83	1.85
(4)				1.55 (2.48)							-0.01 (-2.34)	-0.43 (-1.51)	0.541	3.53	1.88
(5)					0.01 (0.24)						0.06 (0.20)	0.45 (1.61)	0.02	0.06	2.17
(6)						0.16 (2.61)					0.02 (4.05)	-0.14 (-0.47)	0.840	15.80	2.10
(7)							0.60 (1.37)					0.55 (2.07)	0.216	0.827	2.14
(8)								-1.27 (-1.91)			-0.05 (-0.96)	-0.28 (-0.94)	0.508	3.10	2.13

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction:
( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year
y Data from Stockholm International Peace Research Institute, *World Armament and Disarmament; SIPRI Yearbook, 1984;* other data from In-onal Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Financial Statistics ook, 1984.*

Table 13

EL SALVADOR: DEFENSE EXPENDITURE-BUDGETARY TRADEOFFS 1973-1983

	Budget Categories								Control Variables						
Equation	Public Services	Education	Health	Social Security Welfare	Housing	Other Community Services	Economic Services	Other Purposes	Gov't Expenditures Per GDP	GDP Per Capita	Gov't Expenditures	RHO	Statistics r^2	F	DW
(1)	-0.46 (-6.02)								-0.03 (-3.23)			-0.31 (-1.06)	0.841	15.86	1.96
(2)		-0.90 (-7.46)							-0.05 (-4.18)			-0.20 (-0.42)	0.890	24.39	1.94
(3)			-0.14 (-2.00)						-0.07 (-0.31)			-0.17 (-0.54)	0.456	2.51	2.38
(4)				0.15 (1.61)						0.02 (1.62)		0.36 (1.22)	0.283	1.18	1.93
(5)					-0.13 (-4.69)						0.02 (1.8)	0.41 (1.43)	0.593	4.38	1.42
(6)						-0.40 (-4.69)			0.02 (-3.88)			0.78 (3.96)	0.765	9.80	2.72
(7)							-0.28 (-4.69)				0.05 (0.91)	0.04 (0.12)	0.223	0.86	2.31
(8)								0.59 (6.51)	-0.08 (-0.81)			-0.54 (-2.03)	0.919	34.47	2.41

Estimations are made using Cochrane-Orcutt two stage iteration procedure for serial correlation correction.
( ) = t statistic
F = F statistic
DW = Durbin-Watson statistic
L = Variable lagged one year
y Data from Stockholm International Peace Research Institute, *World Armament and Disarmament; SIPRI Yearbook, 1984;* other data from In-onal Monetary Fund, *Government Finance Statistics Yearbook,* various issues; International Monetary Fund, *International Financial Statistics ook, 1984.*

grouped together on the basis of their tradeoff patterns? Or are these tradeoffs due to variables unique to each country's budgetary process?

We can observe at this point that each group included countries that vary considerably in terms of political development, economic system, territory and population size, demography, location, levels of socio-economic development, resource availability, literacy, relative military size, defense expenditures, level of military involvement in the political system. Both groups of countries contain democracies and military regimes that were in office throughout the entire period under review. Clearly, the popular intepretation that military regimes spend less on social services and civilian regimes spend relatively more cannot explain the pattern of negative and positive tradeoffs reported above.

Schmitter has suggested that civilians, while increasing spending on social programs such as education, may feel constrained to bribe soldiers to keep them out of power; further, the military budget enlarged by U.S. military assistance and often committed to heavy capital expenditures may be relatively immune to short-term political changes (pp. 492-93).

It is possible, too, that defense and social programs may rise together because both are supported by relatively powerful constituencies. It may be that deals or compromises are struck between these two firmly entrenched constituencies. Consequently, both defense and social program budgets could benefits at the expense of policy areas that lack similarly powerful spokesman and organizational pressure.[5]

One thing the results indicate is that there is considerable variation in the types of tradeoffs that occur in Latin America. The evidence seems to support the conclusion of Ames and Goff that "Latin America may not have a common allocation process; instead, different models may explain different groups of countries or time periods.

A closer examination of the countries (Table 14) indicates at least one common element — whether or not a country is an arms producer. Again leaving out El Salvador, the countries that

Table 14

LATIN AMERICA: ARMS PRODUCERS – NON ARMS PRODUCERS
DEFENSE EXPENDITURES BUDGETARY TRADEOFFS

(t Statistics from regressions)

	Budget Categories							
	Public Services	Education	Health	Social Services Welfare	Housing	Other Community Services	Economic Services	Other Purposes
Arms Producers								
Venezuela	-3.36	-1.43	-1.62	-2.33	-2.19	+0.83	+2.56	-2.04
Brazil	-0.78	-0.08	-0.37	-0.26	-2.00	-2.32	-1.64	-1.32
Argentina	-2.27	-4.35	-1.94	-1.46	-1.05	+1.39	-0.35	+4.08
Chile	-2.27	-5.25	+2.40	-3.28	+3.36	-0.21	+8.17	-2.70
Ecuador	-0.50	-0.09	-2.81	-3.26	–	–	-3.79	-1.88
Dominican Republic	-2.79	+0.64	-0.19	+0.42	+0.62	-1.77	-1.16	-2.32
Mexico	-1.64	-4.56	+1.93	-0.60	–	–	+2.04	-1.66
Peru	-0.61	-0.15	+0.51	-1.55	+0.73	–	–	-1.05
Non-Arms Producers								
Bolivia	+6.33	+3.00	+3.38	+0.48	+1.56	+2.13	-2.23	-12.81
Paraguay	+2.75	+1.45	+2.44	+2.51	+1.00	+1.92	-4.98	-1.66
Uruguay	+0.33	+0.23	+3.26	+2.48	+0.24	+2.61	+1.37	-1.91
Costa Rica	-0.89	+1.41	-3.18	+2.48	-1.85	+4.14	+0.69	-0.96
El Salvador	-6.02	-7.46	-2.00	+1.61	-2.32	-4.69	-1.00	+6.51

ed on t values for budget category regressed on military expenditures presented in tables.

generally experience negative tradeoffs between defense expenditures and social welfare expenditures tend to be the arms producers, while those countries that experience positive relationships between defense and social expenditures tend to be the non-arms prodcuers.

The military sector in countries possessing a domestic arms industry is able to draw on a number of interrelationships with the civil economy; the government might, for example, place weapons production contracts with private manufacturing firms and soldiers might be expected to spend their wages in civilian markets. The military sector in the producing countries is the one major area that is under the direct control of the Central Government. Economic expansion can therefore be affected immediately by, for example, the ordering of a new weapons system. In contrast, indirect policies such as marginal tax changes would take a much longer period to produce noticeable multiplier effects. Such control is also useful in the possible event of excessive expansion of the economy, as weapons systems can be immediately cancelled or contracted to help deflate the system.

Whynes notes:

> Once this regulation system has become established, several groups of people will find it economically advantageous to maintain it in existence. These groups will include senior soldiers. the owners and managers of private industries with which the government places defense contracts, and also politicians whose careers are tied to the defense sector.

Clearly, if military expenditures are used in an environment where domestic production is possible, they have the potential to perform an important stabilizing role, i.e., they could expand relative to other expenditures when the economy is in a recession and be reduced relative to other (less discretionary expenditures) during times of overheating or lack of foreign exchange. This use of military expenditure as a stabilizing element would produce the negative tradeoffs observed for the arms producers in either a zero sum environment or an expanding sum environment (where all expenditures grow over time, but military expenditures fluctuate more vis-a-vis other types of government allocations).

and economic services would tend to reinforce this conclusion. for examples, it has often been claimed that many governments of less developed countries tend to regard capital expenditure as investment and recurrent expenditure as consumption. Economic growth is seen to depend largely on investment, so that government recurrent expenditure has to be curbed in order to generate "public savings" for investment purposes for instance, see Lim. There are also political reasons for this belief. Governments are more likely, at least in the short run, to obtain greater political benefits by having more, but less efficient, projects than by having fewer, but more efficient, ones. The former are simply more visible and more politically rewarding.

One important implication of this view is that scarce government revenue is more likely to be spent on new projects or on the expansion of existing ones than on recurrent operational and maintenance costs. There are certainly examples in less developed countries of new schools being built and opened without there being sufficient qualified teachers to man them, or even to man already existing ones. If, in fact, this view is correct, one might expect economic services in general to be positively correlated — or at least not statistically significant — when regressed on defense expenditures.

One comes back to the fact that a fairly close link exists between the government budget (surplus-deficit), public consumption and military expenditures in the arms producing countries. These countries show defense expenditures linked to budgetary deficits, i.e., defense expenditures rise with government deficits. Other expenditures may be cut back during periods of high deficits. With surpluses, defense expenditures, everything else equal tend to decline in percentage terms.

These patterns are not found in the non-producing countries. Apparently because these countries depend more on tax revenues, all expenditures are increased as revenues rise and decreased when revenues decline. The non-arms producing countries would not be able to attach any special stabilizing role to military expenditures that could not be performed as well by other types of expenditure. The positive tradeoffs between defense and social expenditures for the non-arms producers are, therefore, somewhat

economic services and other purposes instead sacrificed to provide for increases in defense expenditures?

As Hicks and Kubisch found in a major study of austerity programs, when faced with difficult choices in reducing public expenditures, governments consider a wide range of factors, including political and economic costs, present versus future consumption and the potential impact on employment, distribution and welfare. Their empirical results suggest that, when governments in developing countries implement austerity programs, they do not apply across-the-board reductions in expenditures. Generally, capital expenditures are reduced more than recurrent expenditures. Within both capital and current budgets, the social and administration/defense sectors appear to be relatively well protected, while infrastructure and production absorb disproportionately larger reductions. That the social sectors do not appear to be highly vulnerable to expenditure reductions in terms of austerity was the novel finding of that study.

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