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FISCAL POLICY, THE MILITARY, AND POLITICAL STABILITY IN IBEROAMERICA¹

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This article deals with decision making in systems at the level of the society. An earlier paper published in *Behavioral Science* (Heggen & Cuzán, 1981) argued that government could be reduced to a firm whose behavior is consistent with the laws of microeconomics. This paper builds on that and related articles by Cuzán and Heggen. Several models of political stability in Iberoamerica are developed and tested. Their essential variables are fiscal, military, and electoral. These variables are related in ways that are consistent with Ashby's findings concerning stable systems.

KEY WORDS: societal system; decision making, government, microeconomics, political stability.

I. INTRODUCTION

An earlier paper published in *Behavioral Science* (Heggen & Cuzán, 1981) reduced government to a firm whose primary objective is to maximize spending, subject to the constraints imposed by elections in a democracy and size of the military in a dictatorship. From that model several hypotheses about the survival of administrations and governments have subsequently been deduced and tested. The main findings are:

1. Two-party democracies such as the United States and Great Britain show a negative relation between fiscal expansion and incumbent reelection. An important exception is the case of a popular war, when the electorate supports greater spending in order to achieve victory (Cuzán & Heggen, 1984, 1985).

2. Fiscal expansion in a dictatorship increases the risk of coup or revolution unless it is accompanied by an increase in the size of the military relative to the population. In Cuba, Castro's Communist dictatorship has survived 27 years by maintaining, with Soviet support, the highest number of military personnel per 1,000 inhabitants in all

of Latin America. In contrast, Somoza's authoritarian dictatorship was overthrown in 1979 after several years of decline in the ratio of the military to the population; this erosion of Somoza's coercive capability was aggravated by several years of fiscal expansion and a cutoff of U.S. military assistance in Somoza's last year (Cuzán & Heggen, 1982).

3. Between 1952 and 1976, the United States had a fiscal-electoral cycle that behaved as follows: after a reelection, the incumbent party accelerated fiscal growth, and it lost the next election. The victorious opposition party decelerated the growth of spending, and was reelected. Emboldened by their "mandate," the incumbents accelerated spending following their reelection, were defeated at the next election, and the cycle began anew (Cuzán & Heggen, 1984).

This paper presents more hypotheses about fiscal policy, size of the military, and political survival, and tests them with data from Iberoamerica. The models explain dramatic and not-so-dramatic changes of government which have taken place in Central and South America during the last decade and a half. The models obey economic laws and behave in ways that are

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helped with the figures and data analysis pertaining to that section and made suggestions for improving the clarity of the entire text. Finally, I wish to thank Dena Folmar for typing many drafts of this manuscript.

consistent with Ashby's findings concerning stable systems and organic survival (Ashby, 1960).

II. A FISCAL MODEL OF TWO-PARTY ELECTIONS

A fiscal model of incumbent survival is described in Figure 1. The horizontal axis measures F , the percent of gross national product spent by the central government. Along the vertical axis lies V , the percent of the electorate willing to vote for the party controlling the executive if a free election were held. A free election is one in which any party can compete for votes in peaceful assemblies and voters are informed by an unfettered press.

F and V are negatively related, as shown by a downward-sloping "demand" (D) curve. This is because F is the fiscal equivalent of a "price" which government charges the economy for its goods and services. As F rises, voters react as do rational consumers: they reject the incumbents—i.e., they refuse to "buy" another term from the governing party—by casting their ballots for nonincumbent parties or candidates.

The primary objective of the incumbent

party is to spend as much as possible and still get reelected. For the incumbents, greater spending is desirable because it is a means of changing policy and administration in the direction dictated by their ideology or, in a corrupt government, by their pocketbooks. Greater spending also reduces the cost of governing to the incumbents, since it enables them to say "no" less frequently or with less conviction to demands for new programs or higher salaries for the bureaucracy.

In a two-party democracy, F^* is the maximum the incumbents can spend and still get reelected. It is found at a V slightly above 50%. At F^* the incumbent party is reelected by an absolute majority of the votes.

F^* is a stable state. If F surpasses F^* , the incumbents are defeated. The victorious party cuts spending, reducing F to below F^* , and it is reelected. After the reelection, F grows to F^* as the incumbents trade off excess electoral support for additional spending.

From this model it is deduced that fiscal expansion causes incumbents in a two-party system to lose the next election. Data on 26 American presidential and 13 British

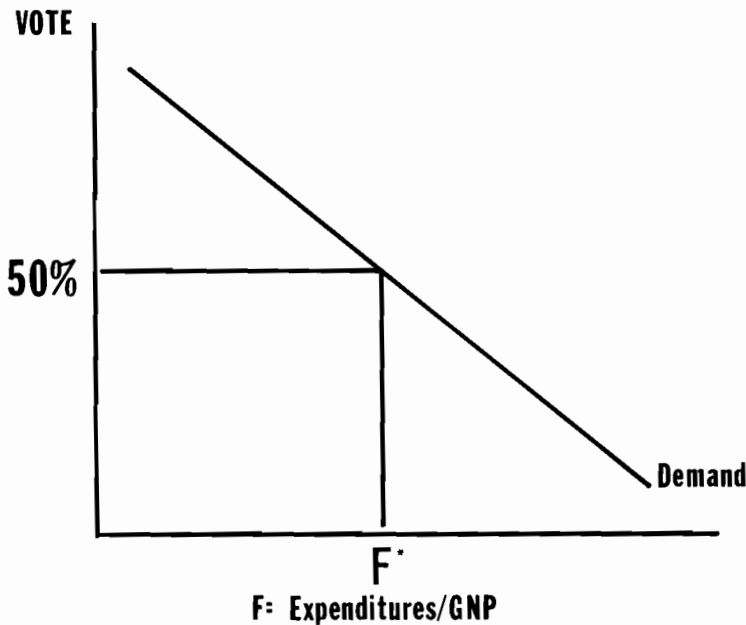


FIG. 1. Demand for incumbent reelection is a negative function of the percent of gross national product spent by the central government.

TABLE 1
FISCAL POLICY AND THE OVERTHROW OF
GOVERNMENTS IN IBEROAMERICA: 1968-1983.

Overthrow of Government	Fiscal Policy		Total
	Expansionary	Non-Expansionary	
Yes	Argentina	Bolivia	11
	Chile		
	Ecuador		
	El Salvador		
	Guatemala		
	Honduras		
	Nicaragua ^(a)		
	Panama		
	Peru		
	Uruguay		
No	(10)	(1)	7
	Mexico	Brazil	
	Venezuela	Colombia	
		Costa Rica	
		Dominican Republic	
TOTAL	(2)	(5)	18
	12	6	

^a In Nicaragua the overthrow of government was by revolution, not coup. Chi Square = 7.49; df = 1
Significant at .01 level

Methodological note: Two Latin American countries are excluded from the empirical test. Cuba is excluded because the fiscal data are unavailable. But even if the data were available, Cuba would be a candidate for exclusion because its dictatorship is Communist and allied to the Soviet Union. This makes Cuba's totalitarian government qualitatively different from the indigenous authoritarian dictatorships of Iberoamerica (Kirkpatrick, 1979).

Haiti is excluded because it is not an Iberoamerican country. Although it was once a Spanish colony, it became a French colony in 1697. Through the importation of slaves, the colony became a black society permeated with French plantation culture. As a consequence of the French revolution, Haiti became the first independent Latin American state.

After some doubt, Panama was included in the test. The reason for the hesitation is that the 1981 change of government there, though irregular, was not technically a coup. Rather, the military forced the president to resign in favor of the vice-president. But this one, too, was forced to resign in favor of the second vice-president, in 1984. In 1985, less than a year after he was elected, another president was forced to resign by the military in favor of the first vice-president. These changes suggest that Panama may be developing a more limited type of coup in which the military only exercises veto power over an incumbent but does not assume control of the government itself.

ments survived. In the case of Mexico, the resilience of the government is great. There has not been a coup or revolution in Mexico for over 50 years, by far the longest such period of political stability in Latin America today. The Institutional Revolutionary Party (PRI) has been governing since the end of the civil war which followed the 1910 revolution against Porfirio Diaz's 30-year presidency (Busey, 1985).

While the PRI has been in office for over 50 years, new presidents have been elected every six years in accordance with the constitutional prohibition against presidential

reelection. As a result, "Mexico has been able to escape the dismal circularity that consists of moving from anarchy to dictatorship and vice versa. The result was not democracy, nor despotism, but a peculiar regime, both paternalistic and popular, that slowly but surely—and not without hitches, eruptions, and backsliding—has been moving toward ever more free and democratic forms." (Paz, 1982: 10). Mexico's long-term survival value accounts for its not having been overthrown during what may turn out to be only a temporary period of fiscal expansion.

As for Venezuela, while the government survived, the incumbent party lost its bid for reelection both times during the period studied. Hence, the Venezuelan fiscal-electoral system behaves in one respect just like the American or the British—fiscal expansion is associated with defeat of the incumbents at the polls.

IV. A FISCAL-POLITICAL CYCLE?

F can remain static for some period, as it did in the United States between 1880 and 1912, when it ranged between two and three percent. F can also migrate toward a higher value, as hypothesized by Wagner's Law and illustrated by the United States since 1952 (Buchanan & Flowers, 1980; Cuzán & Heggen, 1985). Or, F can migrate toward a lower level, as in Franco's Spain and DeGaulle's France in the 1960's.

F is subject to displacement by interstate or civil wars, depressions, or some other politically charged event of large magnitude. During the crisis, F adopts a much higher value than before; after the crisis, F falls, but not to as low a level as before the crisis (Peacock & Wiseman, 1961).

F, or its rate of growth, may be subject to cycles. For example, in the United States, between 1952 and 1976, following every reelection, F increased. This cost the incumbents the next election. Under the new administration, F stopped growing. This fiscal cutback policy (a deceleration, though not an actual decrease in F) was rewarded by reelection. This was followed by another increase in F, and the cycle began anew (Cuzán & Heggen, 1984).

This cyclical behavior suggests that there

may exist a political mechanism for regulating the equilibrium level or equilibrium growth rate of F . A reelection, especially one by a large margin, is interpreted by the incumbents as a "mandate" to accomplish great (and, in practice, usually expensive) things. In the flush of victory, control over spending is relaxed if for no other reason than that the incumbents can afford it; after all, the election gave them a share of the electorate larger than the absolute majority they needed to win. In effect, the incumbents trade off support in excess of what they need for reelection in exchange for greater spending.

Since no one can be sure what the fiscal demand curve will do, F^* is a moving target which the incumbents have to estimate. A reelection encourages them to spend more, probing the fiscal limits of the electorate. A defeat of the incumbents, however, in-

duces the new administration to cut back on spending in the hope of getting reelected.

To recapitulate: F can be static for a time and it can also experience secular growth or contraction. A temporary displacement to a much higher value during wartime permanently shifts F to a level that is higher than before the war though not as high as during the war. Finally, F or its rate of growth may be regulated by a fiscal-political cycle.

These three phenomena can be observed in two neighboring South American countries, Argentina and Chile. Figure 3 describes their fiscal-political behavior between 1967 and 1983. (There are two behavior lines for Chile, CH_1 and CH_2 , because the same source gives different values for F in the 1973 and 1985 volumes. CH_1 and CH_2 are roughly parallel, so the main

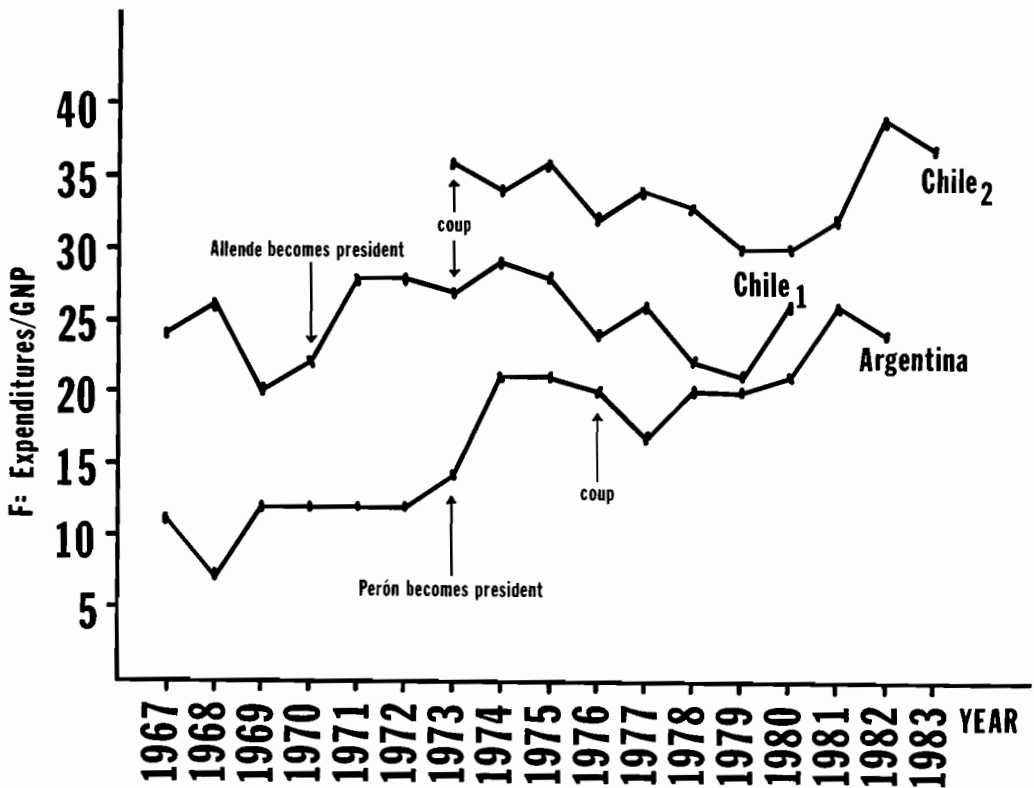


FIG. 3. Central government expenditures as a percent of gross national product in Argentina and Chile: 1967-1983.

difference between them is simply that CH_2 plots a proportionately higher F value throughout the decade.)

Between 1967 and 1972, F remained constant in Argentina. But, between 1973 and 1982, F in Argentina grew in four out of the nine years. These increases were not offset by the three decrease years, so the net effect is that F doubled in Argentina between 1972 and 1983, as if it had been driven by Wagner's Law. In contrast, F declined in Chile between 1973 and 1980. However, since then, F has begun to increase again; in 1983 F was within one percentage point of its value in 1973. Wagner's Law is not operative in Chile.

The countries show striking similarities during an earlier part of the period. In the early to mid-1970's, both Argentina and Chile experienced military coups against elected, charismatic presidents. In the first year of their administrations, F shot up by 50% in Perón's Argentina (1973-1974) and by 21% in Allende's Chile (1970-1971). Although in the next two years F fell one percentage point from the first-year high, both the Allende and Perón governments were overthrown by military coups after many months of political agitation that, in the main, went against these fiscally expansionist administrations.

After the coup, each country experienced a fiscal cutback; this was in time followed by renewed fiscal expansion. F fell about 20% in Chile (the average decrease shown by CH_1 and CH_2) between 1973 and 1979, after which F rose to its 1973 level. In Argentina, the decline was about the same proportion, 19%, but it all occurred in the first year of the new administration. By 1978, F had increased in Argentina to the same level as 1976, when the coup took place. In 1982, F in Argentina was four percentage points higher than in 1976 (24% vs. 20%).

In Chile, General Augusto Pinochet, who led the coup, consolidated his power later in 1980 by winning a constitutional plebiscite that permits him to be president until 1989. In Argentina, after overthrowing Perón's vice-president and widow, the military ruled collectively through juntas

whose membership and leader changed more than once between 1976 and 1983, when they turned the government over to a freely elected president.

The fiscal-political behavior exhibited by Argentina and Chile, beginning with the elections of Juan Perón and Salvador Allende respectively, suggest a fiscal-political cycle. The fast increase in F that took place in their first year evaporated political support for these governments, as discussed in Section III of this paper. This loss of support led to their overthrow two years later.

Following the coups, both military administrations implemented fiscal cutbacks. But after some time in office, both governments allowed F to rise again. This happened very soon in Argentina; by 1980 F was as high as in Perón's first year (21%) and in 1983 it was even higher. In Chile, however, F did not stop falling until 1980 and has yet to exceed by more than one percentage point its 1973 level.

The fiscal theory presented in this paper argues that Pinochet's continued survival in office has been due—at least partly—to a decade of fiscal restraint and that a lack of such restraint was one factor (along with defeat in the Falklands war and another factor to be discussed in Section V) in the retirement of military government and the resumption of democracy in Argentina in 1983. Note that the fiscal determinant of political survival appears to be fiscal policy, i.e., the direction of change in F , and not the level of F as such. Thus, in Chile, F was higher throughout the period than in Argentina. But in Chile Pinochet pursued a cutback fiscal policy for most of the years after 1973, while in Argentina the generals, after a brief cutback, allowed F to expand beyond the pre-coup level. It is rational that the electorate judge the incumbents by their fiscal policy and not by how high F is, since this value has historical antecedents predating the incumbent administration.

One more observation is worth mentioning. It appears that the 1976 coup in Argentina displaced F , since the fiscal cutback after the coup fell short of restoring F to its pre-coup level. In contrast, no such displacement is evident in Chile. Six years

after the coup, F had declined to within one percentage point of its pre-Allende low of 1969.

V. FISCAL POLICY AND SIZE OF MILITARY AS FACTORS IN LATIN AMERICAN STABILITY

According to Ashby, should any variable "have a marked effect on the ultrastable system, the latter will, of course, develop a field stabilizing" that variable (Ashby, 1960: 132). For reasons discussed in Section III, the military plays just that kind of strategic role in Latin American politics. It is a factor to be reckoned with by any government that wishes to survive.

In order to avoid being overthrown in a coup or revolution, the governments of Latin America must maintain a constant ratio of M to F, where M is the number of military personnel per 1,000 inhabitants and F is, as before, the percentage of GNP spent by the central government. This ratio is an essential variable (Ashby: 42) because in Latin America the authority to tax and spend ultimately depends on the power to coerce what at times become large numbers of armed enemies who deny the government legitimacy to do so. Every Latin American government has to worry about the actual or potential existence of revolutionaries plotting to overthrow it violently.

The minimum M/F required for political stability depends on, among other factors, whether the government is a democracy or a dictatorship. *Ceteris paribus*, the minimum M/F necessary for incumbent survival is lower in democracies than in dictatorships. This is because, as part of the Western world, Iberoamerica regards elections as the only legitimate means of organizing a government. No Latin American dictatorship can legitimize itself; it is always under the threat of coup, insurrection, and revolution. Dictatorships in Latin America are less legitimate than democracies even if these democracies are less legitimate than those of the United States, Canada, or Great Britain (Paz, 1982).

In order to survive, no Latin American government, least of all a dictatorship, can allow M/F to fall below a certain threshold,

T. What this threshold is varies from country to country according to political culture and other exogenous factors, such as degree of foreign support for those plotting against the government. Since it is costly to maintain a military, an efficient government theoretically reduces M/F to the minimum permissible given its type.

If M/F is allowed to fall below T, the government begins to lose control. People increasingly disregard its laws and regulations; political rivals and competitors outside the government arm themselves, infiltrate revolutionaries from abroad, attack police and army units, carry out acts of sabotage or terror, and set themselves up as rival governments in "liberated" zones. Within the military, dissident officers conspire to overthrow their superiors. In short, below T the government becomes less and less stable and is apt to be overthrown at any moment.

To sum up: political stability in Iberoamerica depends on maintaining a constant ratio of M to F, and this ratio has to be greater in a dictatorship than in a democracy. In order to test this hypothesis, Latin America was divided into four groups of countries: the stable democracies, the stable dictatorships, the democratic evolutionists, and the violent revolutionists. A country was assigned to a group according to its political behavior during the years 1973 to 1985 as reported in the *Europa Yearbook*.

Table 2 shows the four groups of countries. The stable democracies are governed by parties that won free elections held during the decade. Only four Latin American countries were governed democratically during the period.

Ten countries are classified as democratic evolutionists. In eight of these, the government underwent a qualitative change from dictatorship to democracy during the period: after elections were held, the military voluntarily put itself under the authority of the winner. Mexico and Panama are also included in the democratic evolutionists. Neither country experienced a qualitative change as great as the other eight: Mexico's PRI and Panama's military still govern. But in both countries the gov-

TABLE 2
FOUR TYPES OF LATIN AMERICAN GOVERNMENTS: 1973-1985.

Type	Countries	Behavior
Stable Democracy	Colombia Costa Rica Dominican Republic Venezuela	Held free elections during the decade.
Democratic Evolutionist	Argentina Bolivia Brazil Ecuador Guatemala Honduras Mexico Panama Peru Uruguay	Military gave way to freely elected civilian government; or, in the case of Mexico and Panama, the government liberalized the political climate (see text).
Stable Dictatorship	Chile Paraguay	Military governed entire period; elections not free.
Violent Revolutionist	El Salvador Nicaragua	Government overthrown in atmosphere of political violence.

ernment enacted liberalizing reforms granting greater freedom and offices to competing parties.

The remaining four countries are divided into two pairs: the stable dictatorships and the violent revolutionists. Chile's Pinochet and Paraguay's Stroessner governed the entire period under study (and are still in office as this is written, in late 1985). They are the stable dictatorships.

El Salvador and Nicaragua are the violent revolutionists. In 1979, dictatorships were overthrown in the both countries, by military insurrection in the former and invasion-cum-revolution in the latter. These two Central American nations experienced nearly a decade of political violence before and after 1979. Both governments remain at war with foreign-supported guerrillas threatening their overthrow.

Figures 4 and 5 plot the behavior of M/F for these four groups of countries during the last decade. The following observations are consistent with theoretical expectations.

(1) The average M/F of the stable democracies is the lowest of all groups.

(2) The stable dictatorships have the highest M/F.

(3) In the stable governments, M/F oscillates around a nearly horizontal line of behavior. The variation around this line is less in the democracies (e.g., Costa Rica) than in the dictatorships. This suggests that government is more coordinated (Ashby, 1960: 68) in a democracy than in a dictatorship.

(4) The democratic evolutionists show a decline in M/F from the first to the second half of the period. As these governments changed their type from dictatorship to democracy, M/F declined. In contrast, Chile shows an increase in M/F after the 1973 coup transformed the government from a democracy to a dictatorship. These behavior lines are of a step-function form (Ashby: 87-89).

(5) The violent revolutionists experienced the greatest and most dramatic changes in M/F. El Salvador and Nicaragua, in fact, appear to illustrate a "break" in the political "machine" (Ashby: 92-93). Both countries had been governed by authoritarian dictatorships for decades. In 1979, these dictatorships were overthrown. Following the overthrow of the old regimes, new governments were reconstructed (see next section) in both countries. Note that the overthrow of government—a violent "break"—occurred after M/F had fallen in both countries to the level of the stable democracies. Neither dictatorship could survive with an M/F this low (which by hypothesis was below T) and both were, indeed, overthrown. By 1982, the new governments were operating in a much higher field (Ashby: 23).

VI. THE COMPARATIVE EFFICIENCY OF REVOLUTION IN EL SALVADOR AND NICARAGUA.

In the *Behavioral Science* paper cited in the introduction (Heggen & Cuzán, 1981) a model of the origin, consolidation, and ex-

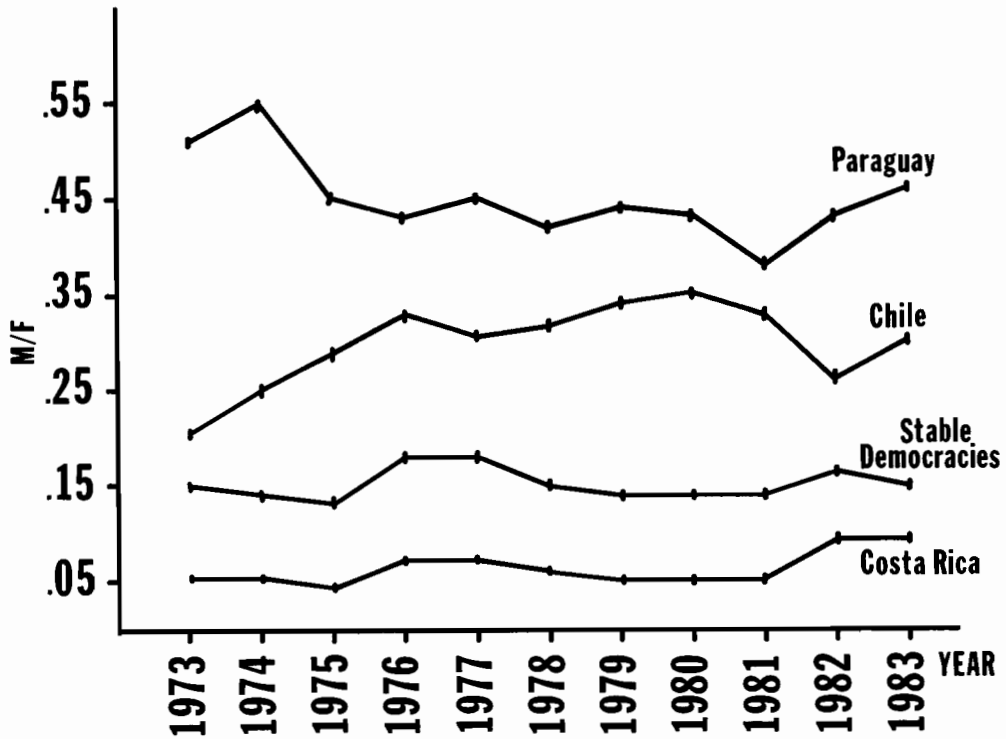


FIG. 4. Ratio of M (military personnel per 1,000 inhabitants) to F (percent of gross national product spent by the central government) in stable democracies such as Costa Rica, and in stable dictatorships (Chile and Paraguay): 1973-1983.

pansion of a government born in revolution was presented. It was hypothesized that a government emerging from the violent overthrow of another would initially establish itself primarily by military means, the victorious revolutionaries gaining control and reforming the coercive apparatus of the old state, or destroying it and replacing it with a new police and military.

Having a *de facto* government, the new incumbents can now take diverging paths toward further political consolidation and fiscal expansion. One path is democratic. It requires the victorious party to abide by a constitution, respect political freedoms, hold elections, and continue governing only if it wins the contest for votes. Consequently, if they wish to achieve a democratic government, the erstwhile revolutionaries must exercise fiscal restraint and devote considerable energies toward legitimizing their policies.

Another path for the new government to pursue is dictatorial fiscal expansion. The former revolutionaries appoint themselves

new dictators. They raise M to new highs in order physically to intimidate, imprison, exile, and execute political rivals. Elections, if held at all, are not free. Having nothing to fear from the voters, the new dictators expand fiscally well beyond pre-revolutionary days.

These diverging paths of political consolidation and fiscal policy differ in terms of economic efficiency. The democratic path is more efficient because the social cost of a government resting on legitimacy is lower than the social cost of a government resting on coercion. Furthermore, a democracy is electorally constrained from expanding fiscally beyond what voters believe the economy can afford. Hence, a revolutionary government that embarks on the democratic path will have better economic results than one taking the path of dictatorship.

These hypotheses about the origin, consolidation, and expansion of governments born in revolution or insurrection describe the politicoeconomic histories of El Salva-

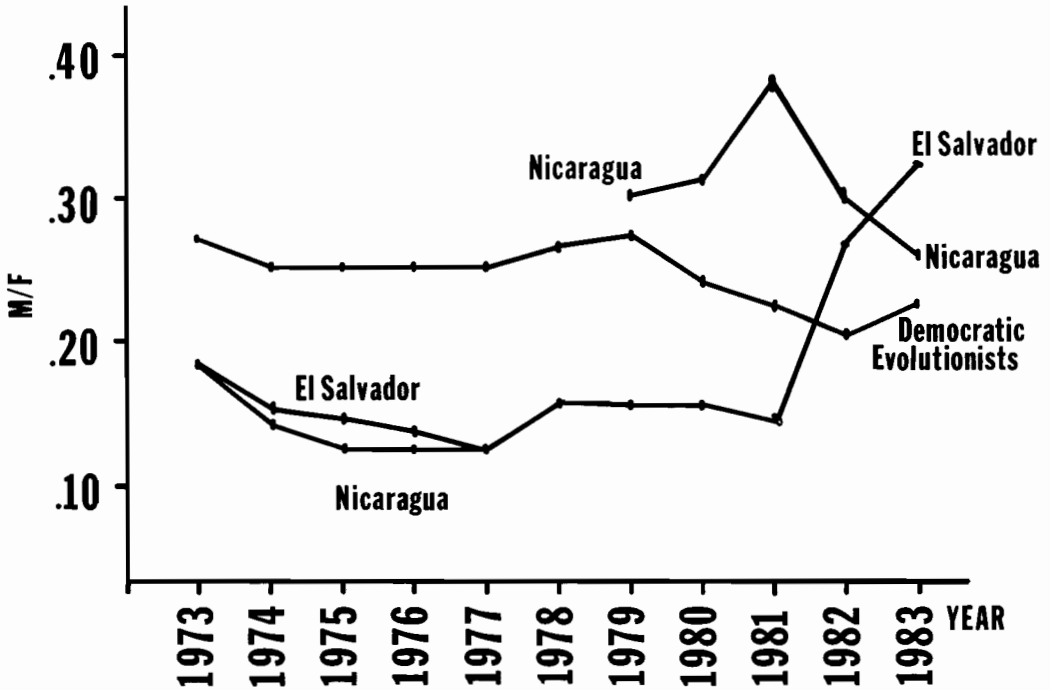


FIG. 5. Ratio of M (military personnel per 1,000 inhabitants) to F (percent of gross national product spent by the central government) in ten democratic evolutionist countries (see Table 2) and in the violent revolutionists (El Salvador and Nicaragua): 1973-1983. (Note: For lack of data, M/F could not be computed for Nicaragua in 1978.)

dor and Nicaragua during the last decade. In each country, having overthrown a government in 1979, the new regime increased M, from 2.3 to 5.8 in El Salvador, and from 6.7 to 16.4 in Nicaragua. Note that in Nicaragua M is now almost three times what it is in El Salvador. This statistic summarizes the different paths which the two countries have followed since 1979.

El Salvador has followed a democratic path since 1982, when a constitutional assembly was freely elected. (The election was boycotted by only a Communist-dominated front). Since then, a new president, a legislative assembly, and local governments have been elected in closely-contested races (Cuzán, 1985). The government has expanded fiscally, F rising from 15 in 1979 to a high of 20 in 1981 and 1982. In 1983, F was estimated to be 18. This suggests that F has stopped growing or perhaps may even have fallen in El Salvador from its postrevolutionary high.

In contrast, Nicaragua embarked on a dictatorial path of fiscal expansion almost

from the moment the revolution triumphed in 1979. A Marxist-Leninist party allied to the Soviet Union consolidated its power without a constitution, without elections, and without respecting freedoms of assembly, speech, and press (Busey, 1985; Payne, 1985). In November of 1984, more than five years after it was organized, the government held elections for president and a constitutional assembly, which were boycotted by most of the parties and personalities that had helped the erstwhile revolutionaries defeat the old regime. The abstentionists denied the legitimacy of elections held without political freedoms. The incumbent party won the election handily, capturing two-thirds of the vote versus 14% for its nearest rival, one of six micro-factions. Since the inauguration of the assembly, the incumbent party has marginalized opposition assemblymen in legislating and writing the constitution. Both the president and the assembly were elected for six years, which means Nicaraguans will not vote again until 1990. No elections for local gov-

ernment have been held; the incumbents have a monopoly at this level.

Having raised M to the second-highest level in Latin America (after Cuba) and having neutralized elections as a threat to their tenure in office, the incumbents in Nicaragua have allowed F to nearly triple, from 22 in 1979 to 62 in 1983. F in Nicaragua is about twice the Latin American average.

The contrasting fiscal-political paths pursued by El Salvador and Nicaragua since 1979 have had the expected results on their economic performances. Economic performance is measured by the percentage change in GNP per capita (constant, 1982 dollars) between the average of the six years 1973-1978 and the average of the five years 1979-1983. In both countries, GNP per capita fell, but the loss was proportionately twice as great in Nicaragua (-27%) as in El Salvador (-13%). By way of comparison, it should be noted that in Costa Rica, the only stable democracy in Central America, GNP per capita also fell, but only by 6%.

VII. CONCLUSION

This paper has presented several models of political stability in which fiscal policy and size of the military behave as essential variables. The models were tested in Iberoamerica, with encouraging empirical results.

Much more testing of these hypotheses needs to be done. The Latin American data set needs to be lengthened in time. New regions and countries where the military is also a strategic political actor, in Africa, the Arab world, and Asia, need to be studied to see if the models fit their behavior as well.

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