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REGIME TYPES AND DEVELOPMENT PERFORMANCE: AN EMPIRICAL STUDY OF THE EFFECT OF MILITARY CONTROLLED REGIMES ON ECONOMIC DEVELOPMENT

By

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and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy

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Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copy of the dissertation to the Graduate College.

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DEDICATION

To My Parents, with admiration and love.

To My Family, for inspiration and support.

To The Memory of My Younger Brother,
may Allah have mercy on you and reward you in heaven.

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ABSTRACT

The basic idea of this study is to examine the effect of the degree of military control on economic development. It adopts a broad definition of military control (that considers direct and total military rule, as well as indirect and partial levels of military control), and focuses on the influence over the long run. The study articulates eleven interrelated hypotheses in the subject, and tests them utilizing two complementary methodological strategies: A cross-national analysis that applies OLS multiple regression technique on a sample of 138 countries for the period from 1961 to 1990; and a comparative case study of the four North African countries (of Algeria, Libya, Morocco, and Tunisia).

The findings clearly support the main argument of the study that *military control inherent certain characteristics that impedes economic growth (i.e., GDP per capita) over the long run*. The negative influence of military control on domestic investment, protection of property rights, and (to a lesser extent) domestic conflict constitute major observable mechanisms for its adverse effect on economic growth. Also, the cross-national findings suggest that

military control has no significant influence on social development. However, in some individual cases, like in Algeria and Libya, military control promoted initial social development (although it failed in building viable political institutions).

The evidence of the study suggests that future political inquiry in the subject should do the following: Reconsider the effect of the degree of military control on economic growth, improve the military control measure, and focus on its influence on the financial and economic aspects.

Chapter One

Introduction

Since World War II the issue of economic development gained predominance in the political science field. The end of this war marked a decline of colonization and a rise of the independence movements that resulted in a wave of newly independent countries. The immediate challenge that faced the various kinds of national political regimes that took power in those countries was the question of developing the primitive developmental conditions of their societies. Militaries in many of these developing countries have played a prominent role in directing their countries' economic development. In some countries this took the form of direct military rule; in others, military influence was very strong, though less direct and often behind the scenes.

The central aim of this study is to assess the influence of military control of the regime on economic development. The underlying *question* is: *To what extent do regime types (particularly militarily controlled ones) in a country affect its developmental performance? How and why does such an effect occur?* Although the study considers level of democracy, the central focus is on *the effect of*

military control[1] on two aspects of development, economic growth and physical well-being.

Prior to the 1960s, there was very little research in the development literature on the role of the military. The 1960s and 1970s witnessed an increasing number of military coups, prompting theoretical and comparative case-studies and later with empirical cross-national research on the growing phenomenon of military control. This literature produced three contending theoretical views on whether military control of politics promotes or hinders development. The first, and earliest view, sees military control as a modernizing force that promotes development because it establishes stability, teaches discipline, and produces effective policy implementation (e.g., Pye 1962, Levy 1966, Weede 1986, Moon 1991). The second view stresses that increased military control hinders economic development because it is an extremely repressive, strict political system development (i.e., anti-democratic), and diverts

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[1] The term *military control* is used in this study to designate to its broader definition of military intervention in politics (which encompass direct military *rule*, as well as, indirect forms of military intervention). Appendix A, provides a brief general theoretical and statistical overview of past development and the current state of military control: Employing descriptive statistics, it illustrates the progress of this phenomenon with a focus on its present and future condition.

economic resources to non-productive investment (e.g., Wolpin 1981 and 1986). The third view, a reconciliatory position, conditions the effect of military control on the level of development, arguing that the higher level of development and consequently size of the middle class, the more negative the effect of military control (e.g., Huntington 1968, Nordlinger 1970, and Welch and Smith 1971). Empirical evidence remains inconclusive with findings suggesting positive, negative, and no significant influence. This study presents a new examination using a broader conception of military control and a more complex causal mechanism.

This study articulates eleven interrelated hypotheses about the expected relationship between regime type and economic development. The *main argument* is that strong military control of the regime hinders economic growth over the long-run. While the study argues that military control has a direct and independent effect on GDP growth, it explores two indirect paths through which this effect is expected to occur. One path posits certain financial and economic mechanisms such that strong military control is expected to discourage domestic investment and property rights protection. The other path assumes a militarization

and conflict mechanisms in which strong military control is expected to increase defense expenditures, and domestic conflict as well as international conflict. The former path represent a relatively new argument unlike the latter path which is regularly emphasized in the literature and is going to be re-examined here in the context of the study's broader definition of military control.

To test its arguments, the study utilizes two complementary methodological strategies. The first is an *empirical cross-national analysis* that applies *OLS multiple regression* techniques to a sample of 138 countries for the period from 1961 to 1990. This empirical analysis comprises *most* of this study and it is developed in an orderly sequence starting with a *basic regression model* which is intended to evaluate the basic relationships under investigation that set the broad basis for the study. The basic model is then expanded in subsequent chapters to examine the financial and economic mechanisms, and the militarization and conflict mechanisms about *how and why military control impedes economic growth in the long-run.*

The cross-national analysis is supplemented with a *comparative case study analysis* of four North-African countries, Algeria, Libya, Morocco, and Tunisia. The case

studies are intended to give a more detailed account of the relationship between regime characteristics, domestic investment, and economic development. Those four countries are *ideal* for this purpose since they are neighboring countries with very similar historic, social, economic, and cultural conditions, but with varying regime types and economic performances.

Most of the development literature considers only the adaptation of certain economic and educational policies with little or no consideration to the political environment. This was specially true in the early *Neoclassical* theories of development where the models offered were strictly economic (e.g., Solow 1956). Although the neoclassical models were extended later to consider political factors, the overwhelming emphasis remains on economic factors.

Furthermore, the empirical cross-national literature generally takes a one-dimensional view of developing countries when it considers the effect of regime types on development (e.g., Kormensi and Maguire 1985, Scully 1988, Moon and Dixon 1985, Barro 1994 and 1997). The sole focus is on *level of democracy,* ignoring the fact that democracy is a *relative* term in developing countries (where most of them are more *autocratic* than democratic). Grouping the

developing countries in one category (i.e., non-democratic) without considering variations among them in other aspects of regime characteristics, certainly impedes the investigation of the relationship between regime types on development.

Another important dimension, which in many cases is more relevant when comparing developing countries, is often neglected by the empirical literature: the civilian/military dimension and how it might influence development. Developing countries vary more in their degree of military control than they vary in their level of democracy.

While admiring the *few* empirical cross-national studies that have attempted to examine *directly* the effect of military control on development (Nordlinger 1970, Jackman 1976, Dixon and Moon 1987), a critical review of this work reveals that they did not sufficiently measure military control and subsequently assess its effect on economic development. They have focused on one extreme form of military intervention which is military *rule* (i.e., direct military control of the government). Thus, they have adopted a *narrow* definition (considering only the civilian/military dichotomy) and neglected other *intermediate levels* of military *control* (i.e., where a

military elite exerts strong but indirect influence on politics). This made their dismissal of the usefulness of the simple civilian/military distinction premature.

In addition, the military control cross-national empirical research tends to neglect a very important variable that needs to be considered to understand the effect of regime types on development: the length of time a regime exists. The priorities and interests, and subsequently policies and conduct of a regime, changes over time. This is probably most relevant to autocratic and military-led regimes, where the elite have more control than in constitutional democracies. For example, the initial enthusiasm of some military officers when they take power in a country calling for change and for the implementation of progressive economic and social development programs might change over time. As their rule becomes more stable, they are more likely to become a conservative power working to preserve the status quo to protect their self and military-corporate interests specially when the size of the military elite widens over time.

This study aims to overcome the aforementioned limitations of the empirical cross-national literature by making three distinct contributions: first, contrary to most

existing literature which dismisses the significance of civilian/military distinction, this study argues that this distinction matters, specially in the long-run. It develops and adopts a *broader* definition of *degree of military control* (that considers intermediate military role as well as, the often emphasized, military rule), and attempts to examine its influence on development. At the same time, the study does not ignore the existing literature. Rather it builds on previous findings and considers many of the variables that are generally thought to be strongly related to development.

Second, the study explicitly considers the *length of time* a regime exists and how this duration might influence the effect of regime type on development. This is likely to be an important variable that is ignored in the empirical literature. Third, the comprehensive format of the study provides a thorough investigation of the relationship between regime types and development. It takes an extended time domain (1961-1990) and a large sample of countries (138); it considers multiple aspects of development; and it utilizes two methodological strategies (cross-national and comparative case-study).

The study is organized in *two parts* according to the following sequence of chapters. *Part I* discusses the cross-national analysis in chapters two to six. *Chapter two* presents a critical review of the directly related development literature, with a focus on the empirical cross-national research. *Chapter three* articulates the theoretical framework and hypotheses of the study. *Chapter four* presents the research design of the *basic regression model*, and discusses its results. The basic model provides a general examination of the relationship under investigation, and will be expanded in the remaining two chapters of Part I to examine further explanations for how and why military control impedes economic growth. *Chapter five* examines the hypothesized financial and economic mechanisms through which military control's influence occurs: domestic investment and property rights. *Chapter six* examines the militarization and conflict mechanisms. They include defense expenditure, domestic conflict, and external conflict variables.

Part II discusses the comparative case-study of Algeria, Libya, Morocco, and Tunisia in chapters seven and eight. *Chapter seven* presents a broad overview of the major political and economic developments in the four North-

African countries. Chapter eight provides an assessment of the degree of military control and economic performance in the four countries. Finally, chapter nine states the conclusions, implications, and recommendations of the study.

PART I: CROSS-NATIONAL ANALYSIS

Chapter Two

The Literature Review of the Study

This literature review is selective, focusing only on issues directly related to the research question and design of the basic model. The review will cover three successive topics. First, I consider problems in defining and measuring economic growth. Second, I present a brief overview of the Modernization and Dependency/World system perspectives and how military control relate to their arguments. Third, I review *cross-national empirical research* on economic growth with an emphasis on research about regime types and military control.

Measurements of Economic Growth

Although economic development is typically defined in terms of increases in per capita Gross National Product, scholars have disputed the appropriateness of this measure of economic growth *across countries*. Some argue that Gross Domestic Product per capita (GDPpc) is sufficient to measure standards of living. Others suggest that calculating GDPpc across countries using *official* exchange

rates conversions distorts the actual purchasing power of currencies since official rates often fluctuate and may not reflect the real value of currencies. (Passé-Smith 1993)

To overcome the shortcomings of official exchange rates the United Nation commissioned the International Comparison Project which converted countries expenditures to a *common currency*, the United States Dollars, based on *Purchasing Power Parity* (PPP) factors rather than dominating each country's data based on its own national currency. Thus, in contrast to the exchange rate conversions' distortion of the *actual* purchasing power of currencies, PPP based conversions standardize national statistics allowing for *real* inter-country comparisons (Summers and Heston 1988, 1991). In his empirical comparison of GDP pc and its PPP equivalent, Passé-Smith (1993: 116) concludes that though PPP measure "appears, at least tentatively, to be more reliable"; overall, the two measures of growth rates are very similar.

However, this common measure of development, GNP pc, suffers from notable shortcomings. It focuses only on aggregate economic production, ignoring the wide variation in income distribution within countries, and neglecting the difference between income (or potential welfare) and the actual provision of welfare (Morris 1979, Moon and Dixon

1985). Thus, the search for an adequate measure of development has been a major area of research (e.g., Sewel 1980, Silber 1983).

The Physical Quality of Life Index (PQLI) is one widely used alternative measure of development (Morris 1979). It is calculated as the unweighted mean of three social indicators: infant mortality rate, life expectancy at age one, and literacy rate.[-] Though PQLI correlates with per capita GNP (Morris 1979), there are many exceptions to the rule that make "aggregate social wealth [GNP] . . . a less-than-perfect predictor of individual well-being" (Moon and Dixon 1985: 664). This measure has many advantages; it is sensitive to variation in income distribution, valid for cross-country comparisons, and accounts for physical well-being of individuals (i.e., go beyond economic indicators

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[-] Infant mortality per one thousand live births and life expectancy at age one rates are converted to a comparable scale (from 0 to 100) to literacy rate. The conversion is based on historical experience in the year 1950 and best expectations for the year 2000. The life expectancy index ranges from 38 years (in Costa Rica 1950) to 77 years (best estimate for the year 2000), and infant mortality index ranges from 229 (in Guinea-Bissau in 1950) to 7 (best estimate in year 2000). Then, the mean of these three social indicators reflects PQLI. From the above information, the equation for calculating PQLI is:

[(life expectancy-38/.39)+(229-infant mortality/2.22) +(literacy rate)]/3.

(see details in Morris 1979, Moon and Dixon 1985).

and examines the actual provision of essential human needs). Nevertheless, the main critique of PQLI is that it involves a weighted system to combine the three indicators and "none of the systems used are really satisfying" (Silber 1983: 22).

Another problem with the PQLI is that its relative scaling system is becoming outdated by unanticipated advances in social welfare. The index was developed in the 1970s based on the best estimates for the year 2000 for life expectancy and infant mortality at the time. By the late 1980s, many advanced countries had outperformed the index's best expectations for life expectancy and for infant mortality for the year 2000, thus scoring over the highest PQLI score of 100. Thus the calculation of the PQLI components need to be updated to reflect reality.[3]

In addition, PQLI lacks the ability to measure change in social welfare. It merely captures social conditions at a single point of time and does not lend itself to the study of how these conditions change over time. The *Disparity*

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[3] The outdated scaling system of PQLI does not constitute a serious problem for the PQLI analysis of this study because it focuses on developing countries which did not exceed PQLI expectations. This issue was resolved by deleting the few cases of advanced countries which outperformed the PQLI highest score.

Reduction Rate (DRR)[4] for a composite index like PQLI (or for an individual indicator) offers a better tool for measuring performance. It focuses on the rate of change toward the achievement of a particular goal meeting basic needs. This simplifies comparison about the rate of progress within and among countries. In addition, "the DRR has the major advantage of enabling meaningful comparison of the rate of progress of countries to be made regardless of whether countries starts from high or low basis . . . Moreover, if used in conjunction with percentage changes in per capita GNP, the DRR can provide a much better, in-depth perception of change that can't be obtained by reliance on changes in per capita GNP alone" (Grant 1978: 12-13).

However, proponents of DRR admit that it was developed from empirical observation rather than a theoretical base. Thus "further work clearly is needed in refining the concept and determining ists limitations, as well as, where and how it can most usefully be employed" (Grant 1978: 46).

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[4] The Disparity Reduction Rate for PQLI is calculated according to the formula:

$$DRR_{t,t+n} = [(X_{t+n} / X_{t}) 1/n] -1$$

where X is the disparity between actual PQLI performance and 100 in time t and time t+1. The negative rate signals a decline in PQLI and positive DRR signals an increase in PQLI. (Grant 1978, 12)

Furthermore, the United Nation Development Program (UNDP) devised a new indicator, the Human Development Index (HDI)[5]. This measure attempts to capture more adequately the abstract concept of Human Development: The Human Development Report (1998: 15) states that "the HDI measures the overall achievements in a country in three basic dimensions of human development--longevity, knowledge and a decent standard of living. It is measured by life expectancy, education attainment (adult literacy and combined primary, secondary and tertiary enrollment) and adjusted income." However, the HDI, similar to other development indicators, has been a subject of sever criticism claiming that the theoretical and empirical basis of its design are inadequate. For example, the choice of the HDI dimensions involve implicit assumptions and value judgements, as well as the choice of its transformation functions is not adequately justified (Nubler 1995).

Perspectives on Economic Development

In general, there are two competing theoretical paradigms in the economic growth literature; each presents

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[5] Since 1990, the HDI is published annually in the Human Development Report.

an overarching view of development: Modernization and Dependency/World System theories. *Modernization Theory* interprets the development process as *endogenous* to a country, positing that development is primarily determined by domestic factors (e.g., rationalization, specialization, industrialization, institutionalization). In this view, developing countries are assumed to follow an evolutionary process moving from the traditional to the modern similar to the developmental path of the industrialized world (Almond 1960, Black 1966). In contrast, *Dependency/World System theory* offers a globalist prospective by focusing on the international capitalist system and the constraints it imposes on developing countries. It posits that asymmetrical international economic relations exist and work to the advantage of the advanced core and to the disadvantage of the developing periphery (Dos Santos 1970, Wallerstein 1974 and 1979).

Both schools proposed models for development that assign the state a leading role in the economy. Dependency theory have faith on the state as an engine for development, and early Modernization theory put some emphasis on state role (e.g., state directed Import Substitution Industrialization strategy). However, in 1970s

Modernization theory's emphasis shifted favoring the neoclassical models' call for less state intervention and more market freedom in what is known as "structural adjustment" (Rapley 1996: 14-25).

In addition, a controversy over the role of the state in determining political outcomes emerged between two theoretical camps in a debate that is closely related to the Modernization/Dependency broader contexts. In one camp are some realist and institutionalist theorists emphasizing state autonomy and ability to translate its preferences to authoritative actions. For example, the important role of the state play in Brazil's development (Evans 1979), or in the development and outcomes of social revolutions (Skocpol 1979). In the other camp are some Pluralist and Marxist theorists denying state independence and focusing on intra-societal interactions, like class conflict, as the factors shaping political outcomes (e.g., Ferguson 1984, Frieden 1988, Cox 1994).[6] This debate is confined to the question of whether to consider the state or the masses to analyze political outcomes, and does not directly address regime type role.

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[6] Evans and Stephens (1988) designated the term *the new comparative political economy* to the diverse body of literature produced by this debate

Needless to say, both Modernization and Dependency suffer from shortcomings. Modernization theory fails to take into account the larger international context in which development and decay take place (Chirot 1986, Haggard 1990, Moon 1991, Stallings 1992), whereas the dependency\world system theory neglects the role of domestic factors and fails to explain the remarkable success of the newly industrialized countries.

Furthermore, both theoretical paradigms neglect the importance of leadership quality to the success (or failure) of the economic growth process. In particular, neither paradigm has adequately addressed the influence of military leadership (or control) on economic growth. Modernization theorists generally tend to oversee the question of military leadership, emphasizing institutionalization (or democratization) as a necessary path for development. Nevertheless, few modernization studies view the military as having a rationalizing, and thus modernizing, influence because it teaches discipline, mobilizes resources, and produces effective policies (e.g., Weede 1986).

On the other hand, dependency/world system theorists do recognize the relevance of military leadership, but as an agent the capitalist core uses to control peripheral

countries. For example, Stallings (1992) emphasize the penetration of the developing countries ruling elites (i.e., ruling political coalitions, military, business groups) by international actors as a major linkage through which international influence occurs[*].

This study overcomes the Modernization/Dependency broadness, by focusing on leadership quality, particularly military control, as the central factor in determining economic growth. Further discussions of the theoretical arguments of the study will follow in *chapter three.*

Cross-National Research on Economic Growth

For the most part, the cross-national economic growth literature has focused on *macroeconomic* factors (e.g., Kormendi and Meguire 1985; Barro 1991, 1994a, 1994b, and 1997). In addition to their basic importance, this emphasis on economic determinants of growth might be attributed to the fact that cross-national economic growth research is

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[*] In addition to the penetration political elite linkage, Stallings (1992) proposed two other concise theoretical linkages, between international influence and domestic economic policies, based on two mechanisms: the fluctuation of financial or trade international markets influence the availability of needed external resources to the developing governments; and the leverage of punishment or reward (e.g., economic sanctions and foreign aid) international actors have over developing countries (48-58).

heavily influenced by the contributions of the neoclassical models of development, and to the relative ease of collecting data on economic factors compared to political ones. However, despite the richness of the empirical research, it reveals conflicting results about the significance of macroeconomic factors to economic growth. Levine and Renelt (1992: 960) reevaluate over fifty (mainly economic) variables that "have been found to be significantly correlated with growth in at least one regression." They conclude that "the cross-country statistical relationship between long-run average growth and almost every particular macroeconomic indicator is fragile"; only a few findings in the literature withstand slight alteration in the regression's "conditioning set of variables."

However, two macroeconomic variables in the empirical literature do appear to show a robust, positive relationship with economic development: the share of domestic investment in GDP (e.g., Kormendi and Maguire 1985, Romer 1989, Barro 1991, 1994a, and 1994b, Levine and Renelt 1992), and the initial investment in human capital (e.g., Lucos 1988, Romer 1989 and 1990, Barro 1991, 1994a and 1994b). The theoretical logic for the positive impact of investment and

education on economic growth is obvious. Investment generates more production and economic expansion. Also, the initial level of literacy affects growth directly (Lucos 1988, Romer 1990, King and Rebelo 1990, Barro 1991) or indirectly through its effect on rate of investment (Romer 1989, Barro 1994a). The underlying assumption is that the accumulation of knowledge is valuable not only in the production of goods, but also in the production of new knowledge and technological innovations.

In contrast to macroeconomic factors, the cross-country economic development literature paid relatively limited attention to political factors. In most cases political factors were minor to the studies' focus and treated as supplements to economic variables (e.g. Kormendi and Maguire 1985, Scully 1988, Barro 1991 and 1994a). Only a few studies made political variables the center of their analyses (e.g., Jackman 1976, Moon and Dixon 1985, Dixon and Moon 1987 and 1989, Moon 1991, Barro 1994b). The main political factors that have been theorized to affect development are regime type, political instability, size of government, and government ideology.

Most of the economic development research focuses on *level of democracy* when considering the effect of regime

type. However, the results have been inconclusive, to say the least. While some analyses find a positive correlation between civil liberties and economic growth (Kormendi and Maguire 1985, Scully 1988) or between democracy and physical well-being (e.g., Moon and Dixon 1985), others conclude that the overall effect of democracy on growth is "weakly negative" (Barro 1994b and 1997)[5]. Sirowy and Inkeles (1991) review the studies that analyze the impact of democracy on development and do not find consistent conclusions.

In addition, some argue about the direction of causation and the complex nature of the relationship between democracy and development (e.g., Bollen and Jackman 1985, Muller 1988, Ruechemeyer and others 1992, Przeworski and Limongi 1993). Furthermore, others question the premise of whether regime types influence development in the first place. For example, Przeworski and Limongi (1993: 65) contend that ". . . politics does matter, but 'regimes' do not capture the relevant difference."

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[5] In his 1997 book, Barro concluded that democracy has a non-linear relationship with growth: expansion of democracy in countries with low level of political rights promote growth and in countries with moderate level of freedom it hinders growth.

A relatively smaller strand of research on politics and growth has focused on the influence of military and authoritarian roles. While few dispute the important effect of the military in shaping social and economic outcomes, assessments in the literature disagree on whether it hinders or promotes economic development. There are three contending theoretical views on the relationship between military role and development. The first and earlier view, sees the military as a *modernizing force* that promotes development because it establishes stability, teaches discipline, and produces effective policy implementation (e.g., Pye 1962, Halpern 1963, Johnson 1964, Levy 1966, Weede 1986). Moon (1991), for example, argues that the military produces a superior state through replacing waste and corruption by discipline and efficiency which help in attaining "basic needs."

A second view sees the military as a *reactionary force*. It stresses that increased military control hinders economic development because it is extremely repressive, restrict political system development (i.e., anti-democratic), and diverts economic resources to non-productive investment (e.g., Wolpin 1981 and 1986). Jackman (1976) argues that the view of the military as a conservative or reactionary

force emerges primarily from the work on Latin American politics, while the support of the other view comes from the work on other Third World countries.[3]

The third view takes a *reconciliatory* position. Huntington (1968) contends that the effect of military control depends on a country's level of development (i.e., positive for least developed and negative for more advanced countries). Similarly, Nordlinger (1970), contends that military officers are concerned with keeping *their military values and middle class identities.* Thus, connecting military effects to class-interests, he argues that in countries where the middle class is well-established, the military will be reluctant to pursue socioeconomic change fearing redistribution of economic gains; in contrast, in countries with a small middle class, the military will promote education and industrialization. However, assessing the relative successes of civilian and military governments Nordlinger (1977: 200) concludes that "on the whole military

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[3] In this context, Dixon and Moon (1987) contend that the theoretical arguments about the military anti-democratic attitudes, class-interest and ideological disposition, and budgetary allocation tendency are not unique to military regimes. Other types of regimes have them too. They stress that the only argument that carries weight in the causal mechanisms connecting military rule to socioeconomic performance is the notion of organizational efficiency and social stability. (677-679)

governments "score" significantly lower than their civilian counterparts on each of the five [government] performance dimensions."[10]

Likewise, the effect of authoritarian control is controversial: whether it is a hindrance or an aid to development. Barro (1994b) argues that, on one hand, authoritarian governments may promote economic development by avoiding the drawbacks of democracies[11] while still maintaining economic freedom and private property and avoiding central planning. On the other hand, authoritarian regimes are more susceptible to factors that hinder growth (like corruption and non-productive investment). Among the various arguments in this regard, Huntington (1968),

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[10] The five dimensions are government legitimacy, non-coercive rule, minimization of violence, popular responsiveness, and economic change. However, Nordlinger (1977: 199) states that There are no significant differences in the success of military and civilian governments in promoting economic growth, as measured primarily by the rate of increase in per capita GNP. But they do vary in both the frequency and the extent to which they have brought about economic changes of a modernizing and progressive Kind. Whereas a significant number of civilian governments have done so, only a handful of military governments even attempted to bring about such changes. And these changes have rarely been of a radical or structural variety . . ." (199).

[11] "the tendency to enact rich to poor redistribution of income [including land reforms] . . .. and the enhanced role of interest groups." (Barro 1994b: 1)

although he prefers two-party democratic systems, argues that stability and development require a strong political institutions (including authoritarian one party system or military dictatorship). To the contrary, Chirot (1986) contends that extremely repressive authoritarian roles have a negative impact on development.

Only a *few empirical cross-national studies* have attempted to *directly* examine the effect of military rule on economic development (e.g., Nordlinger 1970, Jackman 1976, and Dixon and Moon 1987). A critical evaluation of this work reveals that their measures of military control are not sufficient and that their analyses covered only a short period of time. These cross-national studies typically consider only one extreme form of military intervention, the *total and direct* military control of the government[11]. Thus, they have adopted a *narrow* definition (considering only the civilian/military dichotomy or total military

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[11] Nordlinger (1970) considers three levels of military control (direct, important, and little control) and finds support for his argument that the military is essentially a conservative force; however his analysis treats his military control measures as discrete variables and utilizes simple correlations to reach his conclusions. Jackman (1976) and Dixon and Moon (1987) measure military rule variable as duration (in months) where the military has direct control of the government.

control) and neglected other *levels* of military *control* (i.e., partial or indirect military intervention).

This made (in my view) their conclusion that military rule has no effect on socioeconomic performance and their *strong* dismissal of the usefulness of the civilian/military distinction premature. For example, Jackman (1976: 1097) concludes that "the simple civilian-military government distinction appears to be of little use in the explanation of social change." Likewise, Dixon and Moon (1987: 680) conclude that ". . . we find the civilian-military distinction conceptually dubious, operationally ambiguous, and singularly unhelpful, at least for the purpose of understanding national socioeconomic performance." I argue that the military/civilian distinction is significant. However, military control measure needs to be broadened to include *total* as well as *partial* military influence before one can confidently evaluate the influence of military control on economic development. Chapter three provides empirical evidence indicating the adequacy of the broad degree of military control measure adopted by this study.

In addition, most of the empirical research shifted its attention attempting to assess military effect by focusing on military expenditure and whether it stimulates economic

growth (Whynes 1979, Dixon and Moon 1987) or hinders it (Deger and Smith 1983, Deger and Sen 1990, Mintz and Stevenson 1995). For example, Dixon and Moon (1987) confirm Jackman's finding and argued that it is better to assess military effect through the focus on some military attributes, like military budget allocations and mass participation, rather than the central control of the government.

Furthermore, the empirical cross-national research tends to neglect a very important variable that needs to be considered to understand the effect of regime types on development: *the length of time* a regime exists. Mostly the empirical analyses focus on short periods of time: Nordlinger (1970) considers the period 1957-1962; Jackman (1976) considers the periods 1957-1962 and 1960-1970; and Dixon and Moon (1987) consider 1961-1970. The fact remains that the priorities and interests, and subsequently policies and conduct of a regime may change over time. This is even more true in autocratic and military-led regimes, where the elite have more direct personal control than in constitutional democracies. For example, the initial enthusiasm that some military officers might have about implementing progressive economic and social development

programs, might change over time. The corporate-military and self interests might soon take over as officers' roles becomes stable and as the size of the military elite widens.

In sum, the general empirical cross-national economic development literature has focused more on economic factors compared to political ones, and has focused mainly on level of democracy when considering the effect of regime types. Also, the few studies that directly examined the effect of military control of regimes have adopted a narrow definition of this variable and have focused on relatively short periods of time. These limitations allow room for improvements to sufficiently assess the effect of military control of the government on economic development.

Chapter Three

The Theoretical Framework and Hypotheses of the Study

The basic idea in this study is to examine the role regime types play in determining economic development. It raises the *general proposition* that *the nature and characteristics of a nation's domestic political regime will, over the long-run, play a major role in determining its developmental performance.* The study examines two aspects of domestic political regime: *degree of military control* (the main focus of the study) and *level of democracy* (i.e., institutional characteristics). The contention is that, after all, the political system shapes, and in many cases establishes, the economic and social dynamics of a society. In particular, development choices and strategies are, in the first place, political decisions made by ruling political elites, and the success of development programs depends, to a large extent, on the regime's quality and ability to implement them.

As mentioned in the introduction above, the underlying *question* of the study is: *To what extent do regime types in a country influence its developmental performance? How and why does such influence occur?*

To determine the nature of this relationship, *eleven* related *hypotheses* are formulated. The first six hypotheses deal with the expected effect of regime types, both military control and level of democracy, on economic growth and physical well-being. The other five deal with *how and why* military control impedes economic growth in the long-run.

The impact of military control on economic growth is expected to vary in the short-run, that is approximately *ten years or less*, with some militarily influenced regimes promoting, and others hindering it depending on a country's particular conditions. Thus, especially in the context of a cross-national analysis, military control influence is expected to be insignificant in creating economic wealth for most short periods. The moderate positive influence of military control that might occur in some countries is temporary and relates to the low level of development in those countries more than it relates to military control itself. As the convergence hypothesis indicates, in countries with primitive economic conditions, regardless of their regime type, simple efforts to mobilize resources and develop the economy will have a noticeable impact on economic growth. However, the important question is not whether military control can initiate viable development

strategy which is highly suspect in the first place, rather whether it can sustain economic growth in the long-run.

I argue that military control in a regime impedes the creation of economic wealth over the long-run because *it inherently has certain characteristics that hinder development.* These characteristics' negative influences prevail over time and hinder the development process at three important levels: The decision-making, implementation, and assessment levels.

One of the main characteristics of military control is its *lack of sufficient political and organizational skills* necessary for civilian governing and for pursuing development policies. While the military might be the most organized group in developing countries that poses enough capabilities to overthrow governments, it does not imply that it has the appropriate skills to pursue economic growth. In addition, military control is preoccupied with maintaining social order and political stability, and with controlling rival contenders who often are competing military factions. This primary concern exhausts the military limited resources and seriously undermines development policies.

Another main characteristic of a military controlled system is its *rigidity*. Influenced by the nature of military order and training, such systems strictly adhere to the policies they produce and seek inflexibly to implement them. More importantly, military controlled regimes often incorporate their stated ideologies and programs which they usually use to justify their coup, to be an intrinsic part of their regime's legitimacy. Thus, it becomes even harder for such regimes to be flexible and change the existing policies because they perceive such changes as threats undermining the basis of their legitimacy. Furthermore, the rigidity of military controlled regimes make them self-centered and have slower response to internal and international changes.

In addition, military controlled regimes have *repressive tendencies*. This repression might help military regimes to temporary ease the developmental challenges and problems they face, but it does not bring real and permanent solutions to them. The problems grow larger and reappear, and become more serious, more difficult, and more costly to resolve. Also, military control's lack of relative tolerance needed for civilian governing have destructive ramifications to political and societal development. At the

political level, it restricts the development of viable political and administrative institutions necessary for economic growth; and at the societal level, it deprives a country from optimizing its available societal resources by excluding active societal elements (like a certain social group or causing valued local expertise to immigrate).

The above military control characteristics are *strongly interrelated* and detrimental to economic growth. They interact and negatively affect three critical levels of the development process. At the decision-making level, because of these characteristics, military controlled regimes are prone to poor political choices of development strategies and initiatives. They often adhere rigidly to their choices, even when they appear to be failing. At the same time, they are prone to initiate sudden, disruptive shifts of developmental policies.

At the implementation level, these characteristics undermine military controlled regimes ability to implement and manage development policies. Furthermore, these regimes' rigidity and lack of appropriate political and organizational skills seriously hinder their ability to effectively administer the complex development process. They tend to produce highly centralized and inefficient

bureaucracies that make inconsistent and (some times) counter productive decisions.

Finally, the characteristics of military controlled regimes inhibit their ability to evaluate and modify existing policies and processes. The lack of appropriate skills, rigidity, and repression keep such systems from having sufficient self-assessment of performance, efficient feedback to decision makers, and timely and effective changes and improvements. Illustrative examples of the above characteristics of military control and how they influence the development process are provided in the comparative case study context, Part II of this study.

The following basic hypothesis presents the core theoretical arguments discussed above:

H_1: *Military control in a country impedes economic growth over the long-run. However, it has no noticeable effect on economic growth in the short-run.*

On the other hand, as discussed above in the literature review, the relationship between democracy and GDP growth is more complex and the direction of causation is under question (e.g., Ruechemeyer and others 1992, Przeworski and Limongi 1993). Furthermore, the empirical findings were inconsistent (e.g., Sirowy and Inkeles 1991) with some results indicating a positive correlation between democracy

and economic development (e.g., Kormendi and Maguire 1985, Scully 1988, Moon and Dixon 1985), and other results indicating negative correlation (e.g., Barro 1994 and 1997).

Nevertheless, while one would theoretically expect democracy to promote economic growth, through its assumed rational policies that channels mass preferences and lead to efficient mobilization of resources, it takes time to work and influence growth. Democracy in advanced countries have developed over a long time. Thus, over the long-run, the more entrenched and persistent democracy is in a country, the more successful it is in promoting economic growth.

H_1: *The level of democracy promotes economic growth in the long run. However, it has no immediate influence on economic growth in the short-run.*

The influence of regime type, both degree of military control and level of democracy, on the provision of basic human needs is a simple one. Any regime, whether democratic or military, can improve its citizens' well-being as long as it can, and is willing to pay for it. Physical well-being is more related to the micro or individual level: the more educated and aware an individual is, the more he will take care of his own and his family's well-being. The regime role is to adopt and finance policies that promote education

and health care, and it will continue to do so as long as it has the funds.

One would expect democracies (that are assumed to be responsive to their citizens' demands and needs) to always work, to promote the physical well-being of their population. This positive relationship can be tested in the following hypothesis:

H_3: *Democracies always work to promote physical well-being (in the short and long-run). Thus, the higher the level of democracy and the longer it exists in a country, the higher physical well-being is in that country.*

However, because of its tendency to impede economic growth in the long-run (i.e., H_2), one would not expect prolonged military control to sustain the growth of physical well-being.

H_4: *Military control in a country is most likely to fail to sustain the growth of physical well-being over the long-run. However, it might promote it in the short-run.*

An interesting view about the relationship between regime types and economic growth is the one that conditions it to the level of development and the size of the middle class. As mentioned above in the literature review, some argue that in countries where the middle class is well-established, the military was reluctant to pursue socioeconomic change fearing redistribution of economic

gains; in contrast, in countries with a small middle class, the military pushed for education and industrialization (e.g., Huntington 1968, Nordlinger 1970, Welch and Smith 1971). Similarly, Barro (1997) concludes that democracy has a non-linear relationship with growth: expansion of democracy in countries with a low level of political rights promotes growth, whereas in countries with a moderate level of freedom, it hinders growth. The above relationship deserves to be tested with the following two hypotheses:

H_6: *The higher the level of development in a country, the more negative the effect of military control is.*

H_7: *The higher the level of development in a country, the more negative the effect of level of democracy is.*

While this study stresses that military control, in and of itself, has an *independent* effect on economic growth, it attempts to articulate further explanations for *how and why this effect occurs*. It proposes and examines two paths of *causal mechanisms* through which military control influences economic growth: Financial and Economic Mechanisms, and Militarization and Conflict Mechanisms.

The financial and economic mechanisms (which are presented in hypothesis 7 and 8) center around the idea that military control negatively influence *domestic* investment. This view presents a new point that has been *overlooked* in

the cross-national empirical research. The study argues that the main reason that military control impedes economic growth over the long-run is its failure to create a hospitable environment for productive domestic investment.

In general, the same negative characteristics of military control (mentioned above) converge, in the long-run, to produce its failure to promote domestic investment. Combination of lack of organizational skills, rigidity, and repression create inhospitable environment that is conducive to corruption, mistrust, and weak financial and commercial laws. Thus, one would expect a negative correlation between military control and domestic investment which can be tested in the following hypothesis:

H: *The higher the degree of military control in a country, the lower its domestic investment as a percentage of GDP.*

One specific important theoretical reason for the failure of military control to promote domestic investment that can be examined empirically is its performance in terms *property rights protection.* This variable has been the focus of recent empirical research that links it to level of democracy (e.g., Leblang 1994, Rapazcynski 1996). This study takes a different approach. It examines property rights relationship with military control.

Military control usually creates a sense of uncertainty that is felt specially by domestic investors. They usually don't have the protection offered to international investors, and are exposed to more arbitrary and sudden changes of the investment-related laws and regulations. Thus, domestic investors usually perceive a high level of political risk and are cautious about investing in short-term ventures under military control.

H_1: *Controlling for protection of property rights, the observed effect of degree of military control on GDP per capita growth will decline.*

On the contrary, the other path through which military control influences economic growth, the militarization and conflict mechanisms (i.e., defense expenditure, domestic conflict, and external conflict), is regularly emphasized in the empirical research. However, these mechanisms will be reassessed here in the new context of this study's broad measure of military control. In the case of defense expenditures, one would expect military officers to think mainly in term of their corporate interests. Thus, they will use their influence to increase the military budget at the expense of public spending in the other areas and domestic investment.

H_{4}: *The higher the degree of military control a country has, the larger its defense expenditure as a share of GDP.*

In the case of conflict and contrary to the view that domestic conflict leads to military take-over, this study examines the effect of military control on domestic and international conflict. Despite their extreme repression, forms of domestic instability, like intra-military rivalry, counter-coups, violence toward opposition, and insurgencies, are expected to occur in military controlled regimes. In fact, this repression and lack of peaceful means to channel opposing views is the main contributing factor to domestic instability. In general, the underlying assumption is that military control, due to its aggressive nature and tendency to use force to resolve disputes, will increase domestic, as well as, external conflict. This, in turn, will waste resources, decrease investment, and hinder economic growth. The following two hypotheses summarize the expectations of the study:

H_{5}: *Military control in a country is likely to increase its level of domestic conflict.*

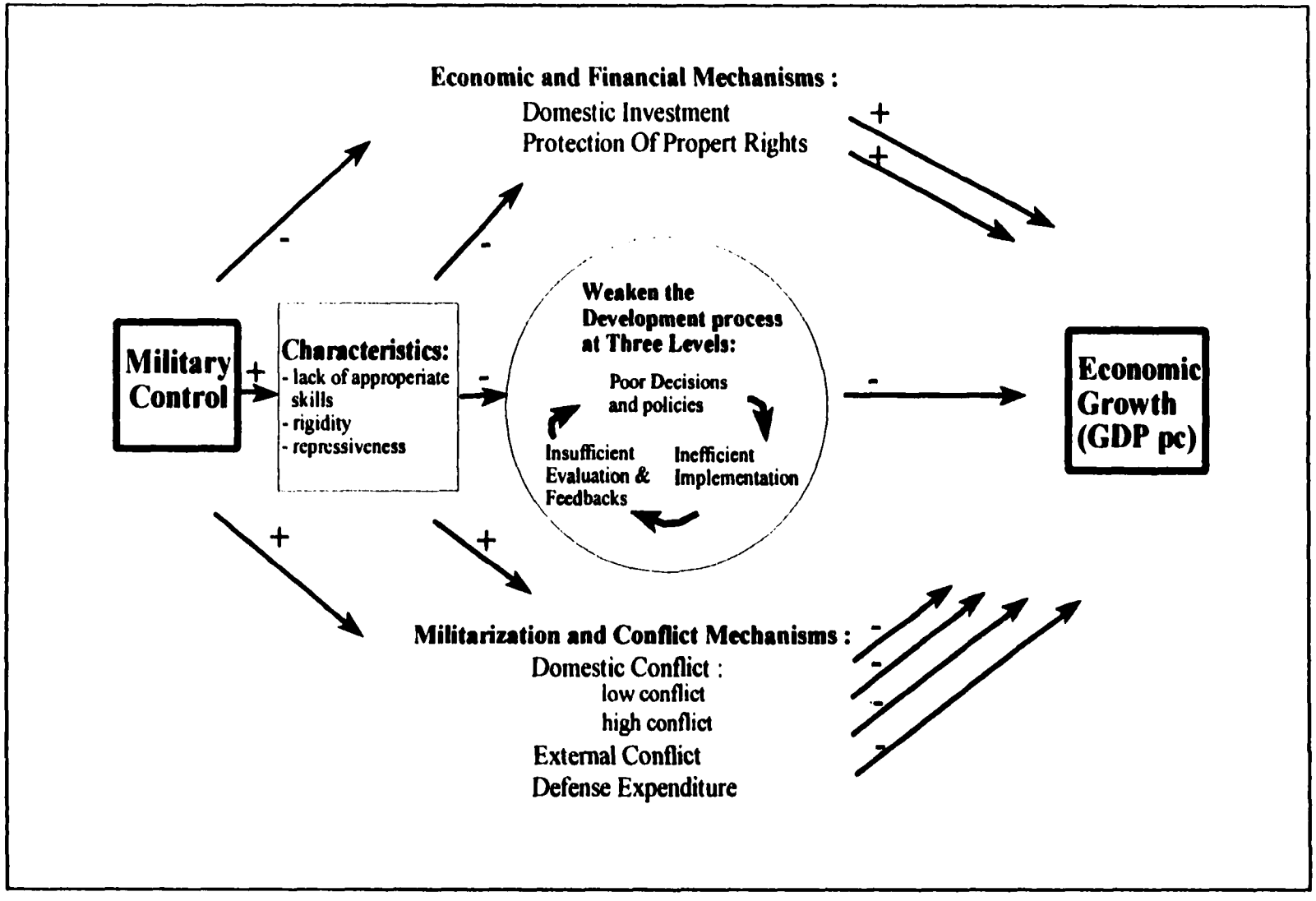
H_{6}: *Military control in a country is likely to increase its involvement in international conflict.*

Figure 1 presents a summary illustration of the above theoretical framework and the hypothesized effect of military control on economic growth.

To test the above hypotheses, this study utilizes two complementary methodological strategies: empirical cross-national and comparative case-study analyses. The *cross-national analysis* is *broad.* It employs *multiple regression* techniques on a sample of 138 countries for the period from 1961 to 1990.

The empirical design develops the argument in an orderly sequence. It starts with a *basic regression model* which is intended to examine basic relationships under investigation and set the broad basis for the study. This basic model considers two aspects of economic development, economic wealth, and social and human development. Also, for the *independent variables* the basic model builds on the existing literature by controlling the main *macroeconomic variables* that showed robust effects on economic growth in empirical research (initial level of wealth, level of investment, and level of education), and focuses on the two aspects of regime types: *degree of military control* and *level of democracy.*

Figure 1. The Hypothesized Effect of Military Control on Economic Growth and Its Causal Mechanisms



Then the basic model is expanded in subsequent chapters to examine the hypothesized financial and economic mechanisms, and the militarization and conflict mechanisms about *how and why military control impedes economic growth in the long-run.*

Chapter Four

The Basic Model's Research Design and Results

The research strategy is simple and straightforward. It utilizes Ordinary Least Square (OLS) multiple regression procedure on data collected for a broad sample of 138 countries for the period from 1961 to 1990.[13] This section discusses *the basic regression model* that will evaluate the study's main hypotheses about the *expected* effect of regime types (particularly *the degree of military control*) on economic development. This will set the general foundation for the analyses in following chapters that examine the hypotheses about *how and why* the above effect occurs.

Specifically the basic model is intended to examine the following six hypotheses:

H_1: *Military control in a country impedes economic growth over the long-run. However, it has no noticeable effect on economic growth in the short-run.*

H_2: *The level of democracy promotes economic growth in the long run. However, it has no immediate influence on economic growth in the short-run.*

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[13] The period 1961-1990 is used as the main analysis (instead of the period 1951-1990) to include a larger number of countries with complete data for the whole period. This is due to the fact that many countries were not independent in the 1950s and consequently data is unavailable.

H_3: *Democracies always work to promote physical well-being (in the short and long-run). Thus, the higher the level of democracy and the longer it exists in a country, the higher physical well-being is in that country.*

H_4: *Military control in a country is most likely to fail to sustain it over the long-run. However, it might promote its physical well-being in the short-run.*

H_5: *The higher the level of development in a country, the more negative the effect of military control is.*

H_6: *The higher the level of development in a country, the more positive the effect of level of democracy is.*

The above hypotheses examine degree of military control and level of democracy in regard to three areas: the expected effect on economic growth; the expected effect on physical well-being (i.e., provision of basic human needs); and the influence of level of development on the expected relationships.

The basic model can be expressed in a standard regression equation:

$$y = X B + u$$

where y denotes the dependent variable, x the independent variables, B to the coefficient estimate of an independent variable, and u to the error term.

The Dependent Variables

Two indicators are used to focus on two aspects of economic development. The first *dependent variable* (y) is the commonly used measure of economic growth: *average annual growth in Real*[14] *GDP per capita* (GDP pc). This measure relates directly to the economic wealth aspect of development and will be the *primary* focus of the empirical cross-national analysis. It is based on Purchasing Power Parity (PPP) data available in the Penn Wold Tables (PWT) data-set (Summers and Heston 1991).[15] Two long-run periods are chosen to examine this indicator: the thirty-year period of 1961-1990 which is the main period under investigation where the data are available for all of the model's variables; and the forty-year period of 1951-1990 which is used for comparison purposes.

The second indicator relates to the social and human aspects of economic development. Two measures, discussed in the above literature review, of human development are used: *the Physical Quality of Life Index* (PQLI); and its *Disparity*

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[14] Real GDPpc is used because it accounts for the effect of inflation (which better reflect GDPpc growth over time than nominal GDPpc).

[15] PPP is used because it controls for official exchange rate fluctuations and provides more accurate comparisons of cross-national statistic.

Reduction Rate (DRR). Due to the lack of data on PQLI indicators, this measure is recorded for the years 1967, 1977, 1987, and 1992 where PQLI indicators are available for the whole sample[16]; and the DRR of the PQLI is calculated for the above PQLI periods (i.e., 1967-77, 1977-87, 1977-92, 1967-87, and 1967-92). They allow testing the model beyond the average GDPpc growth (focus on economic production) and examining its effect on social welfare (i.e., actual provision of basic human needs). Therefore, they are used as *complementary* analyses to the GDPpc empirical analysis.[17]

The Independent Variables

The central analysis of the average GDPpc growth, and the supplemental PQLI and DRR analyses, will examine various *independent variables* (x). In general, the basic model examines the effect of two dimensions of *domestic political*

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[16] For the lack of data on *literacy rate*, PQLI here is calculated as the unweighted mean of two social indicators *life expectancy* and *infant mortality rate* (as reported in the World Bank: 'World Development Indicators 1997' and 'The World Data 1995').

[17] Furthermore, this treatment of considering both aspects of the DV, directly tests whether the influence of regime types varies across these aspects, and sheds light on some of the apparent discrepancies in the findings of the cross-national empirical literature (that is due to the different conceptualizations of development).

regime types: the *Degree of Military Control;* and the commonly used measure of the *Level of Democracy*. Also, it controls for three *macroeconomic variables* that are found in the empirical literature to have a *robust* influence on economic growth.

Degree of Military Control

This variable is *the main focus* of this study. Its measure is devised from Banks' (1997) "Cross-Country-Time Series Data-Set" categorization of regime type.

Banks had *four* categories of regime type: *civilian* regimes which are defined as "any government controlled by a nonmilitary component of the nation's population" like the monarchies of Jordan and Morocco or the western developed countries; *Military/Civilian* (or mixed regimes) which are defined as "outwardly civilian government effectively controlled by a military elite"[18] like Chile during General Benochit's regime of 1973-89 or Pakistan during General Zia Alhaq's regime of 1978-87; *Military* regimes which are

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[18] In this *mixed* regimes "civilians hold only those posts (up to and including that of chief of state) for which their services deemed necessary for successful conduct of government operations." Banks give the example of the period of Japanese military hegemony 1932-45 when they retained the Emperor and selected civilian cabinet members. (Banks 1997, codebook).

defined as "direct rule by the military"[19] like Argentine's military regimes of 1966-72 and 1976-82; and the *Other* regimes category which are defined as "a regime not falling into one or another of the foregoing categories [including instances when a country lacks effective national government]" like Iran in the years after the revolution. The four categories were assigned weights of zero for civilian control, 0.5 point for mixed control, and one point for military control[20]. These yearly weighted scores were then *averaged* for each of the corresponding period that is under investigation because of the interest in the cumulative long-run effect of military control.[21]

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[19] Military regimes "governing structure may vary from utilization of the military chain of command under conditions of martial law to the institution of an ad hoc administrative hierarchy with at least an upper echelon staffed by military personnel" (ibid.).

[20] Very few cases fell into *other* regimes (i.e., Banks' fourth category), mainly Iran after the 1979 revolution. It was treated like *mixed* role and assigned 0.5 point. Although one could argue that Iran was not effectively controlled by the military, the political chaos that followed the revolution and the Iraq-Iran war have created an ambiguous (yet very strong) relationship between the military and the new political authority that made me code it as mixed (rather than civilian). Anyhow, excluding or including Iran in the model does not have any significant effect on the results.

[21] Although the original coding of Banks' is used here, I have some reservations on his coding. In some instances

Note that this new way to measure *military control* differs from the other measures that focus only on the extreme form of direct military influence or *military rule*. This measure is more comprehensive and goes beyond the dichotomy of civilian/military rule. It considers military rule, as well as accounts for the wide varieties of *partial levels* of military intervention (or control) in politics. That is why it is designated as *control* not *rule*. Furthermore, by taking a weighted average, this measure offers a continuous dimension in which countries vary in their *degree of military control*.

I argue that indirect or partial military control is the *common* form of military influence that, relative to direct military control, occurs more frequently and exists for longer periods[22]. This is clearly evident in Banks'

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the coding misses or underestimates the military influence in some countries. For example, Egypt is coded as *military* regime *only* for the year 1952 (and as *mixed* from 1953 till 1955). Then it is coded as *civilian*. When it is known that the free officers revolutionary council (under the leadership of Nasser) continued to effectively govern the country much longer than that. Similarly in some countries military control is underestimated. However, despite my few reservation, I strictly adhered to Banks' coding to keep a coherent coding standard for the sample.

[22] Indirect military influence can take many shapes: personal military authoritarianism like Chili, civilian-military authoritarianism like Bolivia, or limited democracy like Indonesia and Pakistan (Pinkney 1990). According to

data coding of *military* and *mixed* regime type. Among the sample's 57 countries that experienced some form of military direct or indirect control for at least one year during the period 1961-1990, 29 countries have had mixed military/ civilian control only compared to five countries which have had direct military rule only. Also, mixed control is coded for 479 years representing 12.2% of the sample's total coded years, compared to 179 years of direct military rule representing 4.55 of the total years. Furthermore, the average country-year id 9.2 for the 52 countries who experienced mixed control for at least on year compared to an average of 6.2 years for the 29 countries who experienced direct military rule for at least one year.

In addition, even among countries that historically witnessed volatile regime changes with very strong military influence and frequent military coups, military control has been indirect and working behind the scene for longer periods than periods of direct military rule. For example,

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Bank's regime type coding for the period 1951-95: Chili and Indonesia did not have direct military rule, both were coded as having a mixed regime for the long periods of 1973-89 and 1966-1995, respectively; Turkey was coded as having direct military control in two brief periods 1960-61 and 1980-81, and was coded as mixed regime in 1982-86; Bolivia was coded as mixed regime in 1969-77 and as militarily ruled in 1964-68 and 1978-81 (with the exception of the years 1966 and 1979 where there were changes to civilian governments).

Nigeria witnessed 6 coups in the period 1961-1990 (two of them in 1966); however according to Banks' data it has 9, 11, and 10 years of civilian, mixed, and direct military rule, respectively. Similarly, for the same period Pakistan has had 5 coups with 16, 13, and 1 years of civilian, mixed, and direct military rule, respectively. In both countries, the high degree of military influence is well-documented and the military will continue to be an important component of their politics, at least for the foreseeable future.[23]

Thus, one can reasonably conclude that considering *only* direct and total military rule underestimates significantly the actual influence of the military control phenomenon because it ignores the essential and common form of indirect and partial military intervention in politics.

Level of Democracy

This variable is intended to register the *institutional characteristics* of a political regime. Level of democracy has been the primary focus of cross-national

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[23] Recently, the Nigerian military regime transformed the authority to a civilian government, however the Nigerian military continues to exert strong influence. In December 1999, the Pakistani military overthrew Mr. Nawaz Shariff's civilian government in a *coup d'etat* and reestablished a new military regime.

empirical research when it considers the effect of regime types on economic growth. It is based on the Polity III database which has measures for *democracy and autocracy* consisting of annual institutional indicators about the competitiveness and regulation of political participation, competitiveness and openness of executive recruitment, and constraints on chief executive (Jaggers and Gurr 1995). The indicators are assigned weights that are added to construct eleven-point scales for each level of democracy and level of autocracy.[24]

In this study, the measure of level of democracy is acquired by *subtracting* a state's autocratic score from its democratic score (i.e., Dem-Aut) and *averaging*[25] it (over the time period under investigation). Jaggers and Gurr (1995: 471-72) argue that subtracting a state's autocracy

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[24] Jaggers and Gurr (1995: 469) argue that "the validity of the Polity III indicators of regime type is supported by their strong correlations (.85 to .92) with seven conceptually and operationally different indicators of democracy developed by other researchers."

[25] A serious criticism of this way of measuring democracy (i.e., taking the *mean* of Dem-Aut scores) is that it might mask volatility: the average Dem-Aut scores for a country over a long period might not reflect any sharp political changes that occurred. To evaluate this criticism the *standard deviation* was taken, and it showed no significant effect. This increases the confidence in the *mean* as the appropriate measure of the level of democracy to consider here.

score from its democracy score, rather than treating democracy and autocracy as separate indicators, produces a better "single summary measure" of institutional characteristics; it makes polity data easier to interpret and to compare with other single measures of democracy.

The overwhelming majority of developing countries fall into the negative (i.e., autocratic) side of the Dem-Aut dimension. Jaggers and Gurr (1995: 471-72) define autocratic regimes simply as the opposite of democratic which include "some very diverse kinds of political systems whose common properties are a lack of concern for political and civil liberties": where political participation is restricted, chief executive is chosen by undemocratic means, and the executive exercise power with few or no constitutional constraints.

I should note here that two dimensions of regime types (degree of military control and level of democracy) can be, to a large extent, conceptually differentiated. Not all non-democratic regimes are militarily influenced as the case in many civilian autocracies (e.g., monarchies). At the same time, the presence of democratic practices in a country does not indicate the absence of military influence as the case in the limited democracies of Indonesia and Turkey.

Thus, one can reasonably argue that the degree of military control measure offers a separate dimension on which regimes can be compared based on the extent of the military's intervention in politics. This is evident from the data. While the two dimension of regime types have a correlation of -.407 (significant at the .0001 level), excluding or including either of them in any of the regression models has no influence on the other's coefficient. This is the case across all of the analyses.

The Macroeconomic Variable

The model controls for three macroeconomic variables: initial wealth, domestic investment, and level of education. As shown in the literature review chapter, these variables have strong theoretical and empirical links to economic growth.

Initial wealth is measured *the logarithm* of per capita GDP in the *first year* of each growth period, from PWT data. Controlling for this variable is standard in *neoclassical models* of economic growth to present the "conditional rate of convergence" or the "convergence hypothesis" in which poor countries are expected to grow faster than wealthy ones

(e.g., Solow 1956).[26] The coefficient of this control variable is expected to have a *negative sign* reflecting this relationship that is repeatedly confirmed in cross-national empirical research (e.g., Barro 1997). However, in the PQLI and DRR analysis, and following Morris (1979), Moon and Dixon (1985), and Moon (1991), the *logarithm* of *average* GDPpc for the *prior five years* is taken. Also, this is done to control for the *curvilinear* relationship between wealth and PQLI: "The curve flattens at higher income levels, reflecting the diminishing marginal returns of aggregate income for basic needs" (Moon 1991: 51).

The other standard macroeconomic variable in the neoclassical models of economic growth is investment ratio which is measured here as the *average domestic investment as a percentage of GDP* (over the period under investigation). It is expected to have a *positive* influence on economic growth because of its important role in generating more production and economic expansion. While this variable is included in the basic regression model, a further detailed discussion of it is in the chapter that

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[26] For basic review of these *neoclassical models*, see Ray (1998).

[27] The domestic investment data is from PWT.

follows to illustrate its complex relationship to military control and GDPpc growth.

The third macroeconomic variable is initial level of education, measured here as *secondary school enrollment as a percentage of eligibles*,[28] which is the commonly used indicator of human capital to account for its effect on economic growth. Interest in education as a determinant of economic growth started with the expansion of the neoclassical models to include investment in human capital and for its obvious strong theoretical links to growth (e.g., Lucos 1988, Romer 1990, Barro 1991). In general, education is expected to have a *positive* influence on economic growth because it contributes to the creation of a more skillful and productive work force.

In addition to controlling for the three robust macroeconomic variables above, the basic model controls for the influence of "oil wealth" on the extraordinary GDPpc growth of some oil-rich countries by using a *dummy for OPEC membership*. This variable takes the value of *one* when a country is an OPEC member, and a value of *zero* when it is not. This is necessary in order to keep most of the 13

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[28] The education data are from WB: World development Indicators (1997), and The World Data (1995).

developing countries (OPEC members) in the sample, at the same time, control for their special oil situation.

In sum, *the basic regression model* is applied to two complementary analyses based on two measures that represent different aspects of the dependent variable, economic development. In the *main analysis*, the dependent variable, *average GDPpc growth* (1961-1990) will be regressed on the logarithm of GDPpc (1961), percentage of secondary school enrollment (1975), average domestic investment as a percentage of GDP (1961-1990), average degree of military role (1961-1990), average level of democracy score (1961-1990), and an OPEC membership dummy.

The basic model is similarly applied to the supplemental measures of PQLI and its DRR. However, there are three minor modifications the PQLI and DRR analysis: the initial wealth variable is measured as the logarithm of average GDPpc for the preceding five years; OPEC membership is excluded from the model[29]; and the measures of the independent variables are adjusted according to the relative years (of PQLI and DRR) under investigation.

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[29] OPEC membership is not significant in the PQLI and DRR analyses, and the log average GDPpc for the preceding five years accounted for, to a large extent, any possible wealth impact on the dependent variable.

Results

In general, the results of the *basic model* analyses clearly support the study's general contention that regime type plays an important role in economic development. However, the specific influences of degree of military control and level of democracy varies across the different aspects of the dependent variable: GDPpc growth, PQLI, and DRR.

Per Capita GDP Growth Analysis

The results are *consistent* with the study's basic and central hypothesis (H_1) that military control impedes GDPpc growth over the long-run. Table 1 shows the basic model results for the period 1961-1990. It contains two analyses; each of which uses a different guideline to determine its sample size: Analysis (1) has a sample size of 96 countries that have 27 valid data points; and Analysis (2) has a sample of 104 countries that have 25 or more valid data points.[30]

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[30] The 27 and 25 valid data points are used as cut-off points to determine which countries are included in the analyses. This means that any country that has less than 27 observation in any of the model's variables are deleted from analysis (1), and the same happen for analysis (2) except that the cut-off point is 25. This is done to insure consistency among the data and calculations of the variables of the regression model.

Table 1. Coefficient Estimates for the Basic Model:

1961-90 GDPpc Growth Analysis

	Analysis (1) *	Analysis (2)**
Constant	10.819 (1.631)	12.140 (1.645)
Log (Initial Wealth)	-1.084 (.288)	-1.314 (.294)
Investment% GDP	.103 (.028)	.121 (.029)
Secondary Education%	.036 (.011)	.031 (.011)
Degree of Military Control	-2.083 (.871)	-2.160 (.917)
Level of Democracy	-.025 (.031)	.003 (.032)
OPEC Membership	1.677 (.527)	1.685 (.568)
Number of Cases [1]	96	104
Adj R2	.503	.470
F value **Prob>F**	17.015 (.0001)	16.206 (.0001)

Note: Entries between parentheses are the *standard errors* of the parameter estimates.
* Analysis (1) uses a cut-off point of 27 valid data points. All observations that have less than 27 are deleted.
** Analysis (2) uses a cut-off point of 25 (to have a larger N).
[1] When more strict guidelines where used (i.e., cut-off points of 28 and 29), the model remained significant (including the degree of military role variable), and the Adj R2 became higher (due to the smaller N).

The degree of military control variable has a *negative significant* coefficient in both analyses (regardless of the change in sample size): -2.08 and -2.16 coefficients that are significant at the 0.01 level (one tailed-test), for Analysis (1) and (2), respectively. Furthermore, the relationship holds across different time periods. As Table 2 shows, despite the differences in the time periods and the sample sizes, degree of military control significance remained stable in the *longer* forty-year analysis (1951-1990) and in the relatively *shorter* twenty-year analysis (1971-1990).[31]

In contrast, level of democracy has no clear significant influence on GDPpc growth. The size of its coefficients are small and not significant across any of the estimations in Table 1 and 2. While these results apparently disconfirm the expectations of H_2 that democracy

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[31] The effect of military control prove to be a long-run not a short-run phenomena. When the model is examined in the five and ten year periods between 1961-1990, the coefficient of the military control variable showed extreme *volatility* among the different short-run periods taking positive and negative signs (with t-ratios close to, but not quite significant for most of the periods). Also, the sign of the level of democracy coefficient showed similar extreme volatility across the short-periods, however it was significant for most periods. For example, the democracy coefficient significant for the periods 1961-65 and 1981-85, but it was negative in the former period and negative in the latter.

Table 2. Coefficient Estimates for the GDPpc Growth Analysis

	1951 - 1990	1971-1990
Constant	10.893 (1.446)	12.553 (2.276)
Log (Initial Wealth)	-1.143 (0.273)	-1.160 (.384)
Investment% GDP	.105 (.026)	.165 (.034)
Secondary Education%	.029 (.010)	.011 (.014)
Degree of Military control	-2.368 (1.00)	-2.182 (1.071)
Level of Democracy	-0.038 (.026)	.018 (.036)
OPEC Membership	1.670 (.556)	2.375 (.748)
Number of Cases	107 [1]	119
Adj R2	.429	.311
F value **Prob>F**	14.276 (0.0001)	9.869 (0.0001)

Note: Entries between parentheses are the *standard errors* of the parameter estimates.
[1] Here the guidelines for which countries to include in the sample are loosened to get the maximum N for the 1951-1990 analysis. The cut-off point is 28 valid data points (with the exception of the small Arabian Gulf countries: Qatar, Bahrain, and UAE). Those countries get their independence in the early 1970s, and there inclusion or exclusion from the sample does not change the results by much.

promotes GDPpc growth in the long-run, one has to be cautious in drawing broad conclusions from them about the effect of democracy on GDP growth. As mentioned earlier in the literature review, there are legitimate debates about the complex relationship between democracy and economic growth that in part question the direction of causation. Also, one can't reject totally the strong theoretical appeal that democracy's rational and open policy-making process positively influences economic growth (especially when one observes in the real world that most economically successful countries are well-established democracies).

The model's macroeconomic central variables show, in Table 1 and 2, clear significant effect in the GDPpc growth analysis. The *log (Initial Wealth) variable*, as predicted by the neoclassical model, has a *negative* and highly significant coefficient in the GDPpc growth analysis. This is interpreted as the conditional rate of convergence that initially poor countries grow faster.[32] For example, a coefficient of -1.08 for this variable implies that, holding other variables constant, poorer countries grow at an

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[32] "Convergence is intimately connected to the notion of diminishing marginal productivity of capital: it is based on the idea that a poorer country has a marginal return to capital and therefore exhibits a higher rate of per capita return." (Ray 1999: 89)

approximate rate of 10.8% per year (closing the per capita GDP gap with richer countries). Also, all the domestic investment coefficients in the GDPpc analyses (of Table 1 and 2) are positive and significant (with around 4.0 t-ratio values). This conform with the expectations that *domestic investment is critical to the generation of economic wealth*[33]. In addition, level of education has a low, but significant[34] positive coefficient indicating the important role of investment in human capital in generating wealth. Finally, OPEC membership dummy variable has a positive significant influence on GDPpc growth, indicating as expected that *oil wealth* helped OPEC countries to achieve higher growth rates.

A reasonable interpretation for education's low influence, as indicated by its small coefficients, on GDP

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[33] A more detailed discussion will follow in the coming chapter which will examine the Financial and Economic Mechanisms, an important part of which is the argument that military control influences GDP growth through its negative effect on domestic investment.

[34] Level of education is insignificant in the 1971-1990 analysis. In my view, this *twenty* year period contains two sharply distinct decades: the high growth of the 1970s and the declining growth of the 1980s. Thus, in addition to the general weaker association between education and GDP growth compared to PQLI, this distinct economic performance between the two decades is magnified more in this *shorter* period analysis (than in the other two longer periods) which might explain the insignificance of education in it.

growth is the limitations it has in generating wealth. The *law of diminishing returns* apply to education too. The question of economic growth is not that of the *quantity* of education (as the case in most developing countries), rather it is a question of *quality* and how the education system is directed to serve development needs. In my view, the regime or political system plays a critical role to determine the extent to which education can be a catalyst for the generation of wealth. The regime influence comes through its ability to create a flexible and energetic educational system that is responsive to the development process or, in other words, its ability to coordinate its educational policy with economic growth needs. Unfortunately, in most developing countries the educational system is rigid and bureaucratic, and coordination between educational policy and development needs is very weak if not totally absent.

In addition, in many developing countries and because of the lack of sufficient planing, the expansion of public education is becoming a burden to economic growth rather than engendering it. The *short-sighted* state encouragement to education usually resulted in large numbers of graduates in low-demanded fields that lead those graduates to end up

unemployed, under-employed, or at public sector's hidden-unemployment (which further raise their society's burden and worsen its developmental situation). This unbalance between the supply and *real* demand (e.g., for technical skills) of the working force generated by the educational system of developing countries, creates a devastating impact on the development process and on the future political, economic, and social stability of developing countries. In short, although *quality* of education is critically important for GDP growth over the long-run, such quality is determined largely by the state's educational policy and how successful it is in transforming the educational system output to economic production. Therefore, one must be cautious in dealing with raw educational statistics. Higher education numbers do not necessarily translate to better economic growth. This might explain, in part, the low significance of education to GDPpc capita growth.

PQLI and DRR Analyses

In contrast to its insignificance for GDPpc growth, democracy is found to be important for the promotion of PQLI. As Table 3 shows, level of democracy is significant for the 1977 an 1987 PQLI: its coefficients are .351 and

Table 3. Coefficient Estimates for the Physical Quality of Life Index

	PQLI 1967	PQLI 1977	PQLI 1987	PQLI 1992
constant	-23.603 (12.652)	-9.007 (9.234)	-17.953 (10.647)	-16.062 (13.325)
Log Average GDP pc	8.408 (2.342)	6.593 (1.531)	8.985 (1.644)	9.325 (2.004)
Investment % GDP	.677 (.218)	.461 (.148)	.541 (.156)	.388 (.174)
Secondary Education%	.519 (.099)	.436 (.063)	.211 (.058)	.188 (.066)
Degree of Military Control	-4.257 (7.659)	-2.320 (3.906)	-3.849 (3.553)	-5.021 [1] (4.875)
Level of Democracy	.117 (.209)	.351 (.156)	.384 (.133)	.311 (.162)
Number of Cases	102	116	115	110 [2]
Adj R2	.808	.840	.860	.816
F value Prob>F	86.225 (.0001)	122.805 (.0001)	141.038 (.0001)	97.955 (.0001)

Note: Entries between parentheses are for the standard errors of the parameter estimates.
[1] Military Control is significant for the All Countries analysis when Rwanda and Iraq (both have high degree of military control) are included in the analysis.
[2] Rwanda and Iraq are deleted because of their low 1992 PQLI scores (of 15.01, and 49.60, respectively). These scores resembled sharp drop from their PQLI87 scores (38.64, and 71.95, respectively). This drop is duo to Rwanda's internal problems and Iraq's special situation after the Gulf War and The UN economic embargo. Also, Sierra Leon continues to constitute a highly influential outlier for its poor performance (its PQLI92 dropped to 3.00 form 9.99 in 1987). It is included in the sample (even though its exclusion improves the level of democracy significance).

.338, with t-ratios of 2.85 and 2.89, respectively.[35] This result provides *partial* support for H_3 that democracies promote PQLI based on the notion that more democratic systems tend to promote the physical well-being of their citizens due to their responsiveness and accountability.[36]

Furthermore, the positive influence of democracy on social and human development is more strongly evident in the DRR analysis results. Table 4 shows that level of democracy is highly significant across all the DRR analyses. This provides clearer support for H_3, and indicates that democracies work to improve their societies PQLI and that they are quite successful in doing so.

Contrary to its significant negative influence on GDPpc growth, Tables 3 and 4 show that military control is not significant for either PQLI or DRR. Although the military control coefficients are *negative* in the PQLI analysis (i.e., Table 3) as expected, the size of their standard errors are large enough to make them insignificant. The

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[35] Also, level of democracy is close to significance for 1992 PQLI (having a t-ratio of 1.91).

[36] One notices that the macroeconomic variables (i.e., wealth, domestic investment, and education) all have strong positive influence on basic human needs attainment. All of their coefficients are positive and significant across all PQLI analyses in Table 3.

Table 4. Coefficient Estimates for the Disparity Reduction Rate (DRR) analysis

	1967-77	1977-87	1977-92	1967-87	1967-92
constant	-2.064 (1.879)	-7.608 (2.237)	-7.666 (2.739)	-4.094 (2.024)	-5.472 (2.631)
Log Average GDP pc	.637 (.327)	1.550 (.372)	1.584 (.452)	1.073 (.354)	1.294 (.459)
Investment % GDP	.062 (.024)	.023 (.040)	-.006 (.048)	.068 (.030)	.077 (.039)
Secondary Education%	.014 (.013)	.020 (.015)	.037 (.019)	.005 (.015)	.011 (.019)
Degree of Military Control	-.032 (.740)	.582 (1.090)	.309 (1.469)	-.231 (1.046)	-.106 (1.379)
Level of Democracy [1]	.085 (.032)	.119 (.040)	.151 (.049)	.091 (.036)	.101 (.046)
Number of Cases [2]	108	113	108	105	99
R2	.539	.572	.541	.576	.529
Adj R2	.516	.552	.519	.554	.504
F value **Prob>F**	23.841 (.0001)	28.579 (.0001)	24.098 (.0001)	26.870 (.0001)	20.901 (.0001)
MSE	2.906	5.895	8.524	3.055	4.825

Note: Entries between parentheses are for the standard errors of the parameter estimates.

[1] Level of democracy is significant despite the deletion of many advanced democratic countries because they out-performed the index expectations (and its old, early 1970s, formula). Their PQLI exceeded 100, the optimal value of the Index, which creates problems in calculating DRR. see footnote 2, below.

[2] Some countries are deleted because they constituted highly influential outliers as follow: in 1977-87 and 1967-87 DRR, Sweden, Switzerland, Canada, Iceland, and Japan are excluded; in 1967-1992 and 1977-92 DRR , (in addition to the previous five countries) France, Netherlands, and Norway are excluded. All of those countries' PQLI exceeded 100. Also, Iraq (for its special situation in the aftermath of Gulf War and the economic embargo where its 1992 PQLI dropped to 49.60 from 71.95 in 1987), and Rwanda (for its late 1980s internal problem) are excluded DRR analysis that involve 1992. Both did not constitute influential outliers, but I excluded them for the above mentioned reasons.

coefficients and t-ratios are similarly low and insignificant in the DRR analyses in Table 4.

However, the supported finding that military control impedes GDPpc growth over the long-run (i.e., H_1) suggests that military controlled regimes are less likely to sustain physical well-being. As argued above, improvements in public health and education (and subsequently PQLI) can be easily obtained, especially in the poorest countries, if a political regime is willing to pay for it. However, creating wealth (i.e., GDP growth) is more difficult to achieve without sound policies. Thus, despite some military controlled regimes' publically pronounced aggressive social and economic reform agendas, their ability to improve PQLI and DRR are highly *suspect* because they will likely fail to generate the necessary wealth to do so, especially when paying for public health and education gets more and more expensive as countries become better off.

The macroeconomic variables are mostly significant. However, their influence vary across the growth and the basic needs analyses. While log (initial wealth) is consistently significant across all of the analyses, its coefficients are *positive* for PQLI and DRR, and they are *negative* for the GDPpc growth. This indicates that, while

actual growth rates are *converging* across countries with poorer countries growing at a faster rate, PQLI and DRR are *diverging* across countries with wealth playing a significant role to improve human welfare. Also, level of domestic investment is highly significant for GDPpc growth and PQLI, but less significant for DRR: it has low coefficient values that are significant only in the larger DRR period analyses, 1967-1987 and 1967-1992, with t-ratios of 2.25 and 2.0 , respectively.

While education has important theoretical links to all aspects of economic growth, the regression results indicate that it is significant for GDPpc growth and PQLI (but not for DRR). As discussed above, the coefficient of level of education (i.e., percentage of secondary school enrollment) is low, but significant in the GDP growth analysis. Also, the level of education coefficients are *highly* significant in the PQLI analyses (i.e., Table 3). This is quite plausible. The more educated the individual is, the more he will take care of himself and his family's well-being (which in turn translates to a higher PQLI score for the society as a whole). Education benefits influence directly the *micro* level or the individual who attains it.

As for DRR, level of education coefficients, as shown in Table 4, are not significant. In my view, a reasonable theoretical explanation for this weak influence on DRR is education has limitations and cannot by itself improve a whole society well-being. While education can help an individual to improve himself and his family's well-being (as discussed above), the ability of a regime or state to provide a sufficient health care system (e.g., health facilities, health education, drugs) becomes more critical in the improvement of the general physical well-being of the whole society. In short, DRR depends more on the regime role and one can see, from the results, that democratic regimes are the most successful in improving DRR.

The Effect of Level of Development

To examine level of development influence on the effect regime types on GDPpc growth[37], that is to test H_5 and H_6, the sample is divided into low- and middle-income categories

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[37] An interaction term between initial wealth and military control was tested and generally was not significant. Only when some outliers were deleted, the interaction term showed weak significance. However, because there is no theoretical justification to delete those outliers, I utilized this simple division of the sample to test the related hypotheses.

based on the World Bank classification of economies.[38] This simple division of the sample provide a *direct* assessment of the hypotheses by examining how degree of military control and level of democracy influence vary across the two groups of countries with different level of development. Table 5 shows the basic model results for analysis 1 and 2 of the period 1961-1990, where the sample in each analysis is divided into low- and middle-income groups. The results shows *very weak* support for H_5 that military control impedes more GDPpc growth in countries with higher levels of development. While in low-income countries military control coefficients are small and not significant, they are much higher and close to significance in middle-income countries[39].

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[38] Low-Income Countries are those which GDPpc is less than $765 (in 1995); and Middle-Income countries are those which GDPpc is between $765 and 9,386 (World Development Indicators 1997).

[39] The t-ratios for the Middle-Income Countries become much closer to significance when Domestic Investment is excluded from the model: the t-ratios increase from -1.85 and -1.75 to -1.99 and -1.89 for Analysis 1 and 2, respectively.

Table 5. Coefficient Estimates for the GDPpc Analysis, 1961-1990: The Level of Effect of Development

	* Analysis(1):		** Analysis(2):	
	Low-Income Countries	**Mid-Income Countries**	**Low-Income Countries**	**Mid-Income Countries**
Constant	16.607 (2.524)	14.126 (3.527)	18.844 (2.187)	16.279 (3.412)
Log (initial wealth)	-2.218 (.458)	-1.369 (.579)	-2.529 (.400)	-1.710 (.562)
Investment % GDP	.049 (.037)	.071 (.051)	.024 (.036)	.087 (.052)
Secondary Education%	.052 (.015)	.022 (.019)	.042 (.014)	.016 (.019)
Degree of Military Role	.129 (.995)	-2.526 (1.362)	-.678 (.985)	-2.447 (1.401)
Level of Democracy	.091 (.046)	-.070 (.046)	.107 (.047)	-.036 (.043)
OPEC Membership	2.226 (.794)	.996 (.750)	2.536 (.827)	1.011 (.0772)
Number of Cases	31	43	37	44
Adj R2	.667	.336	.626	.341
F value **Prob>F**	11.014 (.0001)	4.538 (.0001)	11.047 (.0001)	4.711 (.0012)

Note: Entries between parentheses are the *standard errors* of the parameter estimates.
* Analysis (1) uses a cut-off point of 27 valid data points. All observations that have less than 27 are deleted.
** Analysis (2) uses a cut-off point of 25 (to have a larger N).

However, as shown in Table 6, degree of military control significance for Middle-Income Countries becomes clearer in the 1951-1990 period analysis.

Also, the influence of level of development on democracy's effect on GDPpc growth is mixed and not clear. While level of democracy shows some *positive* influence on GDPpc growth in Low-Income Countries in the 1961-1990 analysis (i.e., Table 5), it does not show similar significant influence in the 1951-1990 analysis (i.e., Table 6). In contrast, level of democracy has *negative* (although insignificant) coefficient for Middle-Income Countries in the 1961-1990 analysis, and has low (but significant) negative coefficient for the same group of countries in the 1951-1990 analysis. These results reject the oversimplification of H_6, and support the above mentioned comments about the complex (if not dubious) relationship between democracy and GDPpc growth.

Table 6. Coefficient Estimates for the GDPpc Analysis, 1951-1990: The Level of Effect of Development

	Low-Income Countries	Middle-Income Countries
Constant	15.315 (2.210)	12.120 (2.438)
Log (initial wealth)	-1.952 (.408)	-1.134 (.446)
Investment % GDP	.022 (.034)	.096 (.047)
Secondary Education%	.030 (.015)	.013 (.018)
Degree of Military Role	-.634 (1.147)	-3.314 (1.550)
Level of Democracy	.029 (.050)	-.081 (.039)
OPEC Membership	2.260 (.892)	1.006 (.754)
Number of Cases	39	47
Adj R2	.474	.303
F value Prob>F	6.717 (0.0001)	4.335 (0.0019)

Note: Entries between parentheses are the *standard errors* of the parameter estimates.

In sum, the central argument of this cross-national study is supported: *military control impedes GDP growth over the long-run.* This effect is robust and independent from the institutional characteristics of the regime (i.e., the literature's often emphasized regime type variable, level of democracy). However, and as the results show, both conservative and leftist military rulers, despite the latter apparent advocacy of progressive social and economic reforms, are *insignificant* in promoting the public provision of basic human needs (i.e., PQLI and its DRR). On the other hand, the results suggest that while democracy has no effect on GDP growth, it is strongly related to the improvement of social and human welfare. Finally, the results generally confirm the importance of the macroeconomic variables (initial wealth, domestic investment, and human capital) to economic growth.

The following two chapters will extend the central argument of the study and examine hypotheses about *why* military role impedes GDP growth. The first chapter discusses the financial and economic mechanisms of this effect, and the other explores the militarization and conflict mechanisms.

Chapter Five

Military Control, Domestic Investment, and Economic Growth

This chapter deals with the effect of military control on economic growth through the financial and economic causal mechanisms. Specifically, it deals with the following two hypotheses:

H_1: *The higher the degree of military control in a country, the lower its domestic investment as a percentage of GDP.*

H_2: *Controlling for protection of property rights, the observed effect of degree of military control on GDP per capita growth will decline.*

Central to this path of causation is the notion of *domestic investment* and the environment in which it occurs.[43] The political and economic context largely determines the amount, and the success or failure of domestic investment. I argue that military controlled regimes offer less protection of private property rights

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[43] Despite its relative importance, *foreign* investment is not considered in this study. It is assumed to be less critical to economic growth than domestic investment (e.g., Firebaugh 1992). In addition, its influence on economic growth is a subject for heated debates in the theoretical and empirical research; some argue it promotes economic growth (e.g., Firebaugh and Beck 1994), and others argue to the contrary (e.g., Bornschier and Chase-Dunn 1985, Dixon and Boswell 1996).

which in turn discourages domestic investment and entrepreneurial spirit necessary for economic growth. Military control usually raises fears of arbitrary economic or financial laws and uncertainty about the future increasing the political risks associated with economic ventures for domestic investors.[4]

This emphasis on domestic investment as an intervening variable presents a *new* theoretical elaboration on the influence of military control on economic growth. Most of the theoretical arguments about military control have focused on its relation to other factors: repression and political instability; discipline and efficiency; restriction of political development; military budget-allocation; and class interests (e.g., Jackman 1976, Dixon and Moon 1997). In addition, most of the related empirical studies have ignored the link between military control, domestic investment, property rights and economic growth.

The theoretical arguments about the critical importance of both domestic investment and property rights to economic

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[4] Efforts were made to obtain *Political Risk* data (like the role of law index discussed in Barro 1997) without success. Although political risk assessment presents a very interesting variable to examine in this context, such data were not available publically and quite expensive to obtain privately.

growth are self evident. Their theoretical origins are rooted in the classical liberal economic theory. Investment represents the last stage of the economic cycle (i.e., production, consumption, saving, and investment) and is fundamental to its notion of macroeconomic balance. As Ray (1998: 51-54) puts it simply "Growth is the result of abstaining from current consumption . . . [and] economic growth is positive when investment exceeds the amount necessary to replace depreciated capital, thereby allowing the next period's cycle to recur on a larger scale (the economy expands in this case; otherwise it is stagnant or even shrinks)." Thus investment is the *engine* for generating more wealth and economic expansion, and is an essential component of neoclassical economic growth theories.

Furthermore, empirical cross-national studies have repeatedly reported the important role of domestic investment to economic growth (e.g., Kormendi and Maguire 1985, Romer 1989, Barro 1991, 1994a, 1994b, Mankiw et al. 1992).[42] In their review article of the empirical research

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[42] Some have noted the possible reverse effect, specially in open economies, where growth opportunities stimulate investment (e.g., Barro 1997: 32-35). This might be possible in some exceptional open economies where growth opportunities are great. However, for most developing

on economic growth, Levine and Renelt (1992) find investment to be among the few macroeconomic variables that withstand empirical scrutiny and show consistently robust effects on growth.

Classical liberal economic theory also stresses the essential positive role of property rights protection to economic growth: it provides and defines private enterprise *incentive* to engage in production (i.e., confident that they will profit from the rewards of their labor), and establishes a secure environment that reduces the risks associated with exchange by organizing and monitoring economic activities and enforcing agreements.

Similarly, much social and political thought stresses the state's role in *establishing* private property rights as a prerequisite for economic growth.[43] For example, Hobbes

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economies, sufficient investment is a prerequisite to promote growth and the overwhelming empirical evidence supports this fact (as noted above).

[43] Contrary to the common assumption, some argue that establishment of property rights is a product of the *market* (not the state). For example, Rapaczynski (1996), argues that private property is not a precondition to market economy, rather the development of market institutions is often a prerequisite for a viable private property regime. He admits that the state might satisfy a portion of the property right demand; however, he emphasizes that market responses are more important. One can respond by arguing that this could be true in advanced open economies, but not in developing ones where the market is premature with very

(1651) argued for the need of sovereign power (i.e., the state) to provide the protection and enforcement mechanism necessary for comfortable material life, and to save people from what he called *state of nature* (where private ownership is unprotected, exchange is risky, and insecurity is the rule). Also, Weber (1927) argued for the importance of bureaucratic state to reduce the risks of private enterprise by securing contracts with viable laws.

However, there has been *little* cross-national empirical research on the effect of property rights on economic growth, partly, because its argument seems axiomatic, and also because of difficulties in measurement. Goldsmith (1997: 31) states that "economic rights are a bundle of freedoms and protections governing ownership and exchange. How to operationalize these rights is a puzzle, and analysts . . . have been forced to look for oblique measures."[44] Researchers have offered many proxy measures of property rights protection: degree of foreign exchange control and share credit allocated to private sector (Leblang 1994 and

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limited demands and where political regimes control the market and determine its shape and demands.

[44] For a theoretical and empirical illustration of the *complex* relationships between the different kinds of rights (economic, security, political, and substantive rights) *See* Milner et al. (1999).

1996); level and change in taxation (Cheibub 1994); degree of state ownership (Torstensson 1994); proportion of currency held outside financial institutions (Clague et al. 1994); country risk evaluators to potential foreign investors (Keefer and Knack 1995); data from existing Indexes of Economic Freedom (Goldsmith 1997). These proxies, however crude, capture some aspects of economic rights and private sector activities that indicate the degree of security of property and contractual rights a country has. Despite their various measures of property rights, the few empirical findings of the studies listed above have *confirmed* its general positive effect on economic growth.[45]

While existing empirical literature does not examine the specific link of property rights to military regimes[46], some empirical research findings associate it with democratic regimes arguing, reasonably, that democratic governments protect property rights (e.g., Leblang 1996,

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[45] However, the debatable proxies of property rights could call the findings into question.

[46] The empirical literature examines the issue of rights in general terms: how military regimes *suppress* political rights and civil liberties more than civilian governments (e.g., Henderson 1982). A systematic and empirical examination of the effect of military regimes on property rights apparently has not been done so far.

Goldsmith 1995 and 1997). Furthermore, Leblang (1996: 21) emphasizes that ". . . regime type does not tell us much about cross-national differences in economic growth. However, regime type does influence the growth process indirectly by affecting the type of property rights institutions that are in place." Leblang's conclusion is limited to democracy. He does not examine the influence of other regime types (like military controlled regimes which is considered here).

In sum, the positive effects of domestic investment and property rights on economic growth have a strong theoretical foundation in classical liberal economics and in social and political thought. The empirical findings confirm this relationship. I argue that military controlled regimes hinder economic growth, partly through the negative influence on domestic investment and property rights protection.

Examination and Results

The method employed here to examine the hypothesized effect of military control on domestic investment and property rights are relatively simple and straightforward. It consists mainly of OLS regression procedures in which the

variable of interest is either treated as the dependent variable or it is included in the basic model analysis to examine its effect on the regression coefficients.

Domestic Investment[47]

Table 7 shows the results of regressing domestic investment on the regime-type variables and the control variables of the basic model. The only exception is that level of education is omitted from the model because of its close theoretical and empirical association with domestic investment (i.e., their correlation is .78). Education merely represents another aspect of investment (i.e., investment in human capital). For example, Ray (1998: 100) stresses that "recent literature in economics has emphasized the fact that investment in education and training . . . [that raises the skills of labor] is no less an investment." In Table 7, one sees that the degree of military control has a negative and significant coefficient (i.e., with a t-ratio of -2.03), and level of democracy has a positive (but insignificant) coefficient. This gives further support for

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[47] Conforming with this study's expectations, level of domestic investment correlates *negatively* with degree of military control (-.35) and *positively* with level of democracy (.37) in the period 1961-90. Both correlations are significant at the .0001 level.

Table 7. Regressing Domestic Investment on Regime Types, 1961-1990

Variable	*Coefficient (Standard Error)*
Constant	-8.940 (6.193)
Log (Initial Wealth)	4.266 (1.001)
Degree of Military Control	-7.964 (3.927)
Level of Democracy	.217 (.131)
OPEC Membership	5.052 (2.396)
Number of Cases	112
R2	.450
F value **Prob>F**	21.897 .0001

the above argument that military control discourages investment.

Table 8 provides another approach to investigating this relationship. Analyses (1) and (2) in the table (each has a different sample size) show what happens to the basic model coefficients when including and excluding the domestic investment variable. This is intended to reveal how this

Table 8. Coefficient Estimates for the Basic Model: 1961-1990 GDPpc Growth Analysis

	Analysis (1)*		Analysis (2)**	
Constant	11.705 (1.718)	10.819 (1.631)	13.476 (1.741)	12.140 (1.645)
Log (Initial Wealth)	-1.105 (.307)	-1.084 (.288)	-1.375 (.317)	-1.314 (.294)
Investment% GDP	----	.103 (.028)	----	.121 (.029)
Secondary Education%	.060 (.009)	.036 (.011)	.059 (.009)	.031 (.011)
Degree of Military Control	-2.502 (.920)	-2.083 (.871)	-2.787 (.976)	-2.160 (.917)
Level of Democracy	-.021 (.033)	-.025 (.031)	.015 (.034)	.003 (.032)
OPEC Membership	2.312 (.430)	1.677 (.527)	2.444 (.581)	1.685 (.568)
Number of Cases	96	96	104	104
Adj R2	.436	.503	.382	.470
F value **Prob>F**	15.669 (.0001)	17.015 (.0001)	13.728 (.0001)	16.206 (.0001)

Note: Entries between parentheses are the *standard errors* of the parameter estimates.
* Analysis (1) uses a cut-off point of 27 valid data points. All observations that have less than 27 are deleted.
** Analysis (2) uses a cut-off point of 25 (to have a larger N).

manipulation influences the degree of military control coefficient. One can see that in both analyses including domestic investment in the model *reduces* the degree of military control coefficient by about 20 percent.[48]

In sum, the above evidence (the significant negative correlation, the significant negative coefficient of military control on domestic investment, and the reduction of military control coefficient when domestic investment is included to the model), taken together, provide *clear empirical support* for H_2: that military control negatively influences domestic investment.

Property Rights Protection

Following Leblang (1996), this study utilizes *the total credit available to private sector as a percentage of GDP* (averaged over the period 1981 to 1990) to measure property rights.[49] The data are from World Bank's "World Development

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[48] Military control coefficient and its t-ratios is reduced from coefficients of -2.50 and -2.79 with t-ratios of -2.72 and -2.85, to coefficients of -2.08 and -2.16 with t-ratios of -2.39 and -2.36, for analyses (1) an(2), respectively.

[49] Leblang (1996) uses *exchange control* as another proxy for property rights which "indicates whether a government has imposed any type of control on current account transactions" (11). It is a dummy variable from the IMF's Exchange Arrangements and Exchange Restrictions Annual

Indicators 1997" which define it as "the financial resources provided to the private sector -such as through loans, purchases of non-equity securities, and trade credits and other account receivables- that establish a claim for repayment."

This particular measure of property rights is chosen because it is *strongly related* to the study's main argument about the effect of regime types on domestic investment.[59] On one hand, it captures not only the amount of financial resources available to the private sector, but also it considers the extent to which the financial sector is accessible to private enterprise which, in turn, indicates the government's commitment and support to private property rights. As Leblang (1996: 12) puts it, "The extent to which the private sector can solicit and obtain capital from the

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report, and Leblang uses a count of the number of years in which a country implement restrictions. While this proxy indicates some aspects of a country's commitment to property rights in general, it is related directly to foreign investment and exchange (and not to this main argument about domestic investment). Thus it is not utilized in this study. However, using the same procedure and data source, this proxy was tested by including it to the regression model and, was found to be insignificant (although its coefficient had a negative sign as expected).

[59] It has a high correlation with domestic investment of .69 (that is significant at the .0001 level).

financial sector demonstrates the scope of and support for private enterprise."[51]

This measure *complements* our indicator of domestic investment by allowing the investigation to consider the relative size of private versus state-owned enterprise. Domestic investment (as a percentage of GDP) focuses on the overall size of investment, and in most developing countries, it is mostly public sector investment. While not necessarily indicating the *real* size of the private sector investment, credit available to the private sector (as a percentage of GDP) *approximates* its size and surely indicates *how active* private enterprise is in the development process of a particular country.

This measure of property rights protection, credit available to private sector, has *similar* correlations with regime types to that of domestic investment. Its correlation with degree of military control is -.361 (significant at the .0002 level), and with level of democracy is .497 (significant at the .0001 level). The signs of these correlations conform with expectations: the

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[51] Leblang (1996), assessing this measure's validity, notes that it has a significant correlation with Freedom House's measure of property rights of .63 (for 1982 for one-hundred-one countries).

more militarily controlled a regime is, the less it protects property rights; the more democratic a regime is, the more it protects those rights. In addition, the relatively larger correlation for democracy indicates the strong association between democratic role and property rights protection which supports the findings of mainstream property rights research (e.g., Goldsmith 1995 and 1997).

Table 9 shows the effect of including credit to the private sector on the basic model's coefficients. Equation (1) presents the basic model variables, and Equation (2) adds the property rights variable to the model. One can see that the private credit variable has a positive and statistically significant influence on GDPpc growth (i.e., a coefficient of .02 with a t-ratio of 2.36). Also, one can observe that adding private credit to the model reduces the military control coefficient (from -2.40 to -2.10).[52]

Although this effect appears small, one has to notice the association between private credit and domestic investment. Adding private credit in Equation (2) has, at the same time, reduced the domestic investment coefficient (from .139 to .109) and its t-ratio (from 4.23 to 3.15).

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[52] Also, it reduces its t-ratio from -2.50 to -2.22.

Table 9. Coefficient Estimates for Property Rights Analysis, 1961-1990

	(1)	(2)
Constant	12.295 (1.793)	13.001 (1.774)
Log (Initial Wealth)	-1.394 (.324)	-1.529 (.320)
Investment% GDP	.139 (.033)	.109 (.034)
Secondary Education%	.034 (.012)	.031 (.012)
Degree of Military Control	-2.398 (.959)	-2.098 (.944)
Level of Democracy	-.021 (.036)	-.009 (.035)
Credit to Private Sector%GDP [2]	----	.017 (.007)
OPEC Membership	1.429 (.613)	1.569 (.600)
Number of Cases	96	96 [1]
Adj R2	.456	.483
F value **Prob>F**	14.284 (.0001)	13.665 (.0001)

Note: Entries between parentheses are the *standard errors* of the parameter estimates.
[1] Japan and Switzerland present a special case because their credit available to private sector % GDP are exceptionally high (164.05 and 147.54, respectively). Deleting the two countries raise the private credit variable coefficient and t-ratio slightly: For example, in analysis (2) the coefficient rise to .024 (with a t-ratio of 2.664).

The combined effect of the two reduces the degree of military control coefficient from -2.787 with a t-ratio of -2.68 when neither domestic investment or private credit are included in the model, to a coefficient of -2.098 with a t-ratio of -2.22 when both are included).

In conclusion, the above evidence clearly supports the main argument of the study. Military control hinders economic growth through its negative influence on domestic investment. It creates an inhospitable environment: the inclination for less property rights protection is one major indicator of it. This causal mechanism has been *overlooked* by the related empirical literature.

The following chapter examines another, more common, path of causation that link military control to economic growth through its effect on militarization and conflict.

Chapter Six

Military Control, Militarization, Conflict, and Economic Growth

This chapter discusses the effect of military control on economic growth through defense expenditure, internal political instability, and external conflict. Specifically, it examines three hypotheses:

H_0: *The higher the degree of military control a country has, the larger its defense expenditure as a share of GDP.*

H_1: *Military control in a country is likely to increase its level of domestic conflict.*

H_2: *Military control in a country is likely to increase its involvement in international conflict.*

The theoretical logic for the above hypotheses is simple. One would expect military controlled regimes to favor increasing their military budgets. It is a logical process: the more influence military institutions and personnel have in budgetary decision-making, the more they can (and will) accommodate their self-interest by increasing military capabilities and financial resources. Also, the aggressive and rigid nature of the military is expected to increase domestic and international conflicts. The rigid decision-making style in a military controlled regime usually lack the *flexibility* necessary for governing.

Military rulers are more prone to use repression when faced with domestic problems or opposition (that in many cases resort to counter-violence, the only option available to them)[53], and it is prone to use force (or to intervene) when faced with external problems or disputes. Furthermore, all of these factors, large defense expenditure and more domestic or international conflict, waste valuable resources, discourage domestic investment, and thereby hinder economic growth.

The link between these variables (particularly, defense expenditure, and domestic political instability) and economic growth has been a major area of empirical research in the political science literature. However, despite the richness of this research, it produces contending theoretical views and conflicting empirical findings.

The empirical findings about the effect of military expenditure on economic growth are controversial. Some studies find that increased military spending stimulates

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[53] Contrary to the view that military control brings stability and order, this argument stresses the other side of the common view that military violent means are counter-productive.. Military control usually brings with it various violent forms: repression, intra-military conflicts between competing military factions, and counter-violence resorted to by opposition (i.e., lacking of other peaceful alternatives).

economic growth through "a combination of resource mobilization and demand inducement effects" (Dixon and Moon 1987: 664). Whynes (1979), for example, contends that military expenditure, specially in countries that adopt policies of socio-military integration, produces economic gains. On the other hand, other studies find that the defense burden hinders economic development through its negative effects on savings, investment, and balance of payments. Deger and Smith (1983), for example, provide evidence that military expenditure, through its effect on saving, has a negative influence on growth rate. Also, Deger and Sen (1990) argue that the international trend toward disarmament and reduction of military expenditures starting in the mid-1980s will transfer resources to other purposes and eventually lead to growth. In addition, Mintz and Stevenson (1995) find that "nonmilitary spending contributes to growth significantly more than increases in military expenditure [which has a significant positive effect on growth in only about 10% of the 103 cases]" (300).

Likewise, the negative, direct effect of political instability on economic development (Barro 1991) is disputed

(Levine and Renelt 1992[54]). Dixon and Moon (1989), utilizing various measures of domestic conflict, find that the effect varies: while *intensity* of domestic conflict has a positive impact on the provision of basic human needs, the *scope* has a negative effect[55].

In addition, the link between internal and external conflict[56] constitutes a major strand of empirical research that produces, also, conflicting findings. Numerous bivariate studies findings generally agree that no relationship exists between internal-external conflict.[57]

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[54] They found that political instability effect on growth is not direct, rather it works through its negative effect on the level of investment (958). In general, they conclude that the political factors are not robustly correlated with growth.

[55] They define *scope* as "the extent of citizen participation in open political confrontations (e.g., demonstrations, riots, strikes, and internal wars) and measure in term of "man-days" participation per 100,000 population", and *intensity* as "the level of physical violence resulting from such confrontations" (186). They describe the effect of domestic conflict on growth as a *theoretical puzzle*: "Under what circumstances will what kind of conflict engender welfare benefit or welfare losses?" (194).

[56] This link is referred to as the *divergence* or *scapegoat* hypothesis: political leaders can use a foreign conflict to divert popular attention from internal conflicts or problems.

[57] Many of these findings are base on Rummel's pioneer 1960s work (e.g., 1963, 1968 and 1969). His research examines bivariate links between nine domestic and foreign conflict indicators, and is often cited as rejecting the

However, some research, incorporating other variables like regime type, have found positive but weak relationships. For example, Zinnes and Wilkenfeld (1971) relating regime types (i.e., personalist, polyarchic, and centrist) to Rummel's (1963) domestic and foreign conflict indicators, find a relationship in centrist countries (i.e., socialist) between their internal and external conflict behavior that make them more conflict prone.

Levy (1998: 673) argues that a sharp gap exists between quantitative empirical research lack of support for the internal-external conflict hypothesis, and case study research and political science theoretical literature which confirms this hypothesis. He argues that "These discrepancies [between quantitative research and historical case studies], in conjunction with methodological limitations of quantitative studies, leads to the tentative conclusion that the relationship between internal conflict and foreign conflict behavior of states is more substantial than implied by the quantitative empirical literature in political science." Then he continues by contending that "The primary explanation . . . [for the gap is] the lack of

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relationship between national attributes and international conflict behavior.

a well-developed theoretical framework guiding these empirical studies."

Furthermore, the link between level of democracy and external conflict have been extensively examined in what is now referred to as the *democratic peace* literature. The main argument is that, while democratic states may not be less conflict prone than any other type of regimes, they are rarely involved in conflict with each other (e.g., Rummel 1983, Moaz and Abdolali 1989, Russett 1993, Dixon 1994). However, despite the cumulative empirical findings, many disputes the democratic peace premise (e.g., Weede 1984, Layne 1994, Spiro 1994).

Also, some empirical research links democracy to internal conflict (e.g., Henderson 1991, Hwang 1997). For example, Rummel (1995) finds that democratic regimes tend to limit the degree of internal violence, even in the presence of identity conflict within a country, compared to non-democratic regimes. Also, Feng (1997) argues that in addition its positive influence on investment and education, the positive effect of democracy on economic growth is due to its ability to inhibit political instability. He argues that "Democracy provides a stable political environment which reduces unconstitutional government change ate the

macro level; yet along with regime stability, democracy offers flexibility and the opportunity for substantial political change within the political system" (414).

In sum, there has been extensive empirical research (with conflicting findings) on defense expenditure, domestic conflict, and external conflict. However, a critical review of the literature reveals that the focus is often on their independent effect on economic growth (e.g., defense expenditure and domestic instability influence on growth), or on the association between the variables themselves (e.g., the internal-external conflict and the democracy-external conflict links). When regime types are considered in conjunction with these variables, the *primary* focus is usually on democracy [58]. Here, these variables are viewed as *intervening variables*, attempting to assess their role in the negative influence of military control on economic growth, as illustrated in *Figure 1*.

Examination and Results

Similar to the straightforward method used in the previous chapter, regression manipulation is used to examine

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[58] As noted above in the literature review, this is usually the case when the literature considers regime types: the sole focus is on the effect of democracy.

the above hypotheses. However, a brief discussion of how the variables are measured precedes the results discussion.

The measures of military expenditure and external conflict are direct. The measure of military expenditure is the *average defense spending as a percentage of GNP* (for the period 1981-1990), from the World Military Expenditures and Arms Transfers. The measure of external conflict is the number of *use of force incidents started* within the period 1961-1990, from the Militarized Interstate Disputes (MID) dataset[59]. This indicator includes acts of *actual use of force*[60], like blockades, occupation of territory, seizure of another state material or personnel, military hostilities or clashes, declaration of war, or full scale war (Gochman and Maoz 1984: 588-598).

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[59] Militarized interstate disputes are defined as "a set of interactions between or among states involving threats to use military force, displays of military force, or actual use of force. To be included [in the data-set], these acts must be explicit, overt, non-accidental, and government sanctioned" (Gochman and Maoz 1984: 587). This data is based on the Correlate of War Project (COW) under the direction of David Singer.

[60] This indicator of *use of force* is preferred over *display of force* incidents indicator because it has stronger theoretical relation to the argument of the study about the effect of military control. However, the display of force indicator was examined and produced, although *weaker*, similar results to the use of force indicator. The actual *use of force* indicator is not examined because of the rarity of war incidents

Political instability is often measured in terms of revolutions, coups, and political assassinations (e.g., Barro 1991 and 1994a). These indicators are inadequate; they only account for a small, extreme level of instability and do not capture the broad nature of this phenomena. Political instability includes a wide range of other activities (e.g., riots, demonstrations, strikes) that constitute instability and can have a significant effect on growth. These indicators are emphasized less in the narrow definition of instability used in *most* of the growth literature.

Thus, I use in this analysis two measures reflecting *high* and *low* levels of domestic conflict. Utilizing principal component analysis to arrive at two-factor dimensions of domestic conflict devising them from five of Banks' (1979) domestic conflict indicators (general strikes, demonstrations, riots, guerrilla warfare, and revolution): the *low* level domestic conflict (*LowConf*) is composed of three indicators (general strikes, demonstrations, and riots), and the *high* level domestic conflict (*HighConf*) is composed of two indicators (guerrilla warfare and

revolution).[61] The two measures provide the analysis of the study with a broader account for the various kinds of domestic conflict.

Table 10 presents the results when each of the above intervening variables is introduced into the basic model regressing analysis: Equation (1) shows the basic model results; Equation (2) introduces only the external conflict measure to it; Equation (3) introduces the external conflict as well as the two indicators of domestic conflict (low and high); Equation (4) introduces only the defense expenditure measure; Equation (5) introduces both external conflict and defense expenditure measures; and Equation's (6) column shows the results when all the variables are introduced to the model.[62]

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[61] See Appendix B for details on how the high and low domestic conflict measures are devised.

[62] Although these variables (i.e., defense expenditure, use of force, low domestic conflict, and high domestic conflict)correlations with economic growth, degree of military control, and level of democracy *conform* with expectations, the correlations are generally *low and insignificant*; the strongest correlation (of .36) is between high domestic conflict and degree of military control (significant at the .0001 level). However, the correlations between these variables are relatively high: use of force has a .63 correlation with defense expenditure, .42 with low domestic conflict (both significant at the .0001 level), and .24 with high domestic conflict (significant at the .01 level); and high domestic conflict has .23 correlation with defense expenditure (significant at the .01 level).

Table 10. Coefficient Estimates for Internal/External Conflict and Defense Expenditure Analysis, 1961-1990

	(1)	(2)	(3)	(4)	(5)	(6)
Constant	12.502 (1.773)	12.507 (1.786)	12.500 (1.814)	12.710 (1.712)	13.081 (1.698)	13.347 (1.718)
Log (Initial Wealth)	-1.393 (.320)	-1.394 (.322)	-1.393 (.326)	-1.463 (.311)	-1.528 (.308)	-1.565 (.310)
Investment% GDP	.122 (.031)	.122 (.031)	.123 (.032)	.128 .030)	.125 (.029)	.120 (.030)
Secondary Education%	.033 (.012)	.033 (.012)	.033 (.012)	.028 (.012)	(.030 (.011)	.030 (.012)
Degree of Military Control	-2.111 (.934)	-2.110 (.939)	-2.151 (.996)	-2.189 (.904)	-2.181 (.889)	-2.012 (.935)
Level of Democracy	.001 (.032)	.001 (.033)	-.001 (.034)	.029 (.033)	.032 (.032)	.031 (.033)
External Conflict: Use of Force	----	-.0005 (.012)	-.002 (.014)	----	-.028 (.014)	-.039 (.017)
Internal Conflict: [1] Low	----	----	.021 (.226)	----	----	.275 (.223)
High	----	----	.048 (.347)	----	----	-.199 (.332)
Defense Expenditure % GNP	----	----	----	.090 (.033)	.138 .040)	.155 (.043)
OPEC Membership	1.707 (.563)	1.714 (.608)	1.729 (.625)	1.346 (.580)	1.535 (.578)	1.639 (.589)
Number of Cases	100	100	100	100	100	100
Adj R2	.471	.466	.454	.505	.522	.512
F value **Prob>F**	15.709 (.0001)	13.321 (.0001)	10.144 (.0001)	15.449 (.0001)	14.490 (.0001)	11.690 (.0001)

Note: Entries between parentheses are the *standard errors* of the parameter estimates.
[1] To simplify the table and because they are insignificant, the table does not show the Equations results (i.e., columns) when the two domestic conflict indicators are introduced to the basic model: The two indicators are insignificant when introduced individually or together to any of the models above.

The regression results indicate that, among the four introduced variables, defense expenditure has the greatest impact on economic growth: introduced individually or with the other variables, it has a *positive* significant coefficients (with t-ratios of 2.72, 3.43, and 3.63, in the last three equations, respectively). This positive effect runs counter to the underlying assumption of H_9, that higher defense expenditure have a negative impact on economic growth and supports some of the literature findings (e.g., Whynes 1979, Dixon and Moon 1987).[65] For example, Weede (1983 and 1986) argues that widespread military service stimulate economic growth because it teaches discipline and other useful skills. Thus military training, in Weede's view, is an investment in human capital that produce efficient employment of resources and reduce income inequality.

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[65] The amount of defense expenditure is influenced by multitude of factors, and not determined primarily by the type of regime (for example, the level of wealth a county has and whether it faces external or internal threats). In addition, our measure of defense expenditure (i.e., average percentage of GNP) might mask the *true* differences in defense spending among countries. For example, *one percent or less* of military spending in an advanced county is larger than *twenty or more* military spending in many developing countries.

On the other hand, while external conflict is not significant when introduced individually to the basic model (i.e., Equation 1), it becomes significant (with t-ratios of about 2.0) when included with defense expenditure (Equation 5 and 6). Largely, this is due to the association between the two variables (i.e., having a high correlation of .63) which turns external conflict closer to significance (and increases defense expenditure's t-ratio of about 1.0). The two domestic conflict indicators are insignificant in all of the equations indicating that (controlling for the other independent variable) domestic conflict has no influence on economic growth.

More importantly, one notices that the size of the degree of military control coefficient and its significance remains relatively *unchanged* across all of the six equations. This indicates that all of the three variables (defense expenditure, domestic instability, and external conflict) are not acting as intervening mechanisms through which military control has its negative effect on economic growth. Similarly, domestic investment coefficient is unchanged across all of the equations indicating that these militarization and conflict variables have no significant effect on it.

In conclusion, the empirical examination above leads one to reject the three hypotheses of this chapter. The degree of military control in a country appears to be unrelated, in a statistical significant way, to levels of defense expenditure, domestic conflict, and external conflict. Consequently, generalizations based on this cross-national empirical study cannot be made that these causal mechanisms (of militarization and conflict) play a role in the negative effect of military control on economic growth. However, the inability to generalize does not necessarily indicate that these theoretically-plausible causal links are totally irrelevant. Careful examination of comparative case studies might be able to establish such links.

The following comparative case-study is intended to overcome the problem of broadness associated with the cross-national method followed in the above analyses, and to discuss its findings in more depth.

Part II: Comparative Case-Study,

Degree of Military Control and Development Performance in Algeria, Libya, Morocco, and Tunisia

The four North African countries of Algeria, Libya, Morocco, and Tunisia are an *ideal* case for a comparative analysis within this study's theoretical framework. While their economic development process started from similar bases, they have varying degrees of military control and development performance.

As Table 11 shows, the four countries have very similar historical, demographic, social, and economic conditions: common historical roots and background, colonial experience, and proximity of independence time; the populations being overwhelmingly Moslem, and mostly Arab; close urbanization, labor force, and population growth levels; similar life expectancy, infant mortality and illiteracy rates; and largely agricultural economies. However, one can note that Algeria and Libya have had greater chances of developmental success because their oil wealth gives them a comparative advantage to finance more ambitious development programs.

Table 11. Basic Indicators in 1965[1] for the Four North African Countries

	Algeria	Libya	Morocco	Tunisia
Independence	1962	1951	1956	1956
Colonizer	France	Italy	France	France
Indep. process	Indep. war	U.N. vote (1948)	Granted	Granted
Demography:				
Population (thousands)	11,923	1,623	13,323	4,630
Pop. growth rate (annual %)	2.89 (1966)	3.77	2.76	1.87
Urban pop. (% of total)	37.6	27.4	31.9	39.5
Labor force (% total pop.)	24.97	27.52	27.73	27.08
% labor in agriculture	57	40.89	61.31	49.13
% labor in industry	16.73	20.92	14.91	21.44
% female	4.67	5.91	11.38	8.56
Ethnicity: Arab (% of total)	80	79	65	98.2
Berber (% of total)	20	21 (others)	33	1.2
Land area (sq km)	2,382,740	1,759,540	446,340	155,360
total agricultural area	441,670	119,950	244,200	76,040
% of land area	18.54	6.82	54.71	48.94
Density (pop. per sq km)	5.01	0.92	29.84	28.3
National Economy:				
GNP per capita ($)	259	824	219	210
GDP (billion $)	3.17	1.57	2.95	1.00
Agriculture (% GDP)	14.85	4.72	23.45	22.15
Industry (% GDP)	33.65	62.65	27.55	23.75
Manufacturing (% GDP)	11.24	2.83	15.70	8.8
Services (% GDP)	51.50	32.63	49.01	54.11
Social Indicators:				
Secondary School enrollm. (%)	7	14	11	16
Human Dev. Index (HDI)	0.264 (1960)	–	0.198 (1960)	0.258 (1960)

Sources: World Data 1995; World Development Report 1986; and The World Factbook 1998.

[1] When the 1965 data are not available, the data are for the year specified between parenthesis.

Furthermore, Algeria has other human and natural resources (e.g., larger arid land, water reserves, and population); thus it would be expected to have the most success of the four countries.

On the other hand, while all of the four countries are relatively authoritarian, they vary in their degrees of military control, and in the political choices and developmental initiatives they have taken. The Algerian and Libyan regimes have high degrees of military control and have chosen a socialist model for development. Morocco is a monarchy that chose to have an open market economy from the outset, and Tunisia is a civilian authoritarian system with a short socialist experiment in the 1960 before it turned to a successful liberal development program. In both Morocco and Tunisia the military has no significant influence and is kept under strict civilian control. More detailed discussion of these variations will come in a later section.

This comparative analysis will focus only on matters related directly to the theoretical framework and hypotheses discussed in *Chapter Two* above. It will be organized in the following sequence of sections: overview of the four countries' major political and economic developments; examination of their degree of military control assessing

the political characteristics and the development choices that military-controlled regimes made; assessment of their economic growth, and human and social development; assessment of how they fared in regard to the causal mechanisms (i.e., intervening variables) proposed in this study; and ending with some conclusions.

Chapter Seven

Overview[63]

This chapter gives a broad overview of the four North African countries (Libya, Algeria, Morocco, and Tunisia) since their independence. It is intended as a general introduction to familiarize the reader with these countries, focusing *only* on their political and economic developments and the important events that shaped them.

Algeria

Algeria fell under firm French colonization in 1843. After nearly a century of complete French control, an Algerian nationalist movement formed and aggressively resumed the struggle for independence. In 1954, the resistence intensified when the National Liberation Front (FLN) formed and led an open rebellion against extremely repressive French occupation. In 1956, France decided to

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[63] This overview is partially based on the following secondary sources: For Algeria, Adamson 1998, Entelis and Naylor 1992, and Dunn 1992; for Libya, Vandewalle 1995 and 1999, Anderson 1986, El-Kikhia 1997, and Arnold 1996; for Morocco, Azam and Morrisson 1994, Kornay 1998, and Layachi 1999; and for Tunisia, Murphy 1999, Morrisson 1996, and Anderson 1986. Also, the following edited general books: Vandewalle 1996, and Zoubir 1999a. Other cited sources are specified in the text.

give Morocco and Tunisia independence expressing its resolve to retain *French Algeria*. However, in 1959 General Charles de Gaulle declared that Algerians had the right to determine their future, and negotiations between the two parties started in 1961. Finally, after a bloody liberation guerrilla warfare, a general referendum for independence was conducted and Algeria officially declared its independence on July 5, 1962.

After a brief power struggle that amounted to a small scale civil war between FLN leaders, Ahmad Ben Bella became Algeria's first president in 1963.[64] He instigated one party rule and socialist programs of Algeria. His economic policies fostered the development of *autogestion*, the control of large holdings of land by agricultural laborers, as a new form of ownership of productive resources (Adamson 1998). Eventually, his dictatorial personality, his poor political style (i.e., revolutionary rhetoric) and administration record, internal discontent, border clashes

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[64] The power struggle between the FLN leaders was settled initially by recognition of Ben Bella as premier, Boumedienne as chief of staff (i.e., head of military), and Khidr as the head of the party organization. However, the competition continued, albeit not publicly: Khidr resigned in 1963, left the country and was later assassinated; and gradual elimination of dissident leaders left control in the hands of Ben Bella and the army leader, Boumedienne.

with Morocco, and economic difficulties provoked a military coup in 1965.

Col. Houari Boumedienne, the coup leader and the head of the new revolutionary council, became Algeria's new president. He moved quickly to consolidate his power securing army loyalty, reorganizing the FLN to rule under the army's umbrella, presuming nationalist policy, and permitting limited communal and local elections in 1967 and 1969.

In 1976, the country adopted a constitution that gave an institutional cover for the Algerian military control through one party (FLN) socialist rule. It provided for an *outwardly* presidential system with a strong executive branch headed by a president with strong powers and who is elected for an unlimited five-year terms by universal suffrage, and one legislative body elected by universal suffrage[65] for a five-year term and which can legislate in all matters, except those involving the military.

The development strategy of Boumedienne's military controlled regime, which was adopted in successive development plans, was influenced by the socialist model and

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[65] The first elections of this body, the National People Assembly, were held in 1977.

had a tremendous impact on Algeria's later economic difficulties: it concentrated heavily on establishing a state-controlled industrial core at the expense of the productive agricultural sector which underwent unsuccessful *reforms* (Entelis and Arone 1992). Industrialization, via state enterprises and central control, was seen as essential for development. State institutions and bureaucracy grew in size and complexity in a way that produced inefficiencies and slow decision making. Also, Algeria's socialist management inherently had problems of attempting to reconcile economic objectives of building a self-sufficient industrial base with the political objective of getting the benefits evenly distributed (Adamson 1998).

In addition to the damage it suffered by focusing on industrialization, Algeria's agricultural sector was further weakened by the 1971 inauguration of the *agrarian revolutionary program* which was aimed at breaking down and redistributing large holdings of land, and creating cooperatives with small holdings. The results were more state ownership of land and central planning, and less agricultural production.

After the death of Boumedienne in late 1978, Col. Chadli Benjedid became the president in a *de facto* military

control; he was nominated by the FLN as the oldest ranking officer in the revolutionary council and his presidency was confirmed by a referendum held in 1979. In the mid 1980s, faced with falling oil prices and growing economic and social problems (e.g., substantial national debt, frequent food shortages, high unemployment, inflation, and housing shortages), Benjedid implemented "an Algerian version of perestroika" to diversify the economy, to be less dependent on oil and gas, and to privatize the state corporations. His reforms were an attempt to move from a state-centered socialist economy toward a market one (Enterlis and Arone 1992: 24-25).

Nevertheless, the situation worsened and in October 1988 the worst civil unrest since independence erupted. At first the military tried to repress the riots violently; then, in order to absorb the discontent, Benjedid announced a national referendum to amend the 1976 constitution. In February 1989, the country adopted *a new constitution* dropping all references to socialism, allowing for a multiparty system, and permitting elections and other liberal democratic reforms. Almost 60 parties emerged soon. The Islamic opposition formed its main party officially in September 1989 under the name the *Islamic Salvation Front*

(FIS). In June 1990, the FIS won an overwhelming victory in the first held local and regional elections taking 55 percent of the local and two-thirds of the regional offices.

Although there was a change in the electoral process in favor of FLN, the FIS scored a decisive victory in the first round of the parliamentary elections in 1991: it won 188 seats out of 231 decided seats (i.e., only 28 seats short of the majority) with the FLN wining only 15 seats. The second round was supposed to be held on January 16, 1992 for the undecided 199 seats. However, five days before that date a *coup* led by the Defense Minister, General Khalid Nezzar, forced Benjedid to resign and replaced him with a kind of collective leadership composed of a five-man *Supreme State Council*. The elections were suspended, a state of siege was put into effect, the FIS was banned and thousands of its supporters were rounded up and dispatched into detention camps in the desert.[66] The new government announced that it was in a transition phase, and that a presidential election would be held in late 1993.

However, Algeria entered a vicious cycle of civil war and political, economic and social upheaval that continued

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[66] Commenting on these measures, Entelis and Arone (1992: 136) wrote that "Algeria has not experienced such repression since the war for independence."

throughout the 1990s. Five months after the 1992 coup, Mohammad Boudiaf, a former FLN dissident, who became president of the Supreme State Council: he was assassinated. In 1994, Alameen Zourwal, the defense minister, was appointed by the council as president and later won the 1995 presidential election. Civil war and atrocities continued despite various *unsuccessful* attempts for national reconciliation. Zourwal announced his resignation by Feburary 1999. Abdulaziz Bouteflika, a former state and FLN veteran, won the 1999 presidential election and announced a general *amnesty plan* for national reconciliation that was overwhelmingly approved by a national referendum held in September 1999[67]. At the time of writing this study, his efforts to rescue Algeria from its upheaval seem to be gaining national momentum and international support. However, its success depends on the continuous support of the Algerian military.

Libya

Libya is a former Italian colony whose citizens have had many courageous revolts against their colonizer. In recognition for the Sinuses' (i.e., the prominent local

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[67] The New York Times, 10/24/1999: A13.

power of the time) contribution to the fighting in the Allied side during WWII, the British in 1942 promised them independence. After the war, Libya fell under a joint British and French administration. In 1949, the U.N. General Assembly voted in support of its independence which was declared on December 24, 1951 by King Idris I; it was the first African colony to be granted independence. The monarch prohibited political parties and activities and followed pro-western foreign policies. Economically, the country was poor at the time and depended mainly on foreign aid and rent from military bases to the U.S. and the U.K. However, oil was discovered in 1959, allowing the county to adopt its first development plan for the period 1963-1968.

In September 1969, Colonel Mu'ammar al-Qaddaffi led a military coup that overthrew the Sinuses' monarchy, establishing the military controlled regime that continues to exist today under the same leadership. The strict and suppressive nature of Col. Qaddaffi's regime has allowed him to radically shape the country according to his ideological vision. For organizational purposes, one can divide the political and economic developments of Libya after the military coup into *three phases*: the early phase, the revolutionizing phase, and the reflection phase.

In the *early military control phase*, which lasted from 1969 to 1972, the Revolutionary Command Council (RCC), led by Col. Qaddaffi, instigated popular policies: closing foreign bases, nationalizing the oil industry and foreign ventures, favoring socialist economic policy, and adopting passionate pro-Arab foreign policies. In 1970, the RCC created a single party rule, the Arab Socialist Union (ASU), and made all political activities outside it punishable by death.

During the *revolutionizing phase*, which lasted from 1973 to 1986, Col. Qaddaffi subjected Libya to *experimentation* with his vision of a *Popular Revolution* that centers around the idea of a stateless society with direct management by the people and an extreme form of socialism. His ideology was presented in a sequence of published works: the 1973 article "*The Third Universal Theory*" and *The Green Book*[65] which was published in three parts in the period

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[65] The Green Book contains a three volume sequence that was published in the period of 1975 to 1979. In the first volume, "*The Solutions of the Problems of Democracy*" published in 1975, Col. Qaddaffi attempts to demonstrate how the world's prevailing democracies are false and calls for the genuine democracy that of *Popular* democracy through the creation of "popular congresses and committees everywhere"(Arnold 1996: 18). In the second volume, "The Solutions to Economic Problems" published in 1977, he attempts to marry his socialist ideas to his Islamic beliefs reworking economic ideas to present an extreme form of

1975-1979. His work can be best summarized in the following:

> The Green Book outlined the "Third Universal Theory," an ideological standpoint [or alternative] to capitalism and communism in favor of political consensus and was clearly inspired by Islam and the Colonel's own nomadic background. The Green Book rejected political parties, representative democracy, private control of the means of production and private amassing of wealth. Instead, it recommended that "power be given to the people" in a truly democratic system. It proposed fair distribution of wealth, communal control of industry and services, eradication of exploitation and corruption, and the creation of self-efficiency. (EIU country profile on Libya 1988-89: 4)

Coinciding with the publication of each of Col. Qaddaffi's works, Libya witnessed actual decisions, laws,

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socialism (19); and in the third volume, "The Social Basis for The Third Universal Theory" published in 1979, he argued for the importance of a single religion for a nation, the preservation of family and tribe by a nation, revolutionary education, and he presented liberal ideas about women's equal role in the society. Later, in 1983, Col. Qaddaffi published a commentary on the Green Book in which he sharply criticized the Soviet communist system.

and policies that were intended to implement the ideas and solutions of the corresponding publication. The results were *radical changes in the Libyan political, economic, and social systems.*

At the political level, the political system was dramatically transformed to conform to Col. Qaddaffi's vision of "*popular democracy.*" In 1973, following publication of the "Third Universal Theory", the Popular Revolution was announced in Libya and *popular committees* were formed which started to take over government functions. In 1975, the Governorates were abolished and three major socialist laws were announced. In 1976-77, many steps were taken: the *General People's Congress* (GPC) was created as the institution through which the Libyan people, at least theoretically, express their control of the country; the peoples power and the *Jamahiriyah* (i.e., a state managed directly by the people--or a state of the masses) were declared[69]; and *Revolutionary Committees*, consisting of young people fanatically devoted to Col. Qaddaffi and directly controlled by him, were created to intensify the

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[69] The official name of the country became "Socialist People's Arab Great Jamahiriyah." The word "Great" was added to the name after the U.S. raid in 1986.

revolution. In 1978-79[7], the RCC, the cabinet, and the ministries were abolished to be replaced by the General Secretariat of the GPC, the General People's Committee, and the secretariats, respectively.

This revolutionary trend, inspired by the Green Book, continued. The traditional state's bureaucratic structure of governing were further dismantled and replaced by revolutionary Committees that usually assumed similar functions. For example, Libya's embassies were converted into People's Bureaus and revolutionary committees were created within the army; then, the military itself was transformed to the People's Army.

Similarly, radical changes have occurred *at the economic level* during this revolutionary phase transforming the economic activities to be solely controlled by the state. Since its inception, Qaddaffi's military regime has favored socialist policies nationalizing foreign businesses and major industries in the early 1970s, and issuing three major socialist laws in 1975 restricting real state

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[7] In response to his call to separate the instruments of the revolution from those of the governing, Col. Qaddaffi and the four remaining members of the original RCC renounced all official functions to devote themselves to promoting the revolution. However, the Colonel remained the effective ruler of the country and the other former RCC members hold strong powers.

ownership and imports of certain goods. However, its extreme socialist tendencies have accelerated after the publication of Col. Qaddaffi's second volume of the Green Book, "*The Solutions for Economic Problems*" in 1977. Additional laws have put virtually all economic production and commerce under the state's organizations and abolished private enterprise (i.e., private ownership, ventures, and practice).

The third phase, the *reflection phase*, started in 1987 and continues to the present. Declining oil prices, growing economic difficulties, international sanctions[1], and economic failures of the Popular Revolution, forced the Libyan leadership to re-evaluate its experiences. Thus, it permitted, for the first time, public criticism of the country's economic hardships (e.g., the GPC questioned and openly criticized the Committees' performance). In March 1987, Col. Qaddaffi announced his *Infitah policy* (i.e.,

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[1] Libya suffered a series of U.S. and international sanctions. The U.S. unilateral sanctions on Libya started with ban on military and technological exports in 1978, ban on oil imports in 1981, ban on all economic activities in 1986, and secondary sanctions in 1996 on companies investing more than $40 million a year in Libya's oil and gas sectors. The U.N. sanctions started in 1992 with an air embargo on Libya which was extended in 1995 to include freezing some of Libya's financial assets abroad and exports of components for oil and refineries. (EIU Country Profile on Libya 1998-99: 11)

liberalization) calling for limited political and economic reforms. At the political level, facing public discontent, Col. Qaddaffi intervened to reduce the excessive power of revolutionary committees[72], freed political prisoners, lifted the ban on foreign travel, and made gestures to Libyans in exile.

Also, at the economic level, he made limited concessions toward the introduction of private ownership (e.g., allowing for small-scale private agricultural production, trade in consumer goods, small businesses, and medical practices). That was followed, in the early 1990s, with laws designed to encourage private-sector activities and the privatization of the public sector. However, by mid-1996 "This course was abruptly reversed. The government instituted 'purification committees' which closed many of the private-sector shops. Some of them were subsequently reopened, albeit on a smaller scale" (EIU Country Profile on Libya 1998-99: 14).

In general, strict military control allowed Col. Qaddaffi to radically shape the political and economic

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[72] To limit and institutionalize the power of the Revolutionary Committees and Courts, Col. Qaddaffi created some usual governmental bureaucracies (i.e., the ministry of Mass Mobilization and Revolutionary Orientation in 1988, and a new Ministry of Justice in 1989).

developments of Libya. Despite the regime's outwardly *popular democracy*, Col. Qaddaffi remains the effective ruler of the country and depends on the military to ensure his control. While Col. Qaddaffi continues his unpredictable style of governing, recently he seems to follow a more moderate policy stance (e.g., accepting mediation that eased the sanctions[73], resuming full diplomatic relations with the U.K., and hosting a foreign investment conference[74]).

Morocco

Morocco has been controlled by the Alawite dynasty for centuries which bases its legitimacy on history, tradition, and religion (i.e., claiming direct descent from the prophet). However, at the turn of the nineteenth century, Morocco became a French protectorate after its Sultan, facing increasing internal problems and external influence, signed a protection treaty with France. Serious resistance by various nationalist groups to colonial rule emerged, and then escalated during WWII. After the war, the French deposed the popular Sultan Mohammad V (the Sultan since 1927 who aggressively pursued Moroccan sovereignty) and forced

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[73] The U.N. air embargo has been suspended.

[74] The New York Times, 9/6/1999: A7.

him into exile in 1953. Riots and guerrilla warfare in 1954-55 by Moroccans, coupled with the Algerian rebellion, forced the French to restore Mohammad V who proclaimed independence on March 2, 1956. While keeping the ultimate powers in his hands, he formed a government representative of various elements of the population, a Consultative Assembly, and adopted a style of a monarch in 1957.

In general, the years that followed independence were of social discontent caused by the stagnating economy following the departure of Europeans and fall of private investment, growing leftist opposition, and conflicting expectations of those who fought for independence. Also, in the whole period of the 1960s and early 1970s, the region was deeply hostile to monarchic rule (e.g., rise of revolutionary forces and pan-Arab nationalism and social problems). Nevertheless, the monarchy was able to survive and establish itself.

Following the death of his father Mohammad V, Hassan II, who had played a prominent political role during his father's life, became the king in 1961. While retaining considerable power (e.g., control of the military, naming of the prime minister, authority to disband the legislature), he declared *the 1962 constitution* aiming to institute

Morocco as a *constitutional monarchy* with elected legislature. The first elections were held in 1963, but rivalries within the body made it ineffectual. However, faced with rising social discontent in the mid 1960s, the king dissolved the legislature and declared a state of emergency retaining absolute powers that continued until 1970. In 1971 and 1972, Hassan II survived two serious coup attempts and he resorted to repressive measures against the coup leaders and opposition to reaffirm his authority.

To face its economic difficulties after independence and during the 1960s, Morocco's development strategy favored *liberalism with large state intervention* (e.g., the state invested largely in agriculture, and expanded the public sector by taking over foreign property and enterprises). However, Morocco's liberalism did not extend to foreign trade nor to its monetary policy which remained restrictive. Nevertheless, this policy led to a rather slow but relatively balanced development of the Moroccan economy: the budget deficit was gradually reduced, and GDP grew annually by 4.4 percent (excluding the stagnation of 1964-66 following a drought). At the same time, this strategy had its limitations which led to growing social discontent (e.g., increased income inequality in rural areas, increased

rural immigration and rapid growth of the cities which put more pressure on services that lack sufficient investment) (Azam and Morrisson 1994).

In 1972, Morocco adopted a *new constitution* which restored limited parliamentary government (i.e., constitutional monarchy) with the king holding considerable powers: heading the state, commanding the armed forces, appointing and authority to dismiss the prime minister and other ministers, authority to dissolve the parliament, and authority to suspend all institutions and assume full power in a crisis situation (Azam and Morrison 1994: 81). However, the implementation was largely suspended because of continued discontent caused by poverty and government corruption. In 1975, the king united Moroccans when he led the Green March to claim Western Sahara[75]. In 1977, the first legislative elections since 1963 were held.

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[75] Western Sahara is a desert territory between Morocco and Mauritania. The two countries contested the area after the Spanish ended their colonization of it and withdrew their forces in 1975. Eventually, Mauritania ended its claims of the territory. However, Morocco fought a *costly* sixteen-year war with the pro-independence force "the Polisario Front" which was once supported by Libya and continues to be supported by Algeria. In 1991, U.N. mediation produced a truce for a referendum to be held to determine the region's future. The issue continues to be a point of conflict between Morocco and Algeria (e.g., Zoubir 1999b).

The coup attempts and increased social discontent led to change in the development strategy in the 1970s as reflected in the 1973-77 development plan. The state reaffirmed its liberal option, but within a different framework: more expansion of the public sector through massive investments in the productive and social structures, distribution of the land that was nationalized after colonization, relaxation of fiscal and monetary policy, and Moroccanization of foreign enterprise. This policy increased the political system support in the countryside and solved rural immigration to the cities.

However, Morocco faced economic stagnation and many economic difficulties in the 1980s caused by the heavy burden of the Western Sahara conflict, external shocks (e.g., drop of phosphate prices), drought affecting agricultural production, and a financial crisis resulting from high foreign debt and continuous trade deficit. This prompted the adoption, in 1983, of an IMF-sponsored structural-adjustment program: elimination of food subsidies, reduction of government spending, devaluation of the currency, more liberalization of the economy (e.g., interest rates, prices, imports), and most importantly, privatization. These hard measures produced heavy social

and political costs by reducing wages and raising unemployment, inflation, and urban migration. Riots, strikes, demonstrations, and protests occurred frequently in 1984, 1990, 1995, and 1998.

Nevertheless, King Hassan II proceeded steadily, but slowly, with the economic and political reforms throughout the 1980s and 1990s, overcoming domestic difficulties. He enhanced further the structural adjustment program in 1992. Assessing this program, Layachi (1999: 47) notes that "After more than ten years of intense restructuring, the economy was stabilized and its structures overhauled, notably through privatization program and gradual retreat of the state."

Also, starting in the early 1990s, Morocco witnessed a series of political relaxation steps taken by King Hassan in what he called "*Hassanian Democracy*" (i.e., widening political freedom while retaining the decisive power of the king): more tolerant policies toward opposition parties and free press starting in 1991; a constitutional amendment that gave the parliament greater control over the executive in 1992; release of political prisoners in 1994 and 1998; constitutional reforms that allowed for new municipal elections held in 1997, and which created a fully elected

lower house of the parliament in 1996 in which leftist parties gained the largest block of seats in the 1998 elections; and the appointment of an opposition government in 1998 composed of old adversaries some of whom had plotted to overthrow the king[6].

However, Layachi (1999: 49) argues that, while the state radically reformed the economy through the structural-adjustment program, systemic and sustained political liberalization did not follow during times of economic crisis nor during times of economic liberalizations: "The main purpose of political reforms was to calm the rising tide of popular discontents, social tensions, and of international criticism . . . those reforms had the mark of a 'regime survival strategy.' . . ." He concludes that "Morocco can evolve peacefully and incrementally toward democracy. . . . The constitutional reform of 1996 can help bring about such evolution" (59).

On July 23, 1999, King Hassan II died and the power was passed smoothly to his eldest son, King Mohammad VI, who seems to pursue further economic and political reforms.

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[6] Headed by Mr. Yossoufi, a socialist who has been in exile for fifteen years from the country.

Tunisia

Tunisia became a French protectorate in 1881 under which the Bey of Tunisia continued to reign but not to govern. Since then a nationalist movement, led in 1932 by the Neo-Destor party, strived for independence resisting mostly through peaceful means (e.g., strikes and negotiation). Although the nationalist elite were united against the French, they were divided into two broad groups headed by two prominent Tunisian leaders representing different interests and with different visions for Tunisia's future: Alhabib Bourguiba represented the bourgeois, land owner, and merchant interests, and favored secular liberalism; and Saleh Ben Youssef represented the old traditional interests (e.g., religious, tribal), and favored a conservative view for Tunisia's future and admired Arab nationalist interests. Competition between the two leaders marked the Tunisian nationalist politics during the 1940s and early years of independence.

After years of resistance, autonomy negotiations started in 1955. Political disputes widened between the two nationalist leaders. Eventually, Ben Yossef broke with Bourguiba (whom the French favored), and went into exile in Germany. Independence was declared on March 20, 1956 and

Tunisia was a monarch under a *Bey* rule for a brief period with Bourguiba as prime minister. A National Assembly was elected, composed totally from members of the Neo-Destor party who were mostly Bourguiba supporters, to write the constitution. However, in 1957 the assembly deposed the last Bey declaring Tunisia a republic and Bourguiba a president holding considerable powers[77].

Since independence, Bourguiba moved quickly to enhance his control over the state's political apparatus and to consolidate his supporters' power. He nationalized public land and integrated Islamic law to a French-based judicial system. In 1959, the new institution was announced adopting a presidential political system that *institutes* the president's high powers and separates executive and judicial authorities. In 1961, the Neo-Destor[78] was declared as the only legal party after an alleged military plot was discovered. Accusing them in the plot, Ben Yossef[79]

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[77] In 1974, Bourguiba was elected a president for life after serving three five-year terms.

[78] In 1964 the name changed to Parti Socialist Destorien--PSD.

[79] In the same year, the assassination of Ben Yossef in Germany was announced.

supporters were suppressed and the communist party was banned.

Although the public sector expanded dramatically during the period from 1955-60, Tunisia faced growing economic difficulties (e.g., dropping private investment and stagnating agricultural production). To save the Tunisian economy, Bourguiba gave Ben Salah, who is known as the architect of Tunisia's socialism, wide responsibilities for directing economic development planning in 1961. Starting with Tunisia's first three-year development plan, Ben Salah inaugurated a series of socialist programs (e.g., development of a public capital-intensive industrial sector, establishment of farming cooperatives with state participation, nationalization of remaining foreign holdings of land, and redistribution of agricultural property).

By 1969, the development plan failed to meet its projections. Opposition and violent resistance to these unpopular socialist programs, especially the forced collectivization of land and the increased government intervention in economic activities, grew leading to the fall of Ben Salah and the state abandonment of these programs favoring market economy policies. However, the state maintained strict control over prices and domestic

investment, as well as high protectionist policies. The country retained its mixed economy, reorganizing its three sectors (i.e., public, cooperative, and private) to promote a larger role for the private sector with the state conserving basic sectors of the economy.

In 1971, Hedi Nouira was named prime minister. He pursued further economic liberalization with centralized government management. Consequently in the early 1970s, domestic and foreign investment improved, government share decreased, and the Tunisian economy grew (e.g., the first balance of payment surplus occurred in the years 1969-74). However, discontent with government policies grew in the late 1970s. On the one hand, the economic situation worsened in 1977 with rising unemployment and stagnating agricultural production as government policies favored the urban population. On the other hand, and more importantly, the economic liberalization raised hopes for political liberalization: the single party rule and the heavy state management were seen, especially by students and labor groups, as illegitimate for Tunisia's liberal economy.

The state insisted on its political authoritarian position and resisted the demands for political democracy: Bourguiba was not willing to give up his considerable

powers, and Nouira resisted the pressures for political democracy and refused to permit political competition or allow the participation of the educated and working classes. The situation escalated in 1978 and Tunisia had its first general strike led by students and labor groups, and it had its first military intervention in politics when the military was called on to put down the violent breakout. This troubling year marked the decline of Nouira's political career and his insistence on authoritarianism.

In 1980, Bourguiba named Mohammad Mzali prime minister. Mzali moved to defuse some major sources of discontent signaling a relaxation of political authoritarianism, promoting moderately more private investment, and increasing government direct investment (i.e., reentering the state in the growth sector without a return to socialism). He urged political democratization to match the state commitment to economic capitalism. In 1981, Tunisia witnessed a limited move toward pluralism allowing five parties, including the communist party, to enter the first contested election of the national assembly that was designed to weaken opposition.

Faced with decreased remittance of workers abroad following the decline of oil prices and and increased debt

in the mid 1980s, the Tunisian government took unpopular drastic measures adopting structural adjustment programs to avoid a financial crisis. In 1984, a violent demonstration broke out and forced the government to revoke its decision to raise the prices of basic food commodities. Economic and political troubles continued throughout the 1980s: Libya deported about thirty-thousand Tunisian workers; Israel attacked the PLO headquarters in Tunisia; the government gradually dismantled the workers general confederation (i.e., union) in 1986-87 after negotiations over salaries reached a deadlock; and jailed some of the opposition (e.g., Islamic opposition), and closed some of their newspapers. In 1986, Mzali left the country to avoid jail and Bourguiba's anger.

Facing a growing political crisis in 1987, the interior and first minister, Zain Alabideen Ben Ali, with the help of the head of the national guard, declared the ailing Bourguiba unfit to rule citing "health reasons" and took over power in Tunisia. Then he won the presidential elections of 1989 and 1994. His rule marked the move toward unrestricted liberalization of the Tunisian economy adopting a complete market economy opened up to imports. At the political level, he has attempted to implement gradual

political reforms (e.g., 1988 adaptation of multiparty system, 1994 first held contested legislative elections, 1998 introduced a proposal for contested presidential elections). Ben Ali's effective policies, helped by the economic achievements, succeeded in absorbing and minimizing the Islamic opposition, decreasing political discontent and protest, and giving political rights to women, and winning him the first contested presidential elections held in October 1999. However, despite the outward appearance look of a multiparty system, Tunisia politics are still dominated by the PSD authoritarian rule.

Chapter Eight

Assessment of Degree of Military Control and Development performance

Assessment of the Degree of Military Control

As mentioned above, the political systems of the four countries are essentially *authoritarian*, but *with varying degrees of military control experiences.*[89] One can observe that, at an early stage of their development, Algeria and Libya witnessed the successful military coups of Col. Bourguiba in 1965 and Col. Qaddaffi in 1969, that produced regimes with strong military influence existing for most of their contemporary history. In Algeria, the military elite and institutional control was instigated and consolidated by Col. Bourguiba's regime during which he headed a revolutionary council composed of military leaders. Since then, the military has exerted strong powers over the Algerian political system. For example, following Bourguiba's death, Col. Benjedid, the oldest ranking officer

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[89] *Appendix B* for this chapter briefly describes the political and economic system in each of the four countries highlighting the related major events that occurred during the eras of the successive rulers of each country. It is intended to illustrate the arguments presented in this section.

in the revolutionary council, was selected to head the succeeding de facto military regime. Also, in 1992 General Nezzar's military intervention revoked the election results and established the *supreme state-council* that appointed the defense minister as president in 1994. In short, despite the outward look of a presidential system in Algeria, military rulers, some form of high military council, and military *veto* power are always present in Algerian politics.

Similarly, the high degree of military control in Libya is evident from three facts: first, the current political system is an outgrowth of Col. Qaddaffi's 1969 military coup and he continues to be the effective *absolute* ruler of the country. Despite his 1977 apparent resignation from official positions to become the leader of the revolution, Col. Qaddaffi has successfully dominated the overall political system through his control of the Libyan army, the General People's Congress, and the revolutionary committees (e.g., Burgat 1995, EIU Country Profile on Libya 1998-99).

Second, a revolutionary command council[21] composed of

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[21] The original RCC included *twelve* military coup leaders: *four* of them are still active and hold strong influence in Col. Qaddaffi's regime; *one* was executed; *four* quietly retired; *one* left the country and in opposition; and *one* died in a car accident (Alsharq Al-Awsat Newspaper [*in Arabic*] 9/1/1999: 3).

the coup's military leaders officially existed from 1969 until 1978, and its remaining members continue to hold strong powers. Finally, the radical changes in the Libyan political, economic, and social systems are the outcome of Col. Qaddaffi's ideological vision and decisions which were taken during the early years of the coup when the RCC was active. Thus, the present outwardly *popular democracy* in Libya is an outcome of military control, and continues to be influenced by it.

In contrast, the Moroccan and Tunisian militaries are under strict civilian control and have no significant influence over the political systems of their countries. In Morocco, the military is under the *direct* control of the monarch. He is the supreme military leader (i.e., there is no ministry of defense) who appoints loyalists in the high military command and provides other officers with privileges to ensure their loyalty. The two attempted military coups in 1971-72 where unsuccessful in exerting any form of military control and they were put down by loyal elements within the military itself.

Similarly, in Tunisia "the military were clearly subordinated to the civilian arm of government and instructed to be politically neutral" (Murphy 1999: 175).

President Bourguiba, a civilian ruling from 1956 until 1987, believed in the importance of a strong, and disciplined party to rule effectively. Thus, he promoted and reinforced his party's apparatus to gain legitimacy and mass support for his authoritarian rule. At the same time, he ensured his control over the military through professionalizing, low budgeting, and not using it as a source for mass employment. Also, while President Ben Ali, Bourguiba's predecessor, was an ex-military man, he took power through a *palace coup* as the prime minister and Bourguiba's strong man.[82] He ruled as a civilian in a state apparatus that is overwhelmingly civilian with no significant military influence.

In short, the substantive evidence is clear about the presence of strong military control in Libya and Algeria, and the absence of such military control in Morocco and Tunisia. This is supported *further* by quantitative evidence from the cross-national study's measure of *degree of military control*: in the years 1961-1990, the average degree of military control is .638 and .133, with a standard

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[82] Murphy (1999: 164) commented that Ben Ali's move to power was "greeted with relief by a weary population of the vacillations and arbitrary rule of the increasingly senile Bourguiba."

deviation of .324 and .225, for Algeria and Libya[33]; and the average degree of military control is *zero* for Morocco and Tunisia.[34]

Comparison of Political Characteristics and Choices

Although the four countries have some common features (e.g., authoritarianism, long-ruling leaders with significant impact, large state intervention in the economy), the two military controlled regimes in Algeria and Libya *exhibit some distinct characteristics* in their development experiences compared to those of their civilian counterparts in Morocco and Tunisia. These characteristics relate to their political choices, development initiatives, and decision-making style.

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[33] Banks (1997) data, on which this measure is based, focuses on *formality* in assessing regime type (i.e., military/civilian rule). Thus, it underestimates the degree of military control in Libya: its regime is rated as *civilian* for the whole period 1961-90 (except for the period 1969-76 where it is rated as *military-civilian*). As argued above, Libya has a high degree of military control: Col. Qaddaffi remains the absolute leader, and Libya's current conditions are an outgrowth of his military coup.

[34] The *average level of democracy* measure (i.e., Dem-Aut) from Polity III data for the same period (1961-90) is: -8.21, -6.60, and -6.57 with standard deviation of 2.62, 1.99, and .73 for Algeria, Morocco, and Tunisia, respectively. This indicates that Algeria has a relatively higher degree of authoritarianism with a higher fluctuation. There is no data for Libya.

The first characteristic of the two military control regimes is their political choice of *socialism*. Since they took power, the military coups of Algeria and Libya have clearly advocated at both the ideological and practical levels the socialist model of economic development. In fact, socialism became an original component of the revolutionary ideas that form the legitimacy bases of the two regimes. For example, the Algerian 1976 constitution contained many direct references to socialism (until they were dropped in the new constitution of 1989). Also, socialism in Libya is deeply rooted in the Green Book (i.e., its ideological basis), and is part of its official name.

Another characteristic of the military controlled regimes of Algeria and Libya is *rigidity*. The strong military control have enabled them to forcefully implement and strictly adhered to ambitious socialist programs finding it difficult to change them. For example, despite the apparent failures of their socialist policies, Algeria was very slow in changing its socialist course and Libya continues to adhere to its extreme socialist laws. This particular rigidity in economic policy relates to the above point that undermining socialism undermines these regimes' legitimacy.

In contrast, the civilian regimes of Morocco and Tunisia are proving to be *more flexible* and able to change their political and economic policy direction. A clear example is Tunisia's ability to change the course of economic and political choices through rotating personal and policies, and without a significant effect on the regime's power hierarchy or institutions. In the 1960s, Tunisia had a limited socialist experience with Ben Salah; when it failed and protested, the regime adopted economic opening in the 1970s with Nouira who resisted political liberalization; then, Mzali attempted further economic and political liberalization in the 1980s. All of these shifts in policy direction occurred during Bourguiba's presidency, and without a significant threat to the regime's legitimacy nor to the stability of its institutions.

In addition, in the military-control regimes of Algeria and Libya *responsiveness is slower* to internal and international changes, and in most cases, they merely react to them. For example, Algeria rejected the IMF structural-adjustment program in the 1980s, to accept it again in 1994 "radically altering its attitudes toward economic liberalization" (Layachi 1999: 140). Also, Libya is very slow to realize the new realities of the new unipolar world

system and the inevitable effects of globalization, and continues to adhere to its utopian ideology. Vandewalle (1996: 203) states that "Of all Maghrebi countries, Libya has remained the most resistant to adopting to changes in the international economy, despite its utter reliance on the international economy for its revenues, technology, and manpower."

In contrast, the civilian regimes of Morocco and Tunisia are quicker to respond to changing circumstances, and sometimes they take the initiative of foreseeing future problems. A clear example of this is their early start with their structural adjustment programs and acceleration of economic liberalization.

Another characteristic is the military control tendency toward *sudden and dramatic shifts* in policy. For example, facing the 1988 threatening political situation, Algeria's military control attempted to repress it violently. Then after failing to do so it adopted the 1989 constitution, a radical shift allowing for a multiparty system and dropping all reference to socialism, and when the FLN failed in the elections it intervened revoking the whole process. Also, Libya was subjected to the radical political, economic, and social changes of the 1970s. On the other hand, the

civilian regimes of Morocco and Tunisia follow a more rational and gradual approach toward policy change. A clear example is their flexible and gradual implementation of structural-adjustment programs, anticipating and overcoming the problems associated with their implementation.

Finally, the military-controlled regimes of Algeria and Libya have relatively *produced poorer bureaucracies.* Algeria's centrally directed economy and society resulted in a huge, slow, and inefficient state administrative apparatus (Adamson 1998). Furthermore, the revolutionary ideas of Col. Qaddaffi led to disintegration of bureaucratic formation in Libya. In contrast, Morocco and especially Tunisia have been able to develop a genuine administrative apparatus. For example, Anderson (1986: 270-79), comparing Tunisia to Libya and stressing the important of bureaucratic state for development, argued that the two countries present two "extremes of continuity and disintegration" of bureaucratic state formation.

In sum, the military-controlled regimes of Algeria and Libya, *relative* to their civilian counterparts in Morocco and Tunisia, are more rigid especially in their ability to implement drastic socialist policies and in their adherence to them, more centralized, less flexible, slower to respond

to internal and international changes (merely reacting rather than anticipating them), more prone to sudden and dramatic shifts in policy, and tend to produce poorer bureaucracies.

Assessment of Development Performance

It is evident that Algeria and Libya have a relatively poorer developmental performance than that of their civilian counterparts of Morocco and Tunisia. This under-performance is clearer when one considers the potentials they have (e.g., oil wealth), especially Algeria which had a promising future with all the resources needed to be a developmental success story. Layachi (1996: 129) states that

> Three decades after independence, Algeria presents itself as a paradoxical case study: it is a country that not long ago had a promising economic future, but today it finds itself in a number of economic, social, and political difficulties that dwarf those of many other Third World countries. . . . Even though it remains the most fortunate of all countries of the Maghreb in term of human and natural resources, its attempts to political and economic

> liberalization have led to a crisis of enormous proportions. . . .

Furthermore, one can reasonably attribute this poor performance in Algeria and Libya to the conduct of their military-controlled regimes. These regimes took power, via military coups, at an *early* and critical stage of the development process of their countries, and they have existed for a long time. Thus, they are directly responsible for initiating, planning, and managing this process.

The following paragraphs attempt to evaluate the four countries' performance in three development areas: economic growth (i.e., GDPpc growth), social development, and political (i.e., institutional) development. Table 12 presents illustrative data on basic economic and social development indicators for the four countries.

In regard to *economic growth*, the fluctuation of oil prices over time *complicates* its assessment because oil wealth represent a large portion of Algeria's and Libya's incomes. At first glance, observing their considerably higher GNP per capita and GDP values in Table 12, it appears that Algeria and Libya are doing well. However, a closer examination reveals that they have underperformed their

civilian counterparts. The higher numbers reflect the dramatic rise of oil prices more than a genuine growth based on diversification and real growth in economic activities. For example, while the GDP values of Algeria and Libya fluctuate significantly over time[85], these values witnessed a steady significant growth in Morocco and Tunisia: *tripling* in Morocco and *quadrupling* in Tunisia in 1995 compared to their 1975 GDP values. Furthermore, the above point is supported further when one examine the *average GDP per capita growth*: the average for the period from 1961-90 is 8.014, 8.503, and 8.711 for Algeria, Morocco, and Tunisia, respectively[86]. Despite their limited financial resources, GDP per capita growth in Morocco and Tunisia has outperformed the relatively more prosperous Algeria[87].

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[85] For example, the Algerian GDP of $15.5 billion in 1975, increased to 58.0 in 1985, and decreased to 41.4 in 1995.

[86] These averages are calculated from PWT data-set (version 5.6) which has no data for Libya.

[87] Also, Algeria has higher debt, totaling $32.61 billion in 1995, compared to Morocco and Tunisia whose total debt in 1995 is $22.15 and $9.94 billion, respectively.

Table 12. Development Indicators in the Four North African Countries

	Algeria		Libya [1]		Morocco		Tunisia	
Economic Indicators:	**1975**	**1995**	**1975**	**1995**	**1975**	**1985**	**1975**	**1995**
GNP per capita ($)	950	1,600	5,130	5,540 (89)	550	1,110	770	1,820
GDP (billion $)	15.5	41.4	12.8	21.86 (89)	9.0	32.4	4.4	18.0
Agriculture (% GDP)	12.18	12.64	2.3	5.05 (87)	17.3	14.3	18.5	11.8
Industry (% GDP)	46.11	46.50	68.0	50.26 (87)	34.7	33.2	25.9	29.4
Manufacturing (% GDP)	8.58	12.09 (90) *	2.3	-	16.6	19.2	9.1	18.8
Services (% GDP)	41.72	40.86	29.7	44.69 (87)	48.0	52.5	55.6	58.8
Gross domestic fixed invest.	38.96	28.66	27.91	-	24.83	22.04	25.73	24.77
Private credit (% GDP)	47.09	5.24	-	-	25.52	48.87	43.42	68.41
Total debt service (% exports)	-	38.74	-	-	6.7	32.1	-	17.0
Gross int. reserves (billion $)	1.90	4.16	2.44	7.38 (89)	0.44	3.87	0.40	1.69
Average annual growth rate:	**1975-84**	**1985-95**	**1975-84**	**1985-95** [2]	**1975-84**	**1985-95**	**1975-84**	**1985-95**
GNP per capita	2.0	-2.5	-	-	1.7	0.9	2.5	1.7
GDP	5.4	0.01	0.2	-	4.4	2.9	5.2	3.9
Domestic Investment	4.7	-4.8	-4.1	-	0.0	1.1	5.4	4.9
Social Indicators:	**1975**	**1995**	**1975**	**1995**	**1975**	**1995**	**1975**	**1995**
Population (million)	16.02	27.96	2.45	5.40	17.31	26.6	5.01	9.0
Urban pop. (% total)	40.33	55.80	61.00	86.05	37.70	49.0	49.9	57.11
Labor force (% total)	23.83	31	29.9	29	30.69	39	30.59	37
% labor in agriculture	41.20	26.05 (90)	27.16	10.89 (90)	56.81	44.67	40.30	27.79
% labor in industry	24.1	23 (90)	27	31 (90)	21	33 (90)	31.1	25 (90)
% female	11.29	24.25	20.55	17.47	21.61	35.12	19.23	30.06
% Secondary school enrollm	20	62	—	97	16	39	21	61
Human Dev. Index (HDI) [3]	.323 (70)	.746	-	.806	282 (70)	.557	.340 (70)	.744

Sources: World Development Indicators 1997; World Data 1995; and Human Development Report 1998.

* The values between parenthesis are for the year in which the data is available.

[1] Reliable and recent data on Libya are difficult to find. Therefore, I utilized the best data available in the above sources.

[2] Among 174 countries, the HDI scores for Libya, Algeria, Tunisia, and Morocco rank 64, 82, 83, and 125, respectively; with Libya ranking in the *high HDI* category, and the other three countries in the *medium HDI* category.

[3] For the five years from 1985 to 1989, the Libyan GNP per capita annual growth of was -10.53, -12.25, -5.15, -2.9, and -2.79; and the annual GDP growth was -8.84, -8.70, 0.70, and 0.60, respectively.

In term of *social development*, and as Table 12 shows, all of the four countries performed relatively well regarding social indicators with the military controlled regimes, especially Libya, scoring slightly higher numbers: the 1995 *Human Development Index* (HDI) score is .806, .746, .744, and .557 for Libya, Algeria, Tunisia, and Morocco, respectively. Also, the 1995 secondary school enrollment ratios are relatively higher in Libya and Algeria being 97 percent and 62 percent compared to 61 percent and 39 percent in Tunisia and Morocco.

However, one should consider two facts when assessing these higher numbers of Algeria and Libya. One, as noted above, the two countries have more capabilities than Morocco and Tunisia to finance ambitious programs for social and educational improvements. Two, in some cases the higher numbers could be misleading. For example, the apparently impressive secondary school enrollment ratio of Libya is indeed reflective of quantity and does not speak to the quality of education. Monastiri (1995: 85) states that during

> The period of intense "revolutionizing" of the educational system with the aid of the revolutionary committees undoubtedly provoked chaos and confusion.

> The disruption of education for ideological purposes at the expense of a coherent program . . . the insistence on the "Arabization" of the curriculum [and the isolation resulting from increasing confrontation with the West] proved particularly difficult for the universities . . . [limiting] Knowledge of and familiarity with current technological developments and techniques . . . and severely limited graduate studies. . . .

Furthermore, the high Libyan educational ratio appears less impressive compared to the relatively lower ratio of Tunisia when one considers the fact that all of the Tunisian high schools are connected to the Internet[58]. Also, Algerian education and social development is suffering greatly from its ongoing political and social instability.

Finally, in terms of *political development*, the military-controlled regimes of Algeria and Libya have clearly underperformed their civilian counterparts. In addition to its apparent failures in managing the country and ensuring its stability, the formation of reliable political institutions and political process in Algeria have

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[58] Alsharq Al-Awsat Newspaper [*in Arabic*], 9/16/1999: 15.

suffered a major setback by the 1992 military intervention. It is unable to recover from its civil war chaos: the president and assembly's authorities are severely limited by the military *veto* power; the main party, FLN, is weak and, with the FIS banned, no other viable party exists. Likewise, the viability of the radical political institutions and processes of Col. Qaddaffi's "*popular democracy*" is highly questionable, and its future stability, after him, is unclear.

In contrast, Morocco and Tunisia have made reasonable incremental progress toward building viable political institutions, especially in the 1990s. Although remaining authoritarian, both countries have a promising constitutional political structures with clear institutional functions and political processes. Morocco's 1990s political reforms improved its political system (e.g., larger legislature powers, new municipal elections, and new fully elected lower house of the parliament). Also, further improvement in Tunisia's political system has occurred in the 1990s allowing for contested legislative and, just recently, presidential elections.

The next section assesses the performance of the four countries in regard to the causal mechanisms (i.e.,

intervening variables) that link degree of military control (i.e., regime type) to economic growth.

Assessment of the Intervening Variables

As discussed above, the study proposed two paths of intervening variables or causal mechanisms: economic and financial mechanisms that include domestic investment and property rights protection; and the militarization and conflict mechanisms that include internal conflict, international conflict, and military expenditure.

The Economic and Financial Causal Mechanisms

Domestic Investment. Similar to the assessment of income growth, a real assessment of domestic investment is complicated by the oil wealth of Algeria and Libya. As Table 12 shows, the two countries have a slightly higher gross domestic investment. Also, for the period 1961-1990, Algeria has an average domestic investment as a percent of GDP of 24.14, a ratio higher than the 9.88 and 14.97 ratios of Morocco and Tunisia[59]. However, as discussed above,

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[59] This data is based on PWT data-set (version 5.6) which has no data for Libya. Nevertheless, because of its high oil revenues, one can reasonably assume that Libya has a higher investment ratio than Algeria.

these higher investment numbers appear less significant when one considers the impact of oil wealth and the socialist model of development in Algeria and Libya which lead, in many cases, to non-productive investments. For example, the Algerian regime invested extensively in a state-owned industrial sector at the expense of the productive agricultural sector, a mistaken policy that contributed to the country's later economic problems.

Furthermore, the domestic investment numbers of Algeria and Libya largely reflect state rather than private investment. While lacking the data on private investment for the two countries, one can reasonably assume that private investment is relatively low in Algeria because of its huge public sector, and very marginal in Libya because of its extreme laws against private enterprise. For example, the EIU Country profile on Libya (1998-99: 13) states that its "Economic policy in the 1980s and 1990s has increasingly focused on mitigating the impact of US and UN sanctions. The lion's share of productive economic activity remains firmly under the control of the government, and its attitude towards the private sector has been ambivalent, oscillating between periods of actively encouraging its

growth, and fierce and sudden clampdown on private-sector activities."

In contrast, the private sector plays an active role in Morocco and Tunisia. For example, in 1985 private investment in both countries exceeded half of their total domestic investment: 52.5 percent in Morocco and 51.4 percent in Tunisia (WDI 1997).[90] Furthermore, the civilian government of Morocco and Tunisia have, by far, succeeded in promoting foreign investment: for example, foreign direct investment as a percentage of gross domestic investment in 1990 is 2.54 and 2.28 for Morocco and Tunisia compared to .08 for Algeria.[91] Recently, both Algeria and Libya have been making extensive efforts to attract foreign investment in an attempt to rescue and revive their troubled economies.[92]

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[90] The ratio of private domestic investment is 37.3 for Morocco in 1994, and 52.0 for Tunisia in 1995 (WDI 1997).

[91] In 1995, this foreign investment ratio increased greatly in Morocco and especially Tunisia to 4.26 percent and 88 percent, respectively; In Algeria, it decreased to .04 percent in 1995. There is no data for Libya. (WDI 1997)

[92] For example Libya recently hosted an international conference on foreign investment (Alsharq Al-Awsat Newspaper [*in Arabic*], 9/3/1999: 4).

Protection of Property Rights. Property rights protection is *less* in Algeria and Libya than in Morocco and Tunisia. It is true that all of the four countries resorted to nationalization especially of land-holdings, and have a large public sector. However, the scope of nationalization, the socialist orientation, and the state role in the economy in Algeria and Libya exceeds by far that of their civilian counterparts: their nationalization is extended to include other foreign assets and enterprises, and their economies are basically state-managed.[33]

Degree of property protection in Algeria can be best described as *weak*, especially for the period lasting to the mid 1980s, for two general reasons. One, Algeria took repeated nationalization measures (e.g., French land and assets in 1963, oil sector in 1971, more land following the agrarian reforms of 1971). Two, state monopoly over economic activities left very limited room for private enterprise and ownership. In Libya, property rights simply do not exist because private enterprise is basically

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[33] Also, while all of the four countries have restrictive monetary policy (i.e., impose some type of control on current account transactions), they differ on how they view these restrictions. In Algeria and Libya, it is built into their socialist orientation; in Morocco and Tunisia, it is taken as a necessary and temporary policy intended to support their development process.

outlawed. As the previous overview of Libya's development illustrates, the 1969 military regime adopted successive radical laws and policies that virtually eliminated the private economic activities.

In contrast, private property rights are protected in Morocco and Tunisia. Since its independence, the Moroccan civilian regime favored a free-market economy which fairly guaranteed private enterprise and ownership. Likewise, with the exception of its forced collectivization that lasted for a short period in the 1960s, Tunisia's regime has a good record of private property protection (e.g., Murphy 1999) and promotion of private entrepreneurship (e.g., Cassarino 1999).

Table 13 presents a summary evaluation of the above discussions about domestic investment and property rights protection in the four countries.

Table 13. Summary Assessment of the Intervening Variables: The Economic and Financial Mechanisms

Country	Domestic Investment	Property Rights *
Algeria	State-directed investment and economy: Central planning, large and diverse public sector limiting private opportunities.	**Weakly protected** - nationalization of all French owned enterprises and land in 1963, and of petroleum sector in 1971. - 1971, agrarian reforms: Nationalized more land, redistributed large-holding of lands to smaller cooperatives. - 1982, reforms to encourage private sector. - 1994, economic-adjustment program encouraged privatization and decrease state monopolies.
Libya	Relatively large domestic investment that is generated by oil wealth, but solely state-investment.	**Unprotected** - starting 1969, extreme nationalization of foreign assets and enterprises. - 1975, three major socialist laws restricting real-state and imports. - starting 1978, radical laws that virtually eliminated private property, saving accounts, and professional practices. - 1987 and mid 1990s, uncommitted limited liberalization reforms with private property remaining outlawed.
Morocco	Large state intervention and investment in the economy, but with active private investment.	**Protected** - limited nationalization after independence. - 1973, measures to increase Moroccan ownership and employment in companies doing business in Morocco, and expand the public sector. - 1983, structural-adjustment program decreasing state role that accelerated in 1992.
Tunisia	High level of domestic investment that is stable over time, with large and very active private investment.	**Protected** - In general, Tunisia have good records. The only exception was during 1961-69 forced collectivization, revoked after generating widespread opposition.

* The examples given are illustrative of major events in the corresponding category, and are not exclusive.

The Militarization and Conflict Causal Mechanisms

Table 14 presents a summary evaluation of the three militarization and conflict mechanisms under investigation (i.e., internal conflict, external conflict, and defense expenditure) in the four countries.

Internal Conflict. All of the four countries have their fair share of internal conflict. However, in assessing this variable, one should consider each country's particular conditions, and the kind or degree of severity of its domestic conflict. In this context, the extent of internal conflict in Algeria and Libya are *greater* than in Morocco and Tunisia.

The military control regimes of Algeria and Libya have larger resources, especially financial, to absorb domestic discontent. Yet, both countries suffered from *severe* domestic conflict incidents. For Algeria, the case is very clear: its political, economic, and social problems escalated to a *civil war*, the highest degree of domestic violence a country can have. Also, despite the very repressive nature of its regime, Libya witnessed many severe forms of domestic violence (e.g., armed revolt and attempted coups). Burgat (1995: 60) states that "Despite . . . the

Table 14. Summary Assessment of the Intervening Variables: The Militarization and Conflict Mechanisms

Country	Internal Conflict *	External Conflict *	Defense Expenditure: [1]		
Algeria	**High** - 1962, small scale civil-war. - 1962-65, revolt, army uprising, and suppression of dissident leaders. - 1965 military coup. 1967, attempted coup. - 1980, student demonstrations. - 1988, severe riots. - 1992, defacto military coup. Civil war.	**Low** - 1963, border clashes with Morocco. - support the Polisario Front in its conflict with Morocco creating a long conflict with Morocco.	**Arms Imports 1977-97 ($ml)** 10,380	**Average Defense Exp.** **1970s** 2.17	 **1980s** 3.28
Libya	**High** - several attempted military coups and revolts (e.g., 1969, 75, 80, 85, 89, 93). - student demonstrations (1975 and 76). - extreme suppression toward any *hints* of domestic opposition (e.g., 1969-73 trials of monarchy loyalists, 1975 creation of revolutionary courts and their work). - official campaigns against *stray dogs* (i.e., Libyan dissident abroad) calling for their *physical liquidation* (1980 and 84).	**Very High** - interventionist foreign policies (e.g., 1978 call for establishment of revolutionary committees abroad, military interventions in Uganda 79 and in Tunisia 1980, accusations of supporting terrorism). - prolonged conflict with the US, and UK. - conflict with Chad (1973 annexation of Aouzou strip, 83 major invasion of Chad) - 1977 border clashes with Egypt.	26,135	—	—

(table continues)

Country	Internal Conflict *	External Conflict *	Defense Expenditure: [1]		
Morocco	**Moderate** - 1958, Berber tribesmen rebellion. - mid 1960, student riots. Opposition repression. State of emergency (1965-70). - 1971 and 72, two military coup attempts. - various riots instigated by persistent economic difficulties (1981, 84, 91, and 94). Sporadic strikes and demonstrations (1995-98) for the same economic reasons. - 1975, fought a 16-year costly war with the pro-independence, Polisario Front.	**Low** - 1963, border clashes with Algeria. - dispute with Algeria over its support of the Polisario Front. - demand for pockets of Moroccan land (still held by Spain).	4,230	4.50	6.51
Tunisia	**Low** - 1980, Libyan backed limited rebellion in Qafsah. - demonstrations and strikes in 1984 and 1989. - crack down on Islamists (1989-90). - 1987 Ben Ali's *palace coup*.	**Very Low** -1985 Israeli raids on the PLO headquarter.	1,220	1.42	3.43

* The examples given are illustrative of major events in the corresponding category; and are not exclusive.

[1] The arms imports data are adopted from Volman 1999 (p. 220). Note that Libya's 1993-94 data are missing. The percentage data are from ACDA .

extraordinary internal security measures the [Libyan] government has taken, at least a dozen coup attempts have been made since Qaddaffi assumed power in 1969." In fact, such a high degree of violence might be attributed in part to the Libyan regime's *zero-tolerance* policy that leaves no room for peaceful opposition.

In contrast, most of the Moroccan and Tunisian internal conflicts are *low* level domestic conflicts (e.g., strikes, demonstration, riots)[94] that appear less-significant when one considers their limited resources and the unpopular measures of their structural-adjustment programs.

Furthermore, the civilian regimes of Morocco and Tunisia have two advantages that enable them to contain the effects of their internal conflict and decrease the possibilities of future ones. First, they are relatively more tolerant towards opposition and following a more flexible approach in dealing with it (i.e., allowing it a voice, though very limited, through a relatively free press or a form of political association)[95]. For example, while

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[94] The 1971-72 two military coup attempts in Morocco present an exception to this. However, they occurred in a turbulent period of high military interventions and had no significant ramification to the Moroccan regime.

[95] Morocco's recent experience, allowing an opposition party to form the government, represents a good example of

all of the four countries faced the so-called threat of Islamic extremism, their approaches *differed* significantly in dealing with it: Algeria's response was a dramatic attempt to repress it at first in 1988, then contain it through election in 1990-91, and repress it again in 1992; Libya resorted to repressive measures only; Morocco resorted to a combination of absorption measures, allowing them a limited participation, and repression; and Tunisia resorted to a combination of repression and economic development.

The clearer procedures for transition of authority in Morocco and Tunisia presents another advantage that reduces the possibility of future domestic conflict. The most recent example of this is the smooth transition of authority in Morocco from the late King Hassan to his son. Also, Tunisia has the necessary institutional organization and rules that ensure such smooth transition. On the other hand, the military-controlled regimes of Algeria and Libya lack such clarity: Algeria has had institutional problems since 1992; and the transition of authority in Libya after Col. Qaddaffi and the stability of its unique regime is highly questionable.

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such tolerance and flexibility.

External Conflict. Among the four countries, Libya stands out as an extreme case of high foreign intervention. The extent of its involvement in external conflicts exceeds, by far, its actual capabilities (e.g., repeated military interventions, attempts to export its revolutionary ideas, accusations of supporting radical organizations, conflicts with the U.S. and U.K., and various diplomatic crises). This rich record of international conflict is mainly attributed to its leader's revolutionary ideology, and to the suppressive nature of military control that permits it (i.e., forcefully extracting needed resources to support extreme individualistic ambitions).

Algeria and Morocco have low levels of international conflict. Algeria has had some revolutionary rhetoric during Ben Bella's and Boumedienne's presidencies; however, it did not translate to actions. The most notable area of international conflict for the two countries is their dispute over the Moroccan self-proclaimed Western Sahara region: Algeria supports the pro-independence movement, the Polisario Front, and recently accused Morocco of assisting Algerian's Islamists.[36] While awaiting a UN administered

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[36] In fact, this dispute is the major obstacle facing the Arab Maghreb Union (UMA), which was created in 1989 to promote intra-regional integration including Mauritania.

referendum to determine its future, the issue remains a point of conflict between the two countries. On the other hand, Tunisia has virtually no notable external conflicts.

More importantly, the civilian regimes in Morocco and Tunisia are better able to manage and foster their foreign relations to serve their economic development. A clear example is their ability to establish special political and economical relations with the EU, the region's most important trading partner (e.g., Joffe 1999, White 1999).

Defense Expenditure. Table 14 shows defense expenditure data for the four countries as a total value and as a percentage of GNP: each gives a different impression. The total value of arm imports between 1977 and 1994 clearly shows that defense expenditure is much higher in the military controlled regime of Algeria and especially Libya, valuing $10,380 and $26,134 million, respectively, compared to totals of $4,230 and $1,220 for Morocco and Tunisia. On the other hand, defense expenditure as a percentage of GNP appears higher in Morocco and Tunisia, respectively, compared to that of Algeria.

The unresolved dispute led Morocco (in 1995) to call for the suspension of the organization's activities putting it in a state of prolonged hibernation (e.g., Mortimer 1999).

As discussed above in the cross-national analysis, size of defense expenditure of a country is influenced by many factors other than degree of military control. One has to consider that the relatively high Moroccan defense expenditure, compared to its limited resources, is related to its costly war in the Western Sahara. Likewise, the expenditures of Algeria and Libya appear less significant relative to their resource; however, because they don't face real external threats to justify their large arms imports, one has to state that the military controlled regimes of Algeria and especially Libya tend to spend *moderately* more on defense.

In sum, the military-controlled regimes of Algeria and Libya *clearly underperformed* their civilian counterparts in economic growth. Primarily this is caused by their relative failure to manage the financial and economic aspects: they have less productive domestic investment, weaker private investment, and are less protective of property rights. In the conflict and security aspects their performance varies: while they don't differ significantly from Morocco and Tunisia in international conflict and defense expenditure, with Libya presenting an exceptional case, Algeria and Libya are clearly worse in internal conflict and have a greater

chance for future domestic violence. Also, they failed to build viable political institutions necessary to ensure peaceful transition of authority and future political stability, and to manage efficiently the development process. In term of social development, the military-controlled regimes of Algeria and Libya have performed reasonably well. However, their ability to sustain social development is suspect because of their low economic growth and cumulating economic and social problems.

Finally, all of the four countries, although to a much lesser extent Tunisia, face serious economic problems (e.g., population growth, high unemployment, high debt levels) for different causes: civil war in Algeria; limited resources in Morocco and Tunisia; and economic sanctions and mismanagement in Libya. However, one can safely conclude that Morocco and Tunisia are *more capable* than Algeria and Libya to face their future economic challenges. They have viable institutional arrangements, adopt a more rational and flexible approach for conflict resolution, and have relatively well-established economic reform programs.

Chapter Nine

Conclusions

The findings clearly support the central thesis of this study, and the generalization can be made that *military control impedes economic growth (i.e., GDP per capita growth) over the long run.* This negative effect is statistically significant in all of the cross-national regression results, and further supported in the experiences of the military controlled regimes of Algeria and Libya. The inherent negative characteristics of military control (i.e., lack of appropriate skills, rigidity, and repression) are evident in the Algerian and Libyan military experiences distorting the two countries' development process at three levels: poor decision-making, insufficient policy implementation, and inefficient self-evaluation and improvements of their developmental status quo. Also, there is a *very weak* support to the claim that this military control's negative effect is contingent on level of development (i.e., being more negative in societies with higher level of development).

In addition, the findings indicate that the negative effect of military control on domestic investment and

property rights protection constitutes a major causal mechanism for its failure to promote economic growth. Such economic and financial causal aspects have been often *overlooked* by the related empirical research which tends to focus on the security and conflict aspects. Furthermore, the cross-national analysis indicates that defense expenditure, domestic conflict, and external conflict do not play a significant role in the military control's low economic performance. However, the influence of high levels of domestic conflict is clear in some cases of military control, like Algeria and Libya.

In regard to social and human development, military control has no significant influence at the cross-national level, but it significantly promoted physical well-being in the cases of Algeria and Libya. However, sustained social and human development is suspect in military-controlled regimes because of their failure to generate the necessary economic wealth. In addition, the comparative case study revealed the failure of the military-controlled regimes of Algeria and Libya in political development: both countries have failed to build viable political institutions to manage the economic development process and to ensure future political, economic, and social stability. In contrast to

degree of military control, level of democracy has no significant impact on economic growth at the cross-national level, but it has a positive influence on attaining basic human needs (i.e., PQLI) and a stronger impact on promoting physical well-being over time (i.e., DRR).

The above conclusions might account for some of the apparent discrepancies in the findings of the related empirical research. In general, the variables that influence economic growth are not necessarily the same as those that influence social development. For example, the conflicting findings about the effect of level of democracy on economic development might be explained, in part, by *how* the dependent variable is operationalized: as the evidence of this study indicates, democracy has no clear influence on economic growth, but has a clear positive influence on human and social development.

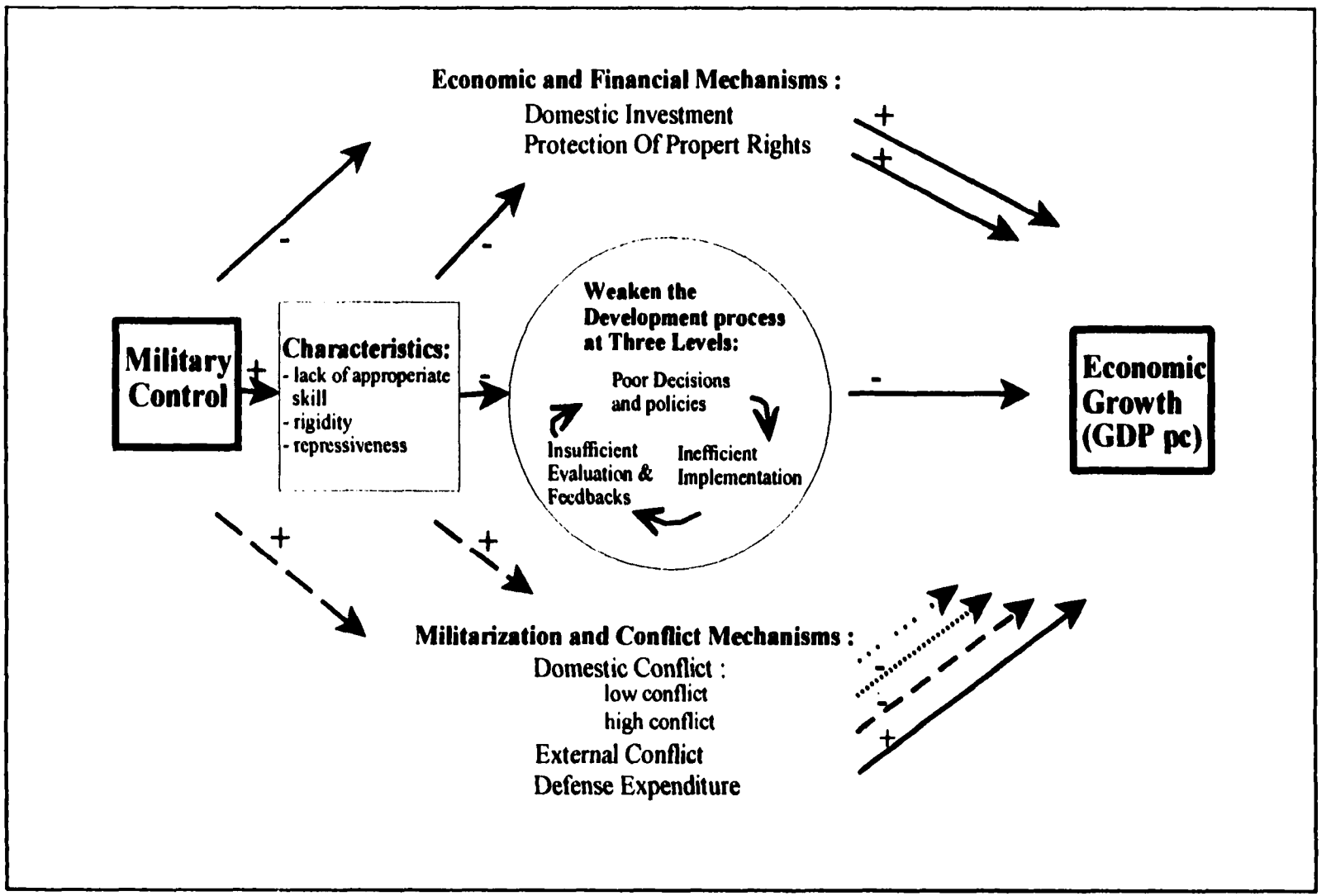
Also, the conflicting empirical findings about the effect of democracy on economic growth might be attributed in part to mis-specification. It is evident that well-established democracies have positive economic performance. However, one can't be certain which is the independent variable. Furthermore, one has to recognize that democratic institutions and practices are relative in developing

countries and not established to the degree that one can confidently claim that democracy will have a real impact on economic growth. Indeed, this study shows no empirical support that democracy promotes economic growth. This gives more credibility to the perspective claiming a complex relationship between the two (e.g., being interdependent). In short, level of democracy is not a relevant term for developing countries, especially before the latest proliferation of democracy in the 1990s. Other regime-type classifications, like degree of military control, are more appropriate to study developing ccuntries.

The *macroeconomic factors* are critical for economic development. However, their relative importance varies: while *domestic investment* is critical for both, its relative influence is stronger for the generation of economic wealth than for the promotion of physical well-being; *initial wealth* is negative for economic growth indicating support for the convergence hypothesis, and positive for social development indicating a divergent relationship; and while *education* is generally important for development, its significance is higher for the promotion of physical well-being than for economic growth.

Figure 2 illustrates the above conclusions drawn from the findings of the cross-national analysis and the comparative case-study.

Figure 2. Illustration of the Findings about the Effect of Military Control On Economic Growth



The study's conclusions have important *implications* at the policy and academic levels. At the policy level, the political and military elites of developing countries, first of all, should avoid military intervention in politics and realize its negative impact on economic growth over the long run: the military exists and is trained for a specific task, and lacks the skills, flexibility, and tolerance needed to manage a country. However, where military control exists, it should realize and overcome specific limitations: promote domestic, especially private, investment and protection of property rights; avoid distorting political choices and arbitrary decision-making; and build reliable civilian political institutions, to turn power over to them, and return to its military barracks.

At the academic level, political inquiry generally should reconsider the role of regime types on economic development and focus on its effect over the long run. It should avoid the sole focus on democracy, and examine other criteria for distinguishing regime types. Certainly, the degree of military control is a good candidate because of its close relevance to the experiences of the developing countries.

Thus, this study presents the following *recommendations* for future research in this subject. First, improving the accuracy of the degree of military control measure to reflect the actual experience of developing countries. Also, such a measure should avoid the military/civilian dichotomy and be *broad* enough to account for the various levels of direct and indirect military intervention. Second, focus on the influence of military control on the financial and economic aspects, especially investigating its relationship with domestic savings, private investment, and other measures of property rights protection. Finally, other possible intervening variables or explanations that link regime types to economic growth should be re-examined in the context of such broader definition of military control (e.g., foreign investment, corruption). In this regard, the relationship between military control and *political risk* is worthy of investigation.

Appendix A:

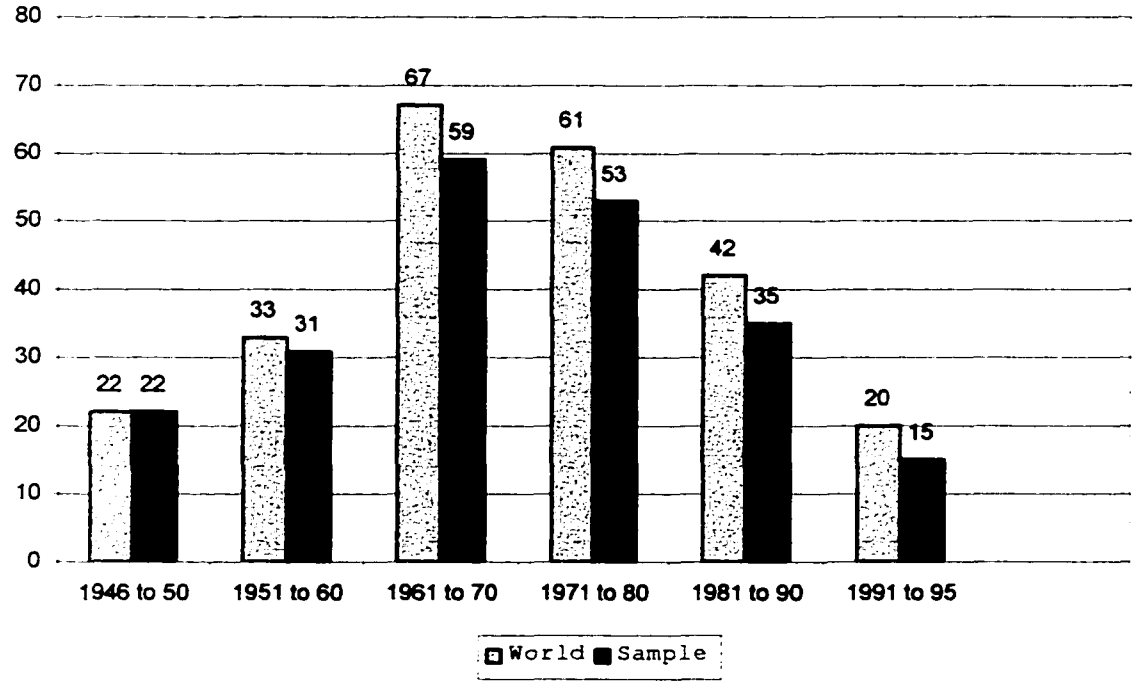
Military Control Over Time

This appendix is intended to give a brief general theoretical and statistical overview of the past development, and the current state of military intervention in politics. Employing descriptive statistics, it traces the progress of this phenomenon with a focus on its present and future condition.

Military intervention is an important phenomenon in contemporary politics that often occurs in the form of *military coups*. After the end of WWII, with the decline of colonization and the rise of the independent movements resulting in a wave of newly independent countries, military-led regimes became more frequent. Finding their militaries the most organized and powerful group in their societies and quite often incited by one of the bipolar powers of the Cold War, military officers in many of those new countries found the rise to power too tempting to resist. Based on Banks' (1997) data, during the period of 1946-1995, 245 *successful* military coups occurred worldwide, and 215 successful coups occurred in the sample of countries considered in this study. However, as Figure 3 illustrates,

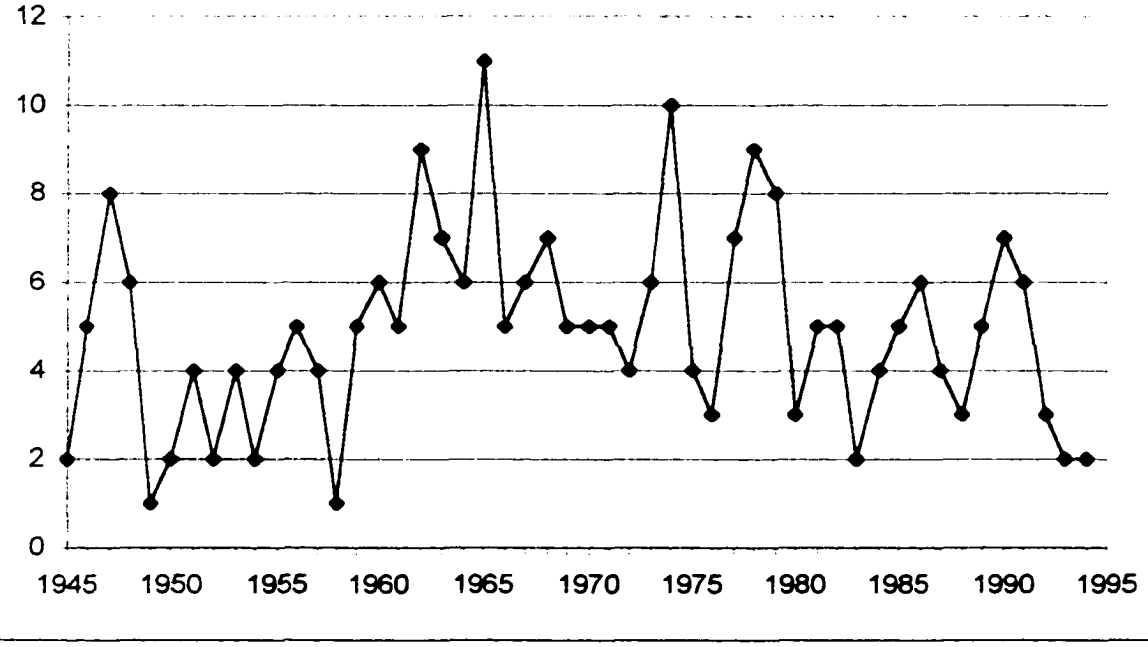
most coups occurred in the decades of 1960s and 1970s: *sixty-seven* and *sixty-one*, respectively. Military coups started to decline in the 1980s with the rise of the democratization wave where only *forty-two* successful military coups occurred. This trend was accelerated with the end of the Cold War and emergence of today's pro-democratic unipolar international system.

Figure 3. Number of Successful Military Coups, 1945-95 (periods)



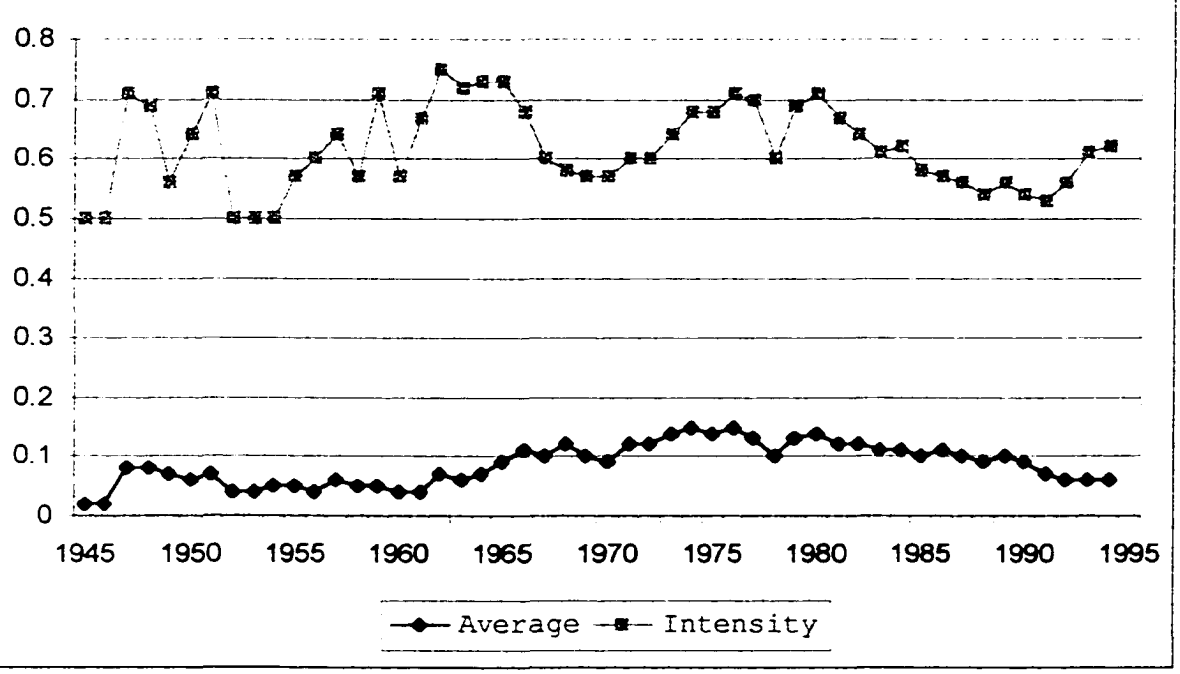
Also, the chart shows that the sample accurately reflects the world trend regarding military coups: while some coups are not included in the sample for lack of data on the countries where they occurred, the proportion of missed cases is similar over time and the sample mirror the worldwide condition of military coups. Figure 4 shows the *annual* number of successful military coups for the period 1946-1995. Most successful coups occurred in the years 1966, 1975, 1979, and 1963; with 11, 10, 9, and 9 coups, respectively.

Figure 4. Number of Successful Military Coups, 1946-95 (annual)



As for this study's measure of *degree of military control*, Figure 5 illustrates the *average* of military control for the whole sample and the average for the countries that experienced direct or indirect military control for at least one year (i.e., *intensity*), for the period 1945-1995.

Figure 5. Degree of Military Control for The Study's Sample, 1946-95



One can observe that the sample's average degree of military control started to increase in the 1960s and remained relatively stable until the 1990s when it slightly declined. However, while the intensity of degree of military control reached its peak in the 1960s, remained high in the 1970s, and declined in the 1980s, it did not continue to decline in the 1990s. Rather it started to rise indicating that military control remains strong in many countries.

Furthermore, there are many countries that exist today with direct military control (e.g., Sudan, Iraq), and military coups continue to occur, though less frequently, in the 1990s. For example, in the period from 1991 to 1995 there were *twenty* successful military coups. Just in the last *ten* months proceeding May 2000, Nigeria, Pakistan, Sudan, Ivory Cost, and Ecuador witnessed military coups.

The influence of the military on politics is far from fading. Military intervention in politics is still very strong, though less direct and often behind the scenes. Furthermore, there is no evidence to suggest that the future of military control is in indefinite demise, even when it is

viewed negatively in the current international system. To the contrary, no one can eliminate the possibility that the cycle of military interventions will rise again especially if the international system changes, although it might take different forms than the traditional direct form. Military interventions will continue to be a threat for most developing countries, where the military remains the most powerful and organized institution and the underlying causes of military intervention continue to exist, especially the internal political, economic, and social problems.

Appendix B

Measurement of Domestic Conflict

Following Enterline and Gleditch's (1997) method, the factor scores for high and low domestic conflict measures are devised using principal component factor analysis in SAS (version 6.12), with an eigenvalue threshold of >= 1.0. Two factor dimensions reflective of *low* and *high* levels of domestic conflict are found. The following table shows the factor loading for each dimension:

Domestic Conflict Factor Loading

Low Conflict		High Conflict	
General strike	.411	Guerrilla warfare	.707
Demonstration	.655	Revolution	.707
Riot	.633		
Eigenvalue=	1.80	Eigenvalue=	1.26

Note: Data are from Banks 1997, and factor scores are calculated on SAS (version 6.12).

The resulting factor scores provide a measure for domestic conflict on each dimension averaged over the period 1961-1990.

Appendix C

General Summary Description of the Political and Economic System in Each of the Four North African Countries, Illustrating Major Events That Occurred During Each Regime's Successive Rulers

Algeria

Political Authoritarian, one-party socialist rule with strong military control.

*** Ben Bella's era (1962-64):**

Committed the country to socialism and centrally directed economy and society.

*** Col. Boumedienne's military coup regime (1965-78):**

Instigated the military strong control of the country, and consolidated the one party, socialist rule. Among the major events of this era:

- the 1976 constitution establishing a Presidential system institutionalizing the one party, socialist rule. The 1977 elections of the assembly.
- followed development strategy that stressed state-run industrialization at the expense of agriculture, the productive sector that underwent further destructive reforms.

*** Col. Benjedid's regime (1979-92):**

De facto military rule that subjected the country to *sudden* economic and political shifts: a move to market economy in mid-1980s to face growing economic difficulties; and a move to multiparty system in the 1989 new constitution to face threatening political discontent.

*** 1992 military intervention:**

Revoked the democratic process, reasserted the military influence, and entered the country into a vicious cycle of civil violence. It was followed by the presidency of Gen. Zourwal (1994-99), and the present presidency of Bouteflika. Various attempts for national reconciliation occurred without significant success.

Libya

Strict dictatorial individualistic rule, with strong military control and extreme form of socialism: the political, economic and social systems are shaped by the ideological vision of its military leader.

*** Sinuses Monarchy (1951-68):**

Prohibited political parties and activities, and favored open-market economy.

*** Col. Qaddaffi's military coup regime (1969-present):**

The colonel has a firm and suppressive control over the political system. In fact, he shaped it based on his ideology of *popular democracy*. Over time, the colonel has been using various institutional instruments to assert his power hegemony: the Revolutionary Command Council (1969-1979) and its remaining members; the military; his tribe and family; the Arab Socialist Union (1972-76); the General People's Congress; and the Revolutionary Committees. Economically, the colonel's ideology committed the country to a strict form of socialism with tight state control of the economy. Attempts to introduce limited economic liberalization (in 1987 and mid-1990s) were uncommitted and unsuccessful.

Morocco

Monarchic authoritarianism: constitutional monarchy with the king holding decisive powers, allowing for multiparticism and favoring market-economy policies. The military is under the monarchy's control, and has no significant political influence.

*** King Mohammad V (1956-1960).**

*** King Hassan II (1961-1999):**

His strong political skills allowed for his regime survival despite periods of difficult economic problems and social discontent. Among the major events during this era:

- the 1962 constitution allowing for elected legislature. The 1963 first elections of the legislature.
- state of emergency, 1965-70.
- the 1972 new constitution restoring limited parliamentary government.
- the 1975 *Green March* to Western Sahara which unified Moroccans.
- 1977, legislative elections were held, the first since 1963.
- 1983, IMF structural-adjustment program that was accelerated in 1992.
- the 1990s *Hassananian democracy* calling for limited political reforms and freedoms.

*** King Mohammad VI (July 1999-present).**

Tunisia

Civilian authoritarianism: strong one-party rule for the most part, with liberal economic policies (except for a brief socialist experience during the 1960s). The military

is under civilian control, and has no significant political influence.

*** Bourguiba's presidency (1956-86):**

Among the major events during his era:

- the 1959 constitution creating a presidential republic.
- 1961, attempted coup.
- 1961-69, Ban Salah's socialist policies.
- 1970-79, Nouira's economic liberalism with heavy state management, and resistance of pressure for political reforms.
- 1975, Bourguiba declared he is a president for life.
- 1980-86, Mzali's attempted political reforms and adaptation of the unpopular structural-adjustment programs.

1981, new parties allowed to form.

*** Ben Ali's presidency (1987-present):**

Among the major events during his era:

-movement toward unrestricted economic liberalism.

-despite 1988 adaptation of multiparty system, the political system is still dominated by one party (PSD).

- 1994, first contested legislative elections.
- October 1999, Ben Ali won the first contested presidential elections.

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