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**A GENERAL SIMULATION MODEL OF POLITICAL
DEVELOPMENT, POLITICAL CONFLICT,
AND REGULATION POLICIES:
TAIWAN AND OTHER SYSTEMS IN TRANSITION**

BY

EDWARD KWO-MEEN HWANG

B.A., CHINESE CULTURE UNIVERSITY, TAIWAN, 1984

M.A., NATIONAL CHUNGHSING UNIVERSITY, TAIWAN, 1986

DISSERTATION

**Submitted in partial fulfillment of the requirements for
the degree of Doctor of Philosophy in Political Science
in the Graduate School of the
State University of New York
at Binghamton
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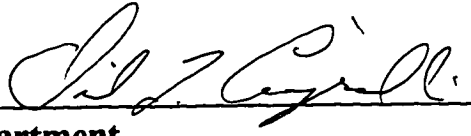
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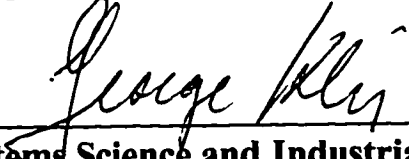
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at Binghamton
1997

Eduard A. Ziegenhagen  **June 5, 1997**
Political Science Department

Richard I. Hofferbert  **June 5, 1997**
Political Science Department

David L. Cingranelli  **June 5, 1997**
Political Science Department

George J. Klir  **June 5, 1997**
Department of Systems Science and Industrial Engineering

ABSTRACT

What are the relationships among political development, political conflict and attempts to regulate political conflict? I approach this question from both empirical analyses and a simulation model to better understand the interactive relationships. The relevant data are extracted from the "Time-series Cross-national Data Archive" and the "World Handbook of Political and Social Indicators III". The tentative results of sensitivity analyses in the simulation model show that political development does matter. The finding supports Huntington (1968), Gurr (1989), and Hwang (1997), that is, the relationship of political development and political violence is an inverted U-curve. Insurgency increases as political development increases, and it declines when political development crosses a threshold. Insurgency is minor in the highly developed systems.

The relationship of political development and protest is also nonlinear. Protest will increase and stabilize as political development increases. Protest does not decrease as the level of political development increases. However, political development and sanctions is inversely related. The higher the political development, the less the sanctions. This finding also supports Gurr and Lichbach (1986), Henderson (1991), Ziegenhagen (1994), and Hwang (1997).

The relationship of political development to the sanction apparatus is an inverse U-curve. The sanction apparatus increases somewhat as political development increases, then it declines as a step function when political development continues to grow. In cases of higher political development, more resources are spent on civil institutionalization, and less ratio of governmental expenditures are allocated to the sanction apparatus. Highly developed systems are distinguished by their limited use of negative sanctions and by their ability to handle political violence. In general, protest usually co-exists with political development, while insurgency co-exists with political decay. When a regime encounters a protest, it could concede or suppress it. If sanctions were taken to suppress protest, insurgency will be a high probability. Then sanctions and insurgency often form self-reinforcing cycles that cause political decay.

DEDICATION:
TO PEI-CHIEH, KEVIN, AND VINCENT
FOR LOVE AND HAPPINESS YOU RENDER

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CONTENTS

Chapter 1 INTRODUCTION	1
1.1 Research Question and Research Strategy	3
1.2 Political Development, Political Conflict, and Regulation Policies	7
1.3 Chapter Plan	9
Chapter 2 LITERATURE REVIEW	11
2.1 Introduction	11
2.2 Political Systems and Cybernetics	12
2.3 Political Development	20
2.4 Political Conflict	40
2.5 Relationships among Political Development, Political Conflict, and Regulation Policies	64
2.6 Summary	76
Chapter 3 RESEARCH DESIGN AND DATA	80
3.1 Introduction	80
3.2 Regression Models and Hypotheses	81

3.3 Measures and Statistical Methods	84
3.4 Data collection and Statistical Analyses	93
3.5 Summary	104
Chapter 4 A GENERAL SIMULATION MODEL OF POLITICAL CONFLICT	107
4.1 Introduction	107
4.2 Simulation Modeling	108
4.3 A General Simulation Model of Political Conflict	113
4.4 Sensitivity Analyses	118
4.5 Summary	128
Chapter 5 A POLITICALLY DEVELOPING SYSTEM-- TAIWAN	129
5.1 Introduction	129
5.2 Political Development in Taiwan from 1949 to 1996	130
5.3 Political Conflict versus Political Development in Taiwan	137
5.4 Regulation Policies versus Political Development in Taiwan	141
5.5 The Taiwan Experience and the General Simulation Model	142
5.6 Summary	145

CHAPTER 6 CONCLUSIONS	146
6.1 Introduction	146
6.2 Results of Regression Analyses	147
6.3 Results of the Sensitivity Analysis of the Simulation Model	151
6.4 Limits of the Analysis	154
6.5 Implications for Public Policy	155
Notes	159
Appendixes	163
Bibliography	171

LIST OF FIGURES

2.1 Easton's Simplified Model of a Political System	16
2.2 Cybernetics and Related Areas	18
2.3 Psychological Model of Political Conflict	49
4.1 A Simulation of Political Development and Political Conflict	114
4.2 Simulation Diagram when the Initial Value of Political Development = -2.37646, Iteration = 1	120
4.3 Simulation Diagram when the Initial Value of Political Development = -0.37265, Iteration = 2	121
4.4 Simulation Diagram when the Initial Value of Political Development = +1.63116, Iteration = 3	122
4.5 Simulation Results of Political Development, Protest, Insurgency, and Sanctions in Politically Developing Systems	124
4.6 Political Development, Political Conflict, and Regulation Policies in Dahomey	124
4.7 Simulation Results of Political Development, Protest, Insurgency, and Sanctions in Politically Developing Systems	125
4.8 Political Development, Political Conflict, and Regulation Policies in Mali	125

4.9 Simulation Results of Political Development, Insurgency, Sanctions, and Sanction Apparatus in Politically Developing Systems	126
4.10 Political Development, Political Conflict, and Regulation Policies in Yemen PDR	126
4.11 Simulation Results of Political Development, Political Conflict, and Regulation Policies in Politically Developing Systems	127
4.12 Political Development, Political Conflict, and Regulation Policies in Brazil	127
5.1 Path of Political Development in Taiwan	136
5.2 Political Development and Political Conflict in the Simulation of Political Development	143
5.3 Political Development and Political Conflict in Taiwan from 1949 to 1996	143
5.4 Political Development and Regulation Policies in the Simulation of Political Development	144
5.5 Political Development and Regulation Policies in Taiwan from 1949 to 1996	144
6.1 Violence Cycle of Political Conflict	150
6.2 Positive-positive Loops	153
6.3 Negative-negative Loops	153
6.4 Path of Political Decay in Nigeria	156
6.5 Path of Political Decay in Lesotho	156

LIST OF TABLES

2.1 Correlations among Political Development, Political Conflict, and Regulation Policies	76
2.2 Causal Relationships among Political Development, Political Conflict, and Regulation Policies	77
3.1 Indicators of Relevant Concepts	88
3.2 Loading of Factor Analysis	95
3.3 Results of 2SLS Regression Analyses	97
3.4 Results of Negative Binomial Regression Analyses	98
3.5 Results of Tested Hypotheses	100
3.6 Initial and Parameter Values for the Simulation Model	105

Chapter 1

INTRODUCTION

Political conflict is the most universal form of conflict in the world today. Civil wars range in dozens of countries, and are responsible for killing and displacing millions of people. According to Rummel (1994: 4-10), 169,202,000 people were killed by their governments during 1900-1987. Among them, 129,547,000 were killed by domestic conflicts, while 38,566,000 were killed by genocide. Mao Tse-tung's regime, for example, killed 4,500,000 rich/landlords in China's Land Reform (1949-53), and killed 1,613,000 communists/ officials/ intellectuals in the Cultural Revolution (1964-75). Scholars who care about war and peace issues, political and economic development, and political and social justice should concern themselves with the causes and consequences of political conflict.

Unfortunately, the causes and consequences of political conflict are poorly understood (Brown, 1996). For example, do sanctions

increase or decrease political conflict? Ziegenhagen (1986), Robinson and London (1991), and Davenport (1992) argue sanctions will increase political conflict. In contrast, Gurr (1970), Snyder and Tilly (1972), Hibbs (1973), and Tilly (1978) maintain sanctions will decrease political conflict. Another question is whether insurgency increases or decreases sanctions. Ziegenhagen (1986), Bremer (1987), Davis and Ward (1990), and Poe and Tate (1994) find insurgency can increase sanctions, while Gartner and Regan (1996) find insurgency has a positive but nonlinear effect on sanctions.

Moreover, most political conflict research is taken employing static analysis and often has biased estimations due to the interactive effects between variables. For instance, Lichbach (1992) finds only 12 out of 182 scholarly works on domestic political conflict use computer simulation models from 1950s to 1990s. As cybernetic models of behavior entail specification of particular components and relationships among components (Ziegenhagen, 1986: 39), I would like to adopt the cybernetic concept to study political conflict.

1.1 Research Question and Research Strategy

I seek to construct a simulation model in order to better understand the interactive relationships among political development, political conflict, and attempts to regulate political conflict. In particular, I pose the following questions: (1) can political development lessen protest and insurgency? (2) will political development reduce governmental negative sanctions and the sanction apparatus? (3) can political conflict lessen political development? (4) will political conflict stimulate governmental negative sanctions and the sanction apparatus? (5) can negative sanctions and the sanction apparatus decrease political development? and (6), will negative sanctions and the sanction apparatus stimulate political conflict and if so how?

Sorokin analyzed the histories of eleven European states and empires over a 25-century span and found that they averaged only four peaceful years in which major outbreaks of civil conflicts were not in progress (1937:504). Actually, political conflict has been even more frequent in the past sixty years, especially in Asia, Africa, and Latin America. Currently there are about 30 major political conflict events around the world. Most are civil wars in remote areas of the world and

these conflicts are often very bloody. The percentages of civilians, particularly those who are most innocent and unprotected, old people, children, and women, die at a rate of eight or nine to one compared to soldiers at the battle front (Carter, 1996).

As Brown (1996: 3-12) argues, political conflict is important for five main reasons:

- (1) it is widespread. As of late 1995, major armed conflicts--that is, conflicts in which at least 1,000 people have been killed--ranged in over thirty-five locations around the world;
- (2) it usually causes tremendous suffering. In Bosnia since 1992 and in Rwanda in 1994, genocide was carried out;
- (3) it often affects and involves neighboring states. In Rwanda in 1994, 250,000 Rwandans fled into Tanzania in a single day;
- (4) it can affect the interests and engage the attention of distant powers and international organizations. Internal conflict can endanger foreign nationals, threaten political and ideological allies, and under some circumstances activate alliance commitments; Turkey's assault on Kurdish bases in northern Iraq in 1995 was sensitive for these reasons;
- (5) the international community is currently reassessing its efforts to deal with internal conflict. It is unable to prevent, stop, or resolve most of the violent internal conflicts that raged in the early to mid-1990s. This failure was particularly striking in Rwanda, where about 800,000 were killed in a four-month period between April and July 1994.

Episodes of political conflict are not spontaneous or random occurrences. Most of them are dramatic manifestations of conflict between groups contending over power distributions and/or public policies. Since political conflict is common to all societies, it is no

wonder that protest and rebellions turn out frequently in most countries throughout history.

Many scholars pay attention to political conflict because of its association with threats to governmental stability and millions suffer or die from this form of political behavior. Indeed, people have been killed by their own rulers no less frequently than by foreign enemies. There is no international war since Gulf War in 1991, but more than 365,000 people were killed in the domestic conflicts during 1992 and 1994 (Brown, 1996: 4-7).

It is also a serious issue for governments. Governments' policies are challenged by those they rule by protest, and/or legitimacy is challenged by rebellion, such as insurgency. If it is not managed well, violent events could escalate and regimes could be overthrown. Gurr argued that group protest and violence are episodic in the history of most organized political communities and customary in many. No country in the modern world has been free of it for as much as a generation (1972: 123). Unfortunately, human knowledge about political conflict is limited, especially its dynamic process. It is the

motivation of this study to understand the political conflict process from a dynamic perspective.

A simulation model is employed because it is, as Simon (1981) argues, suitable and preferable for a variety of social sciences. This is especially so because the phenomenon of political conflict is dynamic and its intensity and scope varies over time. For example, Brunner and Brewer (1971) had already utilized the computer simulation to analyze political systems and developmental processes in the early 1970s. According to the Encyclopedia of Computer Science (1973), simulation is defined as “a process that employs a computerized model of certain significant features of some physical or logical system.” In other words, simulation is the use of a dynamic model to provide insight on the behavior of any real world elements (McHaney, 1991). It is particularly useful for the study of the issues noted above because political conflict is very dynamic behavior and it is hard to understand by static statistical analyses.

1.2 Political Development, Political Conflict, and Regulation Policies

The concept of political development emerged from the literature of the early 1970s (Riggs, 1981:313-5). Scholars see it from different perspectives. While some see political development as the politics and policies that advance economic growth in developing countries; others see it as the study of new regimes, the increased role of the state, the expansion of political participation, and the capacity of regimes to maintain order under conditions of rapid change and competition among political groups, classes, and ethnic groups for power, status, and wealth. Yet others see it as how revolutions process, particularly the conditions for the replacement of capitalist by socialist systems (Weiner, 1987). For the purposes of this research, political development is defined as the effectiveness of political structures in performing major political functions: interest articulation, interest aggregation, political recruitment, socialization, communication and etc. As Flanagan (1973: 53) argues, political structures include both political institutions and processes by which social resources are

authoritatively allocated. Here, political institutions will refer mainly to the legislature, political parties, and the executive branch.

Political conflict usually entails some sort of behavior against the government or the established order. For example, assassinations of government or party officials, attacks on or destruction of the symbols of government, politically motivated strikes, and riots or demonstrations with political implications. "Political conflict can be descriptive of mass protest behavior directed against the state, its policies and practices; elite behavior relevant to the ousting of incumbents; as well as major symbolic or operational changes in the rules, structure, and procedures for governing relations among political participants (Ziegenhagen, 1986: 1)." Gurr (1989: 102-3) also makes a distinction between the manifestations of protest and rebellion. In general, protest arises from conflict over limited issues, such as opposition to particular policies or personnel of a government, or antagonisms between groups competing for political influence. Rebellion focuses on more essential issues, especially struggles over who should rule and by what means.

When political conflict occurs, the government usually intervenes to regulate it in order to maintain political stability. Regulation policies are defined as the regimes' ability to bring people's behavior within known or desired limits of variation (Ziegenhagen, 1986). They include two dimensions-- one is sanctions that are employed as policy interventions and subsume political censorship of communication, political restrictions on organization, assembly, and representation as well as political executions; the other is the sanction apparatus which determines the coercive capacity of a regime.

1.3 Chapter Plan

In Chapter 2, a review of literature is presented to discuss both theoretical and empirical investigations. It is devoted to descriptions of political systems and cybernetics, political development, and political conflict. Emphasis is placed on the correlation and causal relationships among political development, political conflict, and regulation policies.

The analytical framework of this study is introduced in Chapter 3, and each major theoretical relationship is complemented by formulation of a hypothesis to be tested. Attention is focused on

measurement, data collection, and statistical analyses. Components of political systems include political development, protest, insurgency, sanctions, and the sanction apparatus. Chapter 4 is devoted to constructing a general simulation model. Sensitivity analyses are used to explore the validity and reliability of this model as well.

In the fifth chapter, the general simulation model is examined by an empirical case-- Taiwan, a politically developing system. The focus is on the impact of political development on political conflict and regulation policies.

Finally, Chapter 6 consists of a summary and assessment of the theoretical implications. Discussion concerns policy recommendations, and a future research agenda addressing new research trajectories given the findings.

Chapter 2

LITERATURE REVIEW

2.1 Introduction

The literature regarding political systems and cybernetics, political development, and political conflict is reviewed within this chapter. The variations of political development, political conflict, and regulation policies will be compared among the less developed, developing, and highly developed political systems in the later chapter.

Attention is placed more on the political conflict approach for the arguments and empirical findings about it are more mixed. Finally, this chapter concludes with a summary of previous literature and a precise description of the relevant correlation and causal relationships among political development, political conflict, and regulation policies.

2.2 Political Systems and Cybernetics

A system is defined by structural-functionists as roles which are organized sectors of an actor's orientation and constitutes and defines participation in an interactive process (Parsons and Shils, 1951: 23; Almond, 1970: 32). Waltz (1979: 79) maintains system theorists commonly hold that "a system is composed of a structure and of interacting units." For example, system theorist Easton (1965: 57) defines political system as a set of interactions, abstracted from the totality of social behavior, through which values are authoritatively allocated for a society.

The term system means an aggregation of social entities that share a common fate (Campbell, 1958), it involves the arrangement of units that function together (i.e., an organized integrated whole made up of diverse but interrelated and interdependent parts). A system implies "a totality of relevant units, an interdependence between the interactions of units, and a certain stability in the interaction of these units (Almond, 1970: 32)." Klir (1991:5) argues that the common-sense definition that system stands for a set of some things and a relation among the things is weak because it is too general, and it is strong

because it encompasses all other. In brief, political systems are the institutions and processes that allow citizens of a polity to formulate, implement, and revise public policies.

Deutsch (1960) and Easton (1965) manifest early use of the systems approach in political science. In *Nationalism and Social Communication*, Deutsch attempts to apply cybernetics and communication theory to the problem of nationalism and national consciousness (Lilienfeld, 1978: 211). Deutsch argues that political systems have their spirit and will; they will struggle to survive, and they may be self-destroying, nonviable, viable, or self-developing. The viability of a system depends on its ability to achieve goals and to change goals if necessary (1960: 253).

One task of political systems is to accelerate desired innovations, and politics can be used to stimulate social systems. Through social learning and innovation, mankind can adapt more quickly to evolution. For instance, Western political systems have developed three approaches for dealing with political change: majority rule, the protection of minority rights, and the institutionalization of dissent.

The criticism of Deutsch's approach by Lilienfeld (1978) is:

[i]t represents a mechanistic "engineering" approach to politics; it is based on specious analogies; it is excessively formal or rationalistic. Therefore, the referred political systems are so abstract and vague that no one can recognize any specific political reality-- American, European, or whatever.

However, Deutsch founded a research epoch by introducing cybernetics and communication theory into political science, and henceforth, political scientists pay more attention to the dynamic study of political processes.

Buckley (1967) investigates the principles and methods of modern systems research as essential for a model or theoretical framework of the socio-culture system. He describes systems as the relation of wholes and parts. The cybernetic principles of control, feedback, communication, and information processing afford the higher systems the capacities to create, elaborate, or change structure as a prerequisite for making systems viable.

Easton (1965:23) states that the systems analysis concept is employed to view political life as a system of behavior and its major and gross unit of analysis is the political system. Furthermore, the functions of political systems include: political socialization and

recruitment, interest articulation, interest aggregation, political communication, governmental functions which are rule-making, rule application, rule adjudication (Almond, 1970: 106-144). The functional categories could be elaborated as :

- A. Input functions:
 - 1. Political socialization and recruitment
 - 2. Interest articulation
 - 3. Interest aggregation
 - 4. Political communication
- B. Output functions
 - 5. Rule-making
 - 6. Rule application
 - 7. Rule adjudication

Although political scientists differ substantially in their concepts of system and function, the capacity for explanation and prediction in social science is enhanced when we think of social structures and institutions as performing functions within a system (Almond, 1970).

Easton's simplified model of the political system (see Figure 2.1) can be thought of as an input-output box, which takes in political demands and support and outputs public policies, such as laws, court decisions, and regulations. Easton (1965: 113) sees inputs as concise variables that concentrate and reflect everything in the environment

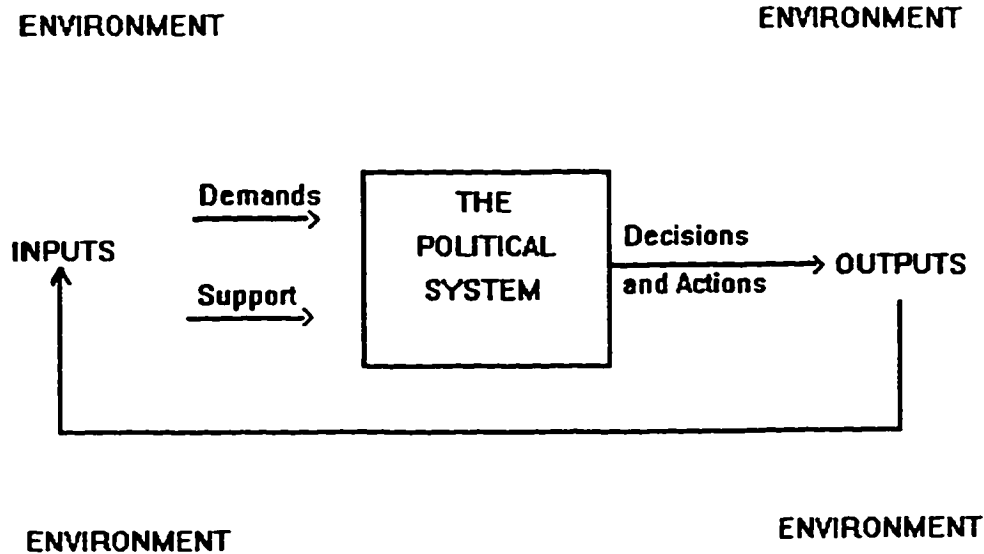


Figure 2.1: Easton's Simplified Model of a Political System
source: Easton, 1965:112

which is relevant to political stress, (i.e., the levels of demands and support of the population). The political system consists of those interactions through which values, equality and security, and etc., are authoritatively allocated.

Easton defines demands as articulated statements proposing that some kind of authoritative allocation ought to be undertaken. Support for various aspects of a system represents another source of stress. When support threatens to fall below a minimal level, the system must change its structures and processes to revive declining support (Easton, 1965: 120-124). Output is the authoritative allocation of values or binding decisions and the actions implementing them. The outputs then

return to influence the system as feedback. The capacity of a system is derived from two central processes-- information about the state of the system and its environment communicated back to authorities and through their actions the system can act to change or maintain any given condition as a response through feedback loops.

Political structures and processes are extremely complex, but the complex order of the overall political system, in the totality of its compositional relationship, will form a context-- a macrostructure with respect to any single part of a political system (Easton, 1990: 272). Therefore, political systems can function smoothly even though their structures are complex. For example, modern governments are very complicated because of the division of labors, but they can perform perplexing functions well if systemic networks are formed.

The application of general systems concepts and cybernetics to political science appears in a growing body of research contributing to substantive issues as well as theoretical elaboration (Ziegenhagen and Koutsoukis, 1992). Easton and Deutsch, as mentioned above, are the early representatives of the systems approach in political science, but broader applications can be seen in Aulin (1982).

Aulin (1982) inspects cybernetic theories, which is the core of general systems theory, of self-steering, and the conditions which the Law of Requisite Hierarchy impose on the development of societal self-steering, and the efficacy of regulation and control in a hierarchical organization. The relationships among cybernetics and related areas can be illustrated in Figure 2.2.

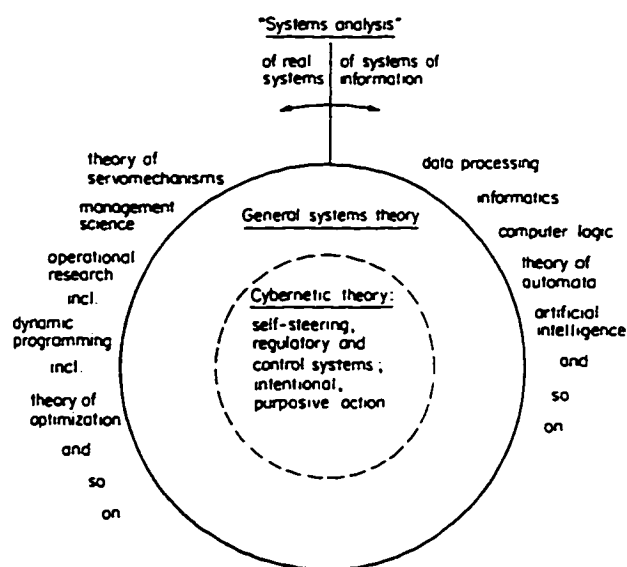


Figure 2.2: Cybernetics and Related Areas
source: Aulin, 1982: 3

Aulin (1982) sees the evolution of societal organization, welfare, and political freedom as a gradual proceeding of increased self-steering with man, thereby he denies the man-machine analogy. Because human action is not just reacting (or adapted) to environmental change, but requires an active endeavor to change the environment for human purposes.

Buckley (1967) maintains that cybernetic models of society can arrange social institutions, control, order and etc. better than can the earlier "equilibrium" or "homeostatic" model. Cybernetic principles provide the capabilities of goal-seeking, self-awareness, and self-direction. Moreover, Aulin (1982) argues that societies can cope with conflict in a comparatively successful manner if an optimal level of hierarchy exists in relation to productive capacity. Cybernetics is a cross-scientific methodology devoted to studying the phenomena of anti-hazard and can be defined on a level of generality.

Regarding the regulation of political conflict, Ashby (1976) argues that cybernetic models vary substantially in their capability to regulate effectively. The error control model will be described to provide greater theoretical specificity pertinent to the choice of

measurement models for political conflict investigation. A system must be able to map or conceive of the range of alternatives appropriate to effective and efficient responses before it can perform regulatory functions (Ashby, 1956).

2.3 Political Development

2.3.1 Introduction

Development theory remains a major force in the study of comparative politics because problems associated with developmental differences such as poverty, disease, and civil conflict are so acute (Lane, 1997: 71). The term development means gradual growth but also encompass a progressive advance from a lower or simpler to a higher or more complex form. The study of political development shifts from theories that focus on the compatibility of development goals in the 1950s to theories that emphasize conflicts among goals and the possibilities of their harmony in the 1970s. For instance, Almond (1973: 4-5) states:

[t]wo directions in developmental theorizing, “cross-sectional and classificatory” and “longitudinal and explanatory,” reflect the principal directions of theoretical experimentation during the 1960s. The subjects of cultural secularization, structural differentiation and specialization, and increasing capacity or performance run through all of them. More

serious was the debate about whether the definitions of development or modernization included democratization, or whether “unilinear, teleological, or ethnocentric assumptions” were behind our developmental theories.

Scholars were primarily concerned with the preconditions for democracy and the development of democracy in the 1950s and early 1960s. But in late 1960s political scientists became more concerned with the problems of political order and stability. The focus shifted to democracy beginning in the early 1980s (Huntington, 1987: 4-5). The focus seems to oscillate between democracy and political development which are not necessarily exclusive. However, I will focus on political development rather than democracy, because the political development concept subsumes democracy as a particular type of development and is more comprehensive than the democracy concept. For example, Przeworski and Limongi (1997) analyze empirical data concerning 135 countries during 1950 and 1990 and find “modernization need not generate democracy but democracies survive in countries that are modern.”

2.3.2 The Modernization Approach

The modernization approach to political development represents the mainstream in Western development literature. The origin of the modernization approach is the historical conjecture for the consolidation of America's hegemony role and the world's relative peace and prosperity after the second World War. The conventional belief is that nature would take its course and representative institutions, pluralism, political stability, and a pro-American foreign policy would be near automatic and interdependent results (Binder et. al., 1971). Andrain (1994: 170) also argues that modernization theorists associated political development with active political participation, and with modern citizens' acceptance of enlightenment values: rationality, security, and individual achievement.

As Almond (1973: 7-22) argues, a good theory of development, that deals with cause and effect as it occurs in nature, will have to be systemic. He analyzes four approaches to developmental causation: system-functional theory, social-mobilization theory, rational-choice-coalition theory, and leadership theory and maintains all of them are complementary rather than exclusive. Flanagan (1973: 43) also asserts:

[s]ystems theory and structural-functionalism provide an integrated input-output-feedback model of the political system, in which the domestic and international political environments, demands, decision makers, and allocations can be located. The social-mobilization perspective provides a corrective to the static bias of system-functionalism and adds another layer of explanation by focusing on linked changes over time that cumulate to transform both the environment and the political structures of authority and accountability. Coalition and leadership theory in turn provide correctives to the tendency of the social-mobilization approach to take politics out of political science and to assume rather than to specify the links between changes in macro-level socioeconomic indicators and the emergence of certain kinds of political structures.

According to modernization theorists, political development “involves the study of the politics of transitional societies, societies undergoing the process of modernization (Benjamin, 1972: 11).” The definitions of political development usually refer to “modernization,” “political order,” “integration,” “legitimacy,” “political culture,” “social mobilization,” “political institutionalization” etc. For example, Frey (1963: 301) sees political development as changes in the direction of greater distribution and reciprocity of political power. Moore (1966) tends to explain the different paths of modernization in terms of social stratification or class structure. He views modernization and industrialization as a process of cultural diffusion and mutual adaptation, and class structure as the principal explanation for differences in patterns of economic and political modernization.

Almond and Powell (1966: 306-9) state that political development is composed of three interrelated variables-- role differentiation, subsystem autonomy, and culture secularization. In general, political systems may be compared by reference to capabilities, performance of process functions, and performance of socialization and recruitment functions.

At the same time, Pye (1966: 45-8) maintains that "political development is a general spirit or attitude toward equality... mass participation... capacity... involves the sheer magnitude, scope and scale of political and government performance... differentiation and specialization... increased functional specificity of the various political roles... and involves the integration of complex structures and processes." He lists ten dimensions or aspects of political development, including "democratization," "citizen participation," "mobilization and power," "administrative and legal development," "stability and orderly change," "political prerequisite of economic development," "the politics typical of industrial societies," "political modernization," "the operation of a nation-state," and "one aspect of a multi-dimensional process of social change (33-44)." Obviously, Pye sees

democratization as only one dimension of political development, and political development is more comprehensive than democratization. Democratization is therefore a subset of political development. Democracy is a level variable while democratization is a rate variable.

Since democratization is one dimension of the political development concept, some brief definitions of democracy are helpful in understanding political development. For instance, Bollen (1980) defines political democracy as “the extent to which political power of the elite is minimized and that of the non-elite is maximized.” Gonick and Rosh (1988: 184) refers to Madisonian notion that “democracy is the series of checks and balances placed on the government’s mandate to govern...” and defined political democracy in four indicators: freedom of group opposition, competitiveness of nominating process, legislative selection, and executive selection. Gurr et al. (1990) also argue there are three essential yet interdependent elements of democracy:

- (a) institutions and procedures through which citizens can express effective preferences about alternative policies and leaders,
- (b) institutionalized constraints on the exercise of power by the executive, and
- (c) the guarantee of civil liberties to all citizens.

Jaguaribe (1973: 207-217) proposes that political development should be understood as a process of increasing the operational variables of political modernization and the participation variables of political institutionalization within a polity. Moreover, he views political development as “ ... an occurrence of the polity characterized by certain structural changes of the political system...” and following “ ... an irreversible political direction...” Therefore, the process of overall political development contributes to:

- (1) development of the capability of the political system to perform its functions, e.g., maintaining the systems and socialization etc.
- (2) development of the contribution of the political system to the overall development of the concerned society, and
- (3) development of the responsiveness of the political system.

Nevertheless, Teune (1978: 150-163) sees political development from a system perspective, defined as the integrated diversity of systems, and diversity is determined by the variety of a set of properties possessed by components of a system. He then distinguishes between rates of development and levels of development with respect to their anticipated relationship to conflict behavior.

Although modernization theorists fail to reach a consensus on the definition of political development, they generally concur that the

political development concept implies some positive changes. For instance, Scruton (1983: 124) states:

[i]n the case of political development the idea of a continuous progression seems, at least in some contexts, to more progressive. For example, the steady limitation of the powers of European monarchs, the rise of representative institutions, and the development of constitutional constraints and democratic procedures, have all seemed at one time or another to have a kind of inevitability, and a character of steady achievement through rationalization.

Almond (1970: 287) also asserts that the contemporary literature dealing with political development and modernization is concerned with the avoidance of three forms of error: unilinearity, teleology, and ethnocentrism. In sum, the nature of political development generally involves “popular participation in an electoral system and the relative independence of legislative and judicial bodies from the executive. Those systems that provide for such institutional arrangements are usually acknowledged to be more developed than those that do not” (Cutright, 1963; Bollen, 1980; and Ziegenhagen, 1994).

2.3.3 Attacks on the Modernization Approach

i. institution approach

Huntington portrays a conservative institutionalist's concept of political development influenced by Weberian insights. He perceives most of the Third World as politically underdeveloped and therefore unstable. In *Political Order in Changing Societies* he links political development to institutionalization. In his state-centered perspective, the processes of social change (increased education, urbanization, extension of the mass media, incipient industrialization) can bring political disorder and instability. Huntington emphasizes stability in the face of the rapid social and economic changes that accompany modernization which implies industrialization, economic growth, social mobility, and political participation. He advocates a regulation for the process of modernization by limiting new groups' entry into politics, limiting exposure to mass media and access to higher education, and suppressing the mobilization of the masses.

Most of the Third World countries modernize socially at the price of political degeneration. This process of decay in political institutions has been neglected or overlooked in much of the literature

on modernization (Huntington, 1971: 190). Preferring the status quo to the uncertainty of instability and violence of revolution, Huntington (1968) focuses on the issue of political decay which is a reflection of instability, corruption, authoritarianism, and violence resulting in the failure of development. Huntington's (1968) conclusions about the possibilities and processes of political development is famous for his belief that development might not be semiautomatic as the structural-functionalists originally believed (Lane, 1997: 58).

To avoid the trap of those who see political change as the outcome of social and economic conditions or of those who emphasize unilinear growth and containing progression, Huntington (1968, 1991) adopts the Weberian perspective and advocates a competitive elite democracy. Opposed to extensive popular political participation, Max Weber restricted citizens' rights to the electoral arena. Rather than play an active role in shaping public policies, individuals should only select and dismiss political leaders in competitive elections. Therefore, Huntington interprets democracy as a political system in which voters choose key decision makers in competitive, free, and honest elections (Andrain, 1994: 172-3).

While most modernization theorists believe the American political system is so close to the democratic ideal that it could be used as a model for the rest of the world, Huntington argues contrarily. If political modernization has three aspects-- the rationalization of authority, the differentiation of structures, and the expansion of participation, then the United States is foremost only in participation, while lacking in rationalization and differentiation (1968: 95). However, even political participation in the United States has declined greatly since 1970s.

Huntington (1996: 69-72) still maintains the core of Western civilization includes the classical legacy, Catholicism and Protestantism, separation of spiritual and temporal authority, social pluralism representative bodies, and individualism. Modernizationists assume that modern society must be approximate the Western type, that a modern civilization is a Western one. But Huntington argues that the West was the West long before it was modern. The central characteristics of the West, those which distinguish it from other civilizations, antedate the modernization of the West. For example,

Catholicism and Protestantism, separation of spiritual and temporal authority, and etc.

Lane (1997: 59) argues that “praetorianism”, which means the intervention of the military in politics, is Huntington’s (1968) central theoretical concept. In Huntington’s model, citizens seldom engage in mass mobilization or protest. To achieve political stability, the elite must compromise their principles and betray their followers. Huntington asserts this type of elitist democracy will secure benevolent consequences: stability, minimal violence, international peace, individual liberty, and moderate, incremental change (1991: 143-64).

Unlike modernization theorists who see constitutional limits on government power as an essential component of political development, Huntington asserts the dominance of political organization over the social group and the accumulation of government power takes priority over its distribution. Particularly in Third World countries, governments need more power to implement public policies. Then political development not only involves greater structural differentiation but also expands centralized of government power because stronger institutions can regulate conflict, manage succession

among elite, develop the needed resources, and control the side-effects of rapid social change.

Finally, Chilcote (1994: 224) criticizes Huntington's approach as essentially conservative, resting upon values of stability, order, balance, and harmony. Huntington ultimately leaned toward institutional stability rather than toward the potentially disruptive demands for a participating and mobilizing society. That is, Huntington emphasizes order and institutionalization as essential to all political systems, and slights modernization in the form of mobilization and participation.

ii. the dependency approach

Modernization theory was also challenged by the "dependency approach" (often identified as "Marxist or neo-Marxist," "underdevelopment," or "world systems" theories) in the 1970s. For example, Skocpol (1977) criticizes the bias of the modernization approach as tending to:

- (a) regard the national state as the sole unit of analysis,
- (b) assume a linear path of economic growth and development,
- (c) ignore transnational structures, and
- (d) employ a methodology based on ideal types.

Unlike modernization theory, the dependency approach interprets political development as the study of “underdevelopment” and class formation in Third World countries. Higgott (1983) describes in detail the debates within the “underdevelopment approach” that have led from dependency theory’s dominance in the early 1970s to the mode of production perspective in the 1980s. For example, Cox (1979) provides the distinction between mode of production and social formation, and argues that the mode of production, or modes of production in articulation, will give shape to a particular social formation.

For dependency theorists, political development is the struggle of countries in the Third World to conquer the problem of economic dependence on the core capitalist states. They emphasize the importance of external factors, especially the political implications of the Third World’s economic relations with industrial capitalist countries (Randall and Theobald, 1985: 116-135). Dependency theory is like a lens through which political, social, and economic change in Third World countries is interpreted.

The dependency approach initially adopted the structuralism of the Latin American school of economists for its empirical basic. Then it turns to neo-Marxian theories of imperialism, particularly to the work of Paul Baran, for its theoretical foundations. It was not until the work of Frank in the mid-1960s that the structuralist position had gained widespread attention. But Frank (1967) asserted that underdevelopment was an aboriginal condition pre-dating capitalism and for which capitalism could not be held responsible. He viewed the hereditary productive structures of the Third World as an obstacle to capital accumulation.

By the late 1960s and early 1970s some literature began to challenge the notion that underdevelopment was a hereditary condition. Dependency theorists demonstrated how fierce capitalist penetration had been for the underdevelopment of the Third World, in particular Rodney (1972) and Amin (1972; 1973). The central theme of the dependency approach is that world capitalism, especially trade between the core and the periphery countries, is responsible for the “underdevelopment” of the Third World rather than being an engine of growth. The same historical processes responsible for the development

and expansion of capitalism at the core are also accountable for underdevelopment and for political and economic dependency in the periphery countries. In other words, it denies the modern capital structure in general and the United States in particular as the goal of modernization and replaces it with socialist democracy-- Marxist or neo-Marxist (Dos Santos, 1970; Cardoso and Faletto, 1979).

Wallerstein (1974) argued the “development of underdevelopment” thesis reflects differences in economic modes which distinguish the core from the periphery. In the core, goods are produced mainly by free wage-remunerated labor, but in the periphery goods are produced mainly by one form or another of coerced labor control. The two systems are linked by unequal exchange, whereby high wages, high profit, and high capital-intensive goods produced in the core are exchanged for low wages, low profit, and low capital intensive goods in the periphery.

Dependency theory is stated in a series of conceptual polarities: developed / underdeveloped, metropolis / satellite, center / periphery, autocentric growth / extroverted growth, domination / dependence (Bernstein, 1979: 94; Taylor, 1979: 92-98). The most salient problem

of the dependency approach is that its dichotomies surrounding the central thesis of development / underdevelopment are too simplified. By the mid-1980s the dependency approach faded gradually. It is partly due to the criticism of scholars committed to classical Marxism. For example, Almond (1987: 450) asserts that the Marxist dependency perspective is only “a defense of the interests of the exploited peasants and workers on the periphery of the capitalist world.” Most importantly, historical realities are contrary to the affirmation that external economic linkages resulted in dependency in the periphery countries.

There are other attacks on the modernization approach. For example, Somjee (1986) attempts to identify inadequacies and contradictions in modernization theory to discover the social and political reality of the non-Western world. He maintains that modernization theorists are erroneous in their assumptions and logic because modernization theory does not account for the diversity of humankind and instead overlooks the diverse traditions, history, and culture in different societies within which the process of political development takes place.

Somjee also criticizes modernization theorists' assumptions, particularly that the process of modernization will do for non-Western societies as what it did for the Western. For example, Alex Inkles, David Smith, and Talcott Parsons. Their ethnocentric bias of Western values as the universal standard led to a general dichotomy between traditional and modern. Therefore, modernization theorists fail to grasp the extent of diversity among various political societies and the reality of their development process because their oversimplified views of political development (25-31). Finally Somjee recommends the refinement and reformulating of theoretical approaches to avoid looking for parallels with a world that is familiar to us in a world that is relatively less familiar.

2.3.4 The Modernization approach rejoinder

Understanding Political Development edited by Weiner and Huntington (1987) is the main response from the modernization theorists. It examines some ideas that have long dominated the mainstream of comparative politics. It also assimilates some ideas from the dependency approach and pays closer attention to the state. For

example, Huntington maintains the liberal, dependency, and Marxist theories all focus on poverty and injustice. Then he emphasizes the relevance of various cultures as an explanation of developmental patterns and asks for closer links between comparative politics theorists and area specialists.

However, Almond (1987: 454) criticizes the dependency approach as “ a propaganda fragment of an ideology, a polemics against mainstream development theory,” and condemns their ideological assumptions and oversimplification. He also attacks the “metaphysical overtones” of the “neostatist” movement led by Evans and Skocpol by maintaining his pluralist and structural-functional movements had already demystified and operationalized the concept of state. At last, Almond asserts the mainstream of comparative politics is not in crisis at all.¹

2.3.5 Summary

As Gonick and Rosh(1988: 172) states:

[e]very great scholarly movement has its own lore, its own collectively recalled creation myth, its ritualized chronicle of the many struggles fought and the battles that lay ahead in establishing and maintaining its intellectual hegemony.

The modernization and dependency approaches will stimulate rather than destroy each other and they will not die in the near future. The theory of political development should be better because of the interactions among different approaches.

However, I would like to adopt the perspective of modernization approach rather than the others mainly because of its continuing centrality to comparative research in general and conflict theory in particular. Therefore, political development² is defined as the effectiveness of political structures in performing major political functions: interest articulation, interest aggregation, political recruitment, socialization, communication etc. As Flanagan(1973: 53) argues political structures include both political institutions and processes by which resources are allocated authoritatively, political institutions will refer mainly to the legislature, political parties, and the executive branch in this study.

2.4 Political Conflict

2.4.1 Understanding Political Conflict

Conflict is the contest over values or claims to status, power, and scarce resources, in which the aims of the groups or individuals involved are not only to obtain the desired values, but also to neutralize, injure, or eliminate rivals (Coser, 1961). Order and stability are usually central themes in classical political theory and political conflict can be thought of as evidence of the lack of them. It always exists and is a serious issue in history because political conflict is about disagreement between the ruler and the ruled. “Not the presence, but the absence of conflict is surprising and abnormal” (Dahrendorf, 1958).

American political scientists began to empirically investigate this type of political behavior after World War II. Huntington’s (1968) research on political order in changing societies focuses on instability and political violence including guerrilla wars, revolts, coups, and militarily conventional wars, etc. In *Why men rebel*, Gurr studies political violence which refers to all collective attacks within a political community against the regime, its actors, and/or its policies. Political

violence includes revolutions, guerrilla wars, coups d'etat, rebellions, and riots (Gurr, 1970: 3-4).

By this time, Taylor and Hudson (1972) includes "political protest" as a form of political conflict, and it ranges from the relatively peaceful and legitimate demonstrations to violence consisting of armed attacks. Gurr (1989: 103) argues that the typical forms of protest are political strikes, demonstrations, riots, and clashes, while the typical forms of rebellion are coups and plots, terrorist campaigns, guerrilla, civil, and revolutionary warfare. Recently, Brown (1996) refers to "internal conflict" as political violence; it ranges from low-level terrorist activities through sustained guerrilla insurgencies, and to all-out civil war or genocide.

First of all, protest has become an important form of political participation. Since electoral turnout rates have been declining in the West after 1950s, there has been a considerable augmentation of citizen participation through protest, voluntary public interest groups, and other forms of unconventional political action (Barnes et al., 1979; and Verba et al. 1995). Kaase (1989) also argues "new social movements" enlarge the repertoire for political actions and legitimate

direct participation for the wealthy middle class. They have dispersed across other political groups, and now become a basic form of political participation.

While Dalton (1996) maintains that the increase of protest in developing and developed nations is an extension of democratic rights, protest is usually practiced by the better educated and the politically sophisticated in developed systems. But protest in democratizing nations is often seen as a challenge to the existing political order, and it remains a method of expressing disagreement by those with limited political power. Having yet to develop the institutions of conventional democratic politics in these democratizing countries, unconventional politics, like protest, is another alternative.

In brief, political conflict is more often manifested by mass protest behavior, which entails expressions of public disagreement or opposition to the practices and policies of a regime by legal means, and elite insurgent behavior, which involve efforts to exterminate or supplant regime incumbents by extralegal means (Ziegenhagen, 1994: 165).

When a political conflict occurs, the government usually intervenes to regulate it in order to maintain political stability. Regulation policies are defined as the regimes' ability to bring the people's behavior within desired limits of variation (Ziegenhagen, 1986). As a matter of fact, the regulation of political conflict is a primary task of all governments (Ziegenhagen and Koutsoukis, 1992). Every government must regulate political conflict to maintain social order and power structures. Yet, governmental regulation often stimulates or worsens political conflict rather than deter it. Therefore the government can gradually lose its regulatory effectiveness. In addition, if a government wants to regulate political conflict, it must possess a sanction apparatus for the purpose of administering sanctions, (e.g., police, internal security forces, and the military). For example, Gurr (1965) claims that the magnitude of political violence correlates inversely with the perception of the "coercive capacity" (i.e., the sanction apparatus) of a regime.

What regulatory policies could a government adopt when it possesses a sanction apparatus? It could increase or decrease the use of sanctions to regulate political conflict. Not only non-democratic and

non-Western states, but all states engage in sanctions to some degree (White and White, 1995). Sanctions are employed as policy interventions and include political censorship of communication, political restrictions on organization, assembly, and representation as well as political executions. Killing is the ultimate sanction (Ziegenhagen, 1986: 9-11). Glover (1991) argues that full-blooded state terrorism is usually much worse than mass terrorism since the psychological roots of state terrorism are very widespread and deep. A regime's sanctions are generally more bloody and widespread than challengers' insurgency. For example, 169,202,000 people were killed by their governments during 1900 and 1987 (Rummel, 1994). But generally political conflict cause negative sanctions more often than regime's sanctions bringing about political conflict because regime's behaviors are usually reactive rather than active.

2.4.2 Causes of Political Conflict

(1). class antagonism

Cohen maintains Marxist theory is the most significant schools of revolutionary thought (1975: 54). Karl Marx is among the first to

investigate empirical political conflict focusing on revolution. One-third of the world's population lived under the domination of communism regimes influenced by the Marxian theory for about seventy years.

According to Marxian theory, capitalism turns workers into cogs of a machine. They become isolated from the products they produce, thus increasing their alienation. When workers realize the inhuman treatment caused by the capitalist mode of production, they gain a class consciousness which provides the bases for the proletariat to unite and bring about a revolution. On the other hand, Karl Marx sees revolution not as an isolated episode of violence but as a class-based movement resulting from objective structural contradictions within historically developing and inherently conflict-ridden society (Skocpol, 1979: 7).

What is the target of revolution? The dominant class or the state? Both of them are enemies in the Marxian perspective, because the state, as superstructure, is simply a tool of the dominant class. Marx declared that the state is nothing but a machine for the suppression of one class by the other, and in a democratic republic no less than in a monarchy. Workers must be united to overthrow the state which always supports the interests of the bourgeoisie.

Some Marxian theorists, like Skocpol, stress the world market and the international system. It is dependency theory that affirms the underdevelopment of Third World nations results from the structural disturbance created by the capitalist mode of production.

Marxist theory also influences other theories of political conflict. For instance, the “misery” concept could be seen as the root of “relative deprivation” or “grievance” approaches. That the proletariat must unite for resolution of the conflict is the origin of group mobilization theory.

(2) relative deprivation and grievance approaches

It is doubtful why men resist regimes. Are people inherently aggressive, or aggressive in response to specific social conditions? Gurr (1970) asserts that men have the capacity to change the status quo but not necessary for aggression, and they exercise that capacity collectively in some specific pattern of social circumstances. He argues that relative deprivation has the strongest causal effect on the occurrence and severity of political violence in contemporary nations (1968: 1104). According to Gurr, widespread perception of relative

deprivation will lead to discontent, which tends to lead to politicization of discontent, which in turn will lead to political violence (1970: 12-3).

Relative deprivation is defined as a perceived discrepancy between [people's] value expectations and their value capabilities and is seen as the most critical source of political conflict according to Gurr. Value expectations are the goods and conditions of life to which people believe they are rightfully entitled, and value capabilities are goods and conditions they think they are capable of attaining or maintaining, given the social means available to them (Gurr, 1970). Relative deprivation is a social-psychological concept based on a subjective assessment of deprivation rather than its verifiable existence (Ziegenhagen, 1992: 49). It is no wonder that Moshiri (1991:20) asserts that Gurr's major contribution to conflict theory is his focus on the dynamics of human behavior as dictated by people's perceptions of the world.

Relative deprivation can be measured by the discrepancy between expectations and capabilities, and there are three forms of the gap: decremental deprivation, aspirational deprivation, and progressive deprivation. The probability for political violence would be highest in a

nation where most of whose citizens felt gravely deprived with respect to their earnest value goals. Therefore, a revolution has a high likelihood when expectations have risen after a sustained period of hard deprivation and then expectations are crushed.

On the other hand, some scholars maintain that political conflict is best understood in terms of the **grievance** concept (Gurr, 1970; Oberschall, 1973). Kowalewski and Hoover (1995: 1) also state that changes in grievances best account for the dissident movement. Grievances are the key intervening variable between objective conditions such as inequalities and political conflict. Grievances are not likely noticed until they are given coherent expression by leaders of political movements who claim to represent the group's interests (Gurr, 1993b: 68). As Goldstone (1991: 46) states:

[t]here are two types of grievances, and regimes' success in dominating the polity rests on their ability to win the allegiance of key groups; i.e., rectification of formal grievances— reducing ostentation in government, purging corrupt old retainers and unpopular laws, creating a new constitution, and accepting greater popular participation in politics, and rectification of material grievances which usually require more than mere formal and procedural changes; it means that a measure of redistribution of assets held by formerly privileged groups is required.

In general, political conflict results from the confrontation between the collective desire for cultural recognition and governmental

pressure for assimilation. However, three kinds of demands are associated with efforts to improve a group's status: political rights, economic rights, and social and cultural rights. Four types of grievances include political autonomy which usually implies some form of independence, political grievances, economic grievances, and social grievances (Gurr, 1993a: 173).

The concept of grievances is deductive from the theory of relative deprivation and it could specify clearly the real subjective factor for objective challenges-- Why men resist? Both concepts are helpful to understand why political conflict occurs. In brief, the psychological model for political conflict is shown in Figure 2.3.

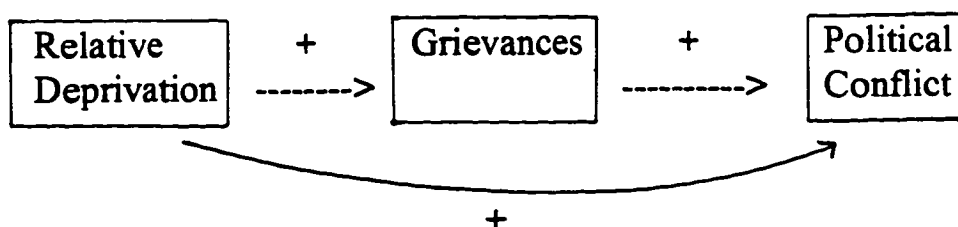


Figure 2.3: Psychological Model of Political Conflict

(3). resource mobilization

Tilly's (1978) resource mobilization theory is based on the polity and mobilization models. The polity model sees politics as an interaction among groups: governments, contenders (challengers or members of the polity), and coalitions. A government is the organization that has the greatest coercive power in the polity. Challengers and members are organized groups. When they have routine access to resources controlled by the government, they are members of the polity; when they lack access, they are challengers. If some numbers decide to act together, they form a coalition.

The magnitude of a political conflict relies on its degree of mobilization, opportunity, and power in the mobilization model. The degree of mobilization is determined by organization, interest, repression, and opportunity (Tilly, 1978:57). A relative highly mobilized group usually extracts more resources from its members.

According to the resource mobilization theory (Tilly, 1978), causal factors of a revolution include:

- (1). the appearance of contenders, or coalitions of contenders, advancing exclusive alternative claims to control over the government, which is currently exerted by members of the polity.

- (2). commitment to these claims by a significant segment of the population.
- (3). incapacity or unwillingness of the agents of the government to suppress the alternative coalition and/or commitment to its claims.

In other words, the first condition of a revolution is the advancement of mutually exclusive claims by contenders. The second condition is that these alternative claims are accepted by notable parts of the population. The third condition is that government fails to repress the alternative coalition because of a lack of or an inefficient use of the sanction apparatus.

In sum, Tilly (1978: 192) sees revolutionary outcome as “the replacement of one set of power holders by another,” and revolutionary conditions are only one of the determinants for a revolutionary outcome which also requires coalitions between challenge groups and member groups.

(4). government regulation

Regulation is defined as the ability to bring behavior within known or desired limits of variation; the regulation of political conflict is a primary task of all governments (Ziegenhagen, 1986; Ziegenhagen

and Koutsoukis, 1992). Every regime has to regulate political conflict to maintain social order and the power structures. But this objective is not easy to achieve. Some regimes succeed, but others fail. However, if a regime wants to regulate a political conflict, it must maintain a coercive capacity.

Ziegenhagen (1986) argues that precision is enhanced by employing conceptually distinct measures of coercive capacity because some degree of competition exist between civilian and military organizations for allocation of government expenditure. Excepting size of the military which represents military manpower, military sector allocation variable is desirable, which is measured usually by defense expenditures as a proportion of total expenditures.

Ziegenhagen (1986) examines three regulatory models--coercive/deterrence, negative sanctions, and sanction abatement models and finds that none of them appears to a particularly good regulator of conflict. The most significant finding is that the utilization of particular policy interventions will exacerbate political conflict rather than regulate it effectively. For instance, military sector allocations, size of military apparatus, military representation,

imposition of political restrictions, and political executions all contribute to political conflict rather than deter it in some certain circumstances.

(5). dependency

Dependency theorists emphasize the role of the state in the international arena. Skocpol (1979: 19) discusses the international connection within the transnational political economy, the competing nation-state system, and transnational historical context and argues:

... [t]ransnational relations have contributed to the emergence of all social-revolutionary crisis and invariably helped to shape revolutionary struggles and outcomes. All modern social revolution must be seen as closely related in their causes and accomplishments to the internationally uneven spread of capitalist economic development and nation-state formation on a world scale.

Skocpol sees the state as a “structure with a logic and interest of its own” and it consists of “ a set of administrative, policing and military organizations coordinated by an executive authority.” The structure is the most important, not individual or collective dissident or advocacy of a new belief system (1979: 24-29). An element of violent class struggle must exist and structural barriers to class-based revolts should be removed or weakened before the revolution can occur. When

a nation has domestic structures that resist reforms needed to settle competition, the state mechanism is cracked and if state coercive power is weakened, a revolution could occur.

Dependency theorists maintain the international system of competing states encompasses both domestic and transnational economic relations. The relationship of the state to the society is molded by the state's location in the international system. Accordingly, the domestic political conflict is determined essentially by the structure of the international system.

(6). intra-elite competition

Goldstone (1991) analyzes the impacts of urbanization, inflation, and demographic growth on states and focuses on superpower relationships and rivalries with Third World countries in the context of neopatrimonial revolutions. He sees states as autonomous organizations attempting to maintain and expand their power.

Goldstone also highlights the role of ideologies in revolutionary struggles and maintains the ideology espoused by revolutionary leaders has a definitive impact on states' reconstruction. There are three

critical elements whose combination could cause a revolution (Goldstone, 1991):

- (1). a crisis of state resources, e.g., usually a fiscal crisis brought on by the breakdown of tax system to meet mounting needs due to defeat in wars.
- (2). elite disunity and alienation from the state, which leads elite to respond to the state crisis by fragmenting into factions with each seeking the control of the government.
- (3). a high level of mass mobilization potential. Urban concentration, a large proportion of youth in the population, falling real wages, rising real rents all contribute to the potential. When all three elements occur at once, a revolutionary crisis is developing.

The result of a revolution is determined by power relations among various groups and the structure of social institutions. Outcomes could be failed revolutions, (e.g., Germany and Austria-Hungary in 1848), or political revolutions, (e.g., England in 1640), or social revolutions, (e.g., France in 1789).

The intra-elite competition approach is used by Goldstone (1991) to inspect relationships among the state and its resources, elite and their ambitions and fractions, trends in living conditions, age composition, and urban concentration. At last, he concludes ecological and international factors, rather than the growth of capitalism, are forces that undermine states.

In conclusion, Moore and Jagers (1991) argue:

[G]urr (1970), Tilly(1978), and Skocpol(1979) can learn from each other. It is theoretically useful to synthesize socio-psychological, political conflict, and structural-determinist approaches to explain rebellion than to choose among them.

I will maintain that all the above approaches to political conflict can learn from each other; they do not supplant but rather supplement each other. Political conflict can be addressed better by a synthesis of the above approaches.

2.4.3 Relevant Models of Political Conflict

(1) Gurr's synthesized model

Independent variables for political conflict include relative deprivation, support for a regime, conflict tradition, and repression in Gurr's model (1970). In the short run, relative deprivation can stimulate political conflict, and it can enlarge political conflict by eroding a regime's support in the long run. Regime support is determined mainly by the type of regime and the level of economic development.

The conflict tradition, created by the level of democracy which has a negative effect and conflict experiences which have a positive

effect, tends to stimulate political conflict. However, political conflict can increase a regimes' repression, but repression will decrease political conflict. They will form a negative loop that fluctuates.

(2) Hibbs' political violence model

Political conflict includes collective protest, internal war, and coups in Hibbs' model (1973). Critical independent variables are negative sanctions, the rate of economic development, and social mobilization. Negative sanctions interacting with political conflict will contribute to political conflict considerably.

Hibbs argues negative sanctions are a function of the ratio of social mobilization over institutionalization, democracy, the sanction apparatus, and types of political conflict. Most importantly, political development, which includes levels of democracy and institutionalization, will decrease regimes' sanctions directly. However, social mobilization not only stimulates mass protest, but also increases sanctions.

(3) Globus' domestic political processes model

Elements comprise mass satisfaction with government performance, regime support, protest, violence, sanctions, and repression in Globus' Domestic Political Processes Model (Bremer, 1987). Protest and violence are two types of political conflict. Mass satisfaction and government sanctions have negative effects on protest, but protest can conversely stimulate government sanctions.

However, mass satisfaction will increase regime support, and regime support can decrease violence and sanctions. Protest and political violence will stimulate government sanctions and repression, but sanctions inversely decreases protest and the level of violence.

(4) Richardson's simulation model of political conflict

Richardson (1987; 1990) tends to integrate relative deprivation, resource mobilization, and government regulation in his simulation model. Notable variables include economic performance, economic deprivation, support/opposition, repression, potential violence, violence probability, and political violence.

Economic deprivation is a gap between current economic performance and the expected one which is a function of previous economic performance. It will decrease support but stimulate potential violence and violence probability. Levels of support also have a negative effect on potential violence and violence probability. Therefore, economic deprivation should promote potential violence and violence probability either in the short or long run.

Richardson argues repression can either increase or decrease potential violence as well as violence probability. But potential violence is certain to increase repression directly or indirectly by way of political violence. Violence probability can also increase repression via political violence. Finally, political violence will abate surely the economic performance.

(5) Hou's simulation model of political conflict

Hou (1993) integrates the relative deprivation sector, regime support sector, repression sector, and political conflict sector in his simulation model. He links relative deprivation and regime support sectors by the effect of the total satisfaction on regime support; relative

deprivation and repression sectors are combined by the effect of total satisfaction on the regime support. Regime support and repression sectors are connected by the effect of regime support on the gap of support; relative deprivation and political conflict sectors are linked by the effect of total satisfaction on the level of protest as well as level of conflict tolerated. Finally, he links repression and political conflict sectors by the effect of repression on protest, the effect of a gap of conflict on sanctions, and sanctions which in turn affect conflict control.

Major determinants of political conflict encompass economic and political deprivation, regime support, political development, and repression. Hou (1993) stresses political development and political deprivation, and integrates political satisfaction into the total satisfaction.

(6) Ziegenhagen's generic conflict model

In Ziegenhagen's (1994) generic conflict model, there are eight crucial components: expectations, system performance, demands, protest, insurgency, sanctions, the sanctioning apparatus, and political

development. Demands, which are the source of political conflict, are a function of gaps between expectations of performance and the actual performance of a political system. Expectations refer to the economic, social, or political results anticipated.

Political conflict is manifested by protest and insurgency. Specific protest behaviors include demonstrations and riots, while insurgent behaviors encompass assassinations and coups. When gaps between expectations and performance become unendurable, and anticipated gains outweigh costs for conflict; political conflict, either protest or insurgency, could result.

Repressing political conflict requires a sanction apparatus, most often in the form of internal security forces or military organizations. The sanction apparatus usually degrades political development and stimulates protest and insurgency sequentially. The higher the level of political development, the fewer the sanctions. However, sanctions can lessen protest but increase insurgency, and the more insurgency, the more protest behavior.

Political development institutionalizes mass protest and lessens the association of destabilizing events to political conflict. More

developed systems differ from less developed systems by their tendency to employ severe negative sanctions and maintain extensive sanctioning institutions, not by their level of mass protest (Ziegenhagen, 1994). Because constitutions usually protect people's protest and participation rights in more developed systems, there may be high levels of protest behavior and comparatively low levels of insurgency.

(7). Kowalewski and Hoover's dynamic model of conflict and pacification

Kowalewski and Hoover (1995) are interested in the changing pattern of interactions among a potential movement, a regime, third parties who support the regime's rivals, and conflict-resolutionists who intervene to mitigate the rivalry. To understand the movement-regime rivalry, they employ a dynamic model of conflict, which is a system of interrelated variables whose interactions cause the system to change over time.

Four stocks include grievances and resources of movements and those of regimes as Kowalewski and Hoover argue that regimes also

have grievances. Flows are the accumulations and the depletion of movement grievances, those of movement resources, those of regime grievances, and those of regime resources. Converters include scope of dissident activity, movement response, intensity of dissident activity, third party, concessions, scope of repressive activity, regime response, and the intensity of repressive activity.

Grievances and resources will display some unaffected accumulation and decay, (i.e., they have a positive or negative effect on themselves automatically). The scope and intensity of each rival's activity are weighted averages of its grievances and resources. Scope is the geographic and demographic extent of dissident or repressive activity, and intensity is the degree of damage inflicted by dissident or repressive activity on the rival's personnel, property, or organizational processes. The scope of activity is driven more by resources rather than by grievances as in the case of intensity.

Third party support for the movement is the function of the difference between the intensity of repressive activity and dissident activity, and it enhances movement resources. It exists only when the intensity of repressive activity is greater than the intensity of dissident

activity. However, the scope for concessions is a function of the percentage of regime resources and third party support for the movement. It should decrease as the regime grievances approach 100. In addition, concessions can drain a movement's grievances.

Finally, Kowalewski and Hoover (1995) run their model for a period of time long enough to estimate equilibrium scores which indicate the steady states of the system. An equilibrium score is defined as stable when the variable returns to this level whenever the system is disturbed. At equilibrium, all motions are balanced such that gains and losses balance each other and the system exhibits low levels of political instability.

2.5 Relationships among Political Development, Political Conflict, and Regulation Policies

2.5.1 Relationships between Political Development and Political Conflict

Most conflict theorists maintain that the correlation of political development and political conflict is negative, for example, Cutright

(1963), Hibbs (1973), and Flanigan and Fogelman (1970). However, what effects does political development have on political conflict? Fukuyama (1992) argues that liberal democracy, a form of political development, finds a way to universally satisfy the individual desire for recognition which is the source of most conflict. Cohen (1996) also finds that democratic systems manage ethnic conflict more effectively than authoritarian systems and he affirms the mollifying effects of democracy on a bloody, hateful, and often deadly form of human strife. In summary, political development can decrease political conflict. However, Gurr (1989: 127) expects that nonviolent protest mobilized as many people since the 1960s as it did during that disorderly decade because protest has become routinized and legitimized. Therefore, there are more protest episodes in highly developed systems and their relationship is positive. Hwang (1997) also finds the correlation between political development and protest is positive, the higher the level of political development, the greater the protest behaviors.

And what effect has political development on insurgency? Brown (1996: 576-7) argues that political transitions brought about by the collapse of authoritarian rule, democratization, or political reforms

make states particularly prone to violence. However, Ziegenhagen (1994) maintains insurgency will decrease political development. Powell (1982: 168, 206) argues that party involvement in violence is particularly dangerous to the survival of the democratic regime. It implies insurgency will decrease political development. He also finds that citizen involvement in legitimate political channels inhibits mass turmoil. It indicates political development can inhibit insurgency. Therefore political development and insurgency form a positive (-,-) loop; they will reduce each other. Gurr (1993a: 184) also argues that “democratizing states tend to have lower mobilization for rebellion” and implies that political development could decrease insurgency. Rummel (1995) finds political killing is best explained by the degree to which a regime is empowered along a democratic to totalitarian dimension and the extent to which it is characteristically involved in war or rebellion. His conclusion-- “the more democratic a regime the less internal violence” strongly suggests that democracy is a general method of nonviolence. Lomperis (1996) also finds that land reform and electoral democracy can cement political legitimacy and therefore deflect revolutionary movements.

However, Huntington (1968) maintains the relationship of political development and political violence (insurgency) is curvilinear; its shape is like an inverse U-curve. In other words, political violence is low in the less developed and more developed systems, but it is high in developing systems. Gurr (1989: 127) argues it is clear that far less violent collective action took place in the United States in the last two decades than in the 1960s, and it implies the shape of political violence is like inverted U-curve. Hwang (1997) also finds the relationship between political development and insurgency is an inverse U-curve. Political violence is minor in the less developed and more developed systems, but it occurs most often in mid range developing systems. Finally, Schock (1996) finds that the intermediate level of democracy (semi-repressiveness) causes more political violence rather than the lower or higher levels of democracy.

Coser (1967:19) declares that conflict can prevent the ossification of social systems by exerting pressure for innovation and creativity and that political conflict can encourage political development. Ziegenhagen and Koutsoukis (1992) find that political conflict, especially mass protest, contributes to an increase in political

development in less developed systems although they find that some forms of political conflict contribute to the degradation of political development, while others contribute to its advance. Koutsoukis (1994: 101-110), who focused on political conflict in Greece, also finds political conflict can advance political development by promoting the growth of democratic institutions. For example, some forms of mass conflict, like general strikes, riots, and governmental crises, are closely and “positively” associated with advances in political development. Maguire (1993) likewise finds that citizens can use protest to redress grievances, gain political access, and expand democratic participation.

2.5.2 Relationships between Political Development and Regulation Policies

Ziegenhagen (1994: 170) argues that political development is inversely related to the use of negative sanctions and the dominant sanctioning apparatus. Gurr and Lichbach (1986) declare that authoritarian regimes are more likely to employ sanctions, while democratic regimes are less likely to rely on repressive responses to political conflict. Henderson (1991) finds that the more democratic the

government, the less the likelihood of political repression. Hwang (1997) also finds that the relationship between political development and sanctions is negative. Gurr (1986) argues that democratic principles and institutions inhibit the political elite from using state violence in general and terror specifically. He maintains that democratic states are unlikely to rely primarily on coercion in response to internal challenges. Rummel (1994) defines "democide" as the murder of any person or people by a government, including genocide, politicide, and mass murder. He argues that the more constrained the power of governments, the more power is diffused, checked, and balanced, the less it will aggress on others and commit democide. At the extremes of power, totalitarian communist governments slaughter their people by the tens of millions; in contrast, many democracies can barely bring themselves to execute even serial murderers. His conclusion is democracies commit less democide than any other regime. Poe and Tate (1994) find democracy and participation in civil or international war to have substantively important and statistically significant effects on repression. Democratization decreases government's use of coercion for abusing human rights of private

citizens. McNitt (1995) also finds less institutionalized methods of selecting national leaders have the most pervasive impact on human rights violations. All of them imply that political development can decrease regimes' sanctions.

2.5.3 Relationships between Political Conflict and Regulation Policies

Some scholars, like Hibbs (1973), Duvell and Shamir (1980), argue that political conflict will stimulate governments to adopt sanctions. Gurr (1986) correspondingly states that people's threats to attack will stimulate regimes' sanctions. While Maguire (1993) argues that protest will increase state sanctions. Ziegenhagen (1986) and Davis and Ward (1990) argue that political violence will promote regimes' sanctions. Poe and Tate (1994) also find international and civil wars have increased tendency to abuse personal integrity rights. Gartner and Regan (1996) empirically test the data generated from 18 Latin American countries during the years 1977-1986, and find the opposition violence (insurgency) has a positive but non-linear effect on regimes' sanctions.

Ziegenhagen (1986) finds the utilization of regulation policies may worsen or exacerbate political conflict rather than regulate it effectively, particularly military sector allocations, size of military apparatus, imposition of political restrictions, and political executions. Gurr (1972: 27-47) argues that a high level of repression can deter political conflict, while a moderate level will stimulate challengers to employ more resistance. Muller and Weede (1990) find that rates of domestic violence are higher at intermediate levels of regime sanctions than at either low or high levels. Hibbs (1973), Snyder and Tilly (1972), Tilly (1978) all argue that repression will deter political conflict, but Robinson and London (1991) find repression will arouse political conflict. Davenport (1992) affirms that political conflict is found to be simultaneous in its impact upon political repression. He identifies a "cycle of violence" where conflict and repression bring about one another positively.

Lichbach (1987) finds that an increase in governmental repression of nonviolence will reduce the nonviolent activities of an opposition group but increase its violent activities. The opposition group's total dissent activities depend upon the governmental

accommodative policy, and consistent governmental accommodative and repressive policies diminish dissent but inconsistent policies will increase dissent. Opp (1991) finds that state repression has both deterrent and radicalizing effects on mass protest.

Francisco (1995) also finds the effect of the state sanctions on protest is variable. He (1996) uses two- and three-stage least squares and three forms of the biological predator-prey model to investigate coercion and protest in Germany and North Ireland during 1982-1992; the results cast doubt on the inverted U hypothesis but support the backlash hypothesis--Coercion increases protest. McNitt (1995) finds the most violations of human rights, killings, disappearances and torture, are a reaction to the seriousness of internal protest. Protest and repression form a cycle which leads to unusually brutal violations of human rights. That is, protest and sanctions will reinforce each other.

In addition, Mason (1989) argues that the threat of violent sanctions, not the promise of reward or the appeal of ideology, is what impels the masses to participate in revolutionary organizations. Davis and Ward (1990) examine the dynamics driving domestic political violence in Chile from 1966 to 1990. They find state sanctions can

stimulate political violence, then the rebellious activity has been institutionalized and provokes governmental response. They assert that the level of bloodshed further exacerbates rebellion, which, in turn, stimulates more sanctions. It implies sanctions and insurgency reinforce each other and form a violent cycle.

However, Eckstein (1965) and Gurr (1969) argue that violent repression erodes the regime's legitimacy, and it precludes the use of more conventional nonviolent modes of participation, and thereby causes the opposition to resort to violence and to force a revolutionary change of regime. Schock (1996) also finds that semi-repressiveness, government sanctions, and military interventions all contribute positively to political violence. But Muller (1985) claims the effect of sanctions on violent conflict is an inverse U-curve. When sanctions are low, opposition violence is not necessary, when sanctions are high, opposition violence is also low because organization is difficult, costs are high, and overt support by the masses is deterred through threats. On the other hand, other studies propose an U-shaped model, with increasing levels of repression initially deterring opposition violence but, past some threshold, stimulating such violence by leaving the

opposition with no alternative to violence as a means of relieving grievances (Lichbach and Gurr, 1981). Research findings are very mixed indeed.

On the other hand, Gurr (1993a: 177-191) argues:

[t]he powerful, resource-rich states both accommodate and suppress communal minorities at relatively low cost. Communal political action in the most power states is likely to be limited in scope and to take the form of protest, whereas protracted communal rebellion will typify weak states. The opportunity structure for communal groups in the powerful democracies provides incentives for protest and disincentives for rebellion. In powerful states the balance of opportunities and risks favor communal protest over rebellion.

His arguments imply increase of sanction apparatus will stimulate protest but decrease insurgency. Defronzo (1991: 313) maintains that a severe political crisis eroding the administrative and coercive capacity of the state is one of five major factors contributing to the success of revolutionary movements throughout history. Brown (1996: 13-4) also argues the weak state structures lack political legitimacy, political sensible borders, and political institutions capable of exercising meaningful control over the territory. When state structures weaken, violent conflict often follows, and increase in sanction apparatus will deter insurgency.

Gurr (1988) argues that frequent success in the use of state-organized violence for national unity and the suppression of internal challenges leads to the development of police states. It implies that frequently successful sanctions will increase the sanction apparatus. Sivard (1982) finds the association between institutionalized political violence and military controlled governments is particularly strong. Of those governments most prone to use torture there are almost three times as many among the military controlled as in other Third World countries. The large standing armies and high military expenditures lead to greater suppression. Similar findings have been reported by Nordlinger (1970), Finer (1975), McKinlay and Cohen (1976), Tannahill (1976) (see Wolpin, 1986: 115-6) as well as Davenport (1995). It means that an increase of the sanction apparatus will increase sanctions. Finally, Lichbach and Gurr (1981) find that man-days of protest is a weak positive and linear function of simultaneous man-days of rebellion and lagged man-days of protest; man-days of rebellion is a weak positive and linear function of simultaneous man-days of protest and lagged man-days of rebellion. It implies that protest and rebellion enforce each other.

2.6 Summary

In sum, relationships established among political development, political conflict and regulation policies for political conflict in the existing literature can be summarized as Table 2.1 and Table 2.2.

Table 2.1: Correlations among Political Development, Political Conflict, and Regulation Policies

Correlation	political conflict	protest	insurgency	sanctions	sanction apparatus
political development	- : Hibbs (1973), Flanigan & Fogelman (1970), Cutright (1963).	none : Hibbs (1973). + : Gurr(1989), Hwang (1997).	Inverted U : Huntington (1968), Gurr(1989), Hwang (1997).	- : Gurr & Lichbach (1986), Henderson (1991), Ziegenhagen (1994), Hwang (1997).	+ : Hwang (1997). - : Ziegenhagen (1986, 1994).
political conflict				inverted U : Gurr(1972)	
protest			+ : Ziegenhagen (1994).		
insurgency				inverted U : Muller & Weede (1990).	- : Gurr(1965).

Table 2.2: Causal Relationships among Political Development, Political Conflict, and Regulation Policies

dependent variable / explanatory variable	Political development	political conflict	protest	insurgency	sanctions	sanction apparatus
Political development		- : Fukuyama (1992), Cohen (1996).		+ : Brown (1996). - : Powell (1982), Gurr (1993a), Rummel (1995) Lomperis (1996). <u>Inverted U</u> : Schock (1996).	- : Hibbs (1973), Gurr (1986, 1988), Rummel (1994), Poe & Tate (1994), McNitt (1995).	
political conflict (general)	+ : Coser (1967).				+ : Gurr (1970), Hibbs (1973), Duvell & Shamir (1980), Gurr (1986), Davenport (1992).	
Protest	+ : Ziegenhagen & Koutsoukis (1992), Koutsoukis (1994), Maguire (1993).			+ : Lichbach & Gurr (1981).	+ : Bremer (1987), Maguire (1993), McNitt (1995).	

Dependent variable	Political development	political conflict	protest	insurgency	sanctions	sanction apparatus
explanatory variable						
insurgency	-: Powell (1982), Ziegenhagen (1994).		+: Lichbach & Gurr (1981).		+: Ziegenhagen (1986), Bremer (1987), Davis & Ward (1990), Poe & Tate (1994). <u>+ but nonlinear:</u> Gartner & Regan (1996).	
sanctions		+: Ziegenhagen (1986), Robinson & London (1991), Davenport (1992). -: Gurr (1970), Snyder and Tilly (1972), Hibbs (1973), Tilly (1978).	Vary : Francisco (1995). + or -: Opp (1991) +: McNitt (1995), Francisco (1996). -: Bremer (1987), Ziegenhagen (1994).	+: Eckstein (1965), Gurr (1969), Davis & Ward (1990), Ziegenhagen (1986, 1994), Mason (1989), Schock (1996). -: Bremer (1987). <u>Inverted U:</u> Muller (1985). <u>U:</u> Lichbach and Gurr (1981).		
nonviolent sanctions			-: Lichbach (1987).	+: Lichbach (1987).		

Dependent variable	Political development	political conflict	protest	insurgency	sanctions	sanction apparatus
explanatory variable						
consistent sanctions		-: Lichbach (1987).				
inconsistent sanctions		+: Lichbach (1987).				
sanction apparatus	-: Ziegenhagen (1994).	+: Ziegenhagen (1986).	+: Gurr (1993a).	-: Defronzo (1991), Gurr (1993a), Brown (1996).	+: Sivard (1982), Nordlinger (1970), Finer (1975), McKinlay & Cohen (1976), Tannahill (1976) Davenport (1995).	

Chapter 3

RESEARCH DESIGN AND DATA

3.1 Introduction

This chapter emphasizes the research design which includes the research hypotheses, data collection, regression models, measures, and statistical analyses. The purpose of this research is to investigate the relationships among political development, political conflict, and its regulatory policies within a political system. Their relationships will be displayed in the section 3.2: regression models and hypotheses.

I measure the indicators of key concepts in section 3.3. Two main statistical methods-- two stage least squares and negative binomial regression are introduced, then data resources are interpreted. To provide the relevant initial and parameter values for the simulation model, 2SLS and negative binomial regression analyses will be undertaken in section 3.4.2. Finally, a summary about the initial and parameter values conclude this chapter.

3.2 Regression Models and Hypotheses

Five regression models based on the existing literature are proposed in this section. The parameter values of the simulation model will be extracted or transformed from the beta (β) values of the regression models to establish its reliability and validity. Since political development and the sanction apparatus are continuous variables, and their explanatory variables are all dependent variables in other relevant models, then they are overidentified, and the protest, insurgency, and sanctions regression models are underidentified. Therefore, two stage least squares procedures are necessary to avoid biased estimations for 2SLS can eliminate the possible autocorrelations between protest, insurgency, sanctions and their residuals.

For example, the simple way to run the 2SLS on the political development model is to regress the estimated values of protest and insurgency variables on political development. The political development model is displayed in the equation (3.1):

$$\text{Political Development} = \alpha + \beta_0 \text{ Protest} + \beta_1 \text{ Insurgency} + \mu_i, \quad (3.1)$$

where protest and insurgency will be autocorrelated with the residuals μ_i . To eliminate the autocorrelation problems, I replace protest with

$\hat{\text{protest}} + \mu_1$ and $\hat{\text{insurgency}} + \mu_2$.

then, **political development**

$$\begin{aligned} &= \alpha + \beta_0 (\hat{\text{Protest}} + \mu_1) + \beta_1 (\hat{\text{Insurgency}} + \mu_2) + \mu_i \\ &= \alpha + \beta_0 \hat{\text{Protest}} + \beta_1 \hat{\text{Insurgency}} + \mu_i^*, \end{aligned} \quad (3.2)$$

where $\mu_i^* = \beta_0 \times \mu_1 + \beta_1 \times \mu_2$

There is no autocorrelation between the estimated protest and μ_i^* , and the estimated insurgency and μ_i^* in the equation (3.2) now. Therefore, Model 1 and 5 are 2SLS (or TSLS) regression models. While protest, insurgency, and sanctions are event count variables, so models 2, 3, and 4 are negative binomial models. The justification is elaborated in the section 3.3.2: statistical methods.

Model 1: Political Development 2SLS Regression Model

$$\text{Political Development} = \alpha + \beta_0 \hat{\text{Protest}} + \beta_1 \hat{\text{Insurgency}} + \mu_i^*$$

Hypothesis 1a: Protest can promote political development.

Hypothesis 1b: Insurgency will decrease political development.

Model 2: Protest Negative Binomial Regression Model

$$E(\text{Protest}) = \exp(a + \beta_0 \text{ Political Development} + \beta_1 \text{ Insurgency} + \beta_2 \text{ Sanction} + \beta_3 \text{ Sanction Apparatus} + \beta_4 \alpha)$$

Hypothesis 2a: Political development can stimulate protest.

Hypothesis 2b: Insurgency will increase protest.

Hypothesis 2c: Sanctions will stimulate protest.

Hypothesis 2d: Increases in the Sanction apparatus will stimulate protest.

Model 3: Insurgency Negative Binomial Regression Model

$$E(\text{Insurgency}) = \exp(a + \beta_0 \text{ Political Development} + \beta_1 \text{ Protest} + \beta_2 \text{ Sanction} + \beta_3 \text{ Sanction Apparatus} + \beta_4 \alpha)$$

Hypothesis 3a: Political development will decrease Insurgency.

Hypothesis 3b: Protest will stimulate Insurgency.

Hypothesis 3c: Sanctions will provoke Insurgency.

Hypothesis 3d: Increases in the Sanction apparatus will decrease insurgency.

Model 4: Sanctions Negative Binomial Regression Model

$$E(\text{Sanction}) = \exp(a + \beta_0 \text{ Political Development} + \beta_1 \text{ Protest} + \beta_2 \text{ Insurgency} + \beta_3 \text{ Sanction Apparatus} + \beta_4 \alpha)$$

Hypothesis 4a: Political development can decrease sanctions.

Hypothesis 4b: Protest has a positive effect on sanctions.

Hypothesis 4c: Insurgency will stimulate sanctions.

Hypothesis 4d: The sanction apparatus will increase sanctions.

Model 5: Sanction Apparatus 2SLS Regression Model

$$\text{Sanction Apparatus} = \alpha + \beta_0 \overset{\wedge}{\text{Political Development}} + \beta_1 \overset{\wedge}{\text{Protest}} \\ + \beta_2 \overset{\wedge}{\text{Insurgency}} + \beta_3 \overset{\wedge}{\text{Sanctions}} + \mu_i^*$$

Hypothesis 5a: Political development can lessen the sanction apparatus.

Hypothesis 5b: Protest will stimulate the sanction apparatus.

Hypothesis 5c: Insurgency can increase the sanction apparatus.

Hypothesis 5d: Sanctions will increase the sanction apparatus.

3.3 Measures and Statistical Methods

3.3.1 Measures

In this study political conflict has two dimensions: protest, and insurgency. According to Huntington (1968), Ziegenhagen (1994: 165), and Brown (1996), indicators of the protest variable include general

strikes, anti-government demonstrations and riots; those of insurgency will comprise assassinations, guerrilla warfare , revolutions, and coups d'etat.

Regulatory policy has two components-- sanctions and the sanction apparatus. Indicators of sanctions include political censorship of communication, and other political restrictions which are actions taken by the government to neutralize, to suppress, or to eliminate a perceived threat to the security of the government, the regime, or the state itself, as well as political executions (Taylor and Jodice, 1983). However, the sanction apparatus is composed of internal security forces or military organizations employed to suppress political conflict by the administration of sanctions. Excepting size of the military, which represents military manpower, it is necessary to add the military spending allocation, that is measured by defense expenditures as a proportion of total expenditures (Ziegenhagen, 1994: 167-169). Since there are no reliable data about internal security (or secret police) forces, indicators of the sanction apparatus will contain the proportion of defense expenditure to national government expenditure and proportion population in armed forces.

Political development is the effectiveness of political structures, which include institutions and processes, in performing major political functions. Cutright (1963) presented a measure of political development that is based on the assignment of weights to a total score derived from determining whether a particular national institution exists within a nation and how long it has existed. The existence of a parliamentary body independent from executive control is more heavily weighted than instances in of a parliament dominated by the executive branch. The executive branch is more heavily weighted if the chief executive is elected directly in a competitive election and less so if the institution is part of a colonial government. Cutright paid attention to the executive and legislative branches only and ignores the characteristics of parties.

Banks' (1972) measure of political development is more comprehensive. In addition to indications of the procedure by which members of the government are elected, as well as the means by which they are removed from office, it includes numbers of national legislative elections, executive selection, numbers of cabinet changes,

constitutional changes, and changes of the executive as well as the numbers of coups that have taken place.

Ziegenhagen and Koutsoukis utilize legislative effectiveness, party competition, legislative coalitions, and party legitimacy as indicators of political development (1992: 64-66). Besides three indicators in Ziegenhagen and Koutsoukis (1992): legislative effectiveness, legislative coalitions, and party legitimacy, I would like to add two additional indicators from Banks' measures-- legislative election, executive selection; coupled with two indicators-- types of regimes (i.e., civilian, civilian-military, military) and nominating process for the legislature to make the political development concept more comprehensive. Factor analysis shows these seven indicators are highly correlated, and they appear to subsume the dimensions of effectiveness, institution, process, selection, and legitimacy. Therefore indicators of political development include the effectiveness of the legislature, the nominating process for the legislature, legislature coalitions, party legitimacy, legislative selection, type of regime, and the method of selection of effective executive. They will comprise

three institutions-- legislature, executive branch, and political parties.

Indicators of relevant concepts are shown in Table 3.1.

Table 3.1: Indicators of Relevant Concepts

Concepts	Indicators
Political development	nominating process for legislature, effectiveness of legislature, party legitimacy, legislature coalitions, legislative selection, selection of executive, type of regime
protest	general strikes, antigovernment demonstrations, riots
insurgency	assassinations, guerrilla warfare, revolution, coups d'etat
sanctions	political censorship, other political restrictions, political execution
sanction apparatus	proportion of defense expenditure to national government expenditure, proportion population in armed forces

3.3.2 Statistical Methods

Political development and the sanction apparatus are continuous variables, the use of ordinary least squares is available in general. However, their explanatory variables are all dependent variables in other relevant models. Therefore it is necessary to avoid biased estimations by adopting two stage least squares regressions. The two stage least squares estimator is popular among econometricians because of the relative ease with which it can be computed, and the

main motivation for using 2SLS is that it is consistent, while OLS is not (Vinod and Ullah, 1981: 273-4).

Two stage least squares, as Darnell (1994: 404-410) argues:

[i]s a limited information estimation technique applied to overidentified equations of a simultaneous system and yields consistent estimators of the structural parameters. The estimation of any one of the structural equations will involve an equation in which one endogenous variable is regressed on other endogenous variables and some of the exogenous and pre-determined variables. Since the regressors include endogenous variables, the application of OLS to this structural equation will result in biased and inconsistent estimators of the parameters. 2SLS provides consistent estimators in cases of overidentified variables, and it is one of most popular techniques.

General 2SLS is represented by the equation (3.3):

$$Y_{it} = \sum \beta_{1q} Y_{qt} + \sum \gamma_{1r} X_{rt} + \varepsilon_{it}, \quad (3.3)$$

where Y_{qt} are endogenous variables, X_{rt} are exogenous and pre-determined variables.

The first stage of the 2SLS proceeds by running the reduced-form regressions of each of the right-hand-side endogenous variables on all exogenous and pre-determined variables: $Y_{it} = \sum \pi_{ij} X_{tj} + v_{it}$, $i = 2, 3, \dots, g_1$. Then the second stage is a regression of the form:

$$Y_1 = [\hat{Z} \ X_1] \begin{bmatrix} \beta_1 \\ \gamma_1 \end{bmatrix} + \eta_1$$

However, protest, insurgency, and sanctions are discrete event count variables. Event counts are variables that have for observation i

($i = 0, 1, \dots, N$) the numbers of occurrences of an event in a fixed domain (King, 1988: 837). When commonly used methodologies such as ordinary least squares or logged OLS are applied to event count data, very serious problems can and usually result because the distributions of the event count variables are mostly like the Poisson distribution.³ Therefore the OLS estimators will be inefficient, insufficient, inconsistent, and biased. Kennedy (1992: 245) also argues that a Poisson regression is appropriate for the count data. The parameter λ_i , which is the mean of the Poisson distribution, is specified such that $\ln \lambda_i$ is a linear function of explanatory variables. Using the formula $\text{Prob}(Y=y_i) = e^{-\lambda_i} \lambda_i^{y_i} / y_i!$; $y_i = 0, 1, \dots$ for the density of the Poisson distribution, maximum likelihood estimates can be calculated, where y_i refers to the number of successes in N trials, $\ln \lambda_i = x_i \beta$, and e is the natural constant approximately equal to 2.718.

Using maximum likelihood allows us to avoid many problems associated with the use of OLS on the discrete dependent variable. The resulting coefficients of maximum likelihood estimation allow us to predict the probability of the dependent variable, given values of the independent variables. However, as mentioned above, the “Poisson

regression model” based on maximum likelihood will provide an unbiased and consistent alternative estimator which, in large samples, is more efficient than any other when the dependent variable is event count data. The functional form of Poisson model is:

$$E(Y_i) \equiv \lambda_i = \exp(x_i\beta)$$

using the fact that the exponential is the only function that is its own derivative; the exponent is most commonly used with the Poisson model (King, 1988: 859; 1989:121-124).

The Poisson model is based upon three assumptions: (1) the dependent variable is assumed to follow the Poisson distribution with mean $f(x_i\beta)$, (2) the function f is assumed to be exponential, so that $f(x_i\beta) = \exp(x_i\beta)$, and (3) there is assumed to be only one explanatory variable x_i with a constant. Therefore, the probability of an event is constant over time (temporal homogeneity) and across units (actor homogeneity) and that events occur independently of each other (without diffusion or contagion) and with low probability in each time period. Unfortunately these assumptions are implausible in some applications. Bartles and Brady (1993: 132-3) maintain that going beyond these assumptions of homogeneity and independence has been

one of the major challenger facing analysts of events data during the past fifteen years.

The Poisson model can not be applied when events are correlated, or when the rate of event occurrence λ is heterogeneous, overdispersion in Y_i implied that $\sigma^2 > 1$. On the contrary, negatively correlated events result in underdispersion when $\sigma^2 < 1$. Fortunately, there are several ways to generalize the classic Poisson model. One can handle underdispersion with the continuous parameter binomial and remedy overdispersion with the negative binomial (King, 1989: 126). In general, the most common one used is the “negative binomial model”⁴ which can cope with contagion and heterogeneity problems.

Therefore, negative binomial regressions, instead of linear regressions, will be adopted to avoid bias estimations when the dependent variable is measured by discrete count data. The Poisson regression models will not be adopted for it seems not feasible to assume these variables are independent owing to the significant dispersion (α) values in all negative binomial regressions.

3.4 Data Collection and Statistical Analyses

3.4.1 Data Collection

The relevant data are extracted from the “Time-series Cross-national Data Archive” and the “World Handbook of Political and Social Indicators III.” The former is constructed by Arthur Banks, State University of New York at Binghamton. This data set is made available through the Inter-university Consortium for Political and Social Research (ICPSR7412) and contains 14280 cases for the period 1815-1995 (updated edition). The unit of analysis is nation-year and many variables include demographic, economic, communications, and domestic political information are given. The nations are commonly recognized members of the interstate systems during the 180 year period. The time series includes data for periods for which information is readily available and appropriate. Much of the data were estimated in order to provide yearly coverage.

The latter data archive is constructed by Taylor and Jodice and also offered by the Inter-university Consortium for Political and Social Research (ICPSR7761). It contains 5,460 records for the period 1948-1982. The unit of analysis is also nation-year. I have analyzed both

data of all nations and all years, and the descriptive statistics of the applied data are shown in Appendix 1.

To study the construct validity of any measure, it is worthwhile to correlate the measure with other measures. However, factor analysis is a vital method for testing construct validation and tells us clearly what measures survey the same thing and to what extent they measure. It reduces a large quantity of data into aggregated number called factors by revealing which ones go together and their correlations.

Factor analysis has some shortcomings. For example, Wallace (1973) rejects factor analysis as a method of cluster detection because selection of the number of factors and rotation will leave the door open to arbitrary intervention by the investigation. To avoid the mentioned problems, I will take a “direct” factor analysis which means no selection of the numbers of factors and no rotation.

Using principle component factor analysis, a measure of political development will be created. Its relevant indicators are effectiveness of legislature, nominating process for legislature, legislature coalitions, party legitimacy, legislative selection, type of regime, and the method of selection of effective executive in Banks’ data set. Actually, the

first four variables are the components of the “composite legislature index” defined by Banks (1996). But it is an insufficient measure of political development because it only refers to the legislative branch and parties and ignores the executive branch and regime types. Therefore, I supplement three additional variables which are legislative selection, selection of executive, and type of regime. After running the factor analysis, the principle components loading are shown in Table 3.2. The loadings of selection of executive and type of regime are negative because their coding directions are contrary to those of other relative variables in Banks’ data set.⁵

Table 3.2: Loading of Factor analysis

Variable	Factor 1 (Political Development)	Factor 2
Nominating process for legislature	0.92252	0.00715
Effectiveness of legislature	0.90674	0.18849
Party legitimacy	0.82813	0.46844
Legislature coalitions	0.80325	0.41281
Legislative selection	0.75936	-0.44944
Selection of executive	-0.59019	0.35789
Type of regime	-0.61124	0.56364

The scores of political development are generated through principle component factor analysis based on each country’s value per year on each of seven relevant indicators. Values of generated

variables by factor analysis are actually z scores with the mean of 0 and a standard deviation of 1. Therefore, the range of political development is between -2.37646 and 1.63116 because half of z scores are negative, and the other half of them are positive.

The measure of protest equals the sum of the numbers of general strikes, anti-government demonstrations and riots in Banks' data set. Insurgency equals the sum of the numbers of assassinations, guerrilla warfare, revolutions, and coup d'etat also in the Banks' data set. "Imposition of political sanctions" is measured in the annual event data of Taylor and Jodice's data set as the purge variable in Banks' data set is only about elite conflict. Finally, the sanction apparatus is measured by the mean of "the proportion of defense expenditure to national government expenditure" and "the proportion of population in armed forces" (both have been transformed to percentages) in Banks' data set.

3.4.2 Statistical Analyses

First of all, to provide the relevant initial and parameter values for the simulation model, statistical analyses are necessary. Political

development and the sanction apparatus are two stage least squares models. Protest, Insurgency, and sanctions are negative binomial models. Results of 2SLS regression and negative binomial regression analyses are shown in Table 3.3 and Table 3.4.

Table 3.3 Results of 2SLS Regression Analyses

Dependent Variables	Political Development		Sanction Apparatus	
	b (std. err)	beta [β] r	b (std. Err)	beta [β] r
intercept	0.0068 (0.024)		7.609 *** (0.126)	
Political Development			-0.65 *** (0.105)	[-0.13] -0.127***
Protest	0.046 *** (0.0075)	[0.132] 0.1***	0.05 (0.04)	[0.286] 0.124***
Insurgency	-0.088 *** (0.0113)	[-0.168] -0.123***	0.263 *** (0.058)	[0.099] 0.135***
Sanctions			0.029 *** (0.007)	[0.099] 0.141***
	N = 2295, F = 38.325 p = .00, R ² = 0.03		N = 2295, F = 29.388 p = .00, R ² = 0.05	

*** significant when $p \leq .01$

Table 3.4: Results of Negative Binomial Regression Analyses

Dependent Variables	Protest	Insurgency	Sanctions
Independent Variables	beta [β] (std. err) r	beta [β] (std. err) r	beta [β] (std. err) r
intercept (constant)	-1.27 *** (0.084)	-1.22 *** (0.074)	3.259 *** (0.157)
Political Development	0.286 *** (0.052) .1***	-0.19 *** (0.038) -.123***	0.042 (0.03) -.039**
Protest		0.13 *** (0.01) .247***	0.18 *** (0.014) .216***
Insurgency	0.259 *** (0.029) .247***		0.198 *** (0.03) .129***
Sanctions	0.044 *** (0.005) .22***	0.017 *** (0.004) .129***	
Sanction Apparatus	0.099 *** (0.007) .124***	0.053 *** (0.006) .135***	-0.34 *** (0.019) .141***
Dispersion (α)	3.616 *** (0.169)	2.441 *** (0.125)	4.346 *** (0.165)
	N = 14280 Log-likelihood = -3687.789	N = 14280 Log-likelihood = -3051.478	N = 14280 Log-likelihood = -4872.053

*** significant when $p \leq .01$

** significant when $p \leq .05$

In brief, results of the 2SLS and the negative binomial regression analyses can be employed simply as the following five equations:

$$\text{Political Development} = -0.168 \text{ Insurgency} + 0.132 \text{ Protest} + \varepsilon$$

$$\text{Sanction Apparatus} = 0.099 \text{ Insurgency} + 0.286 \text{ Protest}$$

$$+ 0.096 \text{ Sanction} - 0.13 \text{ Political Development} + \varepsilon$$

Note: The parameter values are standardized beta values
 Significance levels: *** : $P \leq .01$; ** : $P \leq .05$; * : $P \leq .1$

$$\begin{aligned} \text{In Protest} = & \overset{***}{-1.27} + \overset{***}{0.259} \text{ Insurgency} + \overset{***}{0.286} \text{ Political Development} \\ & + \overset{***}{0.099} \text{ Sanction Apparatus} + \overset{***}{0.044} \text{ Sanction} + \overset{***}{3.62} \alpha \end{aligned}$$

$$\begin{aligned} \text{In Insurgency} = & \overset{***}{-1.22} + \overset{***}{0.017} \text{ Sanction} - \overset{***}{0.19} \text{ Political Development} \\ & + \overset{***}{0.128} \text{ Protest} + \overset{***}{0.053} \text{ Sanction Apparatus} + \overset{***}{2.44} \alpha \end{aligned}$$

$$\begin{aligned} \text{In Sanction} = & \overset{***}{3.26} + \overset{***}{0.18} \text{ Protest} + \overset{***}{0.042} \text{ Political Development} \\ & + \overset{***}{0.198} \text{ Insurgency} - \overset{***}{0.339} \text{ Sanction Apparatus} + \overset{***}{4.35} \alpha \end{aligned}$$

Note: α : dispersion
 Significance levels:
 *** : Prob|t| $\geq x$ less than 0.01
 ** : Prob|t| $\geq x$ less than 0.05
 * : Prob|t| $\geq x$ less than 0.1

Therefore, all hypotheses excluding hypotheses 3d, 4a, 4d, and 5b are supported by the above regression results. For hypotheses 3d and 4d opposite relationships are found, and results for hypotheses 4a,

and 5b are not significant. Results of tested hypotheses are summarized in Table 3.5.

Table 3.5: Results of Tested Hypotheses

<p>I. Supported by 2SLS or negative binomial regression analysis: Hypothesis 1a: Protest can promote political development. Hypothesis 1b: Insurgency will decrease political development. Hypothesis 2a: Political development can stimulate protest. Hypothesis 2b: Insurgency will increase protest. Hypothesis 2c: Sanctions will stimulate protest. Hypothesis 2d: Increases in the sanction apparatus will stimulate protest. Hypothesis 3a: Political development will decrease insurgency. Hypothesis 3b: Protest will stimulate insurgency. Hypothesis 3c: Sanctions will provoke insurgency. Hypothesis 4b: Protest has a positive effect on sanctions. Hypothesis 4c: Insurgency will stimulate sanctions. Hypothesis 5a: Political development can reduce the sanction apparatus. Hypothesis 5c: Insurgency can increase the sanction apparatus. Hypothesis 5d: Sanctions will increase the sanction apparatus.</p>
<p>II. Refuted by 2SLS or negative binomial regression analysis: Hypothesis 3d: Increase in the sanction apparatus will decrease insurgency. Hypothesis 4d: The sanction apparatus will increase sanctions.</p>
<p>III. Not significant: Hypothesis 4a: Political development can decrease sanctions. Hypothesis 5b: Protest will stimulate the sanction apparatus.</p>

2SLS regression results of political development model show that protest can promote political development and is consistent with Ziegenhagen and Koutsoukis (1992), Maguire (1993), and Koutsoukis (1994). Insurgency will decrease political development, and Powell (1982), Ziegenhagen (1994) are supported. The 2SLS regression result of the sanction apparatus model reveals that political development can lessen the sanction apparatus, and sanctions increase the sanction apparatus. It also shows that insurgency can increase the sanction apparatus.

Negative binomial regression results of the protest model demonstrate that insurgency will increase protest, and this confirms Lichbach and Gurr (1981). Sanctions will stimulate protest and is consistent with McNitt (1995) and Francisco (1996). Increases in the sanction apparatus will stimulate protest, and Gurr (1993a) is sustained.

Negative binomial regression results for the insurgency model disclose that political development will decrease insurgency, and Powell (1982), Gurr (1993a), Rummel (1995), and Lomperis (1996) are verified. That protest will stimulate insurgency is consistent with

Lichbach and Gurr (1981). That sanctions will provoke insurgency confirms Eckstein (1965), Gurr (1969), Ziegenhagen (1986, 1994), Mason (1989), Davis and Ward (1990), and Schock (1996). Negative binomial regression results of the sanctions model disclose that protest will increase sanctions, and supports Maguire (1993) and McNitt (1995). That insurgency will stimulate sanctions is consistent with Ziegenhagen (1986), Davis and Ward (1990), and Poe and Tate (1994).

However, regression analyses display some unexpected results. For example, the increases in the sanction apparatus will depress sanctions but stimulate insurgency. The former refutes Nordlinger (1970), Finer (1975), Mckinlay and Cohen (1976), Tannahill (1976), Sivard (1982), and Davenport (1995). The relationship between sanction apparatus and sanctions may be curvilinear, for example the inverted U-shape; sanctions are less when the sanction apparatus is low or high, but are more when the sanction apparatus is intermediate.

The latter is contrary to the findings reported by Defronzo (1991), Gurr (1993a), and Brown (1996). The greater the sanction apparatus is, the lower the national expenditure that can be contributed

to civilian purposes, and therefore general societal needs can not be met. If people's frustration crosses a threshold, they will rebel according to the grievance approach.

However, political development has no effect on sanctions, since sanctions are mainly influenced by political conflict, both protest and insurgency, rather than political development. Protest has no effect on the sanction apparatus as peaceful protest is not a real threat to regimes, and regimes do not need to spend more on the sanction apparatus. Insurgency rather than protest is a threat to a regime, and regimes will pay more attention to insurgency than protest.

Finding the initial values and parameter values of the simulation model is required before manufacturing it. Without them, the simulation model can not be constructed. According to Bremer (1990: 208), there are three main ways in which parameter values in simulation model could be derived: statistical estimation, conventional wisdom, and educated guessing. Statistical estimation will be used when the empirical data can be collected. Otherwise, the parameter values of those variables without empirical data will be estimated by

conventional wisdom. Last, educated guessing will be adopted when neither can be found.

The general problem of dynamic models is the lack of attention to justifying the construction and parameterization of their models. For example, Kowalewski and Hoover (1995) argue that “the greatest utility of dynamic modeling lies in discovering what happens if the parameters were true.” However specific parameters based on the findings in the empirical literature must be carefully assessed in terms of the demands of the simulation. Important parameters that determine how much one variable affects others are essential to justify in theoretical terms. This will be undertaken in the following section 3.5.

3.5 Summary

As the essence of the simulation method is between art and science, statistical estimation should be adopted if possible as it could move the simulation method toward the scientific pole. The statistical estimation method is adopted in this study to promote the reliability and validity of the simulation model. The initial values in the simulation model will be set as the means of those variables. The parameter values

will be set as the beta values in the political development and the sanction apparatus models as they are two stage least squares regression models, because the beta values are usually treated as the marginal effects of independent variables on the dependent variable in OLS and 2SLS regression models. However, the marginal effects of explanatory variables on the dependent variable in the protest, insurgency, and sanctions models must be transformed by beta values multiplied by the mean value of the dependent variable because the expected value of y , $\lambda_i = \exp(\beta x_i)$ (Liao, 1994: 70-79) for they are negative binomial regression models.⁶ Therefore, all initial values (i.e., means) and parameter values for the simulation model are displayed in Table 3.6.

Table 3.6: Initial and Parameter Values for the Simulation Model

dependent variable \ explanatory variable	political development (mean = 0)	protest (mean = 1.1)	insurgency (mean = 0.63)	sanctions (mean = 7.9)	sanction apparatus (mean=10.09)
political development		0.315	-0.12		-0.13
protest	0.132		0.08	1.425	
insurgency	-0.169	0.285		1.564	0.099
sanctions		0.049	0.011		0.096
sanction apparatus		0.109	0.033	-2.679	

Since initial and parameter values are identified in this section, a general Simulation model can be constructed systematically in the next chapter.

Chapter 4

A GENERAL SIMULATION MODEL OF POLITICAL CONFLICT

4.1 Introduction

To understand the interactive relationships among political development, political conflict, and regulation policies, a general simulation model is constructed in this chapter rather than comparing two nations in the dyadic level or simulating a nation in the single case level because the general model is superior for generalizing theories.

The simulation modeling approach is introduced in section 4.2, and a general simulation model is created by the initial and parameter values identified in the last chapter. A sensitivity analysis is then undertaken to test the validity and reliability of the general simulation model, and tentative conclusions are summarized at the end of this chapter.

4.2 Simulation Modeling

Simulation is a familiar and common activity. Simulation means imitating something in some respect or emulating the effect or appearance of something. For example, when some A assumes the role of some B, we could say that A simulates B because a simulation model (A) assumes meaning and importance primarily by virtue of its similarity to some phenomenon of interest (B) (Whicker and Lee, 1991: 1). Conceptual similarity (a likeness of ideas) is a key component of a simulation (Barton, 1970). In a structure-functional perspective, one not only simulates structure, but also its functions. Simulation is the process of modeling. It is applied widely in physics and engineering because it is safe and inexpensive. For instance, designing a simulation model of a dam to understand its load capacity is far less risky than destroying a fully constructed dam.

Since simulation is a partial representation of reality, the more we abstract from the detail of a set of phenomena, the easier the simulation is (Simon, 1981). But the more the particular, the higher the cost. Thus, simulation models must be as specific as possible to

maintain acceptable costs. According to Whicker and Lee (1991: 3-4), there are three primary types of simulations in social science:

- (1) person-person simulation involves interaction between two or more people in a laboratory environment representing some situation of interest;
- (2) person-machine simulation involves interaction between a computer program and a person responding to input from the computer, with the individual's responses influencing future input from the computer;
- (3) machine or all-computer simulations which do not require player input while the simulation is executing. frequently the leader involve feeding input into a computer program, which then uses explicitly defined decision rules to transform input values into output values.

Simulation modeling is based on the system dynamic approach which is a method of dealing with the dynamic tendencies of complex systems, (i.e., the behavioral patterns they generate over time). A system is an arrangement of units that are related to each other functionally. Klir (1991: 77) argues that a system is not a model. It becomes a model only in a relationship to another system, which is usually referred to as an original. In general, the modeling system is a homomorphic (or isomorphic) image of the original. Therefore, simulations have two characteristics: one is interactions and interdependencies among elements, and the other is dynamic. Because simulations are representations of processes rather than of a

configuration of elements, and develop and change over time. As Meadows (1980) maintains, the dynamic tendencies of the simulation model are more interesting than its properties, particularly whether the whole system is stable or not, oscillating, growing, declining, or in equilibrium.

The goal of dynamic modeling is to specify the structure of such processes and to induce the manner in which they generate social change. Actually dynamic modeling tends to describe and explain “how an individual or social systems change over time” rather than “why various attributes of social actors or social systems are associated in particular ways at some moment (Tuma and Hannan, 1984).”

There are three main concepts in system dynamic analysis: system boundary, causal structure, and feedback. System boundary defines what variables should be included in the dynamic model; about which Roberts et al. (1983) provides two principles: one is the problem how one or more quantities vary through time, and the other is whether a substantial causal relationship is involved. The causal structure of the system dynamic is deterministic, and the variables in the deterministic

model are expected to have the most significant causal-effects on each other. However, feedback develops as a causal loop in which “an initial cause ripples through the entire chain of causes and effects until the initial cause eventually becomes an direct effect of itself (Roberts et al., 1983).”

Bremer (1986) argues that to design a simulation model, one has to think about the purposes for which a model is built. A model must be:

[s]cientific, experimental, multi-issue, macroscopic, and long-term rather than policy-oriented, forecasting, single-issue, microscopic, and short-term. In advance, a model must be simple, theoretically rich, inclusive, genotypic, and continuous rather than complex, empirically grounded, exclusive, idiosyncratic, and discrete time. Because a simple model has some advantages: being more focused, easier to understand, and more tractable. An experimental model attempts to identify the larger and longer-term implications of hypothetical trends and events. A genotypic model is one in which a single structure is used to represent a class or group of entities. A continuous time model is based on a view of the world as constantly changing and adapting and tends to be a truer representation of most macro social science theories. Such theories tend to incorporate many adaptive, interactive, and feedback relationships which are assumed to operate in a continuous fashion and time is seldom explicitly incorporated (Bremer, 1986: 19-30).

In a word, whatever form it may take, the model itself typically is a representation of a structure, while the simulation is a representation of the structure “in action” (Whicker and Lee, 1991: 5).

Computer simulation is an all-machine form of simulation whose primary purpose is knowledge generation. Whicker and Lee (1991: 7-10) maintain five elements comprising a computer simulation are:

- (1) assumptions upon which the simulation is built. In other types of research, the primary assumptions are the major research hypotheses, often expressed statistically as both a null hypothesis and alternative hypothesis;
- (2) parameters, or fixed values, are similar to control variables in empirical research;
- (3) inputs, or independent variables. They are analogous to independent variables in experimental research;
- (4) algorithms, or process decision rules, form the muscles of a computer simulation. They are the operationalization of the model structure and processes;
- (5) outputs, or the dependent variables are both the primary phenomenon of interest in a computer simulation and the main output of the simulation model.

Moreover, Mass (1980: 95-114) argues there are two types of variables in simulation models-- rate variables and level variables. Rates resemble flows which vary per unit of time. Levels are accumulative functions of one or more rates over time. The ultimate consequence of accumulative characteristics of levels is disequilibrium; (i.e., one expects to see a system exhibiting the overshoot or oscillation behavior).

According to Meadows and Robinson (1985: 6), there are five potential benefits of computer models:

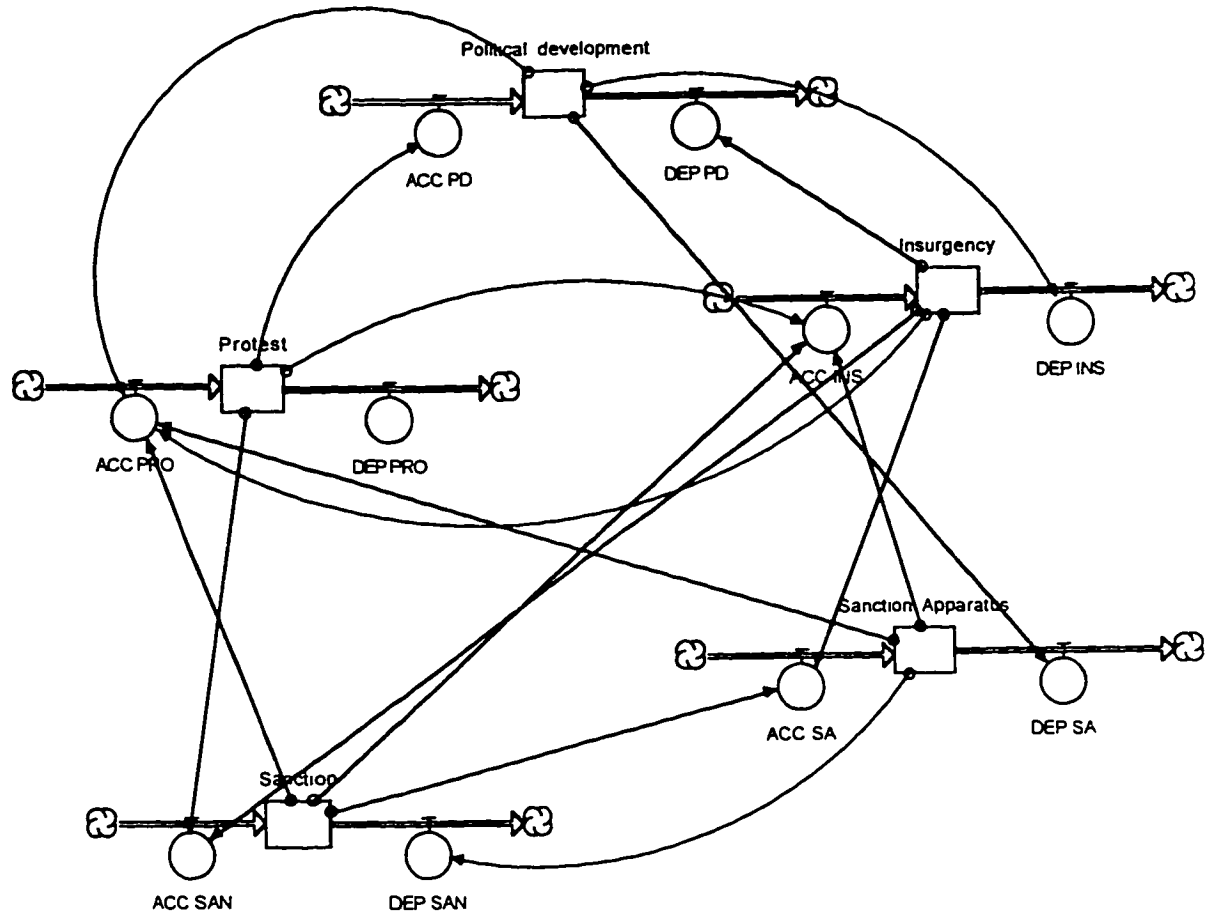
- (1). **Rigor.** The assumptions in computer models must be specified explicitly, completely, and precisely; no ambiguities are possible. Every variable must be defined, and assumptions must be mutually consistent.
- (2). **Comprehensiveness.** A computer can manipulate more information than the human mind and can keep track of many more interrelationships at one time.
- (3). **Logic.** If programmed correctly, the computer can process even a very complicated set of assumptions to draw logical, error-free conclusions.
- (4). **Accessibility.** Because all the assumptions must be explicit, precise, and unambiguous in order to communicate them to the computer, critics can examine, access, and alter computer models.
- (5). **Flexibility.** Computer models can easily test a wide variety of different conditions and policies, providing a form of social experimentation that is much less costly and time-consuming than tests within the real social world.

In sum, advantages for computer simulation models include: the ability to simulate complex patterns of phenomena; the assumption of different forms and analysis of very many variables; the accommodation of stochastic disturbances, the manipulation of major components of a system without actually constructing or replicating the systems; the analysis of hypotheses of which empirical data are unavailable and last but not least, they are dynamic.

4.3 A General Simulation Model of Political Conflict

The general simulation model employed in this study is based on the results of the previous two stage least squares and negative

binomial regressions and by reference to results reported in the literature described in Chapter 2. It is displayed in figure 4.1.



Note:

ACC PD: accumulation of political development, DEP PD: depletion of political development.
 ACC PRO: Accumulation of protest, DEP PRO: depletion of protest
 ACC INS: accumulation of insurgency, DEP INS: depletion of insurgency,
 ACC SAN: accumulation of sanction, DEP SAN: depletion of sanction,
 ACC SA: accumulation of sanction apparatus, DEP SA: depletion of sanction apparatus.

Figure 4.1: A Simulation of Political Development and Political Conflict

As Figure 4.1 presents the components of the simulation model, the stocks are represented by rectangles, and the flows to and from the stocks are displayed by circles with valve like features. The clouds at the far end of each stock are its infinite source (to the left) or sink (to the right), and they define the boundaries of the systems. Five stocks, which are level variables whose contents accumulate and deplete continually over time, are political development, protest, insurgency, sanctions, and the sanction apparatus. Ten flow rate variables are the processes which feed or drain the stocks, (i.e., accumulation and the depletion of political development, protest, insurgency, sanctions, and the sanction apparatus). The arrows signify the directions and linkages among these components.

For each component, an equation exists to specify how the stock changes with components to which it is connected by the arrows. The initial values and parameter values of each equation are extracted from the results of the previous 2SLS and negative binomial regressions. In the simulation model, new scores are computed for each of the variables at each point in time as the system runs. The change in time is represented in the equations by “dt.” For each stock the new score

equals the old score plus the change in time (dt) multiplied by the difference of accumulation and depletion. All equations for the politically developing model are shown in Appendix 2.

Political development is defined as the effectiveness of political structures in performing major political functions. Protest is the expression of public disagreement or opposition to the practices and policies of a regime, and insurgency is the effort to eliminate or supplant regime incumbents by extralegal means. Sanctions include efforts of a regime to restrict or regulate protest and insurgency, and the sanction apparatus are the internal security forces or military organizations and expenditures employed to suppress political conflict.

What relationships exist among these components in the simulation model? First and foremost, political development will stimulate protest but reduce insurgency and the sanction apparatus. The higher the political development, the more protest, the less insurgency, and the smaller the sanction apparatus. The higher the level of political development, the greater the tolerance of the less violent forms of mass conflict. The highly developed systems differ from the less developed systems by their capacities to regulate insurgency and maintain low

levels of the sanction apparatus, not by their low levels of mass political protest. Civilian governments usually tolerate people's political participation and engagement in peaceful protest in highly developed systems. There is more protest behavior and comparatively less insurgency. However, insurgency usually erodes political development, but protest can increase the level of political development.

Protest will boost insurgency and sanctions, and stimulate political development as well. Political development, insurgency, sanctions and sanction apparatus all contribute to stimulate protest. Meanwhile, insurgency can augment protest, sanctions, and the sanction apparatus but decrease political development. The more the insurgency, the more the protest, the more sanctioning behaviors as well as the greater the sanction apparatus and vice versa. They form three positive (+,+) loops.

Sanctions are restrictions on political organizations and communication, as well as involve imprisonment, torture, or execution of political dissidents. In this model, sanctions tend to stimulate protest as well as insurgency in the short run, and increase the size of the

sanction apparatus. The sanction apparatus tends to stimulate protest and insurgency but decrease sanctions. Moreover, the sanction apparatus has a direct negative effect on sanctions in the short run; the higher the sanction apparatus, the less sanctions are needed. But in the long run, the sanction apparatus has an indirect positive effect on sanctions by way of protest and insurgency. Both sanctions and insurgency contribute to increase the size of the sanction apparatus. The higher the sanctions, the more sanction apparatus is necessary. However, viability is always at the top priority for any regime, and it will spend more on the sanction apparatus to protect itself against insurgency.

4.4 Sensitivity Analyses

A simulation model can be viewed as a single-level function, which may have thousands or even tens of thousands of parameters. To increase the reliability of a simulation model, sensitivity analysis can be used to show how sensitive the results are by varying the initial and/or parameter values. Rothenberg et al. (1990: 1) maintain this procedure is especially important for promoting confidence in the “robustness” of

a model and for indicating which initial or parameter values are the most important ones to validate.

The focus of this section is to investigate the behavior of the patterns of political conflict and regulation policies if we started out with different initial values of political development. The simplest approach to the sensitivity analysis requires running a simulation model many times, entering different starting values to see how results vary. Initial values of protest, insurgency, sanctions, and the sanction apparatus in the simulation model are set as their mean values. Political development is assigned as the input variable, and the number of iterations is set at 3; the minimum value is set at -2.37646 that is the bottom limit of political development, and the maximum value is set at +1.63116 that is the top limit of political development. Results of the sensitivity analysis are shown from figure 4.2 to figure 4.4.

Figure 4.2 shows trends of political development, political conflict, and regulation policies in less developed systems. The level of political development displays little variation over time. Protest, insurgency, and the sanction apparatus increase slightly and all stabilize eventually, while sanctions decline comparatively early.

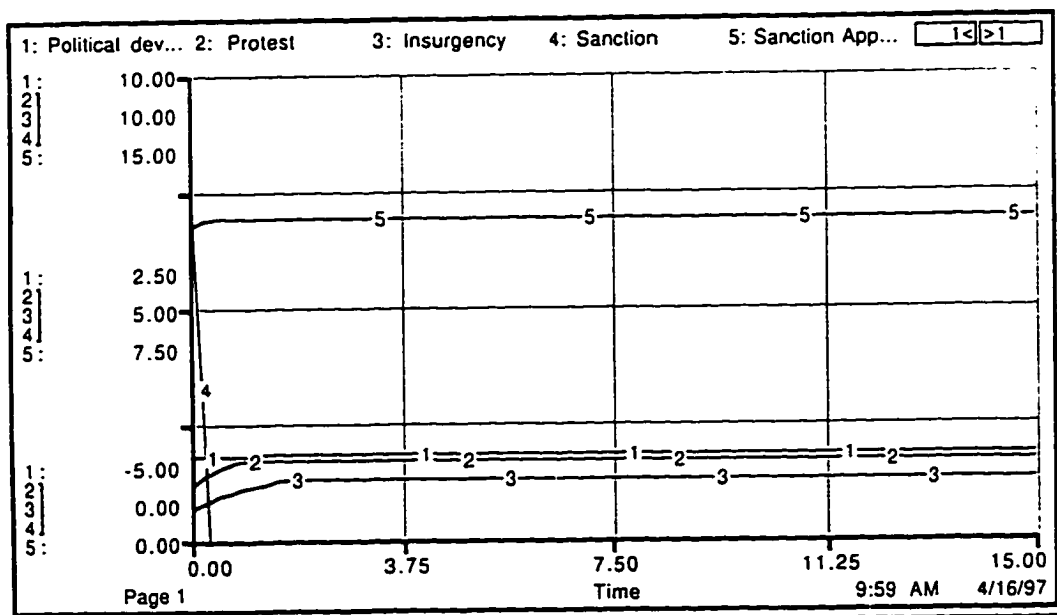


Figure 4.2: Simulation Diagram when the Initial Value of Political Development = -2.37646 (less developed systems), Iteration 1

Figure 4.3 displays trends of political development, political conflict, and regulation policies in moderately developing systems. As development accelerates, protest increases but stabilizes, and sanctions also decline early. Insurgency and the sanction apparatus increase little and then decline gradually.

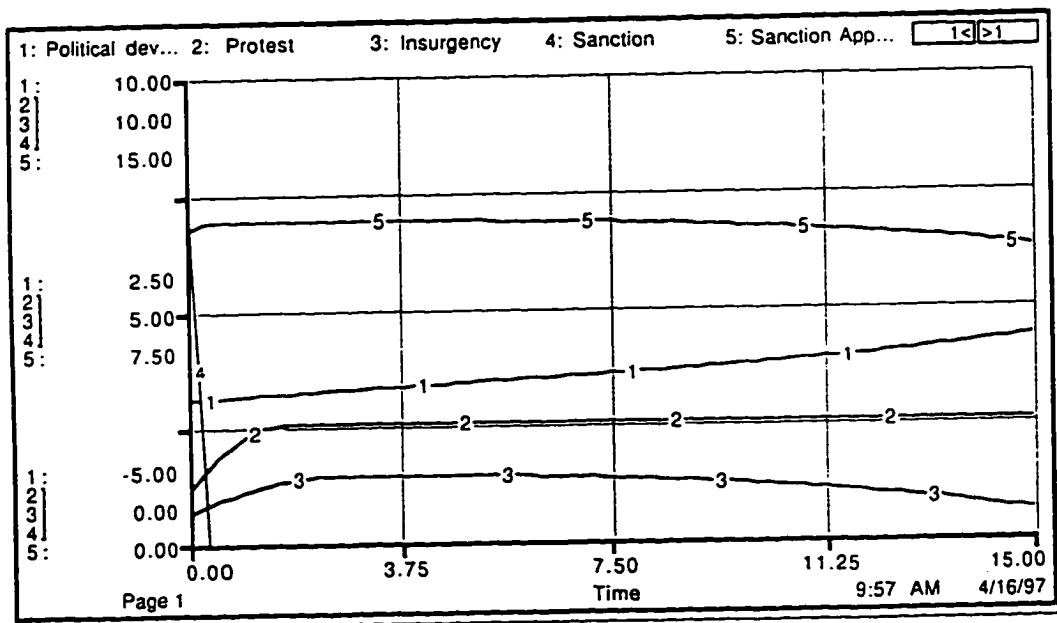


Figure 4.3: Simulation Diagram when the Initial Value of Political Development = -0.37265 (moderately developing systems), Iteration 2

Figure 4.4 shows trends of political development, political conflict, and regulation policies in more developed systems. As political development increases rapidly, protest also increases but stabilizes. Sanctions decline comparatively early. In this situation, insurgency increases slightly, then declines and disappears eventually while the sanction apparatus decreases and approaches a lower level.

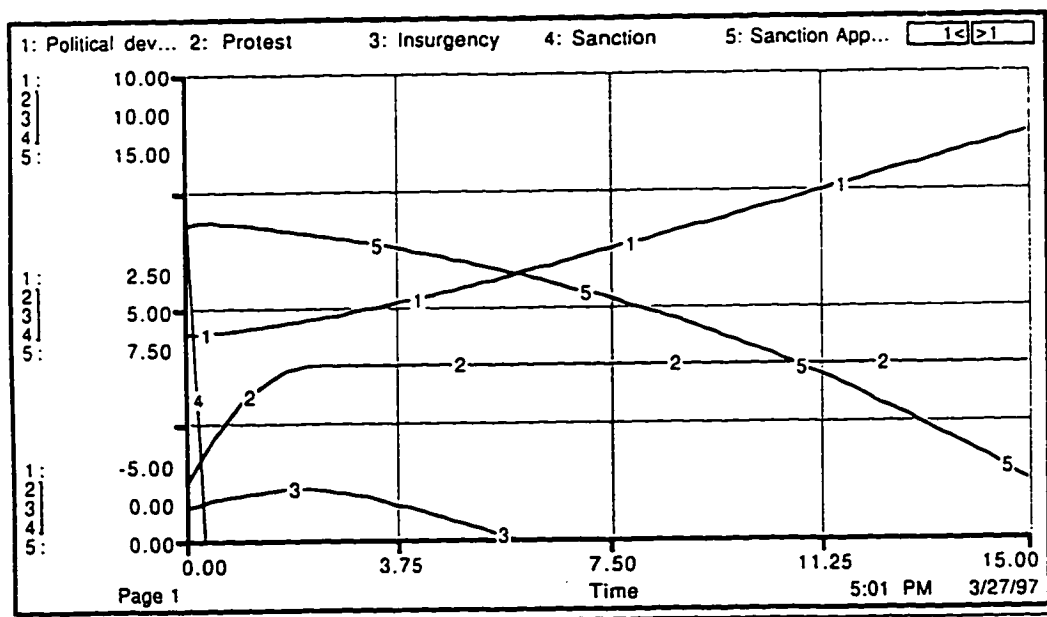


Figure 4.4: Simulation Diagram when the Initial Value of Political Development = +1.63116 (more developed systems), Iteration 3

Political systems illustrative of politically developing cases include Dahomey in the late 1970s, Mali in the early 1980s, Yemen PDR in the early 1970s, and Brazil in the early 1970s etc. In respect to simulation results, the Dahomey (see figure 4.6) and Mali (see figure 4.8) cases tell us when political development increases, protest will increase, but insurgency and sanctions will decline and approach zero. The Yemen PDR (see figure 4.10) case shows when political development increases, insurgency, sanctions, and the sanction apparatus will decline to low levels. Finally, Brazil (see figure 4.12) case indicates when political development increases, protest will increase, but insurgency, sanctions, and the sanction apparatus will decrease.

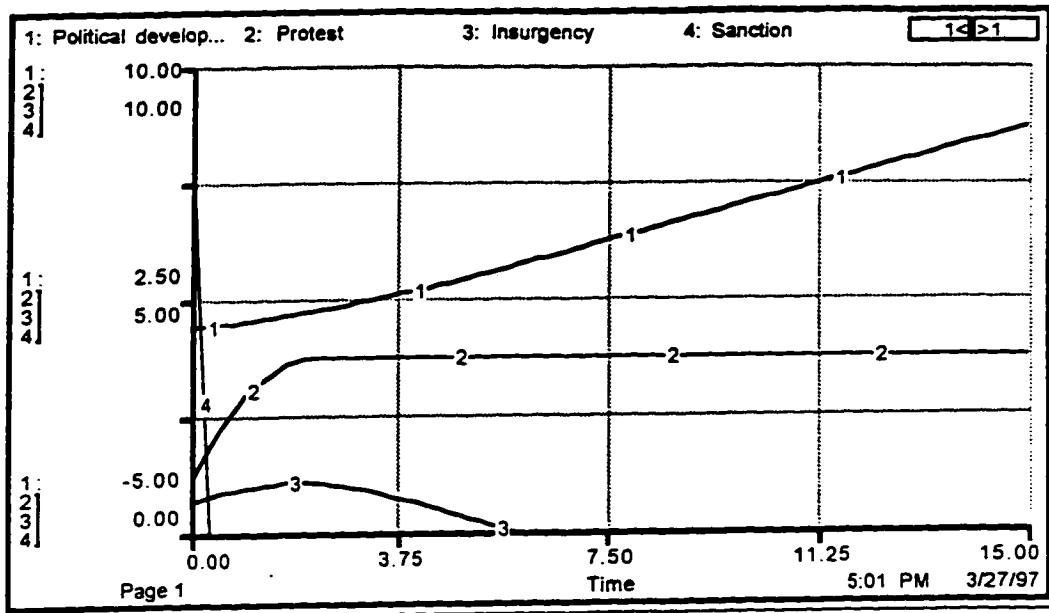


Figure 4.5: Simulation Results of Political Development, Protest, Insurgency, and Sanctions in Politically Developing Systems

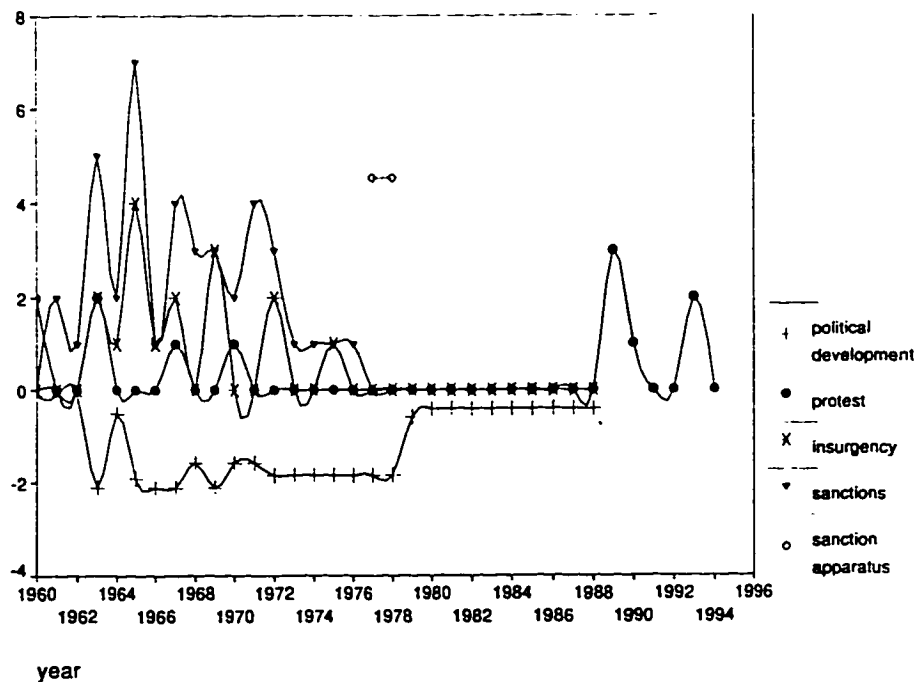


Figure 4.6: Political Development, Political Conflict, and Regulation Policies in Dahomey
Sources: Banks (1996), Taylor and Jodice (1983)

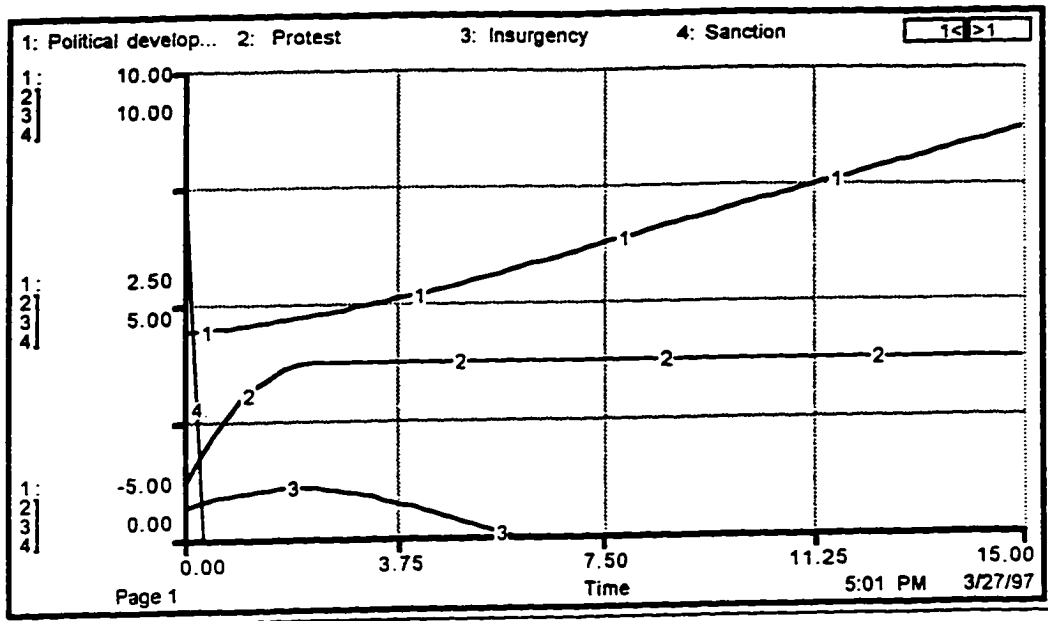


Figure 4.7: Simulation Results of Political Development, Protest, Insurgency, and Sanctions in Politically Developing Systems

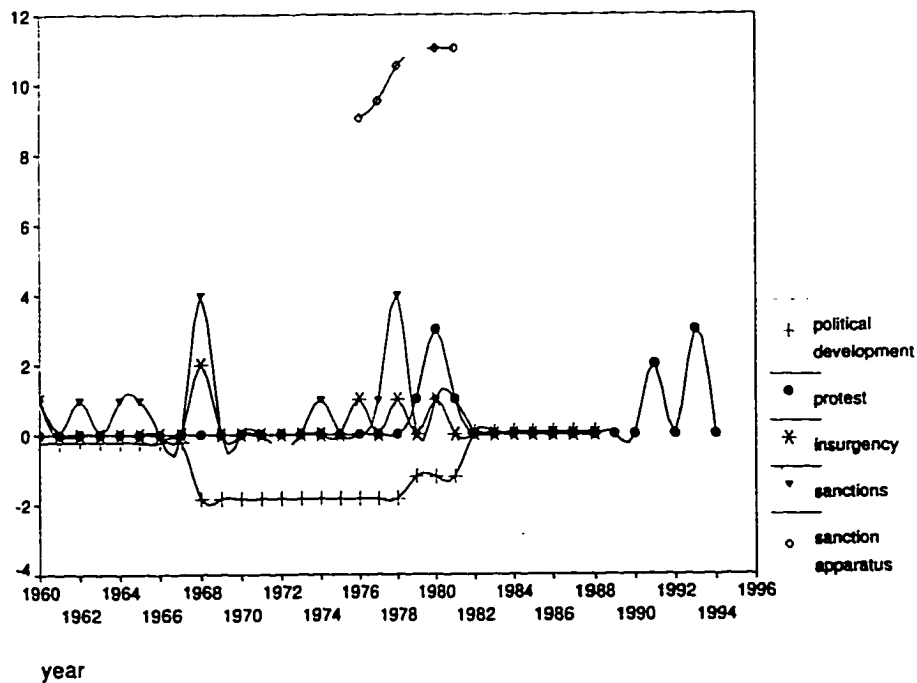


Figure 4.8: Political Development, Political Conflict, and Regulation Policies in Mali
Sources: Banks (1996), Taylor and Jodice (1983)

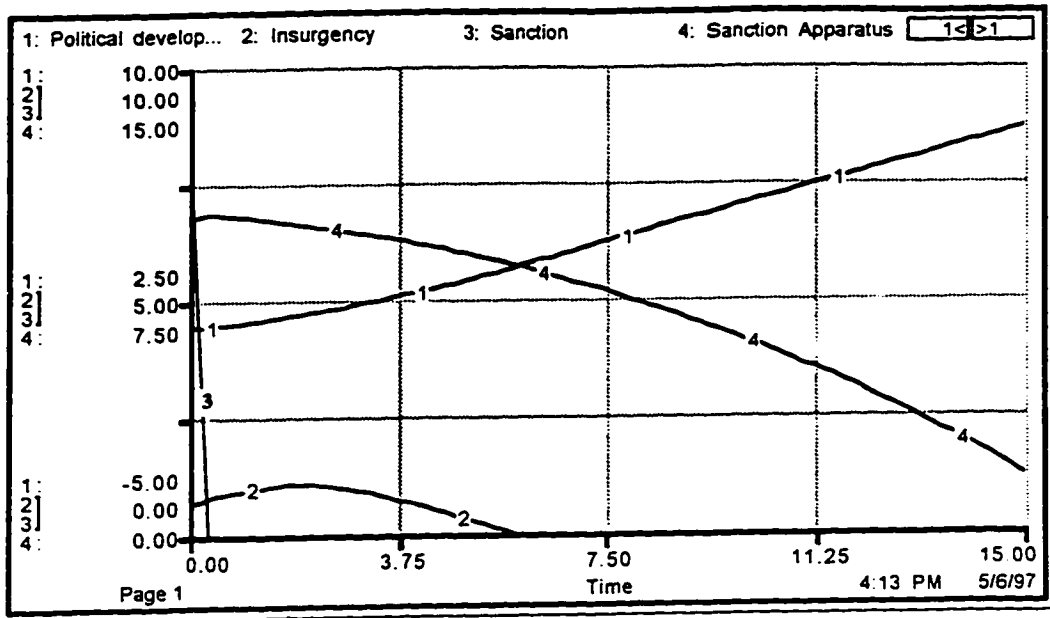


Figure 4.9: Simulation Results of Political Development, Insurgency, Sanctions and Sanction Apparatus in Politically Developing Systems

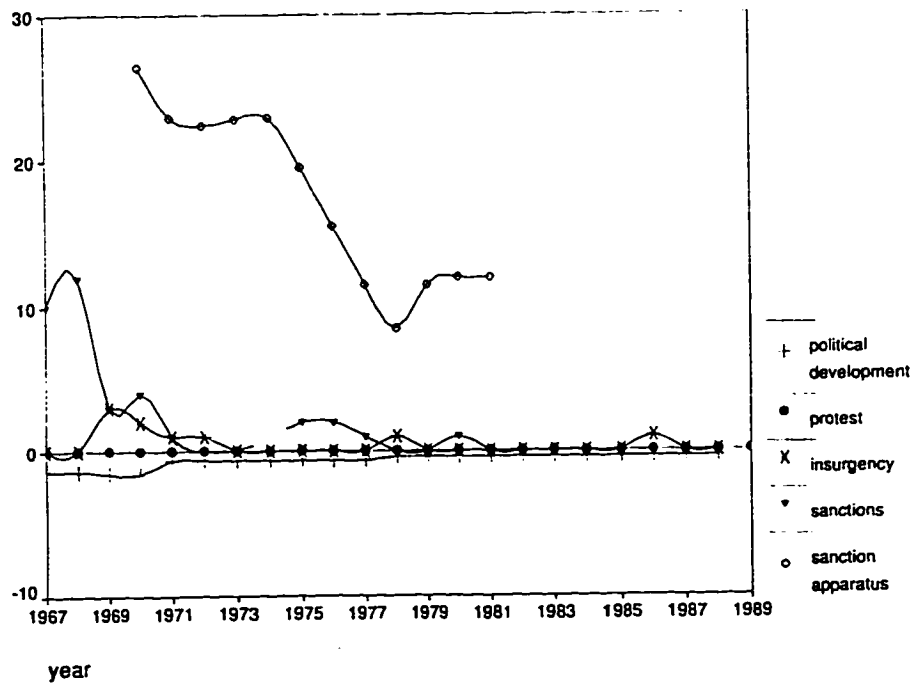


Figure 4.10: Political Development, Political Conflict, and Regulation Policies in Yemen PDR
Sources: Banks (1996), Taylor and Jodice (1983)

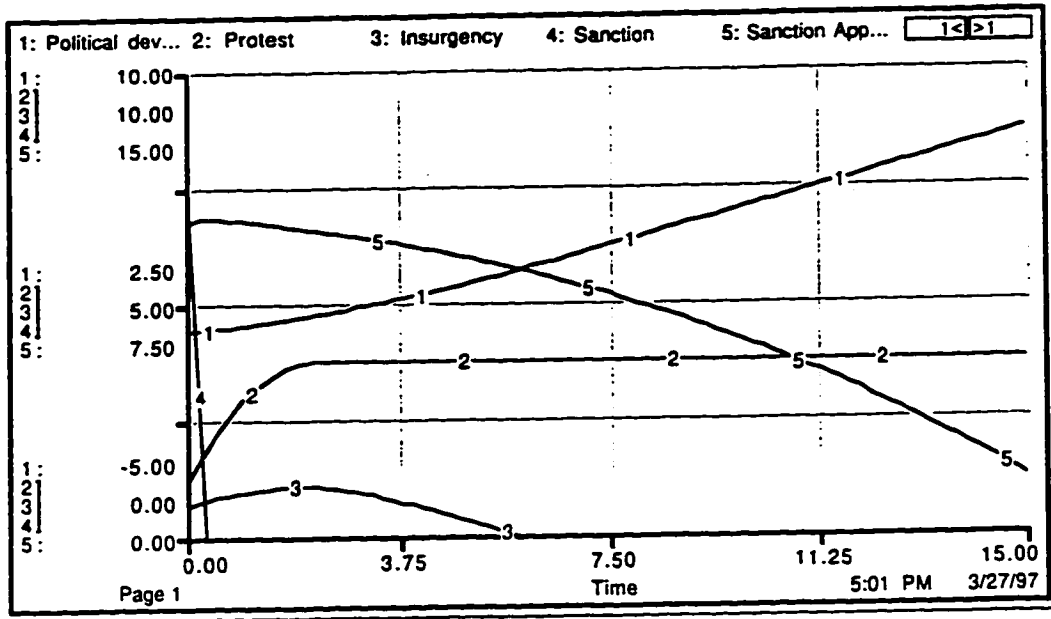


Figure 4.11: Simulation Results of Political Development, Political Conflict, and Regulation Policies in Politically Developing Systems

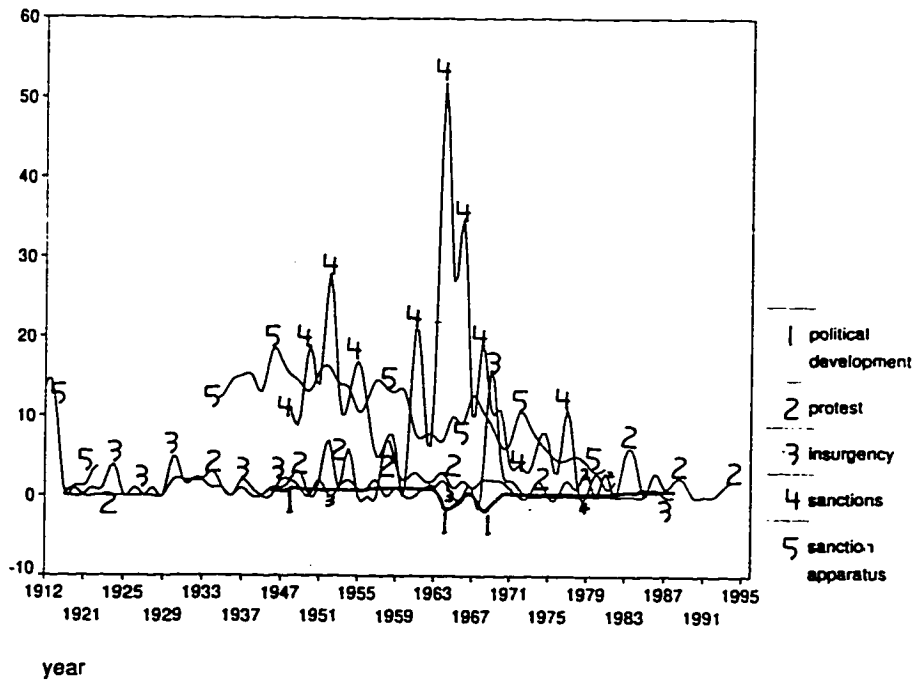


Figure 4.12: Political Development, Political Conflict, and Regulation Policies in Brazil
Sources: Banks (1996), Taylor and Jodice (1983)

4.5 Summary

By using a computer program (STELLA), a general simulation model consisting of political development, political conflict, and regulation policies is created in this chapter. It comprises 5 stocks and 10 flow rate variables. Although the model is neat and simple, it is useful to examine its validity and reliability by the sensitivity analysis. Many empirical cases provided in section 4.4 are consistent with the simulation results. When political development increases, protest will increase, but insurgency, sanctions, and the sanction apparatus will decrease. In the next chapter, an empirical political system will be analyzed, and also in respect to the simulation results.

Chapter 5

A POLITICALLY DEVELOPING SYSTEM-- TAIWAN

5.1 Introduction

A politically developing system case is introduced in this chapter since it is advantageous to explore relationships among political development, political conflict, and regulation policies by analyzing an actual political system in the context of previous empirical and simulation results. Taiwan's political development is particularly pertinent as the direct election for Presidency is listed as one of five freedom successes in *the Freedom in the World: The Annual Survey of Political Rights and Civil Liberties 1996-97* by Freedom House. In terms of political development, this event signals the achievement of peaceful political succession via competitive elections.

Taiwan's⁷ significant political development began in the 1970s and has been a good case for political development in the past 30 years. In the early 1970s, Chiang Ching-kuo who ruled Taiwan from 1970s to 1980s began the process of co-optation that recruited many

Taiwanese into governmental upper and upper-middle echelons. Meanwhile, the indigenous opposition movement gathered momentum in the mid-1970s (Tien, 1992: 9).

Political development increased from the less developed level in 1950s and 1960s, through an early developing phase in 1970s and 1980s, to the more developed level in the 1990s. For example, Ray (1995: 47) maintains that in the 1980s, a trend toward democracy was quite visible in Taiwan. Freedom House identifies Taiwan for first time as one of the 79 free countries in its annual survey of political rights and civil liberties 1996-97. Taiwan has been transformed successfully to a competitive, dual-democratic institution by a 10-year silent revolution. In fact, Taiwan has provided a good experience for the Third World to develop economically as well as politically since the most distinct feature of Taiwan's democratic transition is smooth at a low social cost (Tien and Cheng, 1997).

5.2 Political Development in Taiwan from 1949 to 1996

Political development in Taiwan can be divided into three phases. There is little political development in the first phase before

1969 since the Nationalist Party (KUOMINTANG, or KMT), founded in 1894 by Dr. Sun Yat-sen, retreated to Taiwan and declared Martial law on May 20, 1949. Political power was monopolized by the KMT and armed forces, and opposition activity was outlawed until 1969 (Zhao, 1996: 145-150). The type of regime is coded as Military-civilian for the civilian administration was led by General Chiang Kai-shek. The legislature is considered largely ineffective , and the nominating process for the legislature is coded as essentially non-competitive (Banks, 1972) since all congressmen were tenured and controlled by KMT. Therefore, no coalition and no opposition existed.

Party legitimacy was low and coded as no party, or all but dominant party and satellites excluded, as the KMT is dominant and aided two satellite parties-- China Democratic Socialist Party (CDSP) which dates from 1932, and Young China Party (YCP) which was founded in 1923. Both are pro-KMT, pro-unification, and anti-Communist groups. As Tien (1996: 5) argues, Taiwan's one-party dictatorship was essentially hegemonic. People had no right to organize parties since the Temporary Provisions Effective During the Period of Communist Rebellion was adopted on April 18, 1948. The method of

selection of effective executive is coded as indirect election for the President was elected by members of National Assembly according to the Constitution of R.O.C. which was effective in 1947 (Wu, 1995: 26-28). The legislative selection is elective (Banks, 1972).

Political development moves to the second phase during 1969 and 1988. Almost all national congressmen are Chinese mainlanders before 1969, as they had been originally elected from constituencies in Mainland China in 1947 and were allowed to retain their seats since the China Communist Party (CCP) controlled Mainland China in 1949. The supplementary national election was held in 1969; 15 members on National Assembly, 8 legislators, and 2 control members (all of them are national congressmen) were directly elected from the Taiwan area. Just like their mainlander colleagues, members elected in this first supplementary election were not required to run for re-election. Although the 1969 election was on a very small scale, Taiwanese could participate in national-level politics for the first time.

While the additional national election was held on a larger scale in 1972 for 53 seats in National Assembly and 52 seats in Legislature Yuan; these seats were scheduled for reelection every 3 years for

legislators and 6 years for National Assembly members in the Taiwan area. Of these, only 38 National Assembly members and 28 members of the Legislative Yuan were elected directly, the rest were elected by professional organizations and overseas Chinese. These functional constituencies were controlled by the KMT to safeguard its absolute majority in the Parliaments (Wu, 1995: 30-31). Therefore, the effectiveness of legislature is coded as partly effective, and the nominating process for legislature is considered as partially competitive. Type of regime is coded as civilian after 1975 (Banks, 1972) when General Chiang Kai-shek died, and political power was translated to his son Chiang Ching-kuo. He is not a member of the military elite, even though he had been a minister of the defense department.

Tien and Cheng (1997) argue that Taiwan's transition to democracy commenced in 1986 when the ruling party embraced political reform and the political opposition took the risk of forming a political party. Party legitimacy is coded as significant exclusion of parties (or groups) after 1980 when a political opposition group (Dangwai) was established. Legislature coalitions is considered as no

more than one party, no coalition (Banks, 1972) after 1986 when the opposition party-- the Democratic Progressive Party (DPP) captured about 33.1 % of the votes and won 13 seats (22.8 % seats) in the Legislative Yuan and 23.9 % of the votes and 13 seats (18.2 % seats) in the National Assembly (Wu, 1995: 76-77). However, there is no change in legislative selection and the method of selection of the executive.

Martial Law was lifted on July 15, 1987 and replaced by the National Security Law. After that Taiwan approached a highly developed level. In the third phase, The March and Assembly Law was effective after September 1987. Press restrictions were lifted on January 1, 1988. The Civil Organization Law and Election and Recall Law were enforced in 1989, finally legalizing the creation of opposition parties. People in Taiwan received once again their political rights to protest, strike, demonstrate, organize parties, publish newspapers, vote, and to become elected officials. The operation of political parties was permitted, and civilians were freed from the jurisdiction of military courts, while demonstrations were legalized

(Hood, 1997: 73-118). Party legitimacy is regarded as no parties being excluded (Banks, 1972) after 1988.

Since members of National Assembly were directly elected on December 21, 1991, and legislators were directly elected on December, 19, 1992 in the Taiwan area, some of them were selected proportionally by the vote won by parties. The effectiveness of legislature is coded as effective, and the nominating process for legislature is coded as competitive after 1991.

Huntington (1991) argues that a political system is not democratic until the most powerful decision-makers are chosen through election. On March 23, 1996, Lee Teng-hui was elected directly as the president by citizens in the Taiwan area, punctuated by military threats from China and a show of US navy power to check Beijing's attempts to influence the elections (Hood, 1997: 119). A concurrent fierce campaign against Lee by mainland China, backed by attempted military intimidation, appeared to assist Lee's reelection cause rather than harm it (Banks et al., 1997: 172). The method of selection of effective executive is coded as direct election in 1996. Therefore, Taiwan becomes a highly politically developed system. The first popular

presidential election marks the end of this decade-long period of democratization, providing an opportune moment to reflect on Taiwan's democratic transition (Tien and Cheng, 1997). The process of political development in Taiwan from 1945 to 1996 is shown in Appendix 3, while the path of political development in Taiwan is demonstrated in Figure 5.1.

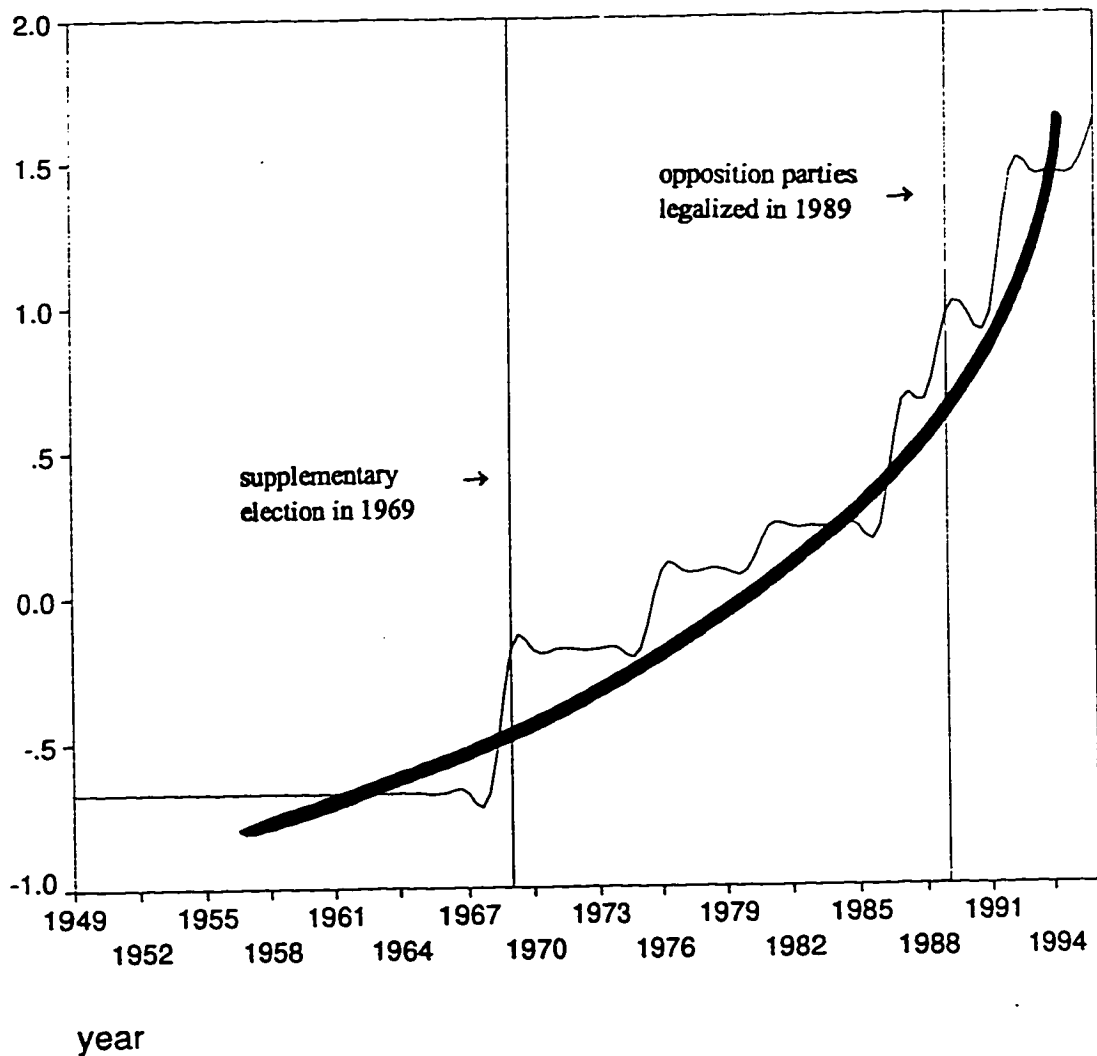


Figure 5.1: Path of Political Development in Taiwan
 Sources: Banks (1996), Taylor and Jodice (1983),
 and supplemented by author ⁸

5.3 Political Conflict versus Political Development in Taiwan

i. protest versus political development

In the first phase of political development (before 1969), protest decreases step-by-step and approaches zero after 1961. In 1948 Martial Law was declared and Taiwan was ruled under a severe military-civilian regime. Most significant protest events include the Rice riot in 1945, the Kaoshiung strike in 1946, the Mailmen strike in 1949, and the American Embassy riot in 1956.

Protest begins in the second phase of political development (1969-1988), especially after the death of president Chiang Kai-shek. The number of protests increase gradually, even though protest is still illegal under two statutes-- Martial Law and Temporary Provisions Effective During the Period of Communist Rebellion. For example, the Kaoshiung Formosa riot for democracy in 1980, the May-19 demonstration for protesting National Security Law and the DPP demonstration for organizing opposition parties in 1986, the Feb.-28 memorial demonstration, the May-19 protest against Martial Law, the ChungTai Hotel riot between KMT and the dissidents in 1987, and the May-20 anti-government demonstration in 1988 are the critical cases.

Protest increases in the third phase of political development after citizens regained their political right to protest, demonstrate, and strike after 1987 when Martial Law expired and the March and Assembly Law was effective. Many significant events (over 5,000 participators) include the ChungShan Hall protest asking for directly presidential election in 1989, the ChungCheng Hall protest for National Assembly meeting in 1990, the Oct.-04 demonstration asking for separation from China in 1992, the farmer protest in 1993, the nuclear plant protest in 1994, the mass media protest asking KMT out of TV stations in 1995, and the anti-unification with China demonstration in 1996.

ii: insurgency versus political development

Insurgency does not differ greatly in the first and second phases of political development. It occurs frequently before 1984. For example, the significant acts of insurgency in the first phase include the Feb.-28 revolution in 1947, the MaTou revolution in 1950, the HuKo coup d'etat in 1953, the Su TC revolt in 1961, the ChinMen revolution in 1964, and the Lin SC revolution in 1967.

The majority of insurgent acts are about the Taiwan independence issue. The “Alliance for the Re-liberation of Taiwan” founded by Thomas Lee in 1948 was often regarded as the beginning of the Taiwan Independence Movement (TIM). In 1950, Thomas Lee organized the “Formosa Independence Party” in Tokyo. Some Taiwanese in Tokyo established a provisional government to organize their anti-KMT activities in 1955. During the 1950s and 1960s, Taiwanese activists in Japan sought various ways to embarrass the KMT. They held public demonstrations at the Nationalist embassy, and published anti-KMT newspapers, etc. (Lai, et al., 1991).

In the second phase insurgency includes the united-China revolution in 1969; the Chiang Ching-kuo assassination in New York city in 1970, the DaiToung revolution, the ChunKong University revolution in 1971, the Wang HN assassination in 1976, and the ChungLi revolution in 1977.

Taiwanese dissidents in Japan, Europe, and the United States formed the “Taiwan Independence Alliance” in 1970. The TIM is integrated for the first time and began to advocate terrorism. For example, Huang W. tried to assassinate Chiang Ching-kuo in 1970, and

Alliances members set off bombs at the offices of the Coordinating Council for North American Affairs (CCNAA) in 1979 in Washington, D.C. and New York city. Terrorism reached a peak in 1979-83, reflecting a series of violent incidents occurring in Taiwan, especially the December 10, 1979 riot in Kaoshiung (or called Formosa Incident) which is the major domestic political violence in Taiwan since the Feb.-28 revolution in 1947 (Lai, et al., 1991).

After 1984, radical TIM groups had declined in the face of majority opinion which put primacy on stability and peaceful change in accord with opportunities to participate in politics. The TIM spirit is alive in the Democratic Progressive Party (DPP), but DPP has had to adjust to the new political environment created by the KMT which began carrying out political reforms in 1986. Citizens recovered their political right to participate, to organize parties, to protest, and the opposition elite acquire more opportunities to participate in politics and share political power. For instance, even revolutionary DPP leaders abandoned their radicalism by 1989 because a new, hopeful, and more democratic era had begun in Taiwan (Lai et al., 1991). A chronicle of

political conflict in Taiwan during 1945 and 1996 is shown in Appendix 4.

5.4 Regulation Policies versus Political Development in Taiwan

Sanctions do not differ greatly in the first and second phase of Taiwanese political development. They are frequent and severe because the KMT often purged the opposing dissidents by the use of two statutes identified as Martial Law and Temporary Provisions Effective During the Period of Communist Rebellion. For instance, severe sanctions in the first phase include the Chien SC incident in 1950, the WanKung group incident in 1952, the Yeh CS at Taiwan University in 1954, the Ting WY case in 1955, and HsingTai group incident in 1962. These executions are called as “White Terror” which means the dissidents were killed without legally due processes.

Sanctions in the second phase include the Pei YC case in 1972, the Taiwan University incident in 1973, the Cheng P case in 1974, the Formosa incidents in 1979, dissident Lin YH family murder in 1980, and dissident Herry Liu murder in California in 1984. However, sanctions decline after 1985, lack of insurgency after 1984, and more

tolerance of opposition contributed to mid level political development. A chronicle of political conflict in Taiwan during 1945 and 1996 is shown in Appendix 4.

The sanction apparatus declined by from about 30 percent in the 1960s to 10 percent or so in the 1990s. As political development has advanced gradually and the sanction apparatus decreases sequentially.

5.5 The Taiwan Experience and the General Simulation Model

Unlike the single case simulation model that usually fits simulation results with actual phenomena, a general simulation model will reveal long term trends (or directions) of its variables rather than how much these variables will increase or decrease in the short term. However, trend comparisons between results of the sensitivity analysis (figure 5.2 and figure 5.4) in the general simulation model and the empirical case (figure 5.3 and figure 5.5) is useful.

Comparisons show that results of the sensitivity analysis parallel the empirical results of politically developing case. When political development increases, protest will increase, and insurgency will

decline (see figure 5.2 and figure 5.3). Sanctions, and the sanction apparatus will decline also(see figure 5.4 and figure 5.5).

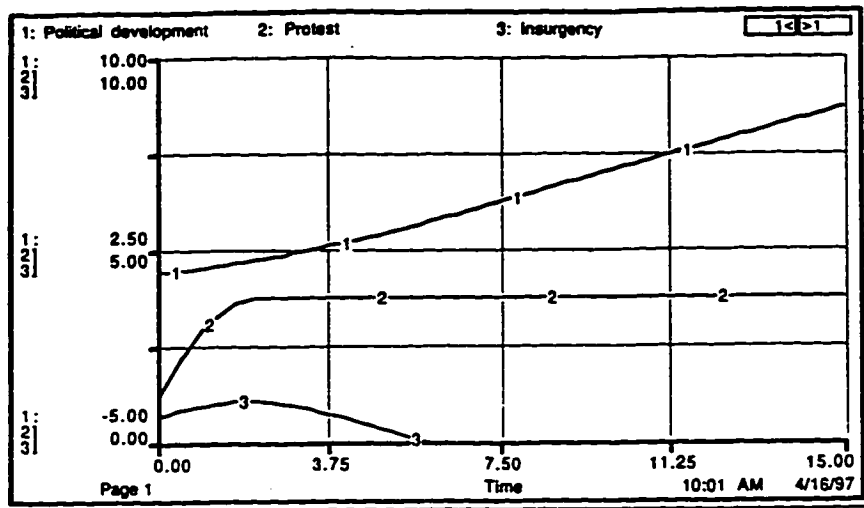


Figure 5.2: Political Development and Political Conflict in the Simulation of Political Development

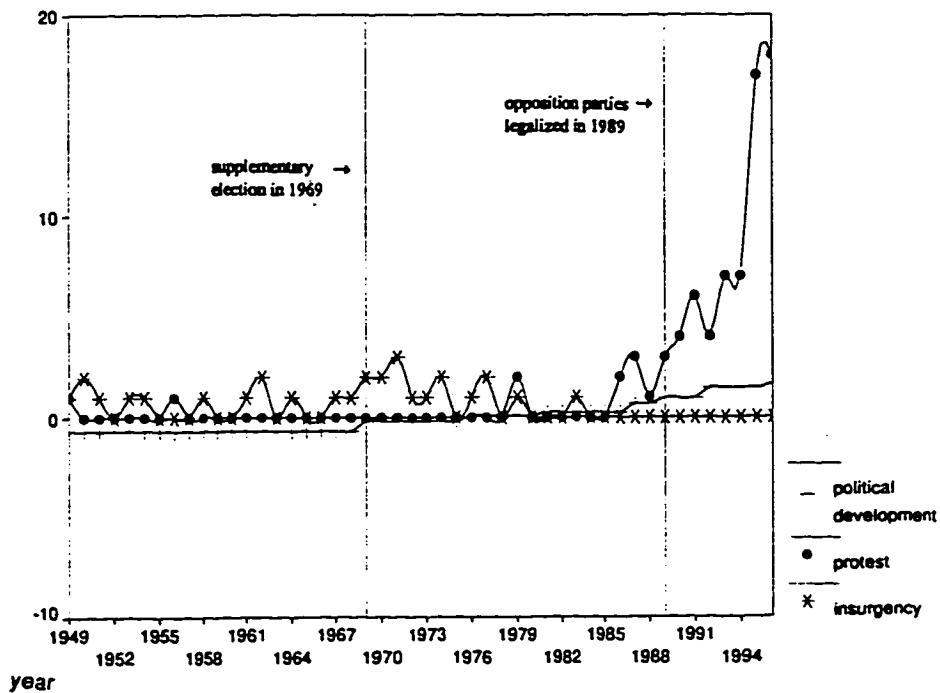


Figure 5.3: Political Development and Political Conflict in Taiwan from 1949 to 1996
Sources: Banks (1996), Taylor and Jodice (1983), and supplemented by author⁸

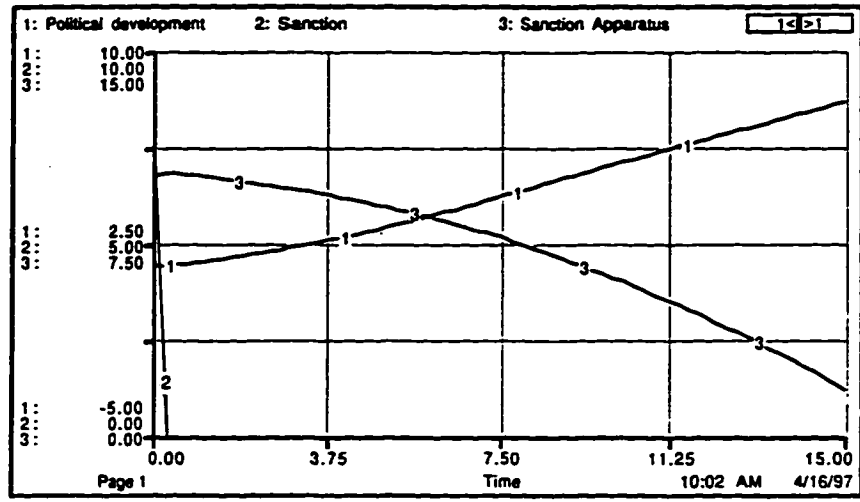


Figure 5.4: Political Development and Regulation Policies in the Simulation of Political Development

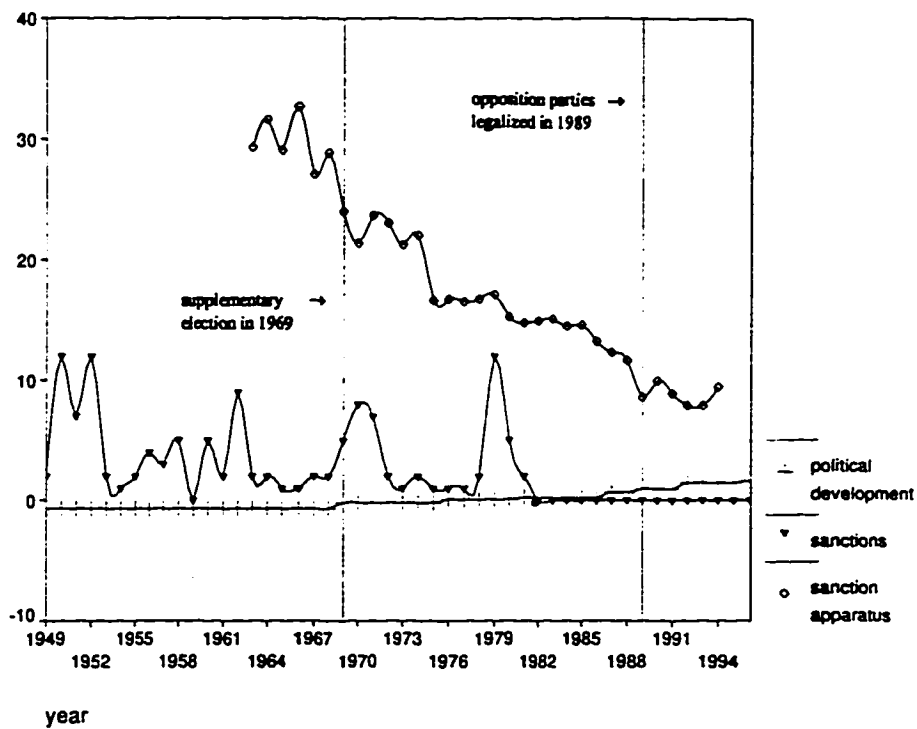


Figure 5.5: Political Development and Regulation Policies in Taiwan from 1949 to 1996

Sources: Banks (1996), Taylor and Jodice (1983), and supplemented by author⁸

5.6 Summary

I have described pertinent behaviors in an actual political system in this chapter. The Taiwan case study shows us that political development does matter. As political development increases, the sanction apparatus declines significantly step-by-step. When political development crosses a critical threshold, sanctions are reduced greatly, and insurgency disappears. Protest however occurs more frequently as levels of political development increase. It seems that protest activities replace insurgency and regime sanctions as political development enters an advanced phase.

According to the sensitivity analysis of the general simulation model, when political development increases, protest increases and stabilizes, sanctions and insurgency decline to zero, while the sanction apparatus decreases. Therefore, simulation results are parallel to political behaviors in Taiwan-- a politically developing case. In sum, the comparisons in section 5.5 show us that political development is an important factor. Its impacts on political conflict and regulation policies are substantial.

Chapter 6

CONCLUSIONS

6.1 Introduction

The primary purpose of this dissertation is to further understanding of dynamic relationships among political development, political conflict, and regulation policies. In chapter 1, questions were raised regarding these relationships. First, can political development lessen protest and insurgency? Second, will political development reduce governmental negative sanctions and the sanction apparatus? Third, can some forms of political conflict lessen or increase political development? Fourth, will political conflict stimulate governmental negative sanctions and the sanction apparatus? Fifth, can negative sanctions and the sanction apparatus decrease political development? And sixth, will negative sanctions and the sanction apparatus stimulate political conflict, and if so how? In this chapter, the results that have been compiled throughout this dissertation is summarized and the ways in which findings help to answer these questions are discussed.

I maintain that answers to these questions relate to the fundamental theoretical issues in the fields of political development and political conflict. In this chapter, I highlight the implications of the results from the statistical regressions and the sensitivity analysis of the simulation model for existing theories and empirical findings. Finally, some of the limits of this analysis and future research are discussed, and some policy implications of findings are considered.

6.2 Results of Regression Analyses

This study produces results that are consistent with theories and empirical findings in the literature of political development and political conflict. Political development is treated as a key element in the determination of political conflict and regulation policies. On one hand, the 2SLS regression result of the political development model shows that protest can promote political development and is consistent with Ziegenhagen and Koutsoukis (1992), Maguire (1993), and Koutsoukis (1994). Insurgency will decrease political development, and Powell (1982) and Ziegenhagen (1994) are supported. The 2SLS regression result of the sanction apparatus model reveals that political

development can reduce the sanction apparatus, and sanctions will increase the sanction apparatus.

The negative-binomial-regression result of the protest model demonstrates insurgency will increase protest and confirms Lichbach and Gurr's (1981) findings. Sanctions will stimulate protest, which is consistent with McNitt (1995) and Francisco (1996). Increases in the sanction apparatus will stimulate protest, and Gurr (1993a) is sustained.

The negative-binomial-regression result for the insurgency model discloses that political development will decrease insurgency, and Powell (1982), Gurr (1993a), Rummel (1995), and Lomperis (1996) are verified. That protest will stimulate insurgency is consistent with Lichbach and Gurr (1981). That sanctions will provoke insurgency confirms Eckstein (1965), Gurr (1969), Ziegenhagen (1986, 1994), Mason (1989), Davis and Ward (1990), and Schock (1996). The negative-binomial-regression result of the sanctions model discloses that protest will increase sanctions and supports Bremer (1987), Maguire (1993), and McNitt (1995). That insurgency will stimulate

sanctions is consistent with Ziegenhagen (1986), Bremer (1987), and Davis and Ward (1990).

The Albanian civil war in 1997 illustrates well the interaction among protest, insurgency, and negative sanctions. Protest occurred on January 15 and 16 when pyramid schemes collapsed. On January 19, riot police beat protesters in Tirana. President Sali Berisha ordered the army into action to remove protesters' roadblocks on Jan. 25. Police fired plastic bullets and water cannons at 10,000 protesters in Vlora on February 5. Parliament declared a national state of emergency which imposed curfew and media censorship on March 2. Government jets bombed a village in southern Albania on March 3. All represent the administration of negative sanctions.

Then Protesters were enraged by negative sanctions and retaliated. Insurgents took control of southern Albania with the capture of Gjirokastra on March 8. Unrest spread to northern Albania on March 11 and engulfed all major population centers, including Tirana on March 13.

How should the Albanian civil war be resolved? Suppression? Concession? Or asking for a third party's intervention? It is an

important decision for President Sali Berisha to make. On March 28, president Sali Berisha said he would support a multinational peacekeeping force, and the dissidents appeared to backing away from demanding the president's removal, urging instead that parliament limit his power. The Parliament, dominated by president's rightist Democratic Party, voted to pass the law approving the UN-approved multinational force on March 30 (see The Associated Press, January 15 to March 30, 1997). On the whole, the Albanian political conflict in 1997 verifies some findings in this study. Protest will stimulate insurgency and sanctions; insurgency will increase protest and sanctions, then sanctions could stimulate protest as well as insurgency. In fact, all three factors form positive loops and mutually enforce each other. It is the "violence cycle" indicated in figure 6.1.

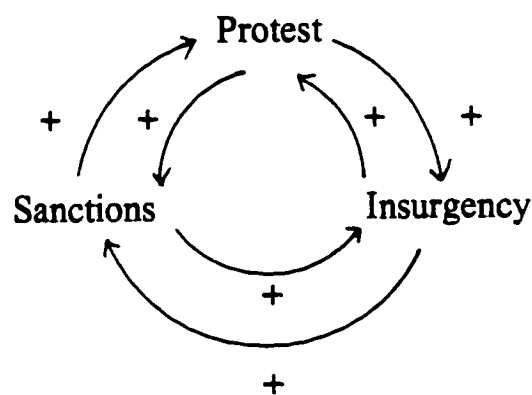


Figure 6.1 Violence Cycle of Political Conflict

6.3 Results of the Sensitivity Analysis of the Simulation Model

To anticipate political conflict in a more dynamic way, sensitivity analysis of the simulation model is employed and results show that political development does matter. The findings support Huntington (1968), Gurr (1989), and Hwang (1997), that is, the relationship of political development and political violence is an inverted U-curve. Insurgency increases as political development increases, and it declines when political development crosses a threshold. Insurgency is minor in highly developed systems.

The relationship of political development and protest is nonlinear, in other words, protest will increase and stabilize as political development increases. Protest does not decrease as the level of political development increases possibly because people who have more political rights are accustomed to protest activities in more developed systems. However, the correlation between political development and sanctions is negative. The higher the political development, the less the sanctions. This finding supports Gurr and Lichbach (1986), Henderson (1991), Ziegenhagen (1994), and Hwang (1997).

Additionally, the relation of political development to the sanction apparatus is an inverse U-curve. The sanction apparatus increases somewhat as political development increases, then it declines step-by-step as political development continues to grow. In the case of higher levels of political development, more resources are spent on civil institutionalization, and less ratio of governmental expenditures are allocated to the sanction apparatus. Highly developed systems are distinguished by their limited use of negative sanctions and by their abilities to handle political violence.

However, the system dynamic uses feedback loops to organize a set of causal relationship in order to explain “why certain key elements within a system behave over time as they do.”(Roberts et al. 1983: 47). Positive rather than negative loops dominate in this simulation model. Positive loops which usually produce linear patterns are of two types: One is positive-positive loops, the other is negative-negative loops.

In positive-positive loops (see figure 6.2) Both are mutually enforcing. The former increases the latter, and vice versa. Then positive-positive loops will approach the maximum level which is the so-called “snowball effect.” For example, the relationships between

political development and protest, protest and insurgency, protest and the sanction apparatus, insurgency and sanction, and insurgency and the sanction apparatus etc.

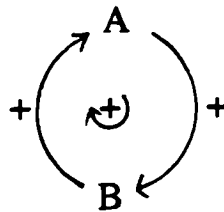


Figure 6.2: Positive-positive loops

In negative-negative loops (see figure 6.3), both reduce each other. The former reduces the latter, and vice versa. Eventually, they will approach the minimum level. For instance, the relationship between political development and insurgency.

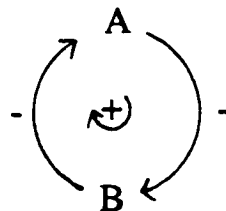


Figure 6.3: Negative-negative loops

The only negative loop (+, - or -, +) exists for sanctions and the sanction apparatus. Sanctions will increase the sanction apparatus, but the sanction apparatus decreases sanctions.

6.4 Limits of the Analysis

Before concluding, it is necessary to review the limitations of the present study. First, this study has focused on testing the impacts of political development on political conflict and regulation policies by employing a sensitivity analysis in the general simulation model. Future research needs to vary initial and/or parameter values of political conflict and/or regulation policies for additional results of sensitivity analyses.

Second, a limited range of factors were examined in this study. It is impossible to examine all factors in any study, however, it would be particularly helpful to include some significant factors in future, for example, economic performance, political satisfaction, population size, and international conflict. Finally, constructing and running the general simulation model which is completely based on results of statistical analyses is the research strategy employed in this dissertation. Clearly this research effort illustrates a limited selection of historical behaviors, although there is a more detailed historical case introduced in chapter 5. Future study is necessary to compare more empirical cases and to construct and compare some sub-models, for instance, the simulation

model of core systems, of semi-periphery, and of periphery systems etc.

6.5 Implications for Public Policy

As political development increases, protest increases but insurgency declines, therefore, sanctions and the sanction apparatus decrease sequentially. In general, protest usually co-exists with political development, while insurgency co-exists with political decay. Some nations, like Nigeria (see figure 6.4) and Lesotho (see figure 6.5), show the path to political decay. When a regime encounters a protest, it could concede or suppress. If sanctions were taken to suppress protest, insurgency will become a high possibility. Then sanctions and insurgency will form a violence circle related to political decay.

To avoid politically violent cycles between sanctions and insurgency, the first and foremost policy recommendation is to promote the level of political development, (i.e., to increase the effectiveness of political structures in performing major political functions including

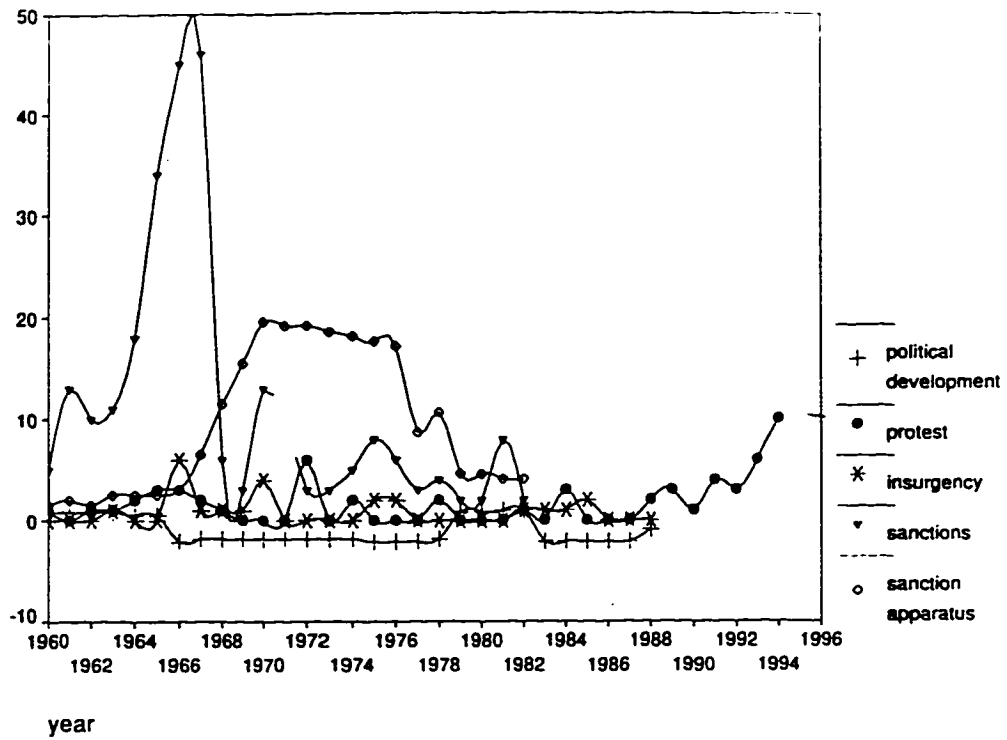


Figure 6.4: Path of Political Decay in Nigeria
sources: Banks (1996), Taylor and Jodice (1983)

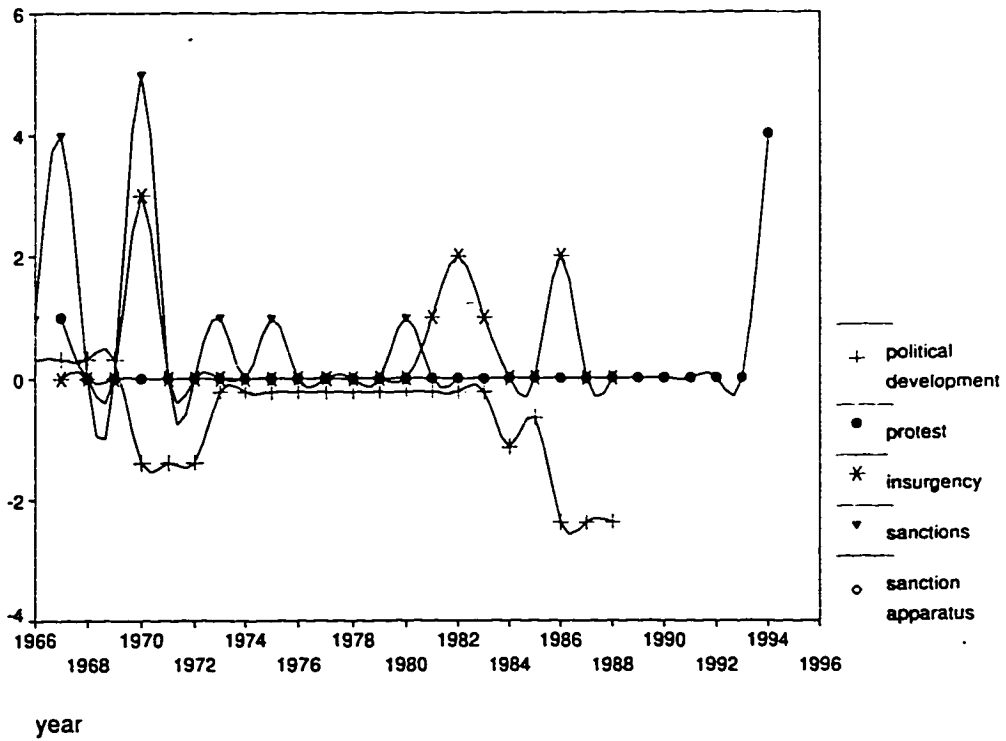


Figure 6.5: Path of Political Decay in Lesotho
sources: Banks (1996), Taylor and Jodice (1983)

interest articulation, interest aggregation, political recruitment, socialization, and communication. When political systems enter the more advanced stage, there are high levels of protest but low levels of the sanction apparatus. Most importantly, there is little insurgency and few sanctions. Protest will be substituted for insurgency, and sanctions decline. Protest may be one form of political participation which is vital for political development to prosper.

The second policy recommendation is to legalize protest, demonstration, and strike activities to lessen the probability of insurgency or to deter protest from escalating into insurgency. For example, the Framers of the US Constitution recognized, primarily in the First Amendment, that citizens had a right to protest the actions of government and to engage in protest activities.

The third policy recommendation is to tolerate and accommodate protest but impose severe sanctions on insurgency. Citizens may be induced to peaceful protest rather than revolution if they order alternatives in terms of their preferences according to expected-utility theory. If regimes could promote the utility of protest to be greater than those of insurgency, dissidents will prefer protest to insurgency

because the rational assumption implies people always select the strategy that yields the highest expected utility. Therefore, the probability of protest could increase and the likelihood of insurgency will diminish.

While this section illustrates some of the potential policy implications of research findings, much additional research is necessary. Toward this end, further interdisciplinary research among political scientists, sociologists, and historians needs to be conducted, and it is likely to promote a better understanding of the relationships among political development, political conflict, and regulation policies.

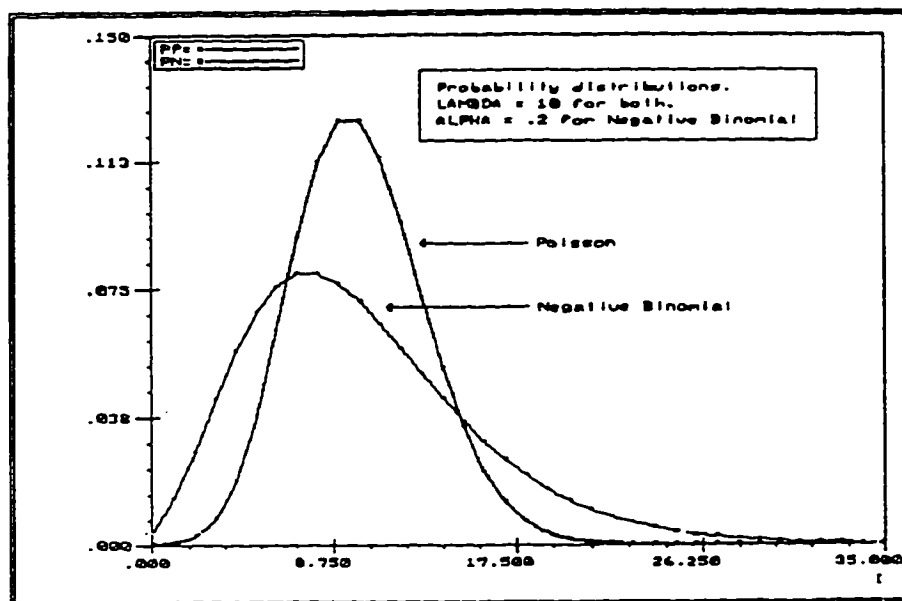
NOTES

1. There are other alternative approaches to political development theory. For example, Park (1984) interprets political development in terms of universal needs; Chilton (1988) defines political development as a specific form of change in the political culture of a society; Bartlett (1996) argues that contemporary malaise in the study of modernization is the result of limitations of the science adopted at its origin, and Ruttan (1991) argues political development is about the growth and distribution of power.

2. One must be careful in selecting the indicators of political development. For example, to avoid autocorrelation or autoregression with the political conflict variable, indices that contain indicators measuring political instability have to be excluded (Ziegenhagen, 1986).

3. The Poisson distribution occurs under the following circumstances: (1) the probability that an event occurs in a short period of time that is proportional to the length of the period; (2) the probability that more than one event occurs in any very short period of time is zero; (3) events are independent of one another; (4) the probability of that an event occurs in a short period of time does not depend on when the period begins (Mansfield, 1994: 44).

4. The negative binomial model is an extension of the Poisson regression model and it allows the variance of the process to differ from the mean. The negative binomial model arises from the Poisson model by specifying $\ln \lambda_i = \beta' x_i + \varepsilon$, where $\exp(\varepsilon)$ has a gamma distribution with mean one and variance α . Therefore the resulting probability distribution is $\text{Prob}[Y=y_i | \varepsilon] = e^{-\lambda_i} \exp(\varepsilon) \lambda_i^{y_i} / y_i!$, $y = 0, 1, \dots$ (Greene, 1992: 539). In sum, the probabilities for Poisson and negative binomial distributions can be compared in the following figure:



source: Greene, 1992: 556

5. In the Banks' data set, the values of the effectiveness of legislature are scored as: 0: no legislature, 1: largely ineffective, 2: partly effective, 3: effective. The values of the nominating process for legislature are scored as: 0: no legislature, 1: essentially non-competitive, 2: partially competitive, 3: competitive. The values of the legislature coalitions are scored as: 0: no coalition, no opposition, 1: more than one party, government coalition, no opposition, 2: more than one party, government coalition, opposition, 3: no more than one party, no coalition. The values of the party legitimacy are scored as: 0: no parties, or all but dominant party and satellites excluded, 1: significant exclusion of parties (or groups), 2: one or more minor or "extremist" parties excluded, 3: no parties excluded. The values of the legislative selection are scored as: 0: none, no legislature exists, 1: non-elective, selected by the effective executive, or on the basis of heredity or ascription, 2: elective, selected by direct or indirect popular election. The method of selection of effective executive variable is coded as : 1: direct election, 2: indirect election, 3: nonelective; the type of regime variable is coded as: 1: civilian, 2: military-civilian, 3: military, 4: other.

6. A few econometrics books include the Poisson or negative binomial process, but most of them deal with how to estimate the probabilities of events (see Lancaster, 1990; Maddala, 1983; Hausman, Hall and Griliches, 1993; Florens and Fougere, 1992). Even in *Poisson Approximation* (Barbour, Holst, and Janson, 1992) or *Poisson Processes* (Kingman, 1993) there is no explanation how to calculate the marginal effects of explanatory variables. The only found one dealing with the marginal effects of explanatory variables is Liao (1994).

7. Taiwan was originally inhabited by aborigines of Malayan descent, and a permanent Chinese ethnic majority had been established in Taiwan by 1800. It was ceded to Japan in 1895 under the Treaty of Shimonoseki which resulted from the 1895 Sino-Japanese war. China regained it after Japan's surrender to the Allies in August 1945. In December 1949, Taiwan became the refuge for the Nationalist forces and started its new epoch (Derbyshire and Derbyshire, 1996: 195).

8. Since some data of Taiwan in Banks' (1996) data set do not exist, I supplement the missing data by referring to the following resources:

- (1). military expenditures are extracted from *Stockholm International Peace Research Institute* (SIPRI, various years). NY: Oxford University Press.
- (2). total governmental expenditures are extracted from *Statistical Year Book of the ROC* (various years). Taiwan: Directorate-General of Budget, Accounting and Statistics, Executive Yuan.
- (3). armed forces per 1000 people are extracted from *World Military Expenditures and Arms Transfers* (various years). D.C.: U.S. Arms Control and Disarmament Agency.
- (4). political development is taken from Hood (1997), Long (1991), Ray (1995), Tien (1992), Tien and Cheng (1997), Tsang (1993), Wu (1995), and Zhao (1996) etc.
- (5). political conflict is from Lai et al. (1991), Munakata Takayuki (1996), Peng Ming-Min (1984), Shih Ming (1980), *The White Terror in Taiwan 1950s*, (forthcoming), Taiwan Provincial Government; Reports by Taiwan Human Rights Association, China Times newspaper, New News magazine etc.

9. In this research, factor analysis and two stage least squares regression analyses are run on the SPSS for windows program; the Poisson and negative binomial regressions are run on LIMDEP; the simulation model is based on STELLA II (Systems Thinking, experimental Learning Laboratory with Animation), High Performance Systems. STELLA is designed to allow users to build intuitive models of the dynamics generated by systems involving interdependent relationships. It can be applied across the curriculum, both within a specific discipline, or as a vehicle for linking disciplines within an overarching issue context. By providing both model-building and simulation capabilities, STELLA offers a means for marrying the inherent strength that human beings possess for articulating assumptions, with the power that computers possess for accurately tracing out the dynamics that are implied by a given set of assumptions. All in all, STELLA's linkages of structure to behavior will help to replace the static analyses with dynamic, interdependent models.

APPENDIXES

Appendix 1: Descriptive Statistics

BASIC STATS	Descriptive Statistics				
Variable	Valid N	Mean	Minimum	Maximum	Std.Dev.
COUNTRYI	13135	649.487	10.00000	1300.000	386.5217
YEAR	13135	1931.074	1815.000	1996.000	54.9136
PD	5399	-.000	-2.37646	1.63116	1.0000
PROTEST	7738	1.105	0.00000	85.00000	3.4946
INSURGEN	6608	.626	0.00000	39.00000	1.6086
SANCTION	4844	7.877	0.00000	1732.000	31.0659
SANAPPAR	5289	10.088	0.00000	44.62000	6.0892
EFFECTLE	5415	1.557	0.00000	3.00000	1.0384
NOMINLEG	5407	1.323	0.00000	3.00000	.7463
LEGCOALI	5401	1.221	0.00000	3.00000	1.3030
PARTYLEG	5409	1.168	0.00000	3.00000	1.2994
TYREGIME	11257	1.158	1.00000	4.00000	.5031
SELEXEC	11102	2.267	0.00000	3.00000	.7473
LEGSELEC	10705	1.615	0.00000	2.00000	.7569

Appendix 2: Equations for the politically developing model

- $\text{Insurgency}(t) = \text{Insurgency}(t - dt) + (\text{ACC_INS} - \text{DEP_INS}) \cdot dt$
 INIT Insurgency = 0.63
 INFLOWS:
 $\text{ACC_INS} = 0.08 \cdot \text{Protest} + 0.011 \cdot \text{Sanction} + 0.033 \cdot \text{Sanction_Apparatus}$
 OUTFLOWS:
 $\text{DEP_INS} = 0.12 \cdot \text{Political_development}$
- $\text{Political_development}(t) = \text{Political_development}(t - dt) + (\text{ACC_PD} - \text{DEP_PD}) \cdot dt$
 INIT Political_development = 0
 INFLOWS:
 $\text{ACC_PD} = 0.132 \cdot \text{Protest}$
 OUTFLOWS:
 $\text{DEP_PD} = 0.169 \cdot \text{Insurgency}$
- $\text{Protest}(t) = \text{Protest}(t - dt) + (\text{ACC_PRO} - \text{DEP_PRO}) \cdot dt$
 INIT Protest = 1.1
 INFLOWS:
 $\text{ACC_PRO} = 0.315 \cdot \text{Political_development} + 0.285 \cdot \text{Insurgency} + 0.049 \cdot \text{Sanction} + 0.109 \cdot \text{Sanction_Apparatus}$
 OUTFLOWS:
 $\text{DEP_PRO} = 0.0000001$
- $\text{Sanction}(t) = \text{Sanction}(t - dt) + (\text{ACC_SAN} - \text{DEP_SAN}) \cdot dt$
 INIT Sanction = 7.9
 INFLOWS:
 $\text{ACC_SAN} = 1.425 \cdot \text{Protest} + 1.564 \cdot \text{Insurgency}$
 OUTFLOWS:
 $\text{DEP_SAN} = 2.679 \cdot \text{Sanction_Apparatus}$
- $\text{Sanction_Apparatus}(t) = \text{Sanction_Apparatus}(t - dt) + (\text{ACC_SA} - \text{DEP_SA}) \cdot dt$
 INIT Sanction_Apparatus = 10.09
 INFLOWS:
 $\text{ACC_SA} = 0.099 \cdot \text{Insurgency} + 0.096 \cdot \text{Sanction}$
 OUTFLOWS:
 $\text{DEP_SA} = 0.13 \cdot \text{Political_development}$

Appendix 3. Chronicles of Political Development in Taiwan: 1945- 1996

- 1945 Taiwan returned to China from Japan
- 12/25, 1947 the Constitution of R.O.C. adopted
- Nov.1947-May 1948 national election of Congressmen
- 1948 Chiang Kai-shek serves as President
- 04/18, 1948 Temporary Provisions Effective during the Period of Communist Rebellion
- 1949 R.O.C. retreats to Taiwan
- 05/20, 1949 Martial Law was declared
- 1950s and 1960s Mainlanders rule
- 1951 local self-government elections (mayors, county magistrates, city or county councils and Taiwan Provincial Assembly)
- 1967 Taipei became "special municipality", mayor was appointed instead of elected
- 1969 supplementary national election in Taiwan (15 Assembly, 11 Legislator, and 2 Control Member)
- 1971 R.O.C. withdraws from UN.
- 1972 Chiang Ching-kuo appointed as Premier Minister
- 1972 additional national election in Taiwan (53 Assembly, 31 Legislator, and 10 Control Member, all must be re-elected periodically)
- 1972 Chiang Ching Kuo appointed Premier Minister of Executive Yuan
- 1975 about 200 political prisoners released
- 1978 Chiang Ching-kuo elected President
- 1979 Kaoshiung became "special municipality", mayor was appointed instead of elected
- 1980 Dangwai (political group) established
- May, 1987 Six out of Eight political prisoners were freed
- 06/23, 1987 National Security Law was effective
- 07/15, 1987 Martial law was lifted
- Sept. 1987 March and Assembly Law was effective
- 01/01, 1988 Press restrictions were eased
- 1988 Lee Teng-hui served as President and took an amnesty to prisoners
- 01/23, 1989 Civil Organization Law and Election and Recall Law enforced
- 05/01, 1991 Additional Articles of Constitution were in force, and it terminated the period of mobilization for the suppression of Communist rebellion
- 12/21, 1991 all National Assembly members elected in Taiwan
- 12/19, 1992 all Legislators elected in Taiwan
- 12/03, 1994 Taipei Mayor's office won by opposition party(DPP), while Taiwan Governor and Kaoshiung Mayor won by ruling party(KMT)
- 03/23, 1996 President Lee Teng-hui elected directly by all citizens in Taiwan area

Appendix 4: Chronicles of political conflict in Taiwan: 1945-1996

	years	cases	types	context
12/	1945	rice riot	riot	
06/	1946	Kaoshiung	strike	Taiwan Ship and Cement Companies
02/28,	1947	228 events	revolution	20 thousand die, and 100 thousand disappear
	1948	CCP	civil war	Chinese Communist Party rebels
	1949	CCP	civil war	Chinese Communist Party rebels
04/	1949	peace declaration	arrest	1 prisoner
04/06,	1949	46 event	arrest	namelist unknown
07/	1949	mailmen strike	strike	
	1949	TU	sanction	Taiwan University
06/01,	1950	S. C. Chien case	execution	2 death penalties, 12 prisoners ; Yu-Lien
	1950	MaTou case	revolution	3 death penalties, 33 prisoners; Tainan
	1950	TaoYuan case	revolution	3 death penalties, 4 prisoners
01/12,	1951	C. H. Fu case	execution	Fu death penalty, 3 prisoners; Kaoshiung
05/	1951	H. J. Liao case	execution	12 death penalties, 18 prisoners; Taichung
11/	1951	TIA	guerrilla warfare	Taiwan Independence Troop
02/16,	1952	M. T. Lee case	execution	2 death penalties; Tainan
02/16,	1952	WanKung group	execution	6 death penalties, 17 prisoners; Tainan
01/09,	1953	F. Y. Wang case	execution	Wang prisoner
01/13,	1953	Hu Ko event	coup detat	2 death penalties
02/08,	1954	C. S. Yeh case	execution	5 death penalties, 10 prisoners; Taiwan University
08/20,	1954	Lee-Jen Sun	coup detat	General Sun dismissed
01/07,	1955	W. Y. Ting case	execution	Ting death penalty; Ha-Lien
05/24,	1956	American Embassy	riot	many students arrested, Taipei
02/01,	1957	Y. Wen case	arrest	Wen prisoner; Kaoshiung
	1958	ChinMen war	civil war	CCP attacked ChinMen
09/04,	1959	C. Lai case	purge	4 prisoners; Taipei
11/	1959	C. H. Yeh case	arrest	4 prisoners; Kaoshiung
	1960	H. F. Yen case	arrest	Yen prisoner
09/24,	1961	T. C. Su event	revolt	300 prisoners; YunLin
	1961	Y. P. Lee case	execution	Lee death penalty
05/	1962	HsingTai group	revolution	1 death penalty, 10 prisoners

1962	army students	revolution	Taiwan Independence
04/ 1964	Taiwan stating	revolt	300 prisoners; ChinMen
09/20, 1964	M. M. Peng case	arrest	3 prisoners; Taiwan University
08/20, 1967	S. C. Lin case	revolt	247 prisoners; Taipei
02/ 1968	Y. H. Chen	arrest	Chen prisoner
06/ 1968	Pen & Sword	revolution	P & S association, 6 arrested
07/ 1968	Taiwan Coalition	arrest	7 prisoners
03/ 1969	united with China	revolution	37 university students arrested
04/ 1969	Young Aborigines	revolution	7 prisoners
09/ 1969	Y. T. Kuo case	arrest	Kuo prisoner for cartoon critic; Taipei
1970	S.H. Lai case	sanction	2 prisoners
04/05, 1970	M.T. Huang	sanction	Huang prisoners
04/24, 1970	New York case	assassination	Chiang Ching Kuo was shot
10/12, 1970	explosion	assassination	American News Agency
02/05, 1971	explosion	assassination	Taipei Citibank
10/ 1971	DaiToung	revolution	34 prisoners
12/ 1971	ChunKong	revolution	ChunKong University, 13 prisoners
1971	C.Y. Kuo case	sanction	
1971	C.M. Hsueh	sanction	
12/10, 1971	C.S. Lee incidents	sanction	2 prisoners
06/28, 1972	C.S. Chung	sanction	3 prisoners
1972	Y. C. Pei case	arrest	4 prisoners
07/ 1972	TIM	revolution	Taiwan Independence Movement
02/ 1973	TIM	revolution	Taiwan Independence Movement
1973	L.C. Wen	sanction	4 prisoners
04/26, 1973	TU	sanction	Taiwan University, 4 professors were fired
1974	TIM	revolution	Taiwan Independence Movement
02/ 1974	W.C. Lin	sanction	10 years sentenced
06/ 1974	aborigines	revolution	aboriginal independence, 2 prisoners, HaLien
06/ 1974	P. Cheng	sanction	Cheng death penalty, 5 prisoners
10/23, 1975	Y.C. Pai case	sanction	4 prisoners
02/ 1976	L.C. Chung	sanction	Chung 10 years sentenced
05/31, 1976	C.H. Yang case	sanction	8 prisoners
07/01, 1976	M.C. Chen	sanction	19 prisoners
08/ 1976	H. Huang case	arrest	Huang prisoner
10/10, 1976	HN Wang	assassination	mail-explosion
01/07, 1977	H. N. Wang case	arrest	Wang prisoner
08/ 1977	country literature	sanction	purge socialist writers
11/05, 1977	PLF	revolution	people liberal frontier
11/19, 1977	ChungLi	revolution	10,000. police office and cars were burned
06/23, 1978	C. Chen case	sanction	

12/21, 1978	T. H. Yu case	arrest	2 prisoners; Kaoshiung
12/24, 1978	C.H. Wu case	sanction	Wu death penalty, 4 prisoners
1979	C.L. Hung case	sanction	
08/09, 1979	Y.C. Chen	protest	New York city
08/09, 1979	NY explosion	assassination	New York city
10/18, 1979	C.L. Wu case	sanction	Wu arrested
12/10, 1979	Formosa event	riot	60 prisoners; Kaoshiung
01/08, 1980	M.T. Shih case	sanction	Shih arrested
02/28, 1980	Y.H. Lin family	purge	dissident Lin family murdered
1981	M.T. Shu case	arrest	10 prisoners
05/31, 1981	C. S. Yang case	purge	Yang prisoner
06/23, 1981	L. M. Soong case	arrest	Soong prisoner
01/08, 1983	H. Y. Lu case	arrest	2 prisoners; Culture University explosion
10/26, 1983	Central News case	assassination	Liu was murdered by Taiwan government in California
10/ 1984	Herry Liu case	assassination	
03/09, 1985	T. D. Party case	arrest	C. F. Hsu prisoner; Tokyo protest National Security Law
05/19, 1986	519 case	demonstration	
09/28, 1986	DPP case	demonstration	organized opposition party; ruling party tolerated
1987	228 memorial	demonstration	all over Taiwan island
05/19, 1987	519 case	demonstration	protest Martial Law
06/12, 1987	ChungTai hotel	demonstration	conservative group of ruling party attack
05/20, 1988	520 bloody case	demonstration	opposition party meeting 200 injured, 122 sued; Taipei
05/19, 1989	N. J. Cheng funeral	riot	1 burned himself, gas bomb
10/10, 1989	TuTseng case	demonstration	1 sued
12/25, 1989	ChungShan Hall	demonstration	10,000 participated, ask President must be directly elected by citizens
02/20, 1990	220 case	riot	gas bomb before Legislative Yuan
03/18, 1990	ChungCheng hall	demonstration	7,000 students sit-quietly one week
05/20, 1990	Anti-Hao	demonstration	oppose General Hao as Primer
05/29, 1990	Anti-Hao	riot	gas bomb before Legislative Yuan
04/13, 1991	413 case	demonstration	protest " mainlander congressmen"
04/17, 1991	417 case	demonstration	oppose mainlander congressmen amend Constitution, 2 prisoners
05/05, 1991	505 case	demonstration	oppose nuclear plant the forth

05/20, 1991	520 case	demonstration	ask "rebellion article of criminal law" expired
09/08, 1991	98 case	riot	gas bomb, burn national flag; ask referendum to return to UN as Taiwan national name
10/16, 1991	TI platform	demonstration	Taiwan independence, ruling party demand dissolution of the DPP but did not take action
02/28, 1992 04/19, 1992 -24	M. C. Peng case 419 case	demonstration riot	protest General Peng 400 people, Taipei train station, ask to elect directly the President
10/04, 1992	1004 case	demonstration	5,000, ask to separate from China
12/10, 1992 02/28, 1993 03/14, 1993	228 memorial 228 memorial New Line case	demonstration demonstration riot	Kaoshiung all over Taiwan island Kaoshiung; DPP attack New Line of KMT
04/ 1993 05/19, 1993	Anti-HoShih Farmer case	demonstration demonstration	oppose nuclear plant Taiwan Provincial Government
05/20, 1993 10/09, 1993 10/23, 1993	Farmer case 1009 case TsengYang	demonstration demonstration demonstration	15,000 participated waste soil problem; 5 sued ask to give elder men NT\$5,000 per month
04/26, 1994	Anti-HoShih	demonstration	oppose nuclear energy plant
05/22, 1994	Sex-harassment	demonstration	female students and workers protest sex harassment
05/24, 1994 05/29, 1994	elders case Nuclear plant	protest demonstration	1,000 ask for elder stipend 30,000 protest nuclear plant
06/19, 1994	Asia Athletic meeting	riot	supporters clash with rejectors
06/23 1994 -25	congress bloody	riot	30 injured, argument on -- the burget of nuclear plant the forth
06/26, 1994 01/22, 1995	elders case Nuclear plant	demonstration demonstration	ask for elder stipend 1000, oppose nuclear and radioactivity
01/23, 1995 01/27, 1995	Handicap health insurance	protest protest	ask for non-barrier space decrease treatment fees for health insurance program
03/07, 1995	working rights	demonstration	females ask for working rights
03/08, 1995	civil law	protest	females ask to amend civil law
03/12, 1995 03/29, 1995 05/20, 1995	anti-golf against golf mass media	protest protest protest	against illegal golf fields protest golf exercise 5,000 ask KMT out of TV stations

05/25, 1995	HengChun	protest	ask to move out fire field
06/21, 1995	Nuclear Plant	riot	bloody clash outside Legislative Yuan
07/24, 1995	Anti-China	protest	oppose Chinese military exercise
08/25, 1995	grape farmers	riot	1,000 at Taiwan Province Government
09/27, 1995	KTV	protest	Taichung court
09/27, 1995	elementary students	protest	trash stove
1995	KTV	protest	Control Yuan and President Building
11/23, 1995	Anti-Hao	riot	Kaoshiung
12/27, 1995	TienHsin	protest	telephone company workers
01/01, 1996	Raising flag	riot	outside President building
01/03, 1996	TienHsing	protest	2,000 outside Legislative Yuan
01/06, 1996	Empiral Palace	protest	against national paintings exhibiting overseas
04/16, 1996	Air force industry	protest	deny privatization
04/23, 1996	computer game	protest	ask for legalization
04/27, 1996	LienYu	protest	deny nuclear wastes
05/01, 1996	labor	protest	oppose foreign worker policy
05/07, 1996	national science yuan	protest	apply for labor basic law
05/19, 1996	anti-unification	demonstration	5,000 for Taiwan independence
06/06, 1996	nuclear plant	protest	at Executive Yuan
07/03, 1996	labor	protest	at KMT central building
08/12, 1996	oil rain case	protest	at Chinses Petroleum Company
08/21, 1996	Construction Union	riot	at KMT central building
08/25, 1996	TaYuan	protest	trash field
09/16, 1996	Bayer	protest	deny Bayer in Taichung harbor
09/22, 1996	Pao-Tioa	demonstration	against Japanese
10/15, 1996	nuclear plant	riot	Legislative Yuan
10/20, 1996	Fu-Sou Mt.	protest	against official planting trees

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