Inward-Looking Policies, Institutions, Autocrats, and Economic Growth in Latin America:

An Empirical Exploration

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Abstract[1]

This paper explores the institutional determinants of economic growth in Latin America by taking advantage of recent empirical research that employs subjective and objective measures to test for a possible "Northian" explanation that links institutional quality and economic growth. I provide a framework that helps better understand the policymakers' choices and persistence regarding inward-looking policies that were pursued between the 1930s and the 1980s by arguing that in the Latin American case Olson's (1982) idea of encompassing interest should be expanded to cover not only the economic stakes of power holders, but also, their political stakes, somewhat along the lines of work by Robinson (1997).

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1. Introduction

Despite the fact that one of the greatest strengths in Latin American research is the depth of its historiography, in the past economic historians of the region typically rejected the neoclassical approach and eschewed several of its assumptions in favor of a more normative view, mainly driven by the structuralist school of Singer (1950), Prebisch (1984), and others.[2] This was particularly true when studying the determinants of economic growth for rigorous empirical methods were ignored although data were available (Haber, 1997). Fortunately, recent economic research on growth in Latin America has begun emphasizing the use of formal quantitative analysis that makes use of detailed framed hypothesis. Examples are De Gregorio (1992), Engerman and Sokoloff (1997), and Taylor (1998). The contribution by the latter is particularly relevant. Not only does this researcher apply a full reduced-form growth estimation, but he also provides evidence on the structural model of the growth relationship. Taylor's aim is to help uncover some of the underlying mechanisms by which "politics and policies" may have affected growth rates in the region during the period 1970-1989 and uses his quantitative results to examine the historical and institutional record of the region.

The idea of this paper is to continue the above tradition of using rigorous empirical methods in order to study key determinants of economic growth in Latin America. This research extends Taylor's work by further exploring the role of institutions in performance. The basic premise is that institutions, defined as the implicit and explicit rules by which the members of a society interact, shape the economic behavior of agents and help explain the economic performance of countries. When these rules change constantly or are not respected, when the discretion of the government is unlimited, when property rights are not well secured, or when corruption is high and rule enforcement is weak, there may be a problem with the quality of the institutions, since the delivery of services, the allocation of resources, and fair judgment will be less than desirable and the actual achievements will be less than purported aims. Problems related with institutional quality may be translated into an increased degree of uncertainty which may send mixed signals to the market, affecting the productive process and thus, economic performance (Chong and Calderón, 2000a). In order to understand the role of institutions in Latin America and how they can be conducive to economic growth, I take advantage of recent

empirical research on institutional proxies that arguably do a superior job of capturing a property rights component with respect to other measures, as they more adequately embody the idea of North (1990) and others.[3] Examples of recent empirical work using this new class of measures are Mauro (1995); Knack and Keefer (1996); Hall and Jones (1999); Clague, Keefer, Knack, and Olson (1996); Wei (2000); Chong and Calderón, (2000b), and several others.[4]

A clear understanding of the link between institutions and economic performance can help explain the apparent puzzle that was the choice of inward-looking policies by Latin American rulers, and especially the persistence of such policies even when it was clear that they were doomed to fail (Taylor, 1998). Perhaps the choice of government policies has to do with the particular institutional setting in Latin America. According to Taylor, interest groups might have played a role, especially since the politics in the region typically have been marked by dramatic cleavages between different classes and groups. Only when the costs of maintaining inward-looking policies became too high has such a phase ended. While this is possible, in the context of the economic history of Latin America, it is crucial to explicitly include the role of military-supported autocracies, for it was a predominant feature in the region. The extent of their stake in society, and the way the autocracies interacted with other groups in the provision of public goods such as good governance and good policies are key in order to understand the economic outcomes in the region.[5]

The idea of this paper is to use recent subjective and objective measures of institutional quality in order to test the assertion that a Northian institutional framework may be linked with economic growth in Latin America.[6] As explained above, such a finding would be by no means

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[2] The Prebisch-Singer hypothesis alleged that there was a long-run tendency for the terms of trade to turn against the poor countries (or periphery), thus favoring the rich countries (or center). To deal with such problems unorthodox measures were applied mainly in the form of strictly inward promoting growth measures.

[3] Knack and Keefer (1995) show that political measures like the ones used by Taylor (Gastil, 1982) provide limited information on property rights in the sense of North (1990).

[4] Mauro (1995) shows that corruption is negatively linked with economic performance; Knack and Keefer (1995) use a wide array of property rights measures to show that institutional quality is positively linked with economic growth; using Knack and Keefer's measures, Hall and Jones (1999) argue that the differences in capital accumulation and productivity are driven by differences in institutions and government policies, Clague *et al.* (1996) explore the link between institutional quality and political regime, Wei (2000) studies the link between corruption and foreign investment, and Chong and Calderón (2000b) provide evidence on the causality between institutional quality and economic growth.

[5] Though political scientists have been somewhat interested in this problem (Haggard and Kaufman, 1995), lack of robust empirical evidence and application of statistically sound methods have been characteristic.

[6] In fact, North points out the contrast between regime styles in Spanish and British colonies. According to North and other researchers (Coatsworth, 1993; Glade, 1969), while England and Spain faced crises in the seventeenth century (de Vries, 1976; North, 1990) the path they took reflected deep underlying institutional characteristics of the

trivial as it would help explain both the choice and persistence of inward-looking development policies in the region, as well as the role played by autocratic governments. To do this, we explore the extent to which the concept of encompassing interest, first developed by Olson (1982), helps explain what occurred in Latin America during such time. We contrast Olson's argument with a theory of political underdevelopment by Robinson (1997). This author argues that Olson's idea of encompassing interest does not help understand the fact that autocratic governments acted in a predatory manner even when long-term horizons were expected by the rulers for the political motives to stay in power should be taken into account. Based on this idea, in this paper I expand Olson's argument of encompassing interest to show that military autocracies in Latin America *did* have a political encompassing interest in their key constituency, the army. This helps explain not only the choice of inward-looking policies by rulers, but especially the persistence of such policies even as late as in the 1980s.

This paper is organized as follows. Section 2 provides a brief review of the recent empirical literature on institutions. Section 3 describes the data. Section 4 explains the econometric methodology. Section 5 provides empirical evidence on the link between institutional quality and economic growth in Latin America. Section 6 studies whether the results are robust to changes in specification. Section 7 empirically explores some of the possible motivations of autocrats to provide good institutions and good policies by using the concept of encompassing interest of Olson (1982) and the theory of political underdevelopment of Robinson (1997) and discusses the problem of choice of policies but pays particular attention to the persistence of inward-looking policies in the region. Finally, Section 8 concludes and provides some directions of possible future research.

2. Brief Review of the Empirical Literature on Institutions and Performance

The historical record provides some very useful evidence on the link between the quality of institutions in a country and its economic performance. As explained above, Rosenberg and Birdzell (1985) describe the importance of the development of the judiciary and other institutions in the growth of cities during the Middle Ages. Greif (1994) presents evidence along the same lines on Genoa, in northern Italy. He shows that during the Renaissance, this city-state was very active in

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societies. While in England the institutional framework evolved to allow for complex impersonal exchange, in the latter, personalistic relationships remained key in much of the political and economic exchange (North, 1990: pp.

long-distance commerce, banking and other types of property-intensive and contract-intensive activities. Olson (1998) and North (1990) explain that secure individual rights, the system of checks and balances, the predictability of succession, and the relative freedom from banditry in the United States have had a beneficial effect on economic performance. To some extent, other researchers such as Millet (1991) in the case of the Roman Republic, De Long and Shleifer (1993) for Medieval Europe, and Tamayo (1985) for the Inca Empire in the New World show, directly or indirectly, that good institutions in the form of predictable and stable rules of law, efficient bureaucracy, and property rights security are linked with performance.

By contrast, some of these researchers, as well as others, argue that Latin American economic history shows that institutions perpetuated the centralized, bureaucratic traditions carried over from its Spanish and Portuguese heritage where such institutional environment was highly politicized, kinship networks were omnipresent, political influence, prestige, and schemes to evade taxes and circumvent courts were widely common, and where simply put, the key to success or failure in the economic arena depended on connections (Coatsworth, 1978). More recently, Brunetti *et al*. (1982) argue that the key element that explains the great divergence in economic performance between the countries in the North Atlantic and Latin America post-World War II is the uncertainty and lack of credibility in the region. Along the same lines, Engerman and Sokoloff (1997) have linked the role of institutions and social welfare also in the context of the divergent economic outcomes of the United States and Latin America since European colonization. They argue that different initial factor endowments, such as the type of soil, and share of native population, shaped the political and legal institutions in the region in such a way that while in Latin America a vastly unequal distribution of wealth and political power was generated, in the United States the initial factor endowments encouraged a more equal distribution of income and more democratic political institutions. Engerman and Sokoloff explain that the initial conditions might have had lingering effects even to this day because the institutions that were developed kept reproducing the endowments that gave rise to them.

Until recently, the econometric evidence that links the quality of the institutions of a country and its economic performance have been scarce. An early work is that of Scully (1988) who employs political proxies and argues that open societies, which subscribe to the rule of law, private property, and market allocation of resources, will grow faster than societies that do not

116, 117).

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subscribe to them. However, as mentioned above, Knack and Keefer (1996) show that the political proxies used by Scully and others do not appropriately capture a property-rights component, and propose two data sets that "unlike the Gastil data (…) provide detailed ratings for large samples on disaggregated dimensions of property rights that are closely related to those institutions emphasized by North (1990), Weingast (1993), Olson (1982), and others" (p. 210).[7] Knack and Keefer use a reduced form equation and find that different institutional measures, such as quality of the bureaucracy, property rights, and the political stability of a country, have a positive and statistically significant relationship with economic performance and thus explain that using these measures for a cross-section of countries, institutions that protect property rights "are crucial to economic growth and to investment" (p. 223).

3. Data on Institutional Quality

Along the lines of recent work by Mauro (1995), Knack and Keefer (1996), Wei (1999), Chong and Calderón (2000b), and others, here I use the institutional quality data from Knack and Keefer (1995) and Clague *et al.* (1999). These data can be classified into two types, subjective and objective. Most of the empirical studies on institutional quality use subjective proxies, which are constructed by asking experts to rate specific institutional characteristics of a country. Mauro (1995) explains that these kinds of indices reflect the experts' perspectives on risk and efficiency factors and may be taken to represent potential investors' assessments of conditions in the countries. As this researcher explains, "evidence for the accuracy and relevance of the indices is provided by the considerable price that (...) clients are willing to pay in order to obtain them" (p. 684).[8] Similar to Knack and Keefer (1996) the subjective institutional measures we use are from Political Risk Services' *International Country Risk Guide* (ICRG) and Business Environmental Risk Intelligence (BERI), two private services. From ICRG we employ the following variables: (i) *risk of expropriation*; which reflects the risk that the rules of the game may be abruptly changed; (ii) *repudiation of contracts by government*, which describes the risk of a modification in a contract taking the form of postponement, scaling down or repudiation of a contract due to change in government, priorities, contracts or others; (iii) *law and order tradition,* which

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[7] The Sachs-Warner political variable used by Taylor (1998) is also based on Gastil (1982). Knack and Keefer (1995) give a detailed account on why these data are poor proxies of institutional quality and property rights (p. 208-210).
[8] A similar position is taken by Knack and Keefer (1995) and Knack (1996).

indicates the degree to which citizens are willing to accept the established institutions, to make and implement laws, and adjudicate disputes; (iv) *corruption in government,* which reflects the likelihood that officials will be more likely to demand illegal payments; (v) *quality of bureaucracy,* which represents autonomy from political pressure, strength, and expertise to govern without drastic changes in policy or interruptions in government services, as well as the existence of an established mechanism for recruiting and training. The variables are scaled from 0 to 6. Higher values reflect higher institutional quality. We also compute an "ICRG index" which is the simple average of all the above five measures. These data are available from 1982 to 1995. On the other hand, from the BERI data we use (i) *contract enforceability,* which represents the relative degree to which contractual agreements are honored and complications presented by language and mentality differences; (ii) *nationalization potential*, which reflects risk of expropriation for no compensation and preferential treatment for nationals; (iii) *bureaucratic delays*, which measures speed and efficiency of the civil service; and (iv) *infrastructure quality,* which reflects the facilities for and ease of communication between headquarters and the operation. The variables are scaled from 0 to 4. Again, higher values reflect higher institutional quality. We also compute a "BERI index." These data are available from 1972 to 1995.[9] A problem with these subjective measures is that since they are subjective, ratings may be biased. Evaluators may be influenced by a country's economic performance when they evaluate its institutional efficiency (Mauro, 1995). In other words, an evaluator may assume that some specific institutional aspect of a country, such as corruption in the civil service, cannot be severe if the country is growing rapidly.

In order to provide some additional corroborating evidence I also use an "objective" institutional measure designed by Clague, Keefer, Knack, and Olson (1999) called "Contract Intensive Money" (CIM). Such a measure is defined as the ratio of non-currency money to the total money supply, or $(M_2 - C)/M_2$, where M_2 is a broad definition of money and C is currency held outside banks.[10] The numerator represents financial assets such as checking accounts, time deposits, and other claims on financial institutions, and the denominator is the sum of these

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[9] In general, the ICRG and BERI measures are highly correlated (0.92 for the summary indices). Also, the institutional measures move slowly in time.

[10] This measure is, however, controversial and any findings should be taken cautiously, for it may be capturing a purely monetary or a financial deepening phenomenon. Clague *et al.* (1999) explain that a country can have a simple system, with the bulk of financial assets in the form of savings deposits and without a stock market or a modern

assets and currency holdings (Clague *et al*., 1999). These researchers explain that it is not unusual that in societies with unstable legal and institutional environment, and with great uncertainty, individuals will want to conceal economic transactions and assets from the government. Individuals will tend to make extensive use of currency to carry out transactions and avoid the use of checks, credit cards, or other "traceable" instruments, as the added costs of higher transaction costs is offset by greater benefits in the form of less risk of confiscation or taxation. People may also tend to hold currency rather than other financial claims because of lack of confidence in the integrity of banks or because of doubts about competence of the financial institutions. Thus, in societies with good institutions, with secure property rights, and enforceable contracts, individuals have little reason to use currency for large transactions or to maintain large currency holdings. In such a case, individuals would even prefer formal recordings of transactions. The CIM indicator reflects the state of property rights and contract enforcement in such a way that the higher the ratio, the more favorable the institutions (Clague *et al*., 1999). Additionally, I also use other standard controls. They are the initial gross domestic product (in logs), enrollment in secondary education, government consumption, and openness (exports plus imports divided by gross domestic product), and Gastil (1982) political variables. These and other data used for the sensitivity analysis section come from the World Development Indicators (World Bank, 1998), Penn World Tables, Mark 5.6 (Summers and Heston, 1991), Barro and Lee (1994), SIPRI yearbook (various years) and Sachs and Warner (1995).

4. Empirical Approach

I use panel data estimation for a broad sample of Latin American countries for the years 1970 to 1990. To minimize for noise, the data are organized in five-year periods. I use the following specification:

$$Y = \alpha \mathbf{Z} + \gamma I + \mu \qquad (1)$$

where Y is the per-capita rate of growth, $\mathbf{Z}$ is a vector of variables that are widely used in the empirical literature on growth and I is the institutional quality proxy which, as seen above, can be either subjective or objective. As a basic attempt to minimize for endogeneity problems between growth rates and the institutional proxies I use initial values for each corresponding

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financial system (Clague *et al*., 1999). To the extent that this measure can be controversial, I do not rely solely on it but also use the more widely known subjective measures.

five-year period of the institutional variables. However, this approach may not be completely satisfactory. In fact, according to Rosenberg and Birdzell (1986) the historical record shows that systems that protected property rights, such as the judiciary, first required the development of a large enough volume of commerce before actual mechanisms and regulations could be properly instituted. Only when incomes became sufficiently high would the courts allow suits. At such a point, mercantile transactions became "more secure, more calculable in their consequences, less subject to the vagaries of sovereigns and changes of heart by one party or the other," which was reflected in the growth of industry and trade (e.g., Rosenberg and Birdzell, 1986, p.116). This apparent reverse causality has also been emphasized by Eggertson (1990), Mauro (1995), and others, who suggests that higher income levels may lead to stronger institutions. In fact, this researcher argues that when property rights become more valuable, more is spent to protect them. The idea that the direction of causality between institutions and per capita rates of economic growth may be not from the former to the latter, but just the opposite has been empirically studied by Chong and Calderón (2000a) for a panel of countries using subjective institutional data. Their approach does not assume any *a priori* direction from one variable to the other, but a bidirectionality in the causality. By applying time-series techniques and by using a method developed by Geweke (1982, 1984), they test for the existence of linear dependence between institutional quality and economic performance.[11] Consistent with this finding, I also employ a simultaneous equation approach based on a simple methodology by Newey (1987), adapted by Londregan and Poole (1990) and Alesina, Ozler, Roubini, and Swagel (1996). The structural approach equation system is defined as:

$$Y = \alpha_y\, X_y + \beta_y X + \gamma_y I + \mu_1 \qquad\qquad (2)$$
$$I = \alpha_I\, X_I + \beta_I X + \gamma_I Y + \mu_2$$

where Y is the per-capita annual rate of growth; X are exogenous variables that determine both growth and institutional quality; X_y are exogenous variables that determine economic growth only; X_I are exogenous variables that determine institutional quality only; and μ_1 and μ_2 are the

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[11] Unlike typical unidirectional causality tests, such as Granger tests, this approach makes it possible to test for linear feedback between institutional quality and economic growth (Chong and Calderón, 2000a).

corresponding error terms.[12] The contemporaneous feedback between growth and institutional quality are represented by terms γ_y and γ_I. The coefficients α and β reflect the impact of the exogenous variables. I estimate reduced forms of both equations in (2) and extract the structural parameters by standard maximum likelihood methods. This way, the reduced forms internalize common shocks to both dependent variables by taking into account the potential simultaneous feedback between growth and institutional quality.[13]

5. Results For Latin America

Table 1 shows ordinary least squares panel data regressions based on specification (1) using initial institutional variables. As explained above, we follow Knack and Keefer (1996) and use initial ICRG, BERI, and CIM values in order to minimize for endogeneity. Along with the corresponding proxies for institutional quality, the "core" variables employed are initial GDP, government consumption, schooling, and a measure of openness.[14] In all cases the institutional variable is positive and statistically significant. Notice that, consistent with Knack and Keefer's findings, this result holds even when controlling for Gastil's index. In fact, the institutional quality variables appear to be capturing a property rights link with respect to growth along the lines of North's (1990) hypothesis, in addition to a political link argued by some researchers (Taylor, 1998). It appears that in Latin America, the better a country's institutions, the higher the rates of growth. These results are confirmed in Table 2. Here I present results according to specification (2) using the same available institutional measures described above, though the ICRG case was excluded due to insufficient data. A remarkable result is that these measures are all positive and statistically significant at five percent or better. This provides further evidence that the quality of institutions in Latin America is closely linked with economic growth. I use essentially the same controls as before, but in this case I also take into account the potential reverse causality from economic growth to institutional quality. As explained above, not

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[12] Error terms are assumed to be bivariate normally distributed with zero mean and variance-covariance matrix that allows for cross-equation correlation (Alesina *et al.*, 1996).

[13] Identification of the system is ensured by including exogenous variables in one equation of the system, which is not in the other, and vice-versa (X_I and X_y). Chi-square tests are also employed.

[14] Investment is not included as a core regressor. Klenow and Rodríguez-Clare (1997), among others, have recently criticized the use of investment as a control in growth regressions. They argue that including the investment rate (a variable which is endogenous to a country's position relative to steady-state) implies that one cannot read the convergence rate from the coefficient on initial income in a cross-country growth regression. However, for the sake

accounting for joint endogeneity may bias the results. In fact, regardless of the institutional quality proxy employed, the joint estimation between the two equations rejects the null hypothesis that changes in economic growth and institutional change are not correlated. Institutional does affect economic growth. However, it is true that in this case there is a contemporaneous feedback effect from economic growth to institutional quality, too (Chong and Calderón, 2000b).[15]

6. How Robust are these Findings ?

Following a similar method by Levine and Renelt (1992) I test whether the institutional quality variables are robust to changes in specification. To do this I use a set of related auxiliary variables identified as possibly related with economic growth. I run repeated regressions on the benchmark specifications (1) and (2) and choose up to three variables from a pool of ancillary variables. I perform as many regressions as combinations of three ancillary variables are possible.[16] This approach, though essentially similar to that of Levine and Renelt (1992) is modified somewhat by following a recent method by Sala-i-Martín (1997). This researcher claims that the conditions used by Levine and Renelt in order to identify a robust empirical relationship are too extreme. If any single regression in which either the sign of the coefficient changes or its statistical significance decreases, the variable is termed as non- robust.[17] I use a set of thirty ancillary variables and, following Sala-i-Martín, analyze the entire distribution of the estimator of the corresponding institutional proxy, focusing on the fraction of the density function lying on each side of zero.[18] I assume that the distribution of the coefficient of the institutional proxy can be normal or non-normal (the more restrictive case), and compute the

of completeness, I include this variable as part of my pool of ancillary variables for the sensitivity test performed in the next section. Country dummies are included in all regressions.

[15] Because of space constraints I only present the estimation from institutional quality to growth. I would be happy to furnish the additional results of estimation (2) upon request.

[16] This set of additional variables consists of measures of health and quality of life (access to health care, access to safe water, access to sanitation services), measures of urbanization (urban population growth rate, urban agglomerations), government transfers, public sector employment, participation of female workers in the labor force, measures of education quality, measures of political violence, and several others.

[17] For instance, if using thirty ancillary variables (4,060 possible regressions) yields one single estimation where the sign of the variable of interest (institutional quality) changes its sign (goes from positive to negative) or loses statistical significance, the relationship between such a regression and the dependent variable is considered not robust.

[18] If 95 percent of the density function for the estimates of the coefficient of interest lies to the right of zero, one could say that this variable is more likely to be correlated with our dependent variable.

individual cumulative distribution function by testing the basic specification for all the possible combinations of ancillary variables, and compute the variance and the integrated likelihood. Next, I compute the aggregate cumulative distribution function as the weighted average of all individual cumulative distribution functions.[19] Indeed, the institutional quality proxy will be strongly correlated with economic growth if its weighted cumulative distribution function is greater than or equal to 0.95 (Robust). Results for the simple fixed effect panel and the joint estimation panel are both reported in Table 3. In the first row of each corresponding institutional quality proxy I report the aggregate cumulative distribution function under the assumption of normality. The second row presents the standard deviation computed as the squared root of the weighted variance estimate for all the regressions. I repeat the exercise assuming non-normality. In general, I find that the three institutional quality proxies are robust to changes in specification at ten percent or better.

7. Duration in Power, Governance, and Inward-Looking Policies

Although consistent with "North's pessimistic theories of institutions and growth," as Taylor (1998) puts it, the above findings do not provide a satisfactory explanation of the institutional choices and insistence of policymakers on inward-looking policies even as late as in the 1980s. If the quality of the institutions in Latin America is so important to economic growth, Taylor asks, why the persistence of bad governance, why the insistence on inward-looking development measures in the region even when the damaging results were so predictable and, in particular, why did the political-economic nexus fail to generate pressure groups who could push forward for reforms in order to allow to escape a bad outcome (Taylor, 1998). This researcher does not answer the questions above but suggests that competition of interests groups might have played a role or that some kind of transaction costs prevented a change of what he calls "trade technology" from inward to outward-orientation.

To better analyze this apparent puzzle it is necessary to consider some key characteristics in Latin America during the inward-looking development phase. For one, any analysis of the policy choices and the institutional context in the region must take into account the role of military autocratic regimes in Latin America, the interests of their leaders, the possible links with interest groups, and the extent of these links with respect to economic growth. In fact, that

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[19] This is computed using the weighted integrated likelihood (Sala-i-Martín, 1997)

autocratic regimes have been abundant in Latin America ever since independence has been widely documented by economic historians of the region. Appendix 1 provides a summarized description of such regimes in several Latin American countries in recent decades. They range from strong-fisted military dictatorships, such as the Duvaliers in Haiti (1957-1986),[20] Somoza in Nicaragua (1936-1979), or Stroessner in Paraguay (1954-1989), to elected governments-turned-to-autocratic regimes, such as Vargas's Brazilian "Estado Novo" (1934-1945), and Perón in Argentina (1946-1955).[21] Although autocratic, the characteristics of the regimes were not necessarily the same. For example, while seemingly "roving bandit" or predatory regimes appeared to be the norm in countries such as Bolivia (especially between the late seventies and early eighties) and the Dominican Republic's Trujillo (1930-1938 and 1943-1952), leftist "state capitalism" regimes appeared to predominate with Velasco (1968-1975) in Perú and in Panama's Torrijos (1969-1979), while right-wing governments prevailed in Chile's Pinochet (1973-1990).

In spite of these apparent differences among Latin American autocracies, some researchers, in particular Olson (1993), and McGuire and Olson (1996), have argued that it is possible to attribute a common underlying thread to these regimes. According to this view, an autocratic ruler has an incentive to extract the maximum possible surplus through his monopoly of coercive power. He does so through taxes and other exactions from the whole society in order to use it for his own purposes.[22] However, according to this view, the autocrat also has an incentive to provide public goods that increase productivity because of his encompassing interest in the society. The more encompassing the stake in a society, the greater his incentive to take action to provide public goods to it. He realizes that to maximize his surplus it is best to do so intertemporally. That is, the dictator understands that it is wiser to behave less like a "roving bandit" or predator, but more like a "stationary bandit" or "benevolent" autocrat in the sense that

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[20] In this period, Haiti was ruled by a pseudo-dynastic regime, first by François ("Papa Doc") Duvalier between 1957 and 1971 and later by his son, Jean Claude Duvalier from 1971 to 1986 when yet another military junta took power.

[21] Countries such as Colombia and Venezuela have managed to have relatively stable democracies in the last five decades. The former, however, has suffered a long history of violence, while the latter, paradoxically, currently appears to be among the more unstable democracies in the region. Smaller countries in Central America, such as Costa Rica, have had a long democratic history, too.

[22] Olson (1993) explains that an autocrat will impose higher tax rates than needed to pay for public goods since he also uses tax collections to maximize his surplus. The higher the tax rate, the lower the income of society because of the distortion of incentives.

he realizes that in order to rule for a long time and thus, maximize rents, he has an incentive to provide good governance, adequate policies, and good institutions.[23]

While several economic historians have explained that since independence many autocratic regimes in Latin America have extracted great rents from their citizens (Anderson, 1964; Rama 1994; Wiarda, 1968) it is by no means clear that there has been systematic over-extraction of rents consistent with the existence of "roving" or short run horizon autocrats, instead of optimal rent extraction consistent with longer term or "stationary" autocrats.[24] For instance, in Latin America, a classic example of a long- lasting predatory (and dynastic) government is the Duvalier family of Haiti, a country which, not coincidentally, and unlike Olson's prediction, is currently the poorest in the Western Hemisphere. In fact, according to Lundahl (1992), historically Haitian governments have done very little to change the country's situation in such fields as education, health, nutrition, and spread of technological knowledge, growth, and others. Lundahl explains that the reason for this is "simply that the goals of those who have ruled Haiti have had little to do with economic development. Instead of maximizing public welfare, the government has served to maximize the private income of whatever clique that has happened to be in power at a given moment. The Haitian state has been predatory since the very beginning and particularly after 1843" (p. 8). On the other hand, there are examples where both long and relatively short-lasting autocracies in Latin America presided over rapid economic progress. One example is Chile with Pinochet during the 1970s and 1980s; another example is Brazil in the 1960s (Robinson, 1997). In this context, the key question is, to what extent did long-lasting autocrats behave like leaders that had a stake in society, and thus provided good governance and good policies, and to what extent did autocrats facing uncertainties in their tenure provide bad governance, and even confiscate and maximize their personal or group take?[25] In other words, were public goods, such as good policies and good governance provided by Latin American autocrats consistent with the idea of future extraction of resources?

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[23] The idea behind roving and stationary bandits may be illustrated. In the 1920s, a Chinese roving bandit Fen Yu-Hsiang led a band. After conquering a village he proclaimed himself "lord." He collected high taxes, and was able to control constant threats from other "roving bands." The population wanted him to stay. He became a "stationary bandit." The territory thrived. He had an encompassing interest in the success of his village because he obtained dynamic (period after period) rents from it, but he provided public goods, such as an army, good governance, and others. He was able to extract more rents this way than if he had just confiscated the village (Olson, 1993).

[24] This, not only in the form of personal wealth, but also in the form of increased military power, popular support, territorial domain, and others (Knight *et al.*, 1996; Rama, 1994).

[25] Or, in the stylized argument by Olson (1993), did dictators in Latin America behave more like stationary bandits rather than roving bandits or vice versa?

Clague, Keefer, Knack and Olson (1996) further develop and empirically test Olson's idea (1993) by arguing that a rational, self-interested autocrat will gain from expropriating any assets of his subjects whose tax yield is less than their capital value whenever insecurity about his hold on power or anything else gives him a short time horizon. By contrast, if the autocrat expects to rule for a long time—for example, if he has dynastic expectations—he would gain from respecting and protecting the property rights of his subjects, complying with the rule of law, and providing good governance and policies, as this would increase investment, future productivity, and tax collections (p. 244). According to these researchers short-term horizons decrease the quality of governance by increasing the risk of expropriation, property rights insecurity, and related institutional outcomes. On the other hand, the longer the time horizon of the autocrat or ruling clique, the better the quality of governance consistent with protection of property rights, contract rights, and others.[26] In fact, these authors find that the link between duration of autocratic regime and quality of institutions is positive and statistically significant. I follow Clague, Keefer, Knack, and Olson (1996) and apply an analogous empirical model to theirs to my panel of Latin American countries. The proxy for quality of institutions, as measured by the same three proxies as before, is regressed against years of duration of autocracies in power. Following these researchers I use two alternative measures to account for duration of autocracies. The first, duration in power of a dictator or autocrat, simply measures the years in power of particular individuals. The second, duration in power of an autocratic regime, considers the years in power of dynastic groups (Clague *et al*., 1996). For instance, Chile during Pinochet (1973-1989) and Perú during Velasco (1968-1975) are examples of the first case. On the other hand, Mexico, a country in which the PRI has ruled during nearly all its republican life, even though presidential reelection is not allowed, is an example of the second case. Similarly, Argentina during the 1970s is another example of an autocratic group case. Additionally, following Clague *et al*. (1996) the regressions used here also include the initial gross domestic product (Rosenberg and Birdzell, 1985).[27] The findings are shown in Table 4. In general, when

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[26] Similarly, Clague *et al*. (1996) argue that democracies that have lasted for some time and are expected to last much longer provide better property and contract rights than any other type of regime (p. 246).

[27] Clague *et al*. (1996) argue that endogeneity between time in power and economic performance, though conceivably possible, does not appear to be a problem as the use lags and leads, and in some cases, instrumental variables provide no evidence on this regard. To minimize for any potential endogeneity I use end-of-period measures of the institutional proxies. However, as will be seen below, even if present, endogeneity tends to become irrelevant for the purposes of this study. Although the coefficient of the duration variable may be biased upwards and thus, the t-statistics may yield statistical significance even when they should not, I show that this variable is not

using a five-year period panel from 1970 to 1990 I find little empirical support for the idea that autocratic regime duration has been favorable to good governance, good policies, and related public goods in Latin America.[28] In the case of time in power of autocratic *individuals,* the results using the BERI proxy yield a positive and statistically significant coefficient at ten percent. However, when using the ICRG proxy I obtain no statistical significance in the coefficient of the variable of interest. On the contrary, when using *duration in power* of autocratic *groups* as the variable of interest*,* the BERI case yields no statistical significance, although the sign of the coefficient remains positive, and the ICRG case yields statistical significance at ten percent in the corresponding coefficient. Finally, when using the CIM institutional measure both autocratic *individuals* and autocratic *groups* yield positive and statistically significant coefficients at five percent. By applying sensitivity analysis (Sala-i-Martín, 1997) as before, I find that the ICRG and BERI findings that initially yielded statistical significance at ten percent are not robust to changes in specification. The CIM results are robust at ten percent. In summary, there is no clear evidence that duration of either autocratic individual regimes or duration of autocratic groups is associated with improved public goods in the form of good governance and good policies. This provides evidence that goes against the idea by Clague, Keefer, Knack, and Olson (1996) that, at least in Latin America, any incentive that an autocrat had to respect property rights, the rule of law, and other institutions came from his interest in future tax collections and national income and increased with his time in power (p. 243), and is not consistent with Olson's idea of encompassing interest, either.

How can the above findings be interpreted in the context of the inward-looking policies implemented by Latin American governments of the time? As pointed out by some economic historians, the predominant view regarding such policies was a myopic one, as the long run consequences for growth and welfare were not assessed adequately by rulers. This inward-looking view was reinforced by the writings of Prebisch, Singer, Nurkse, and others, who validated the initially "reactive" experiments of several Latin American countries. Perhaps in the eyes of autocrats, these policies were "good" policies as they believed they were providing good governance and sound economic policies in exchange for net surplus extraction. However, as

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robust. That is, even though there is this "favorable" bias, the variable of interest does not pass a Levine-Renelt (1991) sensitivity analysis.

mentioned above, this is not consistent with the results above, and it does not help explain the fact that several Latin American countries not only kept pursuing old inward-looking industrialization projects but also kept investing in new ones even when it was quite clear that such policies were not sustainable. Taylor, for instance, asks why the enforced autarky of the 1930s and 1940s "was supplanted by a self-inflicted autarky for most of the postwar era until now" (p. 21).

A possible explanation is provided by Robinson (1997), who argues that while researchers have focused on economic losers of development, it is also important to focus on the political losers. He explains that supposedly "wrong" policies can be understood as part of a rational strategy of autocrats to maintain and consolidate power. According to this view, the pursuit of growth is frequently inconsistent with the political status quo as it produces realignments in forces, changes in power influence, and the like (p.11). For instance, Justman and Gradstein (1999) show that Britain's first industrial revolution led to changes in legislation in the forms of free public education, replacement of progressive taxes instead of regressive ones, and others. These measures strengthened the trade unions, gave path to democracy, and others. In fact, arguments along similar lines have been used by Acemoglu and Robinson (1997) for the case of Western countries during the nineteenth century, Robinson (1998) in the case of Haiti, and Chong (1999) when testing a panel of developing countries. The extension of public services to the masses, the increase in democratic principles, the improvement in living standards in the form of education, health, and others are not necessarily consistent with a rational autocrat who wants to remain in control since development may reduce his grip on power (Engerman, Mariscal, and Sokoloff, 1998; Bourguignon and Verdier, 1998). In short, the idea is that the impact of development on political power can generate incentives for rulers to act as predators (Robinson, 1997). This approach presents a complementary view to the concept of encompassing interest explained above. In fact, while in Olson's view, long-run autocrats will have an incentive to provide good institutions and good governance consistent with the promotion of economic growth because of their increasing economic stakes on society, Robinson argues that the autocrat's interest include the political stakes and, thus, the extent to which policies can affect his hold on power. Thus, when considering political factors, the idea of a pure

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[28] Barro-type cross-country regressions were also done. With the exception of the BERI proxy for the case of autocratic dynasties, the results are statistically non-significant. The BERI results, however, have only ten observations.

link between rent extraction and good governance appears not to be that strong. Autocrats valued not only the fact that they could obtain rents by providing good polices and good governance, as argued by Olson (1993), they also cared about power, which was not necessarily consistent with providing good policies and governance. Extreme examples of this are Haiti (Lundahl and Vedovato, 1989), the Dominican Republic (Ornes, 1958), and Nicaragua (Anderson, 1964), among others. The idea of encompassing interest may be viewed in an "expanded" fashion to include the fact that power and rents perhaps were not substitutes but different components in the utility function of the rational autocrat.

In order to understand where all these fit in the Latin American context it is crucial to realize that the key constituency of the region's autocrats was not the economic elite, if any. The real power of Latin American dictators came from the support of the military and the credible threat posed by them to crush any insurgent movement.[29] While true that an important incentive of this key constituency was the rents received in the form of increased defense expenditures, it is also true that the political payoffs could be as large, if no larger.[30] Faster promotion in the military ranks, the possibility of being rewarded with a cabinet, embassy, international organization, or similar post, and even the ultimate prize, becoming the next autocratic ruler of the country. A typical example is Argentina between the mid-1970s and mid-1980s (see Appendix), and to a somewhat lesser extent, Brazil in the 1960s and 1970s.

This provides an explanation that is consistent with the persistence of inward looking policies in Latin America. The desire for power in the rulers or the member of their military constituency could have been so high that policies that on the surface looked irrational, for they were not consistent with the idea of encompassing interest of Olson, made sense once political factors were included. The reason why the Duvaliers in Haiti or the Trujillos in the Dominican Republic produced policies that were not consistent with good governance in a Northian sense, had to do with rents as much as with their desire to remain in power. Similarly, according to this idea, the reason why several Latin American countries kept pursuing inward-looking policies perhaps had to do with the autocrats and their military allies trying to perpetuate themselves in power. In some countries, such as Peru and Ecuador, inward-looking policies favored their main

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[29] In fact, it is not unusual that military coups have failed because of lack of support of some branches of the military (Tamayo, 1995, and several others).

[30] This is consistent with previous research that shows a robust link between autocracies and rents received by the military in Latin America, as proxied by defense expenditures (Chong, 2000).

constituency, the military (Tamayo, 1985; Chong, 2000), while in other cases, perhaps the enclave character of the economy made them disregard policies as long as their source of rents remained intact (Prebisch, 1984; Robinson, 1997).[31]

8. Summary and Conclusions

In this paper I have empirically explored the link between quality of institutions and economic growth in Latin America. My results are consistent with the findings of Taylor (1998), Knack and Keefer (1996), Chong and Calderón (2000b), and others. Good institutions, good policies, and in general, good governance, are associated with higher rates of economic growth. To carry out this examination I have employed a broad range of institutional measures, as well as robustness tests. While these findings help explain policy choices, they cannot explain the persistence of such choices, especially when it became clear that policies were not consistent with higher growth and welfare. In fact, a case in point is the choice and persistence of import substitution policies in the region. This apparent puzzle is explored by applying Olson's encompassing interest theory to frame the policy choices of autocrat leaders during the inward-looking development era. Consistent with his theory, Latin American stationary autocrats are expected to provide better governance than roving ones. While the autocrats obtain rents from the society through taxes and others, they have the incentive of providing public goods, such as good institutions because of their encompassing interest on the society. However, the late phase of the import substitution policies period provides a counterexample of Olson's approach for it cannot adequately explain the persistence of such policies in the when it was quite clear that they were about to fail. Alternative approaches, such as myopia or the existence of a learning curve by part of the autocrats also have been criticized on the grounds that it is not clear "exactly why it is that some people discovered the truth while others did not" (Robinson, 1997: p. 15). I propose an alternative explanation that expands Olson's encompassing interest idea by taking into consideration political factors, along the lines of research by Robinson (1997). The implicit assumption is that desire for power is part of the utility function of the autocrat, as much as rents. If this is the case, an autocrat in power will not always have an incentive to provide good governance and good policies, but instead, will have an incentive to provide policies that will

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[31] It has been argued that in mining "enclave" economies there was a very weak economic connection between the enclave and the rest of the economy (Prebisch, 1984).

help him keep in power, as long as his constituency allows him to do so. This constituency, typically the military, was willing to provide support to the autocrat as long as its interests were satisfied, rents on the one hand (for example, higher defense expenditures) but also their own desire for power, be it in the form of faster promotions, greater access to positions with influence, and in the form of the ultimate prize, the presidency itself. Eventually, only when this delicate balance broke were the inward-looking policies finally left behind.

Future research should try to disentangle the extent to which political considerations interact with economic considerations. For example, is the ruler able to "bribe" his constituency by promising larger economic rewards instead of political ones? The extent to which this is true would give more weight to Olson's encompassing interest argument. Case studies of particularly puzzling cases would be of use, too. For example, in-depth studies of two of the most extreme cases of predator governments, Haiti and Nicaragua, would be of great interest, as they are among the most puzzling cases in Latin America. In-depth study of the mechanisms of political succession would be of interest as it would help shed additional light on the trade-off between economic rewards and political rewards.

Table 1. Institutional Quality and Economic Growth in Latin America
Panel Data Estimation
(Dependent Variable: Per-Capita Rates of Growth)

	BERI		ICRG		CIM	
	[1]	[2]	[1]	[2]	[1]	[2]
Constant	1.0406 */	1.1322 */	0.7482 */	0.6707 */	0.5220 */	0.5119 */
	(0.171)	(0.188)	(0.245)	(0.250)	(0.087)	(0.091)
Initial GDP	-0.1217 */	-0.1369 */	-0.0974 */	-0.0879 */	-0.0610 */	-0.0597 */
	(0.019)	(0.021)	(0.027)	(0.027)	(0.010)	(0.011)
Schooling	-0.0054	-0.0098 */	0.0088	0.0068	-0.0055 */	-0.0074 */
	(0.004)	(0.004)	(0.008)	(0.007)	(0.003)	(0.003)
Gov Consumption	-0.2455 **/	-0.1774	-0.0806	-0.0810	-0.2706 */	-0.2770 */
	(0.157)	(0.153)	(0.129)	(0.119)	(0.071)	(0.072)
Openness	0.0335	0.1546 */	0.0403 */	0.0410 */	0.0161	0.0163
	(0.040)	(0.050)	(0.018)	(0.018)	(0.011)	(0.014)
Institutional Quality	0.0339 */	0.0277 */	0.0120 */	0.0169 */	0.0739 */	0.0758 */
	(0.018)	(0.013)	(0.006)	(0.008)	(0.030)	(0.033)
Gastil Index		0.0016 **/		0.0024 */		0.0016 **/
		(0.001)		(0.001)		(0.001)
Observations	63	63	50	50	153	153
R Squared	0.6407	0.7095	0.6845	0.7097	0.4533	0.4475

Notes: (*) represents five percent statistical significance; (**) represents ten percent statistical significance. Regressions follow specification (1) in text and are White-corrected five-year period panel estimation for 1970-1995 with fixed effects. The variable "Institutional Quality" corresponds to respective ICRG, BERI, and CIM proxies. The ICRG and BERI individual measures were also tested. Results are similar. Though not reported the CIM estimations includes the rate of inflation and devaluation as regressors; excluding them do not change results. Standard errors in parenthesis.

Table 2.
Institutional Quality and Economic Growth in Latin America
Joint Estimation
(Dependent Variable: Per-Capita Rates of Growth)

	BERI				CIM			
	[1]		[2]		[3]		[4]	
Constant	2.0583	*/	2.0513	*/	2.4208	*/	2.4144	*/
	(0.055)		(0.057)		(0.048)		(0.041)	
Initial GDP	-0.2637	*/	-0.2622	*/	-0.1676	*/	-0.1673	*/
	(0.001)		(0.001)		(-0.025)		(-0.021)	
Schooling	0.0642	*/	0.0067	*/	0.0712	*/	0.0701	*/
	(0.008)		(0.001)		(0.015)		(0.015)	
Gov Consumption	-0.0027	**/	-0.0018		-0.0106	*/	-0.0080	*/
	(-1.852)		(0.002)		(0.003)		(0.004)	
Openness	-0.0002		-0.0002		-0.0007		-0.0006	
	(-0.001)		(-0.001)		(0.0004)		(0.0004)	
Institutional Quality	0.0730	*/	0.0820	*/	1.7244	*/	1.7934	*/
	(0.030)		(0.033)		(0.290)		(0.220)	
Gastil Index			-0.0016					
			(-0.0006)					
Observations	59		59		153		153	
R Squared	0.877		0.827		0.833		0.853	

Notes: (*) represents five percent statistical significance; (**) represents ten percent statistical significance. Regressions follow specification (2) in text and are White-corrected five-year period panel estimation for 1970-1995 with fixed effects. The variable "Institutional Quality" corresponds to respective BERI and CIM proxies. The BERI individual measures were also tested. Results are similar. Though not reported, the CIM estimations include the rate of inflation and devaluation as regressors; excluding them does not change results. Standard errors in parenthesis.

Table 3. Sensitivity Analysis
(Dependent Variable: Institutional Quality Measure)

	BERI	*ICRG*	*CIM*
Single Estimation Case			
(Table 1)			
CDF (0) Normal	0.96	0.98	0.99
Standard Deviation	(0.015)	(0.016)	(0.034)
CDF (0) Non-Normal	0.96	0.97	0.99
Standard Deviation	(0.013)	(0.016)	(0.034)
Joint Estimation Case			
(Table 2)			
CDF (0) Normal	0.90	--	0.99
Standard Deviation	(0.034)	--	(0.20)
CDF (0) Non-Normal	0.88	--	0.99
Standard Deviation	(0.038)	--	(0.19)

* Procedure follows Sala-i-Martín (1997) under the assumption of normality and non-normality in the distribution of the institutional quality coefficients. Cumulative distribution function (CDF) is robust if it is higher than 90 percent.

Table 4. Autocratic Regime Duration and Institutional Quality

	Individual Autocrats		*Autocratic Groups*	
	Coefficient	Observations	Coefficient	Observations
	(Std. Error)	(R-Squared)	(Std. Error)	(R-Squared)
BERI	0.0282 **/	50	0.0049	50
	(0.018)	(0.8591)	(0.007)	(0.8388)
ICRG	-0.0152	63	0.0202 **/	63
	(0.014)	(0.7852)	(0.011)	(0.7962)
CIM	0.0022 */	153	0.0021 */	153
	(0.001)	(0.8104)	(0.001)	(0.8129)

(*) Five percent significance; (**) ten percent significance. In each case (institutional measure) the first row indicates either the coefficient or the number of observations. The second row in each category (always in parenthesis) indicates the standard error and the R-squared. *CIM* regressions include inflation and devaluation controls. Standard errors are White-corrected. Sensitivity analysis was done under the assumption of non-normality (the more restrictive approach). BERI and ICRG results are not robust. CIM robust at ten percent. Assuming normality instead of non-normality does not change results.

Appendix: A Basic Summary of Autocratic Regimes in Latin America

	REGIME
Argentina	Perón, (46-55): restriction on parties, censorship, nationalization, strong involvement in economy, pro-labor policies. New constitution to allow for re-election. Military governments (66-73); main is Lanusse: violence, riots. Military government; main is Videla (75-83): repression, economic crisis, Falkland Islands war with Great Britain.
Paraguay	Morínigo (40-48); Chávez (49-54): some economic reforms, strong-fisted military dictatorships, economic crisis. Stroessner (54-89): changes in constitution to allow for re-election (eight times), initial popular support due to economic progress followed by decline in the 1980s; ousted by military coup d'etat.
Chile	Military leaders (24-31) main is Alessandri. Allende (70-73): Marxist-Leninist program; nationalized industries, state control, land reform, polarized citizenry, economic crisis, riots. Military junta led by Pinochet (73-89) suspended constitution and congress, censorship, banned parties, repression, economic improvement.
Brazil	Vargas (34-45): first term ruled by decree (martial law), repression, censorship, new constitution vesting his office with dictatorial powers; reorganized government (Estado Novo) in imitation of Mussolini's Italy. Industrial expansion; second term (51-54) economic crisis. Military governments (63-79): suppressed leftist opposition, civil-military alliances.
Uruguay	Terra (31-34), demanded constitution be amended. Bordaberry (71-76), though not autocratic, terrorist violence led to suspension of constitutional guarantees, economic crisis ensued; armed forces assertiveness increased. Aparicio Mendez and others (76-84).
Peru	Odría (48-56): rightist military; outlawed opposition parties, applied public works program, some economic development. Velasco (69-75) leftist "state capitalism" regime, seizure of foreign industries, land reform, censorship. Military coup d'etat led by Moráles-Bermúdez (75-80): economic crisis.
Bolivia	Military governments (30-50) political instability, coups, several constitutions. Paz Estenssoro and Siles Zuazo (51-64) pro-labor anticommunist program, nationalization of mines, land reform, diversification of economy. Military regimes and civil-military alliances (64-82), main is Banzer: foreign debt, economic crisis, hyperinflation, cocaine production.
Panama	Torrijos (69-79) ruled by decree, outlawed political parties, strong intervention in economy, land reform, openly attacked wealthy upper class, applied pro-labor policies, negotiated canal treaties with the USA. Noriega (83-89): widespread corruption, censorship, repression, in the context of troubled economy.
Nicaragua	Somoza dynasty (36-79): peace and stability, economy grew, but corruption was institutionalized; force, fraud, and inside deals dominated politics, repression.
Haiti	Duvalier dynasty (57-86): Father and son "Papa Doc" and Jean Claude, oppressive tyrannical regimes, corruption.

Dominican Republic	Trujillo ruled directly or indirectly for more than thirty years (30-62); presided over one of the tightest dictatorships in the world; dictated every aspect of economic life like a personal corporation. However, considerable material progress was made.
El Salvador	Military regimes (31-79) political parties and labor unions were allowed to form, war with Honduras, economy worsened and opposition increased, left-wing guerrilla movement appeared, human rights abuses.
Guatemala	Military regimes (54-85) many pro-labor reforms from previous regimes were reversed. Marxist parties were outlawed, labor groups, rural organizations were restricted, military became powerful elite class, widespread corruption, civil war, conflicts with El Salvador and Nicaragua.
Ecuador	Military Junta (63-66) economic and social reforms by decree. Military regimes; main is Rodriguez Lara (72-79); relative prosperity due to oil revenues, however, inflation and poverty increased.

Source: *Encyclopedia Encarta* (1998).

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