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**A theoretical model on the dynamic impact of influence on two  
party political systems**

**Bautista, Jose Juan, Ph.D.**

**Tulane University, 1987**

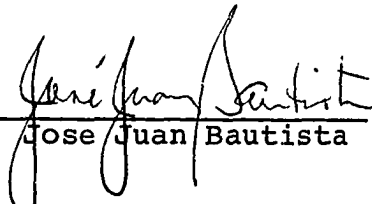
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A THEORETICAL MODEL ON THE DYNAMIC IMPACT OF INFLUENCE  
ON TWO PARTY POLITICAL SYSTEMS

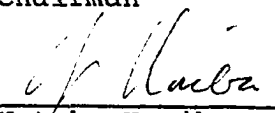
A DISSERTATION  
SUBMITTED ON THE TENTH DAY OF JULY, 1987  
TO THE DEPARTMENT OF ECONOMICS  
OF THE GRADUATE SCHOOL OF  
TULANE UNIVERSITY  
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DOCTOR OF PHILOSOPHY

BY

  
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## CHAPTER ONE

THE THEORY OF POLITICAL SYSTEMS: AN ECONOMIC  
INTERPRETATION AND SURVEY

## I. Introduction

Public Choice research received a significant advancement by Ramon Cao-Garcia's (1983) attempt to explain the fiscal distinctions between democracies and dictatorships. Inspired mainly by the contemporary work of Downs (1957) and Niskanen (1972), Cao-Garcia's Explorations Towards an Economic Theory of Political Systems is a static analysis. Besides delineating the fiscal differences which democracies and dictatorships must cope with, the work utilizes these nuances to explain variations in public sector output between the two systems. For each of the political processes, the fiscal outcomes hinge on four aspects: (1) the constitutional rules of each system which in turn determine the size of the winning coalition, (2) the flow of information that is allowed to the citizenry, the content of which is likely to contain biases in either case, (3) society's total output, which depends on the country's technology, resource endowment and government fiscal behavior (which includes issues such as controlling emigration), and (4) behavioral characteristics of

bureaucrats which affect on the system's supply and demand<sup>1</sup> for the agency's output. Cao-Garcia concludes that since since dictators function in an economic environment analogous to bilateral monopoly, government output will be less in dictatorships than democracies. In democracies on the other hand, voters' preferences are revealed through their respective legislators who possess their own preference functions, thus a monopoly model alone can determine the bureau's (assumed to be a budget maximizer) output in a tone reflecting the text of Niskanen (1972) and Orzechowski (in Borcharding,<sup>2</sup> 1977).

Despite its originality in content and the depth to which the text's discussion permeates, several issues are not addressed. First, the text avoids any discussion on the competition existing in a democracy between political parties. This interaction serves as the cornerstone of a representative democratic government, since fiscal outcomes differ significantly as parties advocate their preferences during elections and attempt to implement these preferences through the country's legislature. The growing body of interest or influence group literature by Bentley (1908) and pursued recently by Stigler (1973), Posner (1974) and Becker (1983,84), is testimony to the impact of competitive activity within a political framework. Secondly, although a digression from democracy to dictatorship is not completely neglected, the manner by which the political

environment is reconstructed (whether overtly or covertly) is crucial because constitutional tenets, information flows, economic activity and bureaucratic behavior are all adjusting simultaneously. Therefore the stability of any democracy depends on variables which influence government output since variations in public sentiments that are eventually expressed either by violence or by peaceful means, originate from society's inability to balance changes in socio-economic ideology. In oligopoly models (i.e. Stackelberg disequilibrium, cooperative game theory, Nash bargaining solution, etc.) discussed by Fellner (1949), Henderson and Quandt (1958), J.W. Friedman (1977) and many others has been useful in developing models explaining competitive industry decline and firm exit. However the oligopoly literature has yet to relate declining competitive behavior to political markets. Third, an adjustment from one equilibrium level of government output to another occurs if the political system changes. This obviously cannot be assumed to occur abruptly because the assumptions by which the competition between political parties exists, particularly in the realm of a representative democracy, must be specified in relation to some analogous oligopoly behavior (Nash, Cournot, etc.). Coleman (1971, 1972) and Aranson and Ordeshook (1972, in Niemi and Weisberg) compare competing political candidates to a Cournot model. Finding an

equilibrium in elections with multidimensional issues mandates restrictive assumptions on the distribution of voters' preferences as realized by Davis, Hinich and Ordeshook (1970).

The demise of democratic governments and convergence to dictatorship was hypothesized by Schumpeter (1942) who stated that the viability of capitalist-democratic society (and not the failures) is responsible for the system's collapse. Schumpeter contended that the fulfillment of five conditions are necessary for the survival of democracy:<sup>3</sup>

1. Politicians should be individuals of high moral character.
2. The range and scope of political decisions should be limited.
3. The bureaucracy must uphold the integrity of its rules.
4. Acceptance of legislative statutes is mandatory for political self control.
5. Incumbents should bear patience with their political opponents and not attempt to eliminate them from the political scene.

Fellner (1981) interpreted Schumpeter's work to be skeptical of the compatibility of centralized socialism and democracy. According to Fellner, although democracy must operate under the precepts of capitalism, socialism will establish its own rules for a viable democracy to function since capitalism is an untenable economic system. Haberler (1981) perceived Schumpeter's contention of a declining capitalist system attributable to factors such as the significant growth of the public sector, higher taxes and increased government regulation. Samuelson (1981)

preferred to view capitalism as an economic structure providing incentives to form coalitions within the democratic system which would eventually alter the economic aspects of capitalism.<sup>4</sup> Perhaps a fruitful exercise would be to formally model a viable two-party democracy and analyze from it conditions under which the political system will transform into a dictatorship (or one-party rule). Such a model is presented in the next chapter with the intention of extending the concept of the Cao-Garcia model to include the transitory process from democracy to dictatorship. The purpose of this paper is to review the Cao-Garcia model and its relation to the structure of the next chapter's model. At the same time the public choice literature with respect to three areas (a) political equilibrium models, (b) the interaction of competing parties, candidates, interest groups and legislators, and (c) the parallels to duopoly models in industrial markets and political overthrows is surveyed to draw parallel to the political model of the next chapter.

## II. Prelude

The democracy to dictatorship model of the next chapter assumes that the parties' objective is to maximize their levels of political power. Since the model is dynamic, steady-states occur when the level of net perceived influence separating the parties is carried over

from one period to the next. The model uses political power (or influence) not only as a variable to gauge dominance of the system but as a source to accumulate more power. This approach differs from public choice research in which spatial models emphasize voting as the means of measuring political strength. This section reviews a few of these models. The contrast evolving from this part of the survey should indicate that voting and winning elections (or popularity ratings) is only part of the political process. Popularity thus does not serve as an adequate proxy for political power since unpopular regimes may dominate (or control) a political system.

A broader and rapidly evolving scope of literature called Institutional Economics is also challenging spatial modelling. A brief discussion of its roots and progress is in this section. Since results from Institutional Economic studies suggest negotiation rather than a choice decision process, the political model in the next chapter demonstrates the need to balance political power accumulated through vote buying and a democratic legislative process in order for the two party system to be maintained.

## II. Political Equilibrium Models

As Garcia notes, the distribution between political systems is based primarily on individuals' ability to

ascertain with certainty their association with the winning or losing coalition, in the Constitutional, or rule-making stage. Since the size of the winning coalition is dictated by the constitutional rules of the political system, a simple explanation of each system is imperative.<sup>5</sup> Democratic competition, says Cao-Garcia, is:

designed under conditions of uncertainty such that all citizens are equal at the time the constitution is being formulated. The implication of equality evolving from the established rules is that no group can consistently benefit from the outcomes associated to the rules. Uncertainty is the inability to predict one's membership in the winning or losing coalition.

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Likewise a dictatorial constitution:

is framed under conditions of certainty, the dictator and supporting coalition know their socio-economic status under the system but are also aware that they may be ousted from power anytime.

Given the existence of constitutional rules, economic agents can be assumed to be constrained utility maximizers that express a preference for an optimal quantity of public sector output. The optimal size will obviously vary in dictatorship and democracy but will, in either case be determined by three groups: citizenry, bureaucrats, and politicians. The citizen's utility is expressed in functional form as:

$$U = U(P_i, C_i)$$

$P_i$  and  $C_i$  are composites of all private and public

goods respectively. The optimal ratio between  $P_i$  and  $C_i$  depends on the elasticity of substitution among these goods and the marginal efficiency of political participation in increasing  $C_i$ . The bureaucrat's utility is stated as:

$$U_j = U_j(Y_j, A_j)$$

where  $Y_j$  is total income received by the bureaucrat and  $A_j$  is a composite of all other benefits received by the bureaucrat. It is assumed that the bureaucrat can increase his utility only by increasing the value of the economic surplus generated by the bureau's activity.<sup>7</sup> Finally the politician's expected total welfare is represented as:

$$U = U(\pi, A)$$

where  $\pi$  is the probability of obtaining or retaining a desired political office and  $A$  is a composite of the private benefits that a politician obtains during his tenure. From this structure, the politician's desired amount of government output will increase as his ability to discriminate between citizens decreases. Cao-Garcia does not elaborate this point. Possibly, if the government can discriminate easily, output becomes more valuable in increasing  $\pi$  and, possibly,  $A$ .

The objective of politicians or of political parties has been a prevalent topic in the area of public choice. Frey and Lau (1968) developed an empirical model that treated the incumbent party as a utility maximizer. With



the choice variables being the party's ideology and policies to increase its popularity, Frey and Lau predict that incumbent parties with high popularity ratings rely more on ideological goals to augment their approval rating. The political as well as economic implications of government objectives are analyzed by Buchanan and Brennan (1977) who modelled a revenue maximizing Leviathan-type bureaucracy. Buchanan and Brennan find that not limiting the size of the tax base will result in an inordinately large amount of public spending similar to the results of Niskanen (1975).

Recently, voting models have grown more formal and complex. Kats and Slutsky (1981), in modeling the voting process in non-secret ballot elections, find that the votes political candidates obtain are determined by expectations of which party will win and not on how many policies are promised.

In another work on political equilibrium, Morton (1984) classified previous research on majority voting for the provision of public goods while incorporating the behavior of interest groups. Morton divided the majority voting models into three categories: (1) majority rule choice over one issue where voters' preferences are single peaked, (2) median voter equilibrium which determines the allocation of public goods while private goods are ascertained through the market, and (3) supplying public

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goods recognizing the role of interest groups. The latter of these categories distinguishes itself from others since this body of literature encompasses recent public choice modelling of representative democracies as opposed to direct democracy models pioneered by Black (1948) and Bowen (1943). Morton stated that constituent, or citizen, behavior can also be described in terms of the preference for private and public goods. However two assumptions add robustness to Morton's analysis that is conspicuously lacking from Cao-Garcia: (a) the act of voting and consuming the public good are separable, and (b) constituents are divided into  $n$  mutually exclusive groups. Constituent welfare is thus expressed as:

$$W_{ij} = W(X_{ij}, g_j)$$

$W_{ij}$  is the utility any member of group  $i$  receives when candidate  $j$  is elected,  $X_{ij}$  is the consumption of the privately provided good by any constituent member of group  $i$  when candidate  $j$  is elected and  $g_j$  is the consumption of the public good when  $j$  is elected. The use of Von Neuman-Morgenstern expected utility derives a Nash equilibrium indicative of one candidate being preferred to another through constituents' preferences. However if both candidates offer identical platforms, the Nash-equilibrium is illustrated to be the origin and the total expected net support of groups to political candidates is zero.

As the scope of public choice research continues to broaden, a consensus on whether the quantification of political economy (termed spatial modelling) is a valid exercise is far from being reached. Much criticism, originating in Stokes' (1963), targets Downs' model. Stokes attaches the assumption that decisions by voters and politicians can be described as continuous, since many issues can only be either totally endorsed or denounced, such as legalized abortion. However the habitual rebuttal to this parallels the response to those criticizing the assumption of profit (and also utility) maximization (Baumol, 1959). Although the analogy is weak, some such as Ordeshook (1974) have made valiant attempts in defense of spatial modelling.

Another observation under this category refers to the apparent lack of incentive for any individual to vote even in the most democratic systems. The existence of voter abstentions as viewed by Downs (1957) was pervasive in a society where full information abounds since both competing party platforms would be indistinguishable. Bernholz (1984) reiterated the point that the absence of voter motivation to the probability (objective and subjective) that the citizen's vote would be indecisive in determining an electoral outcome. This contention has been substantiated by empirical results which attach voter participation directly to the expected closeness of the outcome and the

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importance of the decision at stake. Following Tullock (1967) and Riker and Ordeshook (1968), Morton discusses five ways of explaining "irrational act of voting." First, individual receive consumption or psychic benefits from voting. Second, voters gain utility when supporting a winner and lose utility from supporting a loser. Third, voting is a method to avoid regretting to have abstained given the possibility that the election may result in either a tie or one vote short of a tie. Fourth, voting is a part of a two step game theoretic process where minimizing the maximum regret evolves from uncertainty in the electoral system. Fifth, employing a general equilibrium framework, the probability of being the decisive voter is inversely related to the turnout: zero probability with a one hundred percent turnout to a probability of one if all abstain.<sup>13</sup> Morton's own results expanded on the hypothesized theoretical link between the perceived differential benefits and the sense of obligation to vote. The element providing the link was found to be the action of interest group, which is covered in section three of this paper.

Recent criticism of spatial models have questioned the relation of Pareto optimal or equilibrating solutions of the political system. In fact, most spatial models need not yield Pareto optimal outcomes. Atkinson (1983) recommended a break from the dependence on neoclassical theory to the negotiational theory of collective action

developed by Commons (1961). The basic contention of

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Atkinson was that:

neoclassical economists have traditionally limited their analysis to price and quantity decisions within a stable institutional structure. However. . . public policy issues concern changing of to meet new circumstances. . . (and) some neoclassical economists. . . believe that to abandon neoclassical theory is to abandon economics as a science. The result is an attempt to apply individual maximizing calculations to the choice of social rules.

In essence, Atkinson advocated replacing neoclassical economic theory with what is termed "Institutional Economics." This reformulated social science is defined as the economics of uncertainty and power which relies on statements of probability rather than the Newtonian calculus of the mechanics of exchange. With uncertainty and power assumed in the model's structure, the process of negotiation, not atomistic individual decisions determines the values of endogenous variables. Rowley (1984) in a similar tenor, warned that spatialists face the possibility of being supplanted by "new" institutional economics. He argues that spatial theory's fundamental weakness:

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stems directly from its preoccupation with the very equilibrium concept which has served its mother discipline well...the spatial model has dwelt almost exclusively upon problems concerning the existence, uniqueness and stability of a political equilibrium which has not been defined sufficiently precisely for purposes of empirical analysis and which, even if some definition eventually emerged, at best would be of periodic and not continuous relevance in the study of political markets.

Institutional economics, on the contrary, divorces itself from analyzing a political system at a point in time, focusing instead on activity of both incumbents and opponents under constitutional constraints that determine behavioral norms. Although still too general to possess any predictive powers, Rowley advocates the superiority of the institutional approach on three grounds: (a) spatial modelling places political theory in a severely abstract framework thus restricting its relevance, (b) a more realistic political environment containing multiple parties, proportional representation and voter abstentions are important but difficult factors to consider using spatial theory and (c) empirical tests have been unable to confirm any predictive ability of spatial models despite contentions by others.<sup>17</sup> In a comment on Rowley's article, Bernholz (1984) broadened the perspective of the median voter theorem to incorporate the social welfare axioms of Arrow (1963). Bernholz stated the non-Pareto optimal solutions should be commonplace in non-oligarchic societies. However in the absence of a stable median voter solution, individual preferences should be examined as a prelude to instituting constitutional reform aimed at producing a more decentralized non-oligarchic and possibly, Pareto optimal society.

### III. Prelude

The theoretical model in the next chapter encompasses two aspects of political activity: elections and legislative activities. The competition between parties for votes is formulated as a function of the parties ability to conduct resource raising activities. The role of party platforms enters into the vote function through the amount of political power the party accumulates in the past. The party successful in obtaining more resources accumulates more votes but does not necessarily monopolize the political system. This is because the parties must also be effective in pushing their respective platforms through the legislative process. Government (legislative) output is constructed as a weighted average of the parties' effort to pursue their platforms. The effective party directs the output closer to its own platform. Public choice literature focuses on the derivation of government output with government agencies or bureaus competing with legislators. There is a paucity of reseach modelling the competition within the legislative process. Recently public choice has developed studies analyzing competing interest (influence or pressure) groups. This section surveys this literature to draw contrasts with the political model in the next chapter and other works that derive government output.

### III. Interest Group Impact on the Political System

Cao-Garcia stressed the integral role of the country's constitution in constraining societal behavior. The behavior of bureaucrats will vary in different political systems and basically depend on the benefits received as a result of the bureau's activities in addition to the bureaucrat's income. Politicians derive utility not exclusively by maintaining their incumbency but also from obtaining benefits from their incumbency (i.e. power, prestige, social status, etc.). Linking the two groups in a model necessitates the assumption that politicians are elected representatives of the voters who must provide government goods and services obtained from purchases of bureaucratic output.<sup>18</sup> However a perfect analogy relating government goods and services to output produced in the private sector is not tenable due to the difficulty in measuring the marginal productivity of public inputs. This difficulty was addressed by Niskanen (1971) who concluded that bureaus have monopoly power on the grounds that they are single sellers of government output to legislators who have demand functions determined by their own preferences of bureaucratic output.<sup>19</sup> Therefore in a democracy, a bilateral monopoly model would suffice to illustrate the magnitude of government total product while the monopsony model would be more appropriate for a dictatorial regime.

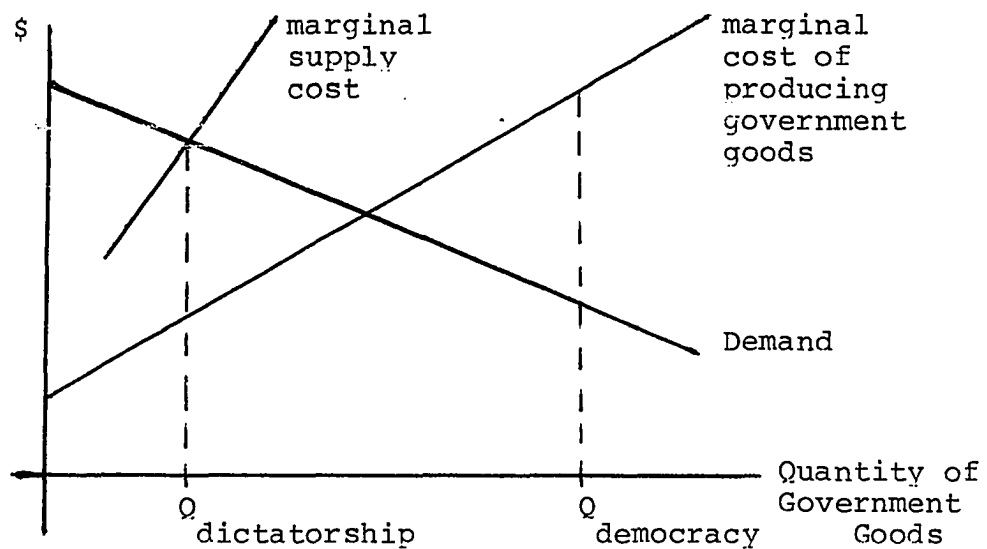


Figure 1 illustrates that government output would be larger in democracies due to the existence of budget maximizing bureaus and because of changes in the price charged to the monopolist-dictator as more bureau output is purchased. The use of monopsony in this model refers to the bureau as the producer of a variable factor of production which Cao-Garcia calls government output.<sup>20</sup>

From the preference function of the bureaucrat, an implicit assumption is made: the optimal size of the bureau's output is a function of (a) the bureaucracy's reward structure and (b) the ability of the politicians to monitor the bureau's activities. The second of these variables is crucial since it not only serves to constrain bureaucratic behavior but also maintains some degree of efficiency in the system. Allocative efficiency is obtained as the bureaucrat's activities approach the preferences of politicians. The coincidence of preferences between bureaucrat and politician is more imperative in a democracy since the politician's own welfare is dependent upon satisfying the constituents' preferences with the acquired government goods produced by the bureau. In a dictatorship, if the bureau's production is not synchronized with the preferences of the dictator (and perhaps the ruling

FIGURE 1

Cao-Garcia's Contrast of Government Output in  
Democracy and Dictatorship



Source: Ramon Cao-Garcia, *Towards an Economic Theory of Political Systems*, (Lanham: University Press of America, 1983).

coalition), the bureau can easily be abolished.

Supervision therefore can be performed via three methods: active, monitored, and passive. Active supervision is when the evaluation is based solely on posterior information gathered from discrete testing. Monitored supervision is exercised when there exists a willingness to evaluate on the basis of past and present information. Passive evaluation requires only the evaluator's preconceived theories or beliefs on the one being evaluated. Cao-Garcia states that monitored supervision is superior on the basis that a magnitude of information is used to evaluate. Since the provision of superior information is more likely to be generated in a democracy than dictatorship, the level of productive efficiency should be greater in the former system.<sup>21</sup> Ironically it appears in Figure 1 that Q<sub>democracy</sub> is obtained through a much less efficient process. The idea of government providing inefficient amounts of output was pursued by Lindsay (1976). In his work, Lindsay presented evidence demonstrating that government provides an excess supply of goods that are somewhat tangible but at the same time government underproduces goods (services) that are less than tangible.

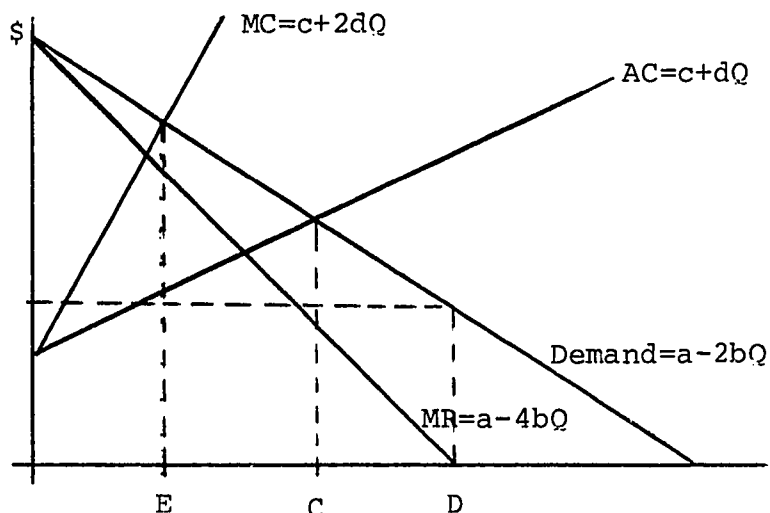
The substance of the bilateral monopoly

exchange between bureaucrats and legislators was recently developed by Miller and Moe (1983). This work was highly critical of Niskanen's contention that staggering government spending was directly attributable to the bureaucratic objective of maximizing budgets in excess of levels considered to be socially optimal. The Miller-Moe model assumed legislative committees to be maximizers of net benefits while government bureaus constrained budget maximizers cognizant of their cost functions and possibly of legislative committee's preference for the bureau's output.<sup>22</sup>

Figure 2 shows the three levels of bureaucratic output emerging from the model given linear demand and cost functions. D is termed the demand constrained solution which is analogous to a revenue maximizing monopolist, C is called the cost constrained solution and evolves when the bureau attempts to cover its total costs, E is referred to as the efficient solution since the legislative committee's demand function for bureaucratic output is equated with marginal cost. The gist of this exercise was to illustrate that when interjecting legislative preferences into analysis of bureaucratic behavior (even with the intention of lowering average and marginal costs) governmental growth is not

FIGURE 2

Miller and Moe's Three Levels of Bureaucratic Output



Source: Gary Miller and Terry Moe, "Bureaucrats, Legislators and the Size of Government," American Political Science Review, 1983, p. 303.

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not limited to unilateral decisions of the bureaucrats. Naturally the extent to which the model is capable of describing the legislature is contingent on the assumptions attributed to the participating agents.

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Miller and Moe state specifically:

In general, different legislative conditions give rise to different conclusions about bureaucracy and the size of government, and the conclusions of Niskanen and other critics, implicitly pegged to a specific set of conditions portray the bureaucracy problem in its extreme, most negative form. Virtually any other set of conditions implies a more moderate and positive perspective, and not surprisingly, a less enthusiastic evaluation of their proposed reforms.

This multifaceted concept of government serving different interests was previously analyzed by Breton (1974) in a model which drew parallels from the Downsian model. Breton viewed the democratic system as the majority party consistently aware of the threat of overthrow by the opposition party thus compelling the governing party to engage in various activities to maintain its control of the polity. In the Breton model, the government party maximizes an objective function which includes variables ranging from the most altruistic (personal view of the common good) to the most self centered (the politician's own image in history). The party (acting like a monopolist) attains its goals by acting as the sole supplier of certain public goods.

Although the just referred to models (Miller-Moe in particular) maintained the simplicity of the Niskanen model while augmenting the structure with more realistic assumptions regarding the legislature's objectives, they failed to take into account the impact of interest groups on the political system and completely ignored the possibility that extensive government involvement may affect the viability of the political system. The first of these omissions was addressed by Denzau and Munger (1984) in a model linking the simultaneous interaction of voters, legislators and

interest groups. Legislators were assumed to be vote maximizers since their choice of activities mandated a preference for serving their constituents (voters) who can either reelect the legislators or vote them out of office. Maximizing votes was preferred to winning a narrow plurality because the latter is likely to be perceived as an indication of the legislator's political weakness. Voters consist of a heterogeneous group of utility maximizers that react to the legislators' choice of activities. The voters are further influenced by efforts of legislators to use resources to affect preferences of voters on specific issues. Interest groups are well organized factions that allocate campaign resources to legislators in anticipation of being promised services. The legislator's choice variable is the degree of effort spent on specific issues, which depends on the marginal vote productivity of effort. At the optimum, the legislator commits himself to all activities (issues) so that the marginal addition to his vote is equal across all issues. Neither the interest group nor individual voters achieve hegemony in the political process.

The impact of voters and interest groups is contingent upon the behavioral assumptions associated with both groups. Denzau and Munger criticized the contributions of Becker (1976) and Fenno (1978) for some

extreme assumptions yet the implications of all three models derived had some similarities. Becker assumes that voters are "rationally ignorant" since they react only to expenditures of resources, being oblivious to other types of policy. As a result interest groups dominate the political environment by exhausting all resources to further their preferences. This dominance is prevented only if voters do react negatively to certain policy prescriptions. In this case interest groups are compelled to undertake added resource expenditures (through the media perhaps) to influence voter preferences, in addition to providing resources to the lawmakers for the advancement of legislative services. Fenno assumed that interest groups are impotent in propagating their preferences (either because they cannot legally sell their services or because voters are extremely informed members of the political process). In either case interest groups cannot impart additional information that can affect the voters at the margin, and therefore must compensate legislators at exorbitant levels. The significance of these conclusions is that voters, although an unorganized group of individuals in relation to interest groups, can significantly constrain the ability of the organized factions to determine outcomes.

The extent to which interest groups prevail was said by Denzau and Munger to be an empirical, rather than



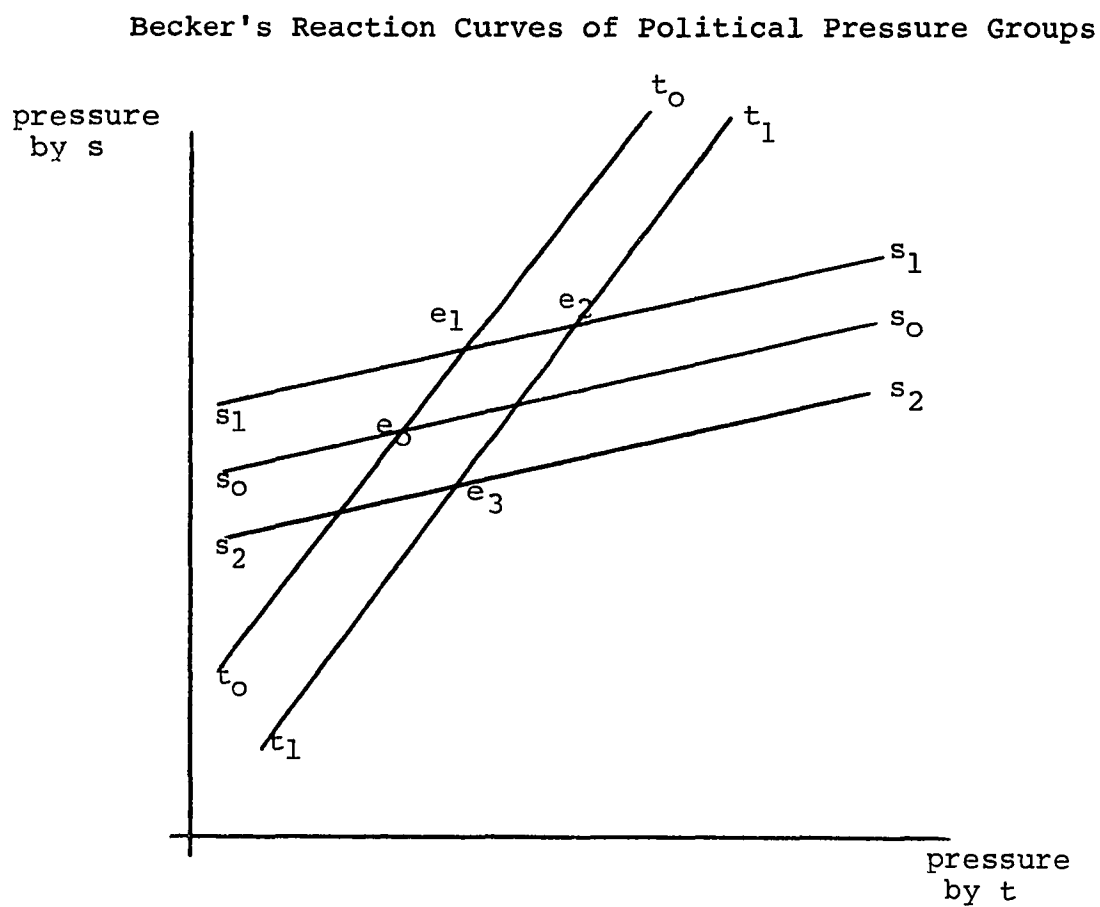
theoretical, exercise. Lost, however, in that argument is a discussion on the ascendancy of competing organized groups. This topic was addressed by Becker (1983,1984) who invoked previous works on economic regulation (Stigler 1975, Peltzman 1976, and Posner 1974). Becker simplified the political structure to consist exclusively of pressure groups that vie for political power. A Cournot-Nash<sup>27</sup> power. A Cournot-Nash behavioral process was assumed, and a "political" equilibrium attained in which competing groups spend an optimal amount on political pressure which produces political influence. The end result is that both groups maximize their income and therefore their own well being. However the arrival at efficiency is dependent on the ability of each group to (a) limit the existence of free riders, (b) allocate the size of group membership so that scale economies can be siezed, and (c) balance the emergence of deadweight costs between taxes and subsidies which could cause a perpetual disadvantage to one of the groups. The last of these factors is crucial since as the deadweight costs rise rapidly ascribing an advantage to one group's ability to produce pressure, the competing party must react instantaneously in order to minimize the loss in political influence. The comparative statics of the competition are therefore illustrated in Figure 3 with positively sloping reaction curves for both groups. The two groups (taxpayers,  $t$ , and receipients of subsidies,  $s$ ,

obtain a stable point of political equilibrium at  $e_0$ ). The reaction curves of the taxpaying group have steeper slopes since taxpayers are assumed to enjoy an advantage in producing pressure given an increase in the deadweight cost of a tax. Greater efficiency in producing pressure shifts the reaction curves  $t_0$  to  $t_1$  and  $s_0$  to  $s_1$  for taxpayers and subsidy recipients respectively and eventually to the point of political equilibrium.

Therefore the more efficient groups in the battle for political influence have the ability to better control free riders, group size and deadweight costs from spending resources which produce pressure (perhaps through all media sources). Becker implies that the process of correcting market failures through taxes and subsidies favors the group with greater authority in developing its political expenditures to produce pressure.

Becker (1984) attributes the decline of a free-market ideology to the increased ability of interest groups to propagate their preferences to voters and politicians alike. As special interest groups rise to prominence, increases in government budgets are dictated less by the objective to maximize social welfare and more by the standards (legal and/or moral) set forth by interest groups. In societies where democratic institutions do not function, a faint semblance of competition would persist among groups highly differentiated in political strength.

FIGURE 3



Source: Becker, G., "A Theory of Competition Among Pressure Groups for Political Influence", *Quarterly Journal of Economics*, August 1983, p. 379.

Despite its contributions to political economy, the interest group literature has not adequately considered the unhealthy aspects of political competition. Becker (1958) drew analogies to the emergence of monopoly power in industries to inefficiency in the functioning of political democracies. The survey now examines these analogies, not within a purely competitive-pure monopoly paradigm but from a duopoly to monopoly transition.

#### IV. Prelude

This section reviews the literature covering declining competitive activity in industrial markets. Also there is an extensive review of Cao-Garcia's discussion of how an incumbent is removed. However Cao-Garcia does not formally model the process. In this area, a few empirical studies have tested the relationship between government overthrows and economic conditions. Next chapter's model attempts to link the concept of government overthrows and declining competition between political parties. The envelope theorem is instrumental in showing that monopolization of the political process occurs if marginal increases in political power coming through the electoral and legislative processes exceed the rate by which political power constantly declines. The model illustrates that monotonic increases in political power are not necessary for one party rule to occur since the losing

party may withdraw from the system as long as it perceives the incumbent party as having a substantial control of political power at the time the losing party decides to withdraw.

#### IV. Competitive Collapse in Political Systems

There is no political system that can guarantee permanent tenure of the incumbent. As discussed by Cao-Garcia, different preference functions of the politician and the citizens give rise for the incumbent to pursue policies not consistent with the desires of the dominant coalition. Whether the motivational factor be mere ambition, genuine altruistic intentions or inability to correctly gauge voter preferences on the part of the incumbent, the politician is nevertheless constrained by the capability of the dominant coalition to remove the individual in power. Although political incumbency is preferred to resignation, the politician, according to Cao-Garcia, would rather resign than be overthrown. Thus the incumbent will attempt to minimize the probability of being disposed from office.

Removal from office can occur in three distinct situations barring exogenous occurrences such as accidents and acts of nature. Defined as the inability to obtain the minimum votes necessary to retain incumbency, electoral defeat is the first cause of a politician's removal from office.<sup>28</sup> Election loss is likely to occur given the

unfulfillment of campaign promises, changing voter preferences, excessive vacillation by the incumbent on crucial issues and defection of constituents to the adversaries to increase their (the transferees) welfare. The second reason is due to an "internal" revolution which consists of an uprising commenced by non-incumbents for the purpose of overthrowing the government through violent means. Although a revolution's impact as a constraint on the incumbent is effective only when the revolution can actually occur, a revolution can also be considered a public good when it changes government policies with the expectation that more goodwill will accrue to the revolutionary. The third cause for a politician's removal is a coup d'etat. This is referred to as an attempt (usually covert) of a subset of the ruling coalition to overthrow from office the head of government along with a subset of the ruling coalition using violence. Cao-Garcia further segments coups into cases where the personality is changed but the government institutions remain intact, and where the entire political system is dissolved with an entirely new system being implemented. The latter type of change is termed a "structural" coup while the former is titled "changing of the guard" coup. The tendency for structural coups is more likely to be found in dictatorships while changing of the guard can occur in elections, e.g. incumbent loss in a primary election.

The difficulty of removing an incumbent from office creates an added entry barrier problem to prospective candidates. Lott (1986) showed that unlike industrial firms that can sell property rights to a more efficient producer, politicians cannot sell the factor that generates political power for them, i.e. goodwill, accumulated for providing constituency services. Therefore, less productive incumbents perpetuate their tenure in office which lessens the extent that political markets can be more competitive.

The analogy drawn by Becker of competing political parties to oligopolistic activity prompts examples of declining competitive vivacity in industry. Reynolds (1985) developed a general oligopoly model using game theory to explain firm exit where demand is declining. By assuming Nash cooperative behavior, the Reynolds model derives two types of dynamic equilibria: multiple precommitment and perfect equilibria. In essence, the solution hinges on oligopolies to agreeing on shut down dates a demand for their output declines. Although well developed, the Reynolds model makes no analogy to any industry that could possibly corroborate its theoretical findings. Hamilton and Slutsky (1983) analyzed the emerging preponderance of one newspaper per metropolitan area where duopolies were commonplace in years past. Newspapers are seen as profit maximizing enterprises

selling two joint outputs: advertising and editorial content. The technology involves variable costs and set up costs proportional to and independent of circulation respectively. Given that the two outputs generate mutually exclusive revenue sources, per copy circulation revenue is required to cover variable costs while advertising revenue recoups set-up costs. The merit to advertising in one newspaper over another magnifies as circulation in that paper increases. Higher circulation levels leads to more advertisements which snowball to more readers. A competitive instability is initiated as readership in the competing newspaper declines causing a drop in advertising revenues. To maintain stability, Hamilton and Slutsky suggest placing legal limitations on the quantity of advertising revenue. This would bear resemblance to the (pre-cable) television industry with the significant distinction that time constrains television stations from offering an infinite amount of programming and thus advertising. The key therefore to newspaper monopolization would be to discourage ad pricing strategies such as declining block pricing and predatory price cutting by the larger (more circulated) daily.

The conceptual overlap between industry monopolization and declining functional democratic systems has not fostered much research in the latter. Riker (1962) found that determining the size of political coalitions is



a minimax zero-sum game causing multiple party systems to converge into a bipartisan structure with each party having almost equal size. Silver (1974) studied the factors composing the expected benefits and costs to a revolution. Tullock (1974) perceived revolutions to be pursuits of coalitions seeking private rewards and not due to the country's faltering economy.

Gurr (1970) believed a relationship existed between economic conditions and government overthrows which he titled private interest theory. Laband developed a cross section empirical test of Gurr's theory based on the following relationship:

$$\text{Attempted Coup} = f(\text{relative economic deprivation})$$

Then Laband analyzed data of fifty-four countries and specified his model as:

$$\text{Coup} = a_0 + a_1 \text{ ERY} + a_2 \text{ TAX} + a_3 \text{ DENSITY} + a_4 \text{ OTHEREXP} + a_5 \text{ GOVWAGE} + a_6 \text{ REPRESS} + e$$

where Coup is a dummy variable with 1 indicative of a nation that underwent an attempted coup in 1981, ERY is the difference in real per capita income three years prior to the overthrow. TAX represents individual taxes divided by total government revenue, DENSITY measures population density over six years 1975-80, OTHEREXP incorporates a proxy for the dictator's corrupt activities, GOVWAGE is total government disbursements on salaries and wages

divided by total public sector spending, REPRESS is a measure of the suspension of civil liberties and  $e$  is the random error term. The expected signs of the "a" coefficients are all positive except for GOVWAGE. The regression results tend to slightly favor the public interest hypothesis of political overthrows since the signs of the "a" coefficients are consistent with Gurr in four instances (ERY, OTHEREXP, GOVWAGE, and REPRESS). Of these sign matching coefficients, two of Gurr's "a"'s are statistically significant at the .10 level (ERY and GOVWAGE) while only the coefficient for TAX is significant for Tullock's structure. Laband does not give extreme credence to his results beyond the suggestion that general economic conditions may perhaps contribute to political upheaval. What does evolve from the study is an encouragement for further empirical modelling of all aspects of non-electoral political competition.

## V. Conclusion

This literature survey has drawn on the work of Cao-Garcia to extend his model of government output under two different political systems to the model presented in the next chapter where a transition from democracy to dictatorship is analyzed. No such dynamic modelling has yet been attempted in the areas of public

choice or political theory. Three areas of public choice research were also surveyed, (a) spatial modelling (b) interest, influence or pressure groups, and (c) empirical tests on causes of revolutions and related models focusing on competitive decline in industrial markets. The political model of the next chapter uses these three areas to demonstrate that over time a steady-state is attainable in political two-party competition and exogeneous shocks may impact political power to the point where the political duopoly reduces to a system where one party dominates.

## CHAPTER 2

INFLUENCE IN THE DYNAMICS OF A DEMOCRATIC TWO PARTY  
POLITICAL SYSTEM

## I. Introduction

The purpose of this paper is to develop a duopoly-like model of a democratic two party political system and consider the circumstances under which the system will converge to a dictatorship (or one party rule government) and likewise observe the conditions which the democracy will sustain itself. The convergence to a political monopoly is similar to the result of Schumpeter (1942) that held the viability of capitalist-democratic society (and not its failures) responsible for the system's collapse. The theoretical elements to the model are different. Central to the analysis is the assumption that current success depends upon the stock of influence built up by past success. The argument to be advanced is that a party that spends its resources in an electoral process and a legislative forum will be able to perpetuate an advantage which can eventually induce the minority party to exit from the system. Section II will contain the general assumptions of the model. These assumptions will be formalized in Section III as the model's objective

variables and constraints are formally presented. In Section IV equivalence is shown between the outcomes when separate decisions are made in each period by the parties and when there is a single game with lifetime decisions made to optimize the objectives. Section V analyzes the nature of the solution to the problem and the dynamic results of the model will be presented which will yield conditions under which there is either (a) the possible emergence of one influential party without any opposition, (b) a two party system but with nominal opposition or (c) a viable two party democracy with neither party more powerful than the other. Influence (or political power) will play a pivotal role in the model since political power will not only be the pay-off for the parties' success in elections and competition in the legislature but the accumulation of influence will be vital for each party as a source for future successes in obtaining votes and pushing each party's platform.

## II. Assumptions of the Model

The general assumptions underlying the model to be analyzed are described in this section.

### AI. At most two parties exist as viable contenders for power.

The purpose of this paper is to analyze the dynamics of two party competition. Many democratic systems have just two parties. Multiparty democratic systems do exist

in a variety of countries but generally this occurs only under a proportional voting system. Thus, it is assumed that the electoral rules provide for a winner-take all process in each electoral district. The model is valid for those political constitutions which fortify the existence of only a two party system instead of a multi-party governing process. Furthermore, it is assumed that the existing parties do not fear replacement by potential entrants to the duopoly process. This is a plausible assumption since high entry barriers which are not necessarily prevalent in industrial markets are quite observable in politics. Political parties must not only be capable of raising substantial amounts of resources but must also possess a proficiency in dealing with a variety of issues regardless of how remote the issues may be from the party's ideological preference.

AII. Parties are single entities.

This assumption was also made by Downs (1957) where political parties were assumed to be single entities in which the members concur on all the goals of their own organization.<sup>1</sup> Although seemingly a severe abstraction from reality, Downs made this assumption to avoid a detailed discourse on the nature of intra-party power politics and the compromises needed to derive an organizational consensus which is then presented to the voters. In the context of the model to be formulated,

the Downsian assumption of parties being single entities is even more appropriate since the competition for political power or influence is confined to exist between the political parties and not between political factions within either party.

AIII. Each party is assumed to have a given platform, i.e., parties do not compete by choosing platforms.

Although the parties present different platforms in the legislature in the current period, platforms are not involved in the competition between parties to accumulate votes in the present. This is not necessarily an extreme statement since in many circumstances it is reasonable to assume that voters do not make ideological distinctions between the candidates. Also given that the platforms differ in the present, they may be resistant to change over time since alteration in policies may cause voters to distrust the parties' legislators. The Philippines during its post-liberation period is a prime example of this occurrence. The two main political factions had little ideological distinctions between them. Thus success at the polls depended upon which of the two parties could outspend each other. However at the same time, the parties engaged in fierce competition between each other in the Philippine<sup>2</sup> bi-cameral Congress.

AIV. One activity of each political party involves raising money by conducting fund raising activities.

Each party generates revenue by spending resources. Each unit of resources spent raises more than a unit of total revenue (funds, money, or resources). The total amount of money raised increases with fund raising activities but contains significant diminishing returns. The underlying reason for assuming diminishing returns occurs in fund raising is because donors to political parties possess their own finite budget constraints. Therefore the net amount raised by each party must also be a finite amount of resources. Stated conversely, parties cannot raise an infinite amount of funds from infinite amounts of fund raising expenditures since after a finite amount of fund raising expenditures, the amount of money that even the most loyal party members would be willing to contribute would rise only by smaller amounts.

AV. Parties use their net revenue to win votes and push their individual platforms.

Expenditures on legislation are used by parties to pursue a given piece of legislation with some degree of effort. They also use the net revenue they raise to conduct political campaigns. Campaign expenditures are used to win votes directly and not to influence voter preferences through the party platform. This assumption implies that parties will choose an amount of resources which at the margin can equate the influence obtained from elections and legislation.

AVI. The major source of success in



political activities (given the platforms of the parties are fixed) is the extent of influence (or net perceived political power) which separates the parties. The proportion of votes won by a party net of the proportion of votes won by the opponent are thus a function of election expenditures and net perceived influence of the parties. The determinants of difference in the legislative successes of the parties are expenditures in trying to pass the platform and the parties' net perceived influence.

The net perceived influence of a political system always weighs heavily in the ability of either party to win popular support. Success at the polls is attributed to a party's ability to maintain the loyalty of its members from election to election. In a paper that analyzed the structure of majority voting in non-secret ballot elections, Kats and Slutsky (1981) assumed that political candidates obtain votes based more upon the voters' expectations of the likelihood that the party would win the election than upon the promises that the candidates make to the voters of what they would do if they win.

Contributors to political campaigns support parties best perceived as capable of accomplishing political favors. In addition, the perception of power makes politicians do what the powerful party wants it do in the legislature. Voters may also be affected by the mere perception that a particular party is powerful.

AVII. Net influence obtained in the present is based upon success in winning elections and

passing the platforms and upon past events which have affected the amount of perceived influence the party has accumulated.

If political power leads to success, success in turn leads to perceived power. However, limiting the factors that determine a party's influence to elections and legislative activities omits other possibly relevant factors. Obviously politicians often wish to project the image of being altruistic representatives of their constituents. Attending civic meetings, social gatherings and even adhering to special local interests are common political activities. Nevertheless most of these appearances ultimately aim at political and popularity benefits through a successful political campaign or by the passage of legislation conforming to the preferences of the politician's constituents. Also the level of current influence of a party may change due to the perception of political power that the party has attributable to economic events often exogenous to government actions, such as oil shocks, or even non-economic events such as the death of an incumbent executive or legislator.

AVIII. Net perceived influence from past success depreciates over time.

Newly elected candidates of political parties almost always experience their greatest amount of political strength during the first few months of incumbency. In political jargon, this time span is referred to as the "honeymoon period." After the initial months of

incumbency as the governing party's own policies become subject to criticism, the incumbent's influence declines. The interpretation given to political power is weakly analogous to capital, which in the economic context is a durable good used to produce other resources which depreciates (declines in value) naturally over its life time from usage.<sup>4</sup> Influence, on the other hand, declines if the party does nothing to augment its influence from period to period but the use of influence to generate more power will augment the perceived influence and negate the depreciation. In general, a political party's power declines in the absence of political accomplishments.

AXIX. Either party will exit from the political system if net influence separating the parties exceeds some critical level. Once exit occurs, entry is assumed not to be possible.

When the difference in influence between the two parties reaches an arbitrary finite (or critical) magnitude, the party with less influence will either, (a) exit from the political system or (b) exist but only as a powerless faction within the system. Exit therefore will have a two faceted meaning indicative of either the absolute absence of political opposition or the absence of effective opposition by the minority party. Several countries which operate under dictatorial (or one-party) rule sometimes permit the facade of opposition parties to exist (usually in an ineffective parliament or legislative

body) such as Korea, Egypt, Mexico and the Philippines during the latter's martial law period.

The model does not encompass the consequences of exit from the political system. In other words the system is absorbed once exit occurs since resource expenditures for elections and legislative competition are not likely to take place when significant competition does not exist. Nevertheless, post-exit dynamics may yield interesting results since periodic entry of a second party where monopolization once existed may be induced. This could possibly occur if the dominant party views the exit of its competition as an added pressure since the leading party must bear all the political consequences of its policies. Despite being the leading faction in political power, the party with greater influence may not be able to maintain its lead in influence since marginal increases in political power may be insufficient to compensate for the depreciation of influence. As a result, the leading party incurs a decline in its share of political power. The significance of this happening is that it may induce the dormant minority party to re-enter the political system with active participation in elections and legislative activities even though the minority party will never obtain the lead in influence.

- AX. Each party takes as given the actions of the other in making spending decisions, i.e., the parties move simultaneously.

This assumption follows since a party does not know the decisions of the opposing party when making its own decisions to spend money, that is, both parties take as given the opponent's action. Nash non-cooperative behavior seems reasonable in the two party context. The parties' objectives are not to accumulate net resources jointly which they could maximize together. Therefore a joint maximization of resources, common in duopoly studies of industry, is not applicable.

AXI. The goal of each party is to maximize its net influence (the difference separating each other's influence) simultaneously or the stream of discounted net influence over time.

The main objective of each party is not to win elections nor be superior in passing legislation but to maximize its own influence. Winning elections and having its platform passed are important to the extent that they raise a party's political power. Neither of the two parties have any direct policy goals (or proposals) to increase their share of influence.

From AI to AXI the problem being presented is a simultaneous move constant sum game in which each party tries to maximize the difference in their respective amounts of total influence. AI prohibiting entry, facilitates the analysis of a political model since pay-offs to the parties are observed on a relative basis. The magnitude of political power that a party accumulates is an

ambiguous concept if judged in the absence of the opponent's political power. In other words, an increase in one party's influence must indicate a decrease in the opponent's amount of influence. From AVI the feedback role of political power or net perceived influence is straightforward. A party perpetually at odds with the statutes passed by the legislature while simultaneously at the losing end of electoral contests will likely suffer a decline in its political power. This decline in influence will become evident as it causes the amount of resources gathered (to pursue the two political activities) to also fall. Less resources raised translate into less resources that can be spent for elections and legislation. Obviously the exact opposite holds for the winning party.

In summary, the model to be presented and developed here shall serve as an addition to the public choice literature but contrasting significantly from Downs' original contribution. Whereas Downs presented a static model on representative democracies by assuming that political parties either maximize votes or optimize the probability of electoral victory, the model to be shown takes influence as the key dynamic determinant of the path leading to one party domination of the system. The parties wish to maximize their amount of political power and not optimize government output or the amount of personal wealth they can seize for themselves. The model includes the role

of elections and policies. The latter impacts influence directly through the functioning of the legislative body. Both election victories and parties' effective legislative efforts will serve as the source of more political power which is instrumental in raising resources for future elections and legislative competition. Downs stipulated that the parties are primarily interested in winning elections and choose platforms to attain that objective. Overtime, parties change their platform to conform with the preference of the median voter. In this model, no convergence of party platforms will take place but nevertheless political power, a more general concept having a dynamic aspect to it, will be the driving force in the model.

One work that differed greatly from Downs' was Wittman (1973) which assumed that parties are solely interested in policies. Competition and oligopoly perspectives were constructed and in both scenarios party policies were the dominating factor which determined electoral victory. Wittman's model ignored any dynamics which would lead to domination of the system by a single party. A dynamic model was developed by Kramer (1977) for a two party democracy model where the dynamics came from a sequence of elections and non-simultaneous moves. The incumbent party in Kramer's model was tied to its record but the opposing party could choose any platform. The

party not only maximized votes in the current election but sought to minimize the loss in the next election.<sup>6</sup>

The political duopoly being presented here assumes that parties are tied to their record. However during elections, changing platforms is not an important method to attract votes. The model attempts to duplicate a two party competitive process where resources are used for legislative activities and to conduct political campaigns which seem intuitively to reinforce the existence of democratic institutions. However the model aims to unravel the dynamic conditions where a non-competitive process of government results in the wake of active democratic institutions.<sup>7</sup>

### III. The Model

Two political parties (A and B) compete in a political system where elections are held and a legislature functions (i.e. a democracy). Let  $K_t$  denote the magnitude of the difference in influence (or political power) between A and B at the end of period  $t$ . Thus  $K_t$  will be referred to as net influence at the end of period  $t$ . It will also therefore, represent the level of net perceived influence at the beginning of the subsequent period,  $t + 1$ . Each party's influence will be assumed to depreciate at the same constant proportional rate  $\delta$  and to be augmented by the parties each period. The amount of net influence that is augmented each period depends upon the function  $F$  which



depends upon  $V_t$ , the net difference in the proportion of which obtained by the parties, and  $L_t$ , the net difference in the proportion of times the parties are effective in passing their respective platforms in the legislature.

The relative vote difference,  $V_t$ , is the value of a function  $V$  which depends on the expenditures of each party to raise their proportion of the vote,  $a_t^A$  and  $a_t^B$ , in each period  $t$  and the value of net perceived influence,  $K_{t-1}$ .

This is formally stated as:

$$V_t = V(a_t^A, a_t^B, K_{t-1}) \quad (1)$$

$V$  is assumed to be strictly increasing in  $a_t^A$  and  $K_{t-1}$  and strictly decreasing in  $a_t^B$  and to be continuously differentiable everywhere to any required order.  $V$  is also assumed to be strictly concave in  $a_t^A$  and strictly strictly convex in  $a_t^B$  for all  $t$ .

For party A, whose expenditures to raise the vote increase the relative vote difference, a positive change in net perceived influence increase the marginal relative vote difference in favor of party A. Conversely for party B, whose expenditures on elections decrease the relative vote, the marginal relative vote will decrease with a positive change in net perceived influence. This assumption is expressed as:

$$\frac{\partial^2 V}{\partial a_t^A \partial K_{t-1}} > 0 \quad \text{and} \quad \frac{\partial^2 V}{\partial a_t^B \partial K_{t-1}} < 0$$

The relative legislative effectiveness,  $L_t$ , is the value of the function  $L$  which depends on individual party expenditures,  $b_t^A$  and  $b_t^B$ , to push a given platform in the legislative body at any period  $t$  and the value of net perceived influence,  $K_{t-1}$ . The function  $L$  is formally expressed as:

$$L_t = L(b_t^A, b_t^B, K_{t-1}) \quad (2)$$

$L$  is assumed to be strictly increasing in  $b_t^A$  and  $K_{t-1}$ , strictly decreasing in  $b_t^B$  and continuously differentiable everywhere to any required order.  $L$  is also assumed to be strictly concave in  $b_t^A$  and strictly convex in  $b_t^B$  for all  $t$ . A more explicit expression for legislative effectiveness is presented in the appendix.

It is also assumed that for party A, whose expenditures to push its platform(s) in the legislature increase the relative legislative effectiveness, the marginal relative legislation is increased by a positive change in net perceived influence. For party B, whose expenditures on pushing its platform(s) in the legislature decrease the relative legislation, the marginal legislation is decreased by a positive change in net perceived

influence. This assumption is expressed as:

$$\frac{\partial^2 L}{\partial b_t^A \partial K_{t-1}} > 0 \quad \text{and} \quad \frac{\partial^2 L}{\partial b_t^B \partial K_{t-1}} < 0$$

Therefore  $V(a_t^A, a_t^B, K_{t-1})$  is assumed to be strictly concave in  $a_t^A$  and strictly convex in  $a_t^B$  and similarly  $L(b_t^A, b_t^B, K_{t-1})$  is assumed to be strictly concave in  $b_t^A$  and strictly convex in  $b_t^B$ . Overall  $F$  is assumed to be strictly increasing, strictly concave in party A's resource expenditures to increase its vote proportion and legislative successes,  $a_t^A$  and  $b_t^A$  respectively, and strictly decreasing, strictly convex in party B's resource expenditures to increase its vote proportion and legislative successes,  $a_t^B$  and  $b_t^B$  respectively, and be twice continuously differentiable. (The existence of such functions is derived in the appendix). By summing net perceived influence and augmented influence, net influence is formally expressed as:

$$K_t = K_{t-1} [1 - \delta] + F(V_t^A, L_t^B) \quad (3)$$

Both parties must undertake expenditures  $c_t^A$  and  $c_t^B$  respectively in each period to raise enough gross revenue,  $R_t^A$  and  $R_t^B$ , the net of which is allocated towards

expenditure on vote raising and legislative activity. The level of gross revenue  $R_t^j$ ,  $j = A, B$  is assumed to be the value of a function  $R^j$  of  $c_t^j$  and net perceived influence.

$R^j$  is assumed to be an increasing, strictly concave function of  $c_t^j$  and bounded from above.  $R^A$  is increasing

and  $R^B$  is decreasing in  $K_{t-1}$ . Let  $r_t^j$ ,  $j = A, B$  represent the amount of revenue raised net of expenditures on

on revenue raising and assume that the marginal opportunity cost of allocating  $c_t^j$  is one. The amount of net revenue raised by each party which becomes available to spend

towards increasing the proportion of the vote and the share of legislative effectiveness is formally expressed as:

$$r_t^j = R^j(c_t^j, K_{t-1}) - c_t^j \quad j = A, B \quad (4)$$

$c_t^j > 0$

The justification for the assumption that  $R^j$  is bounded from above comes directly from assumption AIV in Section II. Since contributors to political parties have limited budget constraints themselves, as  $c_t^j$  becomes larger and larger, the additional amount the contributors are willing to contribute to political parties increase but only at smaller rates. Therefore the assumption that  $R^j$  is bounded implies that parties can raise only a finite

amount of gross revenue or at the margin, the extra expenditure to raise revenue yields less added revenue for the parties, or:

$$\lim_{c_t^j \rightarrow \infty} \frac{\partial R^j}{\partial c_t^j} < 1 \quad \begin{array}{l} j = A, B \\ c_t^j > 0 \end{array}$$

It follows that eventually the net amount raised by A and B declines at large quantities of resource raising expenditures.

It is also important to note that  $R^j$  is independent of the opponent's fund raising efforts,  $c_t^i$ ,  $j \neq i$ . In other words, the amount of money each party raises depends exclusively upon its own fund raising efforts and the level of net perceived influence.

From the assumption that a positive change in net influence favors party A, the marginal gross revenue raised by A increases with a positive change in net perceived influence, and the marginal gross revenue raised by B decreases with a positive change in net perceived influence. This assumption is expressed as:

$$\frac{\partial^2 R^A}{\partial c_t^A \partial K_{t-1}} > 0 \quad \text{and} \quad \frac{\partial^2 R^B}{\partial c_t^B \partial K_{t-1}} < 0$$

The net amount of revenue raised,  $r_t^j$  which is allocated towards expenditures to raise the proportion of

votes the party receives,  $a_t^j$ , and to increase the proportion of platforms each party can pass in the legislature,  $b_t^j$ :

$$r_t^j = a_t^j + b_t^j \quad j = A, B \quad (5)$$

$$a_t^j, b_t^j > 0$$

Combining (4) and (5) each party's revenue constraint is formally stated as:

$$R_t^A(c_t^A, K_{t-1}^A) = a_t^A + b_t^A + c_t^A \quad (5a)$$

$$a_t^A, b_t^A, c_t^A > 0$$

and

$$R_t^B(c_t^B, K_{t-1}^B) = a_t^B + b_t^B + c_t^B \quad (5b)$$

$$a_t^B, b_t^B, c_t^B > 0$$

Therefore the complete political duopoly problem assumes that party A is maximizing (3) subject to (1), (2) and (5a) at each period  $t$ , and that party B is minimizing (3) subject to (1), (2) and (5b). Substituting (1) and (2) into (3), the problem is formally expressed for A as:

$$\text{Maximize } K_t^A = F(V(a_t^A, a_{t-1}^A, K_{t-1}^A), L(b_t^A, b_{t-1}^A, K_{t-1}^A))$$

$$+ K_{t-1}^A [1 - \delta]$$

$$a_t^A, b_t^A, c_t^A$$

subject to

$$R(c_t, K_{t-1}) = a_t^A + b_t^A + c_t^A \quad (6)$$

and for B is:

$$\begin{aligned} \text{Minimize} \quad K_t &= F(V(a_t^A, a_{t-1}^A, K_{t-1}^A), L(b_t^B, b_{t-1}^B, K_{t-1}^B)) \\ &+ K_{t-1} [1 - \delta] \end{aligned}$$

$$a_t^B, b_t^B, c_t^B$$

subject to

$$R(c_t^B, K_{t-1}^B) = a_t^B + b_t^B + c_t^B \quad (7)$$

Parties simultaneously choose the amounts of resources they will spend without knowing the choices of the opposing party. Therefore writing  $a_t = (a_t^A, a_t^B)$ ,  $b_t = (b_t^A, b_t^B)$  and

$c_t = (c_t^A, c_t^B)$ , the Nash equilibrium is defined by:

A Nash equilibrium is defined for a given  $t$  as the points  $a_t^* = (a_t^{A*}, a_t^{B*})$ ,  $b_t^* = (b_t^{A*}, b_t^{B*})$  and  $c_t^* = (c_t^{A*}, c_t^{B*})$  such that for all any feasible decision made by party A:

$$(i) \quad K_t(a_t^*, b_t^*, c_t^*, a_{t-1}^*, b_{t-1}^*, c_{t-1}^*, K_{t-1}^*) >$$

$$K_t(a_t^A, b_t^A, c_t^A, a_{t-1}^A, b_{t-1}^A, c_{t-1}^A, K_{t-1}^A)$$

holds, and for any feasible decision made by party B:

$$(ii) \quad -K \begin{pmatrix} a_t^{A^*} & b_t^{A^*} & c_t^{A^*} & a_t^{B^*} & b_t^{B^*} & c_t^{B^*} \\ a_{t-1} & b_{t-1} & c_{t-1} & a_{t-1} & b_{t-1} & c_{t-1} \end{pmatrix} >$$

$$-K \begin{pmatrix} a_{t-1} & b_{t-1} & c_{t-1} & a_{t-1} & b_{t-1} & c_{t-1} \\ a_t^{A^*} & b_t^{A^*} & c_t^{A^*} & a_t^{B^*} & b_t^{B^*} & c_t^{B^*} \end{pmatrix}$$

In the next section, it will be shown that the decision process of both parties is the same if the goal of the parties is to either (a) to maximize the present discounted value of net influence or (b) to maximize net influence separately in each period  $t$ .

#### IV. The Equivalence of Single and Multiperiod Objectives

In the previous section, the political duopoly problem was formally presented as a period by period simultaneous choice zero sum game between parties A and B. Note that each party's revenue raising problem is independent of the choice of how the revenues are spent to win votes or to pass the platform. As shown in Section V, a unique solution exists for each party in determining the amount to spend in raising revenue. Given the optimal amounts of net revenue,  $r_t^{A^*}$  and  $r_t^{B^*}$ , there exists a unique equilibrium with respect to  $a_t^j$  and  $b_t^j$  as shown in the following theorem:

Theorem IV.1: In each period  $t$ , there exists a unique

$$\text{equilibrium } (a_t^{A^*}, b_t^{A^*}, c_t^{A^*}) \text{ and}$$

$$(a_t^{B^*}, b_t^{B^*}, c_t^{B^*}) \text{ to the game.}$$



Proof:

Existence. Given  $K_{t-1}^{A^*}$ ,  $c_t^A$ , and  $c_t^{B^*}$ , are the unique values which maximize  $R(c_t^A, K_{t-1}^A) - c_t^A$  and  $R(c_t^B, K_{t-1}^B) - c_t^B$ . Given these values, the feasible  $(a_t^A$  and  $b_t^A)$  for A is a compact set given by the constraint  $a_t^A + b_t^A < R(c_t^A, K_{t-1}^A) - c_t^A$ ,  $a_t^A > 0$  and  $b_t^A > 0$  and the constraint set for B  $(a_t^B$  and  $b_t^B)$  is similarly compact. By assumption, F is concave in  $a_t^A$  and  $b_t^A$  and is convex in  $a_t^B$  and  $b_t^B$ . Thus by Theorem 2.4 in Friedman (p. 39) an equilibrium exists.

Uniqueness. Assume that the equilibrium is not unique. Then there exist two different equilibrium vectors  $((a_t^{A^*}, b_t^{A^*}), (a_t^{B^*}, b_t^{B^*}))$  and  $((a_t^{A''}, b_t^{A''}), (a_t^{B''}, b_t^{B''}))$ . These vectors must differ in the strategies of both parties. To see this assume that the strategies do not differ, for party A,  $(a_t^{A^*}, b_t^{A^*}) = (a_t^{A''}, b_t^{A''})$ . Then from the strict convexity assumption made in Section III pertaining to F in B's strategies a unique maximizing choice must exist thus contradicting the possibility that  $(a_t^{B^*}, b_t^{B^*})$  and  $(a_t^{B''}, b_t^{B''})$  are both best replies to  $(a_t^{A^*}, b_t^{A^*})$ . Therefore assume that

$$\begin{matrix} A^* & A^* & & A'' & A'' \\ (a_t, b_t) & = & (a_t, b_t) & \text{and} \\ B^* & B^* & & B'' & B'' \\ (a_t, b_t) & = & (a_t, b_t). \end{matrix}$$
 Note that the vectors
 
$$\begin{matrix} A^* & A^* & & B'' & B'' \\ ((a_t, b_t), (a_t, b_t)) & \text{and} \\ A'' & A'' & & B^* & B^* \\ ((a_t, b_t), (a_t, b_t)) \end{matrix}$$
 are also feasible since each party's feasible set is independent of the other party's choices. Denoting the following:

$$F^1 = F^{\wedge} (a_t, b_t, a_t, b_t, K_{t-1})$$

$$F^2 = F^{\wedge} (a_t, b_t, a_t, b_t, K_{t-1})$$

$$F^3 = F^{\wedge} (a_t, b_t, a_t, b_t, K_{t-1})$$

$$F^4 = F^{\wedge} (a_t, b_t, a_t, b_t, K_{t-1})$$

Then:

- (a)  $F^1 > F^3$  since  $(a_t, b_t)$  is the unique best reply of A to  $(a_t, b_t)$ .
- (b)  $-F^4 > -F^3$  since  $(a_t, b_t)$  is the unique best reply of B to  $(a_t, b_t)$ .
- (c) Hence  $F^1 > F^4$  by combining (a) and (b).
- (d)  $F^4 > F^2$  since  $(a_t, b_t)$  is the unique best reply of A to  $(a_t, b_t)$ .

(e)  $-F^1 > -F^2$  since  $(a_t^{B^*}, b_t^{B^*})$  is the unique best reply of B to  $(a_t^{A^*}, b_t^{A^*})$ .

(f) Hence  $F^4 > F^1$  by combining (d) and (e). In (a) through (f), strict inequalities hold since F is strictly concave in

$(a_t^A, b_t^A)$  and strictly convex in  $(a_t^B, b_t^B)$ .

Conditions (c) and (f) are inconsistent. Therefore the assumption of multiple equilibria must be wrong and uniqueness is shown. Q.E.D.

Therefore from Theorem IV.1, a unique solution to the political duopoly problem exists such that in each period a sequence of equilibrium strategies either maximizes (for party A) or minimizes (for party B) net influence. These equilibrium strategies for the period by period game will be denoted as  $(a_t^{A^*}, b_t^{A^*}, c_t^{A^*})$ ,  $t = 1 \dots T$  and  $(a_t^{B^*}, b_t^{B^*}, c_t^{B^*})$  respectively.

Although the political duopoly problem has been presented as a series of period by period choice problems from period 1 to T, an alternative approach, somewhat less myopic involves a game where in period 1, party A chooses for all  $t = 1 \dots T$ ,  $(a_t^A, b_t^A, c_t^A)$  to maximize the present discounted value of net influence, or:

$$\max_{a_t^A, b_t^A, c_t^A} \sum_{t=1}^T \rho^{t-1} K_t \quad \text{subject to}$$

$$a_t^A + b_t^A + c_t^A = R(c_{t-1}^A, K_{t-1}^A), \quad \forall t$$

$$a_t^A > 0, \quad b_t^A > 0, \quad c_t^A > 0 \quad \forall t$$

$$K_t^A = K_{t-1}^A [1 - \delta] + F(V(a_t^A, a_{t-1}^A, K_{t-1}^A), L(b_t^A, b_{t-1}^A, K_{t-1}^A)) \quad \forall t$$

and the given strategy sequence  $(a_t^A, b_t^A, c_t^A)$  for all  $t$ .

Similarly B chooses  $(a_t^B, b_t^B, c_t^B)$   $t = 1 \dots T$  to

maximize  $-\sum_{t=1}^T \rho^t K_t^B$  subject to taking A's strategy as given feasibility in each period and equation (1) in

Section III. This maximization of present discounted

value of influence will be referred to as game II

and the equilibrium sequences  $(a_t^A, b_t^A, c_t^A)$   $t = 1 \dots T$ ,

and  $(a_t^B, b_t^B, c_t^B)$ ,  $t = 1 \dots T$  are the best replies to each other.

In game II, the present discounted value of net influence, or  $\sum_{t=1}^T \rho^t K_t$ , resulting from equilibrium strategies is defined as  $\Gamma(K_0)$  since the value of the present discounted value will depend upon the initial influence level. Then  $\Gamma(K_0)$  is increasing in  $K_0$  since a rise in  $K_0$  directly increases  $K_1$  from (3) or:

$$K_1 = K_0 [1 - \delta] + F(V_1, L_1, K_0)$$

In addition from the revenue raising problem, increasing  $K_0$  increases  $c_1^A$  and reduces  $c_1^B$  giving party A an increased advantage of having extra revenue. The extra resources to

party A allow it to increase  $V_1$  and  $L_1$ . Hence along the equilibrium strategies a rise in  $K_1$  leads to an increase in  $K_0$  which in turn leads to an increase in  $K_2$ , etc. This intuitive argument is the basis of the following theorem:

Theorem IV.2: Let  $(a_t^*, b_t^*, c_t^*, a_t^*, b_t^*, c_t^*), t = 1 \dots T$  be the unique equilibrium sequence in the sequence of myopic games. Then  $(\hat{a}_t, \hat{b}_t, \hat{c}_t, \hat{a}_t, \hat{b}_t, \hat{c}_t), t = 1 \dots T$  are the equilibrium strategies in game II, if and only if for all  $t = 1 \dots T$ :

$$(a_t^*, b_t^*, c_t^*, a_t^*, b_t^*, c_t^*) = (\hat{a}_t, \hat{b}_t, \hat{c}_t, \hat{a}_t, \hat{b}_t, \hat{c}_t)$$

Proof:

It is to be shown that the sequence  $(a_t^*, b_t^*, c_t^*, a_t^*, b_t^*, c_t^*) t = 1 \dots T$  is also an equilibrium in game II. Since all budget constraints and the dynamic equations that comprise equation (3) are satisfied in every period  $t$ , this sequence is also feasible in game II. Assume that  $(\hat{a}_t, \hat{b}_t, \hat{c}_t) t = 1, \dots, T$  is not the best reply to  $(\hat{a}_t, \hat{b}_t, \hat{c}_t) t = 1, \dots, T$ , in game II but some other feasible strategy  $(\tilde{a}_t, \tilde{b}_t, \tilde{c}_t), t = 1, \dots, T$  yields a higher present discounted value to A taking  $(\hat{a}_t, \hat{b}_t, \hat{c}_t)$  as given. Consider the sequences  $K, t = 1, \dots, T$  arising under the strategy

$(a_t^{\sim}, b_t^{\sim}, c_t^{\sim})$   $t = 1 \dots T$  and  $K^*$ ,  $t = 1 \dots T$  arising under the strategies  $(a_t^{A^*}, b_t^{A^*}, c_t^{A^*})$ ,  $t = 1, \dots, T$ . Let  $j$  be the first period in which  $K_t^{\sim}$  and  $K_t^*$  differ. If  $K_t^{\sim} < K_t^*$ , then replace  $(a_t^{\sim}, b_t^{\sim}, c_t^{\sim})$  with  $(a_t^{A^*}, b_t^{A^*}, c_t^{A^*})$ . Thereafter  $t > j$  remains feasible. This new strategy gives an even higher value. Hence if  $(a_t^{\sim}, b_t^{\sim}, c_t^{\sim})$ ,  $t = 1, \dots, T$  is not the best reply to  $(a_t^{B^*}, b_t^{B^*}, c_t^{B^*})$   $t = 1, \dots, T$ , then a better strategy must exist which has  $K_{t-n}^{\sim} > K_{t-n}^*$ ,  $t = 1, \dots, T$  and  $K_t^{\sim} > K_t^*$ , in some period  $n$ . But in the first such period  $n$ , party A has a strategy which in that period is a better reply to  $(a_t^{B^*}, b_t^{B^*}, c_t^{B^*})$  than  $(a_t^{\sim}, b_t^{\sim}, c_t^{\sim})$  contradicting the latter strategy being an equilibrium in period  $n$ . Thus the assumption that  $(a_t^{\sim}, b_t^{\sim}, c_t^{\sim})$   $t = 1, \dots, T$  is not a best reply is false. A similar argument shows that  $(a_t^{B^*}, b_t^{B^*}, c_t^{B^*})$ ,  $t = 1, \dots, T$  must be a best reply to  $(a_t^{A^*}, b_t^{A^*}, c_t^{A^*})$ .

Second, it must be shown that the equilibrium strategies in game II are period by period equilibria in the sequence of myopic games. Assume that they are not. Then there is a first period  $n$  in which the myopic and game II equilibrium strategies differ. Then the net influence under the two sets of strategies must differ ( $K_n^{\sim} \neq K_n^*$ ) since Theorem IV.1 states that the myopic game equilibrium strategies are unique. Whichever party does worse in period  $n$ , has a strategy which can do better in that period

since in a zero sum game, the equilibrium payoff is the level of player (party in this case) can guarantee itself regardless of the strategy of the other player. Assume without loss of generality that it is party A who can do better in period  $n$  than

in the game two strategies  $(K^* < K^*)$ . Then in all

subsequent periods, taking B's strategy as given, A's previous strategy is still feasible. Hence, A does better in all periods after  $n$ . Hence

$(a_t^A, b_t^A, c_t^A)$ ,  $t = 1, \dots, T$  is not a best reply to

$(a_t^B, b_t^B, c_t^B)$ ,  $t = 1, \dots, T$  if these strategies are

not myopic game equilibrium strategies. This contradicts the assumption that

$(a_t^A, b_t^A, c_t^A, a_t^B, b_t^B, c_t^B)$ ,  $t = 1, \dots, T$  is an

equilibrium in game II. Therefore, the game II strategies must be period by period strategies as well. Q.E.D.

Two significant points follow directly from Theorem IV.2. First, Theorem IV.2 shows that the myopic game was equivalent to game II. Therefore having already established that a unique equilibrium exists in the myopic game, a unique equilibrium also exists in game II. Second the equilibrium strategies from a sequence of myopic games are the same as the equilibrium strategies from a problem in which parties in the first period optimize the present discounted value of net influence over the lifetime of the game ( $t = 1, \dots, T$ ). That is when optimizing net influence at any period  $t$ , the effects on choices during all future periods need not be considered. Net influence is always be an increasing function of net perceived

influence for all periods as parties choose their equilibrium strategies. The same result would hold if the possibility of exogeneous shocks to net influence is added to the model. The choices made by the parties would be unaffected by the possibility of such shocks in the future. The choices of the parties would not change but the dynamics of the system could be altered by such shocks. For example, although one party might have been historically more influential than its opponent, at the time the shock(s) occurs, the less powerful party could become the more influential faction. Also an exogenous shock could possibly lead to exit of the less influential party. This is to be discussed in greater detail in the next section.

#### V. Nature of the Solutions to the Model

Having determined in the previous section that the problem of maximizing the present discounted value of net influence is equivalent to maximizing net influence at each arbitrary period  $t$ , the problem can be greatly simplified to a sequence of one period maximizations where in each period the parties choose only one variable each.

Raising  $r_t^j$   $j = A, B$  is assumed to involve a decision making process independent of the decisions to raise the vote and push the party platform. Therefore both parties can be assumed to spend non-negative amounts of  $c_t^j$  at any



$t = 1 \dots T$  given amount of net influence, to:

$$\begin{aligned} \text{maximize } R^j(c_t^j, K_{t-1}^j) - c_t^j \quad & j = A, B \\ c_t^j > 0 \end{aligned} \quad (8)$$

Given the earlier assumptions that  $R^j$  is bounded and that the marginal opportunity cost of each  $c_t^j$  expenditure is one parties A and B choose an amount of fund raising expenditures which equates the marginal gross revenue raised with the marginal opportunity cost associated with spending an additional  $c_t^j$  at any period  $t$ . In which case, the first order condition for (8) is:

$$\frac{\partial R^j}{\partial c_t^j} = \frac{\partial R^j}{\partial c_t^j} - 1 = 0 \quad j = A, B \quad (9)$$

$$c_t^j > 0$$

From the assumption that the function  $R^j$  is an increasing strictly concave and bounded function of  $c_t^j$ , and the marginal opportunity cost of  $c_t^j$  is one, a finite  $c_t^{j*}$  is determined by (9). Therefore since the objective of maximizing net revenue yields a unique  $c_t^{j*}$  at any period  $t$ , spending a  $c_t^j$  and  $b_t^j$  can be considered as a separate problem since the choice of  $c_t^{j*}$  is contained in the maximum  $r_t^j$

raised.

Recalling that increases in perceived influence favor party A, how fund raising expenditures of each party are affected can be analyzed. Differentiating the first order condition (9):

$$\frac{\frac{\partial^2 R^A}{\partial c^2}}{\frac{\partial R^A}{\partial c}} \frac{dc}{t} + \frac{\frac{\partial^2 R^A}{\partial c \partial K}}{\frac{\partial R^A}{\partial K}} \frac{dK}{t-1} = 0 \quad (10)$$

$$\frac{\frac{\partial^2 R^B}{\partial c^2}}{\frac{\partial R^B}{\partial c}} \frac{dc}{t} + \frac{\frac{\partial^2 R^B}{\partial c \partial K}}{\frac{\partial R^B}{\partial K}} \frac{dK}{t-1} = 0 \quad (11)$$

(10) and (11) yield the following:

$$\frac{\frac{dc}{t}}{\frac{dK}{t-1}} = \frac{\frac{\frac{\partial^2 R^A}{\partial c \partial K}}{\frac{\partial R^A}{\partial K}}}{\frac{\frac{\partial^2 R^A}{\partial c^2}}{\frac{\partial R^A}{\partial c}}} > 0 \quad (12)$$

$$\frac{\frac{\partial c}{\partial K} \frac{B}{t-1}}{\frac{\partial c}{\partial R} \frac{B}{t-1}} = \frac{\frac{\partial^2 c}{\partial K^2} \frac{B}{t-1} + \frac{\partial^2 c}{\partial K \partial R} \frac{B}{t-1}}{\frac{\partial^2 c}{\partial R^2} \frac{B}{t-1}} < 0 \quad (13)$$

The relationships exhibited in (12) and (13) demonstrate unambiguously that expenditures to raise resources increase for the party favored by an increase in net perceived influence and resources raising expenditures decrease for the party not favored by an increase in net perceived influence. Thus, if  $K_{t-1}$  increases party A will have more net revenue or a larger resource budget to allocate towards increasing the relative vote and relative legislation in each period.

With net revenue  $r_t^j$  now established to be equal to the amount of resources each party can spend to raise the vote and push its platform in the legislature, (5) can be restated as:

$$a_t^j = r_t^j - b_t^j \quad j = A, B \quad (5c)$$

Clearly (5c) may be used to eliminate  $a_t^j$  in (2) as follows:

$$V_t^j = V_t^j (r_t^j - b_{t-1}^j, K_{t-1}^j) \quad j = A, B \quad (1a)$$

Substituting (2) and (1a) into (3), and noting that there are only two choice variables consisting of the pair  $b_t = (b_t^A, b_t^B)$ , the political duopoly problem earlier expressed as (6) and (7) is re-expressed as:

$$K_t = K_{t-1} [1 - \delta] + G(b_t, K_{t-1}) \quad (14)$$

where:

$$G(b_t, K_{t-1}) = F(V_t^j (r_t^j - b_{t-1}^j, K_{t-1}^j), L(b_t, K_{t-1}))$$

$$j = A, B$$

and it is assumed that party A attempts to maximize (14) by choosing a value of  $b_t^A$  satisfying:

$$0 < b_t^A < r_t^A \quad (15)$$

for any  $t$ ; and party B chooses a value of  $b_t^B$  satisfying:

$$0 < b_t^B < r_t^B \quad (16)$$

in order to maximize  $-K_t$  in (14) for any  $t$ . This reduces the game to one with a single choice variable for each party.

The conditions for a Nash equilibrium are as follows:

A Nash equilibrium is a feasible vector

$b^* = (b_{t-1}^{A*}, b_{t-1}^{B*})$  such that for all feasible vectors

$b = (b_t^A, b_t^B)$  the following are satisfied:

$$(i) \quad K_t^{A^*} (b_t^{A^*}, b_t^{B^*}, K_{t-1}^{A^*}) > K_t^A (b_t^A, b_t^{B^*}, K_{t-1}^A) \quad \text{and}$$

$$(ii) \quad -K_t^{A^*} (b_t^{A^*}, b_t^{B^*}, K_{t-1}^{A^*}) > -K_t^{A^*} (b_t^{A^*}, b_t^B, K_{t-1}^{A^*}).$$

\*

If  $b_t$  is an interior solution then the properties of the Nash equilibrium are first found by differentiating (14) with respect to the choice variables.

$$\begin{aligned} \frac{\partial K_t^A}{\partial b_t^A} &= \frac{\partial F_t^A}{\partial V_t^A} \frac{\partial V_t^A}{\partial a_t^A} \frac{\partial a_t^A}{\partial b_t^A} + \frac{\partial F_t^A}{\partial L_t^A} \frac{\partial L_t^A}{\partial b_t^A} = 0 \\ & \frac{\partial F_t^A}{\partial V_t^A} \frac{\partial V_t^A}{\partial a_t^A} = \frac{\partial F_t^A}{\partial L_t^A} \frac{\partial L_t^A}{\partial b_t^A} \end{aligned} \tag{17}$$

$$\begin{aligned} \frac{\partial K_t^B}{\partial b_t^B} &= \frac{\partial F_t^B}{\partial V_t^B} \frac{\partial V_t^B}{\partial a_t^B} \frac{\partial a_t^B}{\partial b_t^B} + \frac{\partial F_t^B}{\partial L_t^B} \frac{\partial L_t^B}{\partial b_t^B} = 0 \\ & \frac{\partial F_t^B}{\partial V_t^B} \frac{\partial V_t^B}{\partial a_t^B} = \frac{\partial F_t^B}{\partial L_t^B} \frac{\partial L_t^B}{\partial b_t^B} \end{aligned} \tag{18}$$

What these first order conditions (17) and (18) indicate is that the marginal rate of substitution between

expenditures to raise the vote and succeed in passing legislation is equal to one for both parties. The second step in deriving properties of the equilibrium involves solving (17) and (18) separately to find the reaction functions representing A's value of  $b_t^A$  for any specified value of  $b_{t-1}^B$  and  $K_{t-1}$  which maximizes (14) subject to (15), and B's value of  $b_t^B$  for any specified value of  $b_{t-1}^A$  and  $K_{t-1}$  which minimizes (14) subject to (16). Although the reaction functions (and the signs of the slope of the reaction functions) cannot be explicitly determined, from Theorem IV.1 a unique solution was shown to exist to reaction functions which are expressed here in general form:

$$\hat{b}_t^A = b_t^A(b_{t-1}^B, K_{t-1}) \quad (19a)$$

$$\hat{b}_t^B = b_t^B(b_{t-1}^A, K_{t-1}) \quad (19b)$$

The solution of (19a) and (19b) is the Nash equilibrium conceptualized earlier in conditions as (i) and (ii). These equilibrium values are labeled as  $b_t^{A*}$  and  $b_t^{B*}$  and are expressed solely as functions of the parameter, net net perceived influence,  $K_{t-1}$ , or:

$$\begin{aligned}
 b_t^{A*} &= \Omega^A(K_{t-1}) \\
 b_t^{B*} &= \Omega^B(K_{t-1})
 \end{aligned}
 \tag{20}$$

Substituting the equilibrium values of the choice variables given in (20) into the direct objective function (14), yields a relation where the value of  $K_t$  is solely a function of the parameter,  $K_{t-1}$ :

$$\begin{aligned}
 K_t &= \phi(K_{t-1}) \\
 &= K_{t-1} [1 - \delta] + \\
 &\quad F(V(r_t^A - \Omega^A(K_{t-1})), (r_t^B - \Omega^B(K_{t-1})), K_{t-1}), \\
 &\quad L(\Omega^A(K_{t-1}), \Omega^B(K_{t-1}), K_{t-1})
 \end{aligned}
 \tag{21}$$

subject to (15) and (16):

$K_t$  in (21) thus becomes the maximum value of  $K_t$  for any value of  $K_{t-1}$  and for which the choice variables satisfy their constraints. Also the function  $\phi$  represents the dynamics of the political system.

Therefore the function  $\phi(K_{t-1})$  justifies how net influence is transformed over time, i.e., represents the dynamics of the political system. To observe the rate of change of this maximized value function with changes in the

parameter,  $K_{t-1}$ , the envelope theorem can be used (see Varian, pp. 268-269). Applying the envelope theorem involves taking the derivative of  $\phi$  with respect to  $K_{t-1}$  as follows (allowing the possibility of a corner solution):

$$\frac{\partial K_t}{\partial K_{t-1}} = [1 - \delta] + \frac{\partial F}{\partial V} \left[ \frac{\partial V}{\partial a_t^A} \frac{\partial r_t^A}{\partial K_{t-1}} + \frac{\partial V}{\partial a_t^B} \frac{\partial r_t^B}{\partial K_{t-1}} + \frac{\partial V}{\partial K_{t-1}} \right] + \frac{\partial F}{\partial L} \frac{\partial L}{\partial K_{t-1}} + \lambda^A \frac{\partial r_t^A}{\partial K_{t-1}} - \lambda^B \frac{\partial r_t^B}{\partial K_{t-1}} \tag{22}$$

For the case where (15) and (16) are not binding,  $\lambda^A$  and  $\lambda^B$  equal zero so:

$$\frac{\partial K_t}{\partial K_{t-1}} = [1 - \delta] + \frac{\partial F}{\partial V} \left[ \frac{\partial V}{\partial a_t^A} \frac{\partial r_t^A}{\partial K_{t-1}} + \frac{\partial V}{\partial a_t^B} \frac{\partial r_t^B}{\partial K_{t-1}} + \frac{\partial V}{\partial K_{t-1}} \right] + \frac{\partial F}{\partial L} \frac{\partial L}{\partial K_{t-1}} > 0 \text{ for all } K_{t-1} \tag{22a}$$

Recall that the first order conditions assumed interior solutions. Thus from (17) and (18):

$$\frac{\partial F}{\partial V} \frac{\partial V}{\partial a_t^j} = \frac{\partial F}{\partial L} \frac{\partial L}{\partial b_t^j} \quad j = A, B$$



and (22a) can be restated and unambiguously signed as:

$$\frac{\partial K_t}{\partial K_{t-1}} = [1 - \delta] + \frac{\partial F}{\partial L} \left[ \frac{\partial L^A}{\partial b_t} \frac{\partial r^A}{\partial K_{t-1}} + \frac{\partial L^B}{\partial b_t} \frac{\partial r^B}{\partial K_{t-1}} \right] + \frac{\partial F}{\partial L} \frac{\partial L}{\partial K_{t-1}} + \frac{\partial F}{\partial V} \frac{\partial V}{\partial K_{t-1}} > 0 \quad \forall K_{t-1}$$

(22b)

However even if there exists a corner solution such that (15) and (16) are binding constraints or  $r_t^j = b_t^{j*}$ ,  $j = A, B$ , and  $\lambda^j \neq 0$ ,  $j = A, B$ , from the first order conditions the value of  $\lambda$  is:

$$\lambda^j = - \frac{\partial F}{\partial V} \frac{\partial V}{\partial a_t^j} + \frac{\partial F}{\partial L} \frac{\partial L}{\partial b_t^j} \quad j = A, B$$

since:

$$\frac{\partial r^j}{\partial b_t^j} = 1 \quad j = A, B$$

Therefore substituting the  $\lambda$ 's into (22) yields (22b) which has already been shown to be unambiguously positive from the assumptions made on the  $F$ ,  $V$ ,  $L$  and  $R$  functions. Hence a gain in net perceived influence for a party in one period will be carried over to the following period whether the party spend all resources on one activity or the other

or spends some on both.

Illustrating the dynamics generated from changes in net perceived influence graphically involves assigning the label  $K_t$  to the ordinate and  $K_{t-1}$  to the abscissa and graphing the function. In the first and second quadrants, net influence is positive. Therefore party A has more political power when  $\phi(K_{t-1})$  lies in either quadrant I or II. On the other hand since  $K_t$  is negative in the third and fourth quadrants, party B is more influential when  $\phi(K_{t-1})$  is in either III or IV. Dissecting the first and third quadrants with a 45 degree line emphasizes the points where net perceived influence and net influence are equal. In the standard terminology for a strictly dynamic model, the 45<sup>o</sup> line represents all the possible steady states in the political system since any level of net perceived influence is repeated in the next period, or  $K_t = K_{t-1}$ , for all  $t$ . Therefore where  $\phi(K_{t-1})$  crosses the 45<sup>o</sup> line, dynamic steady states occur.

Definition 1: A steady state of the political system is a value of  $K$  such that  $K = \phi(K)$

Applying the envelope theorem has demonstrated that the sign of  $\phi(K_{t-1})$  is positive throughout. In graphing the function  $\phi(K_{t-1})$ , any value of net perceived influence can yield (a) a greater value in net influence, (b) a smaller value for net influence, or (c) the value of net influence repeats itself in the next period.

influence repeats itself in the next period.

In Figure 1, the function  $\phi(K_{t-1})$  lies above the 45 degree line for all values of  $K_{t-1}$ . The points in Figure 1 are derived after repeating the optimization process for new values for  $K_t$ . These new values of aggregate influence eventually become the values for  $K_t$  and are mapped to a point on the 45° line. This new level of net influence is found to be further away from the 45° line. The locus of all these points illustrates a curve where (1) party A becomes the more influential party, and (2) A obtains the lead in political power and that lead increases into future periods. In Figure 2, the same process occurs however party B becomes the more influential party. In reference to the variables specified in the model, the dynamics in Figure 1 refer to increasingly larger levels of net influence through time while Figure 2 refers to increasingly smaller magnitudes of net influence through time.

Nevertheless in Figures 1 and 2, the political system never converges to any steady state point. As a result the two party democracy reduces to an "explosive" system of government where the more influential party continuously builds its lead in influence throughout time. The minority party eventually becomes an impotent faction when its political power diminishes while the influence held by the leading party increases. As the magnitude of net influence

## "Explosive" Political Systems

Figure 1

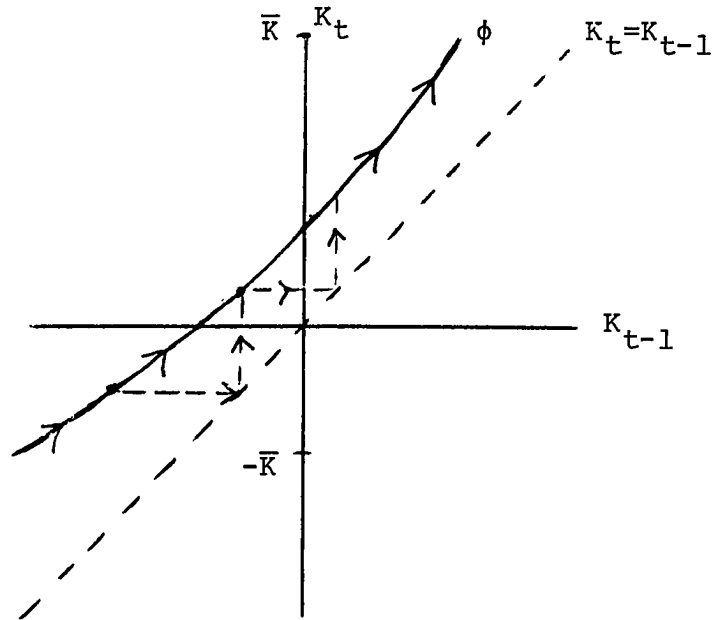
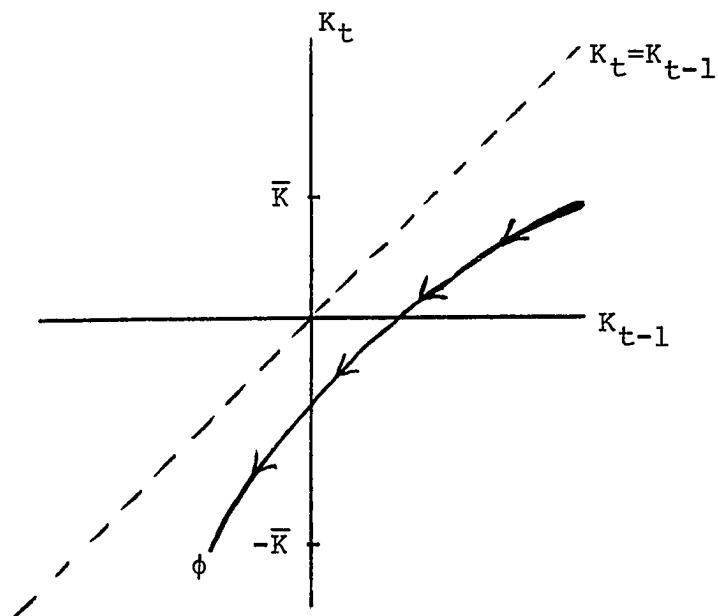


Figure 2



becomes larger, it will eventually pass an arbitrary large magnitude of net influence,  $\bar{K}$ . As  $\phi(K_{t-1})$  passes the critical  $\bar{K}$ , party B exits and the government effectively becomes monopolized by party A. Conversely, as the magnitude of net influence becomes smaller, it eventually passes an arbitrary value of  $-\bar{K}$ . As  $\phi(K_{t-1})$  passes  $-\bar{K}$ , party A exits and party B monopolizes the political system.

Figures 1 and 2 illustrate the extreme cases where the political system can be ruled by one party when that particular party can continuously become the more influential party. Since  $\phi(K_{t-1})$  never hits the 45 line, the same level of net influence is never repeated from one period to the next. Figures 3 and 4 illustrate that although one party continuously builds a lead in political power, net influence is repeated (in two instances), i.e., there are two values for net influence where the function reaches a steady states and the value of  $\phi$  is  $K$ .

However, each of the two points  $K'$  and  $K''$  indicative of political steady states in Figures 3 and 4 are interpreted differently. In Figure 3. the system moves away from  $K'$  in quadrant III and towards  $K''$  in quadrant I. Therefore, it can be said that although net influence is repeated from one period to another at  $K'$  quadrant III, the system cannot reach that steady state value. Therefore at the  $K'$  in quadrant III the democratic system can be

## Political Systems with Movements Towards Steady States

Figure 3

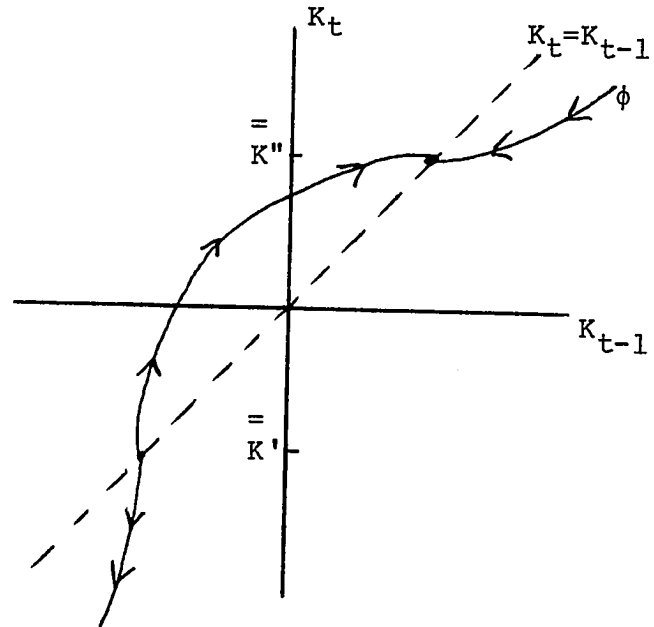
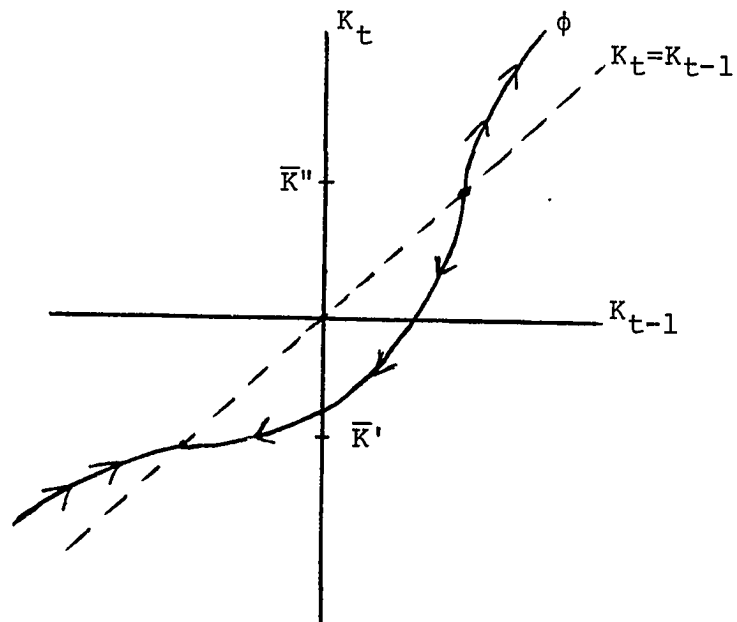


Figure 4



referred to as unstable since the system moves away from the point where net influence is repeated from one period to the next, one of the parties becomes more influential. The opposite holds obviously for Figure 4.

Definition 2: A locally unstable steady state is a steady

$$\text{state } \bar{K} \text{ of } \phi \text{ such that for any } K_t \neq \bar{K}$$

$$\text{and } 0 < |K_t - \bar{K}| < \varepsilon, \lim_{t \rightarrow \infty} K_t = \bar{K}$$

Also in Figure 3, it is observed that the political dynamics move towards  $\bar{K}$  in quadrant I. As this happens, the value of net influence is rising but at smaller magnitudes. Eventually in quadrant I,  $K_t$  converges to  $\bar{K}$  where  $\bar{K} = \phi(\bar{K})$  and the system stays at a status where despite party A being the more influential party, the magnitude of its lead is repeated from one period to the next, i.e., the democracy stabilizes at the point where the more influential party cannot increase its lead in influence from one period to the next. Again the same argument holds for party B in Figure 4.

Definition 3: A locally stable steady state is a steady

$$\text{state if } \phi(\bar{K}) = \bar{K} \text{ and } \exists \varepsilon > 0 \text{ such}$$

$$\text{such that for any } K_{t-1} = \bar{K}, \text{ and}$$

$$0 < |K_t - \bar{K}| < \varepsilon, \lim_{t \rightarrow \infty} K_t = \bar{K}.$$

The exact same argument can be made for Figure 4 but  $\bar{K}$  in quadrant I is the the value of  $\phi(K_{t-1})$  indicative

of a locally unstable steady state and  $\bar{K}'$  in quadrant III is the locally stable steady state. In Figures 3 and 4, exit of the less influential party is a distinct possibility. However nothing conclusive can be implied about exit since the model does not specify the exact point where the locally stable steady state occurs and its relation to the critical value  $\bar{K}$  where exit is assumed to take place. This will be discussed in more detail later.

One common result illustrated by Figures 1 through 4 is that one party controls the dynamics of the political system for all time periods, i.e., at no time do the parties share equal influence. Formally stated,  $\phi(0) = 0$ . Despite having already shown the possibility of the lead in influence changing from one party to the other, one possible reason for this situation is that one of the parties may have a historical advantage in either raising votes or passing legislation or both such that even if A and B are perceived to be equally powerful ( $K_{t-1} = 0$ ) either A has the innate ability to increase net influence,  $K_t$ , or B is better at increasing  $-K_t$ . This innate advantage is assumed to exist every period. Therefore with one party having a historical advantage in raising votes or passing legislation, it is not surprising that the results demonstrated so far yield one party rule or a two party political system but with one party having much more influence than its opponent. This is done for two



reasons. Focus this places the focus on the least favorable situation one party rule can emerge. If one party rule arises in this case, it is not because one party has a natural advantage. Second this assumption can be justified by assuming that  $K_t$  captures any and all asymmetries that may exist in raising votes and passing legislation. Hence, the remainder of the chapter will solely on situations where the political system allows an equilibrium with both parties sharing equal influence. In essence, it will be assumed that the maximized value function for net influence passes through the origin, or:

$$\phi(0) = 0 \quad (23)$$

Thus, the origin now plays a pivotal role,  $K_t = 0$ , the only point where both parties have equal influence, is a steady state and more importantly the dynamics of the model will either induce a convergence back to the origin where neither party is more politically powerful than the other or away from the origin with either A or B becoming more powerful. Depending on the shape of  $\phi(K_{t-1})$  the political duopoly model allows for either (a) the dynamic movement towards a one party system or (b) two party competition with neither party more powerful than the other.

## Deviations Away and Towards Unique Stable Steady States

Figure 5

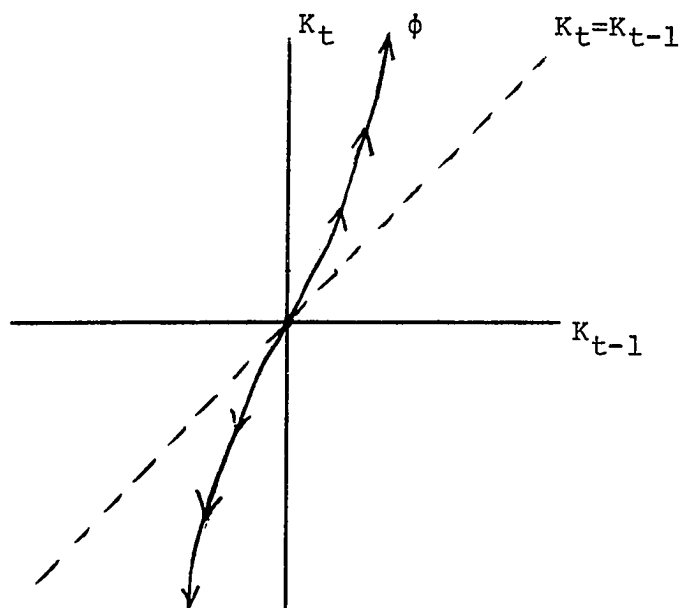
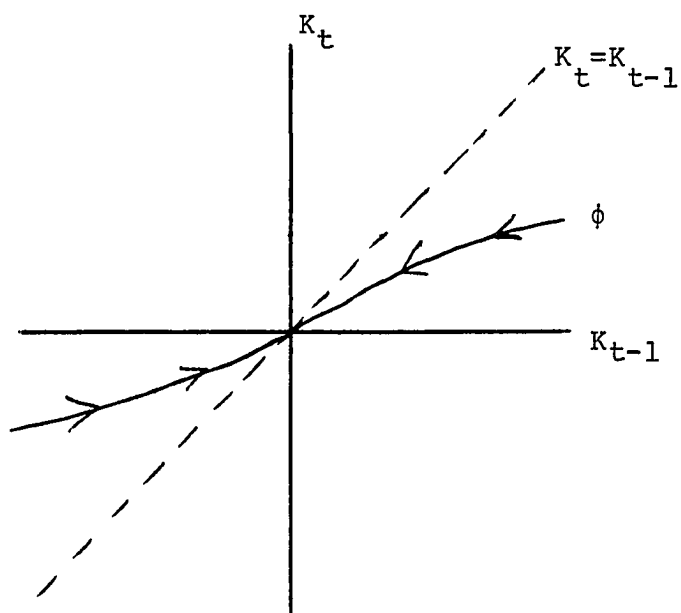


Figure 6



In Figure 5,  $\phi(K_{t-1})$  lies above the 45° line as it crosses the origin so that  $\phi(K_{t-1}) > K_{t-1}$  for all time periods if  $K_{t-1} > 0$ . For party A, the dynamics veer away from the origin and also away from the 45° line such that net influence increases monotonically. Thus as in Figure 1, the political system never converges to any locally stable steady state and becomes explosive to the point where party A builds larger leads in influence and party B exits from the political system since  $\phi(K_{t-1})$  passes the  $\bar{K}$  value. The same argument holds from party B in quadrant III.

Theorem V.1:

Given  $\frac{\partial \phi}{\partial K} > 1 \forall K_{t-1} \neq 0$ . If  $K_{t-1} \neq 0$  at some  $t$ , exit of the less influential party occurs at some  $t < \infty$ .

Proof:

Assume without loss of generality that  $K_{t-1} > 0$ , for some  $t$ . Given the assumptions for all  $K_{t-1} > 0$ ,  $\phi$  lies above the 45 degree line. Hence  $\forall t$ ,  $K_t > K_{t-1}$ . In addition, the difference between  $\phi(K_{t-1})$  and the 45 degree line increases as  $K_{t-1}$  increases. Therefore, the growth in party A's influence increases over time. Thus in some finite time,  $K_t > \bar{K}$  must hold. QED.

In Figure 6, the dynamics of the graph illustrate the

case where the dynamics of  $\phi$  converge to the steady state where net influence is zero,  $K_t \neq 0$ . This is because the entire function lies below the 45<sup>o</sup> degree line as the dynamics move towards the origin. Therefore Figure 6 is an illustration of a political system which always return to a status where neither party is more powerful than the other despite the fact that at one time either of the two parties was more influential.

Theorem V.2: Given  $\phi(0) = 0$  and  $-\frac{\partial \phi}{\partial K} < 1 \forall K_t$ . So long as the parties wish to exist initially,  $K_t < \bar{K}$ , then  $K_t = 0$  is the unique steady state of  $\phi$  and is locally stable.

Proof:

If  $-\frac{\partial \phi}{\partial K} < 1, \forall K_t \neq 0$ , then  $\phi(K_t)$  and the 45<sup>o</sup> line have a unique intersection at  $K_t = 0$ . Under this situation,  $K_t > 0$ . Then  $K_t < K_t \forall t$ . Hence the system converges to  $K_t = 0$ . QED.

Figure 7 illustrates a situation where asymmetric locally stable steady states exist. Starting from a slight advantage, one party's  $K_t$  grows over time but causes the value of  $\phi$  to converge to a steady state value different from zero. Even though  $\phi$  reaches a steady state, one party has an advantage in influence over the other. When the system reaches a stable steady state in Figure 7, the less

## Asymmetric Locally Stable Steady States

Figure 7

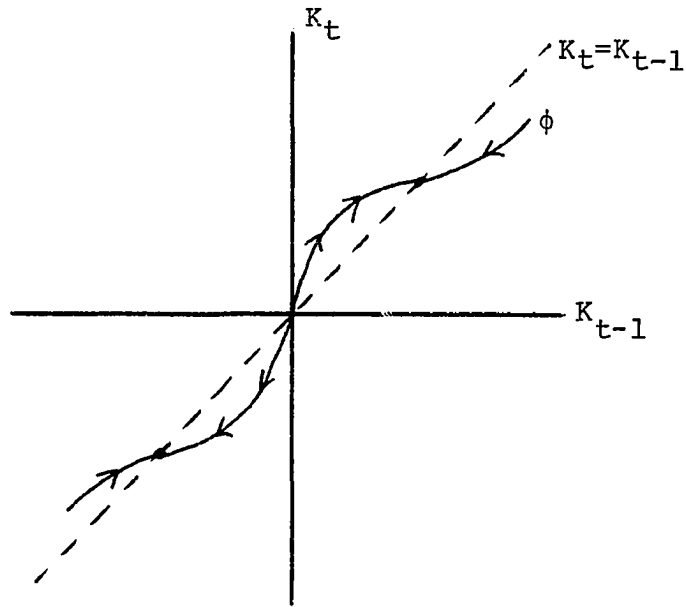
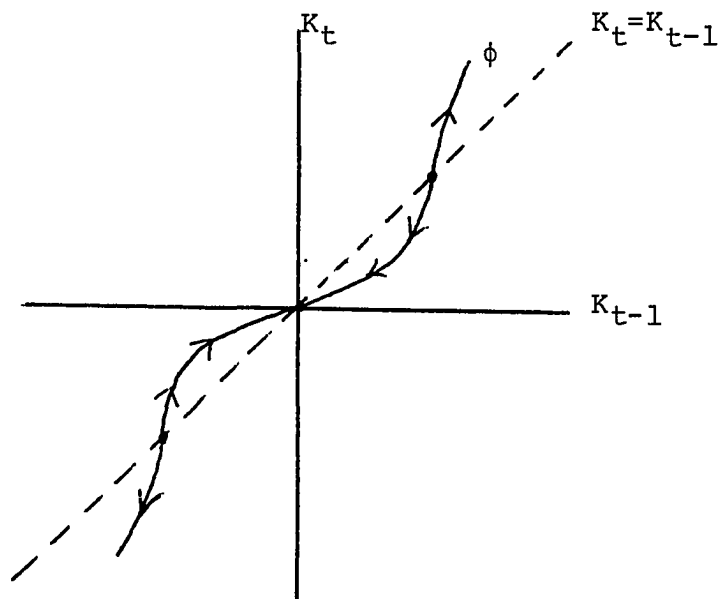


Figure 8



influential party may either exit from the political system or may remain as a viable minority party depending upon whether the intersection of  $\phi$  and the 45° line is above or below  $\bar{K}$ . As mentioned in reference to Figures 3 and 4, exit becomes a distinct possibility if the function

$\phi(K_{t-1})$  lies above the 45 degree line near  $K_{t-1} = 0$ , but exit does not necessarily arise. This is because the outcome of the two party political competition depends upon whether  $\phi(K_{t-1})$  has other crossings of the steady state line and what the value of these crossing are relative to the critical value  $\bar{K}$ . The intersection of the function and the 45° line is more likely to lie above  $\bar{K}$  the larger is  $\partial\phi / \partial K_{t-1}$  near  $K_{t-1} = 0$  and the smaller the curvature of  $\phi$ . Clearly, exit also depends on the magnitude of  $\bar{K}$ . Therefore the asymmetry of the parties' influence alone does not induce the losing party to exit from the system. The net influence must always be examined relative to the critical value of net influence ( $\bar{K}$ ) where one party decides (or is forced) to leave the political system.

Theorem V.3: Given  $\phi(0) = 0$  and  $\bar{K} = \phi(\bar{K}) \neq 0$ . If  $-\frac{\partial\phi}{\partial K_{t-1}} < 1$  at  $\bar{K}$ , then  $\bar{K}$  is a locally stable steady state of  $\phi$ .

Proof: If  $-\frac{\partial\phi}{\partial K_{t-1}} < 1$  at  $\bar{K}$ , then given continuity of  $\phi$  in

$K_{t-1}$ ,  $\exists$  a neighborhood around  $\bar{K}$  where  $-\frac{\partial \phi}{\partial K_{t-1}} < 1$ .

Thus  $\phi(K_{t-1})$  will cut the 45 degree line

above from at  $\bar{K}$ . Hence  $\lim_{t \rightarrow \infty} [K_t - \bar{K}] = 0$ .

QED.

Theorem V.4: Given  $\phi(0) = 0$  and  $\bar{K} = \phi(\bar{K}) \neq 0$

If  $-\frac{\partial \phi}{\partial K_{t-1}} > 1$  at  $\bar{K}$ , then  $\bar{K}$  is a locally unstable steady state.

Proof:

If  $-\frac{\partial \phi}{\partial K_{t-1}} > 1$  at  $\bar{K} = 0$ , then given continuity of  $\phi$  in

$K_{t-1}$ ,  $\exists$  a neighborhood around  $\bar{K}$  where  $-\frac{\partial \phi}{\partial K_{t-1}} > 1$ .

Then for  $K_{t-1} < \bar{K}$ ,  $\phi$  lies below the 45<sup>o</sup> line and

$|K_t - \bar{K}| > |K_{t-1} - \bar{K}|$ . QED.

Theorem V.4 is illustrated when  $\phi(K_{t-1})$  cuts the 45<sup>o</sup> line from below at the origin but crosses the 45 degree line at a higher value of  $K_{t-1}$ . The dynamics will have  $K_t = 0$  as a stable equilibrium and will have the higher

crossings  $\bar{K}$  as an unstable equilibrium. Then if

$0 < K_{t-1} < \bar{K}$ , then  $K_t$  decreases towards zero and as  $K_{t-1}$

$K_{t-1}$  is less than  $\bar{K}$ , then  $K_t$  increases away from  $\bar{K}$ .

This situation is illustrated in Figure 8.

Essentially, Figure 8 shows the opposite of Figure 7 occurring. Theorem V.3 (and its corresponding illustration Figure 7) lends itself to historical situations where the more influential party has established itself as an invincible political institution such that any form of competition is perceived condoning unacceptable (or extreme) ideology. The allegiance of the voters to the dominant party is secured throughout time. Many traditional democratic republics as well as non-democratic countries function under such a political environment. Since its loss in World War II, Japan has always been ruled by the Social Democratic Party. Egypt, despite its vacillations in foreign policy alliance during the 1970's (pro-Soviet to pro-U.S.) has never been ruled by a coalition different than its politically powerful presidents. Mexico, although it has democratic political institutions functioning with the ability to change the incumbent administration, has always chosen its leaders from the same party.

Theorems V.3 and V.4 relate the movement of  $\phi (K_{t-1})$  to stability and give further insights to the discussion of the model's results. Different magnitudes of the derivatives on the right hand side of (22) and  $\phi$  would yield different tendencies towards stability or instability.



Proposition 1:

If  $\delta = 0$ , then the political system specified by  $\phi$  is unstable.

Proof:

If  $\delta = 0$ , from (22)  $\frac{\partial \phi}{\partial K} =$

$$1 + \frac{\partial F}{\partial V} \left[ \frac{\partial V}{\partial a} \frac{\partial a}{\partial V} \frac{\partial V}{\partial a} \frac{\partial a}{\partial K} \frac{\partial V}{\partial K} \right] + \frac{\partial F}{\partial L} \frac{\partial L}{\partial K} > 1, \forall K$$

Given this condition,  $\phi(K_{t-1})$  can intersect the 45<sup>o</sup> line at most once and if there is an intersection, it must cut the 45<sup>o</sup> line from below. Hence the intersection is a locally unstable steady state. If no intersection exists, the system is clearly unstable. If  $\phi(0) = 0$ , then starting at any  $K_{t-1} \neq 0$ , the leading party's net influence always increases over time. QED.

In the context of the model, if influence does not depreciate ( $\delta = 0$ ), then the democratic political system must be globally unstable, that is tend towards one party domination. If governments indoctrinate their citizens to one type of ideology then it seeks to lower  $\delta$ . However attempts to lower  $\delta$  are more commonly observed in political systems which forbid an active opposition from participating in political activities.

Proposition 2:

If  $\delta = 1$ , for all  $K_{t-1}$

$$\frac{\partial F}{\partial V} + \frac{\partial F}{\partial L} < 1, \quad \frac{\partial L}{\partial K_{t-1}} < 1 \text{ and}$$

$$\frac{\partial V}{\partial a_t^A} + \frac{\partial V}{\partial a_t^B} + \frac{\partial V}{\partial K_{t-1}} < 1$$

then  $\frac{\partial \phi}{\partial K_{t-1}} < 1$  i.e., then  $\phi$  has a locally stable unique equilibrium.

Proof:

If  $\delta = 1$ , then from (22)

$$\frac{\partial \phi}{\partial K_{t-1}} =$$

$$\frac{\partial F}{\partial V} \left[ \frac{\partial V}{\partial a_t^A} + \frac{\partial V}{\partial a_t^B} + \frac{\partial V}{\partial K_{t-1}} \right] +$$

$$\frac{\partial F}{\partial L} \frac{\partial L}{\partial K_{t-1}} < 1 \quad \forall K_{t-1}. \text{ Hence } \phi(K_{t-1}) \text{ and}$$

the 45 degree line have a unique intersection which from Theorem V.3 is a locally stable steady state.

The situation suggested by Proposition 2 occurs if a country's political constituency is perfectly myopic to

political accomplishments ( $\delta = 1$ ). The incumbent party (or administration) will thus be hard pressed to prove itself through its achievements in elections and the legislature since past successes yield no carry over to the present. Given such a scenario, the perception that a political party is powerful becomes an insufficient tool for a party to rely on if its purpose is to accumulate political power. An example of such an occurrence was in the Philippines after it received its independence from the United States in 1946 until the declaration of martial law in 1972. Despite having six different presidents during that twenty-six year time span, none of the incumbent chief executives was able to win reelection until Marcos' 1969 victory despite the fact that one party held the majority in the legislature for the better part of thirty years.

On the other hand, if votes or legislative success does not respond to money or influence, then the system will tend to be stable.

Proposition 3: If  $\delta < 1$  and

$$\frac{\partial F}{\partial V} \left[ \begin{array}{c} \frac{\partial V}{\partial a} \frac{A}{t} + \frac{\partial V}{\partial a} \frac{B}{t} + \frac{\partial V}{\partial K} \\ \frac{\partial a}{\partial K} \frac{A}{t-1} \quad \frac{\partial a}{\partial K} \frac{B}{t-1} \quad \frac{\partial K}{\partial K} \frac{A}{t-1} \quad \frac{\partial K}{\partial K} \frac{B}{t-1} \quad \frac{\partial K}{\partial K} \frac{A}{t-1} \quad \frac{\partial K}{\partial K} \frac{B}{t-1} \end{array} \right] + \frac{\partial F}{\partial L} \frac{\partial L}{\partial K} \frac{A}{t-1} = 0,$$

then  $-\frac{\partial \phi}{\partial K} \frac{A}{t-1} < 1$ ;  $\phi$  has a locally stable unique equilibrium.

Proof: From (22),  $\frac{\partial \phi}{\partial K} = 1 - \delta < 1$  and the rest follows  
 $\frac{\partial V}{\partial K} = 1 - \delta < 1$   
 follows from Theorem V.2.

The conditions in Proposition 3 occur under certain assumptions. First  $\frac{\partial V}{\partial K} = 1 - \delta < 1$  is small since voters respond to platforms which are attributed to the country's culture and history rather than to the success of the party. Secondly, if most voters are highly ideologically oriented, then  $\frac{\partial V}{\partial a_i} = 1 - \delta < 1$  will be small since individuals cannot be convinced to change votes based upon the campaign propaganda of the opposing party. Third, if  $\frac{\partial L}{\partial K} = 1 - \delta < 1$  or  $\frac{\partial F}{\partial L} = 1 - \delta < 1$  is small, either legislative success depends on current behavior or influence independent of policy success and only depends upon votes.

On the other hand, campaign expenditures may tend to destabilize the system and lead towards one party rule if voters are not strongly inclined to adhere to one type of ideology. The  $\frac{\partial V}{\partial a_j} = 1 - \delta < 1$  terms become large since voters' preferences can be altered through the more effective campaign expenditure strategy. Therefore the democratic system can become destabilized and more towards one party rule since non-ideologically devout voters may switch to which ever party seems more likely to succeed based mainly on the volume of its campaign expenditures. As a result the terms in the brackets of (22a) become large and

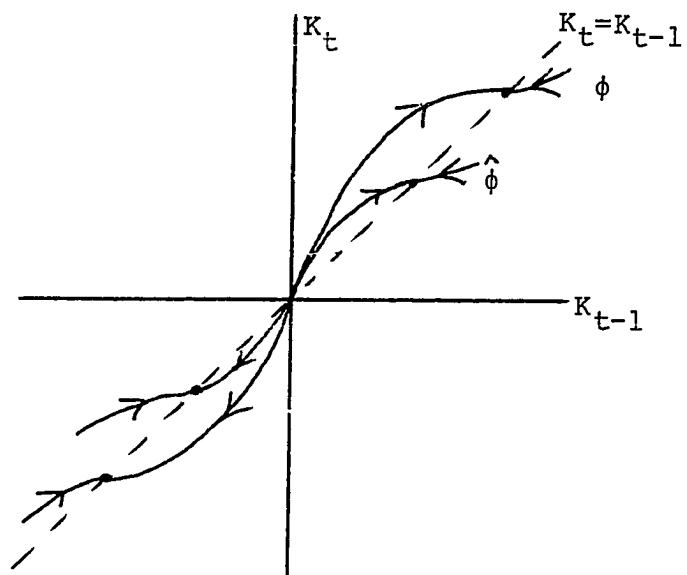
$\frac{\partial \phi}{\partial K_{t-1}}$  is greater than one which indicates that the system is moving away from an unstable steady state.

If the political system consists of non-influence maximizing politicians, this will tend to stabilize the system towards equal influence provided deviations from influence maximizing do not change voter behavior to raise marginal influence via elections and/or successful legislation. When the objective is not to maximize influence, the politicians could opt to maximize a portion of resources raised which should be allocated for political activities, i.e., steal money. As long as the graft is not excessive, the system will move towards a stable steady state (perhaps the origin) since the magnitude of  $\frac{\partial \phi}{\partial K_{t-1}}$  will become smaller each period. The dynamics would involve a function  $\hat{\phi}(K_{t-1})$  where the value of this function is  $K_t$  which must be less than  $K_t$ , since the latter is the value of the maximized function of net perceived influence with the objective of maximizing net influence. Figure 9 contrasts with Figure 7 since the steady state under  $\hat{\phi}$  occurs at lower influence levels than it does for  $\phi$ . The minority is more influential if exit does not occur in either case and exit is less likely under  $\hat{\phi}$  than under  $\phi$  if the shut down value  $\bar{K}$  is unaffected under the presence of graft.

A decentralized system of government tends to increase stability of the two party system. If both of

## Impact of Exogeneous Shocks

Figure 9



the parties have devout constituencies in different regions of a country, one party may have more influence than the other in different regions. Although there might be local dominance, both parties could use their local power base to attain political power on a national level.

In this section, assuming the existence of a unique steady state  $K^* = 0$ , if one party has a lead it can never become the minority party. It may end up as the sole party or the dominant party in a two party system, or one of two equal parties. However its influence never falls below that of its opponent. Section VI discusses the possibility where the lead in political power may alternate even if one party is more influential.

## VI. The Dynamics of Random Shocks

The model presented and evaluated in Section V was totally deterministic. There was no possibility that the party which was losing influence period to period could reverse the trend and become the faction gaining influence. This was attributed to the sign of the function  $\phi(K_{t-1})$  which by (23) was determined to be unambiguously positive. Therefore the model's dynamics could only go in one direction, towards quadrant I for the party successful in maximizing net influence and towards quadrant III for the party successful in minimizing net influence. However by introducing the possibility that the maximized value of

net influence depends on the function  $\hat{\phi}$  and positive or negative amounts of influence as a result of random shocks to the system, (22) is respecified as:

$$\hat{K}_t = \hat{\phi} (\hat{K}_{t-1}) + \theta \quad (23)$$

$\theta$  is a random variable representing value of net influence attributed to random shocks. Two types of results may evolve from random shocks, Consider a steady state  $\bar{K}$ . First if  $\bar{K}$  is near zero, then a negative shock (less influence goes to the leading party) may push the value  $K_t$  into the third quadrant since the value of  $-\theta$  may change  $K_t$  from a positive value in favor of party A to a negative value when B becomes the more influential party. Secondly, a positive shock may move  $K_t$  beyond the value of  $\bar{K}$  which would force the less influential party to exit. In either case, the random shock could force a change in the system away from any steady state point.

Four types of exogenous shocks come to mind which could alter the status of the leader in political power. First, any type of economic crisis may cause a party with the lead in influence to lose that lead. For the party that loses the lead in political power, a chronic political consequence of an adverse exogenous economic shock is that the new leader in influence usually exacerbates the status of its opponent by making pronouncements which place the blame of the shock on the opponent. The decline of the



German economy following World War I, particularly the hyperinflation experienced at the time, gave rise to the political ascent of Hitler. In turn, Hitler made pronouncements that the policies of his national coalition, the Third Reich, could make the German people a superior race. This obviously drove the former followers of the Kaiser into political oblivion. In effect, Hitler used Germany's faltering economy to push net influence from positive to negative and the ensuing propaganda forced  $-K$  past  $-\bar{K}$ . Another instance where exogenous shocks may impact the political system is if a country engages in a war and if the war effort of that country is successful or not. An immediate victory of a country in a war would possibly increase its lead in influence. However for the country that lost the war, an immediate loss would place the incumbent in danger of maintaining its power if its political stature finds the value of  $\phi$  near the origin. Two historical situations which contrast greatly was the fate of the Argentinian military government after the Falkland Islands war and the fate of Nasser's government after the 1967 Seven-day war. Both wars were devastating losses for each country due to the brevity of each conflict. However, Nasser's political coalition was much more secure so that its loss in influence did not endanger its incumbency, i.e., the steady state which was affected by Egypt's loss was a value of  $\bar{K}$  far from the origin in

which enabled Nassar to remain in power since the move from one steady state point to another was within the same quadrant. The Argentinian military government almost immediately collapsed after it surrendered the Falkland Islands to Great Britain, i.e, the level of net influence favoring the military government at the time of the war was near the origin. By losing the war, the value of  $\phi$  was sufficiently negative which in turn force the value of  $K_t$  to change from positive to negative. On the other hand, the Falkland Islands war victory resulted in a significant increase in the influence of the Conservative Party but hardly enough of an increase to induce the Labor Party to leave the political system. Thirdly, assassination (or even persecution of a popular opposition political figure) could result in a change of power if the incumbent is not strongly perceived as an influential figure, i.e.  $K_t$  is again near zero. Although he ruled for more than twenty years, it took less than three years to remove Marcos as the Philippines president following the assassination of Benigno Aquino. Marcos believed he needed a victory in a snap election to serve as a positive shock which would reverse the dynamics of the Philippine politics which were headed towards  $K_t = 0$ . However the defection of Marcos' defense minister and chief of the armed forces provided another exogenous shock sufficient to switch the value of  $K_t$  from positive to negative. In Korea, on the other hand

the incumbent administration of President Chun has been very cautious in stifling the political movements of oppositionist Kim-Dae-Jung for fear of a total loss of its lead in political power. The powerful leaders in Korea (and perhaps also in Pakistan) are very apprehensive of the adverse ramifications that may come from detaining political opponents. Such action could very well move K towards the origin and perhaps (as occurred in the t Philippines) into the other quadrant. Finally a major scandal within an incumbent administration may force a change in the country's leadership if at the time of the scandal, the incumbent's influence in the political system is not strongly entrenched. The ruling Italian government collapsed when it was learned that it permitted terrorists who had hijacked a luxury ocean liner and killed one of the passengers to seek refuge in another country. In fact the Italian democracy has been very prone to exogenous shocks since the end of World War II. There have been approximately forty changes in government since the end of the last world war conflict. In Japan, when it was revealed that the prime minister had taken bribes from a multi-national firm, the prime minister was immediately removed and faced political banishment in addition to legal addition to legal prosecution. However in both the Italian and Japanese cases, although the incumbent coalition(s) have changed several times since World War II, their

respective systems of government have not been threatened by opposition parties with extremely opposite ideological beliefs. Over the past ten years, two significant scandals have occurred in the United States political system: Watergate and the Iran-Contra Affair. Both scandals occurred while the incumbent Republican administration was exceedingly more influential than the Democratic party. The impact of Watergate resulted in the first resignation of a U.S. president and defeat in the 1976 presidential election to a virtual newcomer to national politics. The Iran-Contra affair has, at this writing, forced the aspiring Republican presidential candidates for 1988 to distance themselves from the incumbent Republican president. In essence both scandals have prevented the possibility of the Republican Party becoming the more powerful of the two parties in the United States.

## VII. Conclusion

A constant sum game indicative of political competition between two parties without the possibility of entry was formulated. The objective of the parties was to maximize net influence (or political power). Net perceived influence played a significant role in the model since it was a source of success in the two political activities (elections and legislation) identified in the model and it was also possible to use perceived influence to generate

influence to generate more political power in future periods. The results demonstrated that a party capable of changing net influence in its favor in any period could continue the process through future periods until the party with less influence either departs from the political system or exists as a powerless faction. The same result faction. The same result was possible under the conditions where the parties were (a) asymmetric in their abilities to conduct political activities and (b) assumed to have equal capabilities to raise votes and pass legislation so that at any time period net influence was zero. In the situation where parties were assumed to be symmetric in political activities, the dynamics illustrated the possibility of the system moving towards the steady state where neither party was more influential than the other. The originality of the analysis lies in the fact that even when political parties are assumed not to have any historical advantage over each other politically, the competitive process of a democracy could lead to a system where one party governs and the other party exits from the democracy or does not compete actively. The process was unique from the seminal work of Downs where over time political parties eventually choose the same platform. In this paper it was shown that even if party platforms do not enter directly in the electoral process, two party competition becomes jeopardized because the more effective campaign

expenditure strategy could lead to one party rule. Finally the impact of exogenous shocks to the model was discussed and demonstrated that political power could change hands between the parties if net influence is near zero at the time of the exogenous shocks. The model is contained to an analysis of how one party rule emerges from a two party democracy. Once exit occurs, the model does not provide a mechanism to allow for re-entry of any political party. However as influence adjusts for reasons not explained in this model, re-entry into the political system is a definite possibility even in political systems regarded as highly authoritarian. For example, a lead in political influence may be reduced from period to period but not always to the point where both parties share equal amounts of influence. Despite the dominant party allowing the exercise of universal suffrage and even the convening of a national legislature, the leading faction might be able to prevent its lead in political power from being eliminated. Over the past fifteen years, China has been slowly relaxing its pure Communist stance in favor of more liberal institutions particularly in the media and in commerce. As a result, the perception of the Chinese Communist Party as the only invincible political faction in that country has declined. Recently in response, hard line Communist Party members in China have called for moderation in introducing western

political and economic institutions. However China is far from permitting full democratization of its political institutions. In the Soviet Union, the government goes to great lengths to remind its citizens of the virtues of Communist society by holding massive military parades and promote other propaganda. This guarantees not only success of the Communist Party during elections and in the Supreme Soviet, which is certain anyway, but limits underground opposition and maintains stability. In Iran, an Islamic state has been instituted where all political institutions of society embrace the beliefs of that particular religion. This plus continued emphasis on past faults of the previous regime limits an opposition from developing. In other words, when the citizens of any country are made not to forget the accomplishments of the incumbent government, influence depreciates at small rates, if at all. Several years ago, political unrest was rampant in Poland, a country perceived as a communist state. Although the political agitation had its origins in the nation-wide trade union called Solidarity, the union was able to decrease the potency of Poland's Communist Party influence. Poland's political leaders took decisive action to suppress whatever influence Solidarity had over its people and quickly instill its political superiority on the system by generating the perception that its own political institutions were indeed stable. Therefore, whenever a

country's powerful government attempts to revive the perception that their political institutions are stable, as is the case the aforementioned authoritarian countries, the purpose is to build strong ideological feelings towards the influential party.



## CHAPTER 3

THE EVOLUTION OF AUTHORITARIAN RULE: THE PHILIPPINES'  
EXPERIENCE

## I. Introduction

The declaration of martial law in the Republic of the Philippines on September 21, 1972 began a constitutional process which would eventually permit then-President Ferdinand E. Marcos to prolong his tenure as the country's chief executive far beyond that mandated by the constitution under which he was originally elected and<sup>1</sup> reelected. According to Marcos, he was compelled to seek the use of extraordinary powers not to legitimize the perpetuation of political power by his administration but because of the existence of a national emergency threatening the very being of the republic and to pursue programs of national reform. In the former President's<sup>2</sup> words:

I assure that I am utilizing this power vested in me by the Constitution to save the republic and reform our society. I wish to emphasize two objectives. We will eliminate the threat of a violent overthrow of our republic. But at the same time we must now reform the social, economic and political institutions in our country. . . I have had to use this constitutional power in order that we may not completely lose the civil rights and freedom which we cherish.

For a people whose history documents three hundred plus years as a colony of the Spanish empire, approximately fifty years under American rule (first as a U.S. territory under a military government then as a commonwealth) and as one of Japan's conquests during World War II, the significance of the word freedom should bear more prominence in the country's daily vernacular. However Filipino leaders have a history of differentiating between economic and political freedom, preferring the latter to the former. The interrelationship of the two are crucial, particularly in a developing society and any attempt to treat economic and political freedom as mutually exclusive is a mere delusion. In Capital and Freedom, Milton Friedman states:

there is an intimate relation between economics and politics...Economic arrangements play a dual role in the promotion of a free society. On the one hand freedom in economic arrangements is itself a component of freedom broadly understood, so economic freedom is also an indispensable means toward the achievement of political freedom.

In a similar tone, Friedman states in Free to Choose: A Personal Statement:

Economic freedom is an essential requisite for political freedom. By enabling people to cooperate with one another without coercion or central direction, it reduces the area over which political power is exercised.

Among those to advocate the superiority of immediate political freedom over economic independence was Manuel L.

Quezon, the first president of the Philippine commonwealth government. Quezon and his followers scoffed at the notion that economic independence was a necessary although not sufficient, condition for political sovereignty. During the campaign to have the United States immediately relinquish the Philippines from the status of commonwealth and grant it political independence, a familiar Quezon battlecry was that political independence is of primary importance while the needs of the stomach can wait.<sup>5</sup>

Almost fifty years to the day that Quezon succeeded in transforming his "political independence first" ideology into reality, Ferdinand Marcos began implementing political reforms despite the dismal reality that his country's economy was rapidly declining during the latter part of his pre-martial law administration.<sup>6</sup> Marcos believed that imposing martial rule was an essential cog in the machinery to alter the Philippines' political modus operandi patterned after American society. This, according to the Philippines' sixth president, was the necessary condition in achieving political independence. As documented in the chapter "The Question of Equality" of his book Notes on the New Society,<sup>7</sup> Marcos wrote:

Democratic institutions, no matter how weak or corrupted by the social system, are a precondition for a democratic revolution, or what is called, revolution from the center... Obviously then the fundamental task of drastic political reform is to democratize the entire political system...political reconstruction can change society as we are now changing

society through a reorientation of our political authority.

Obviously implied by the fulfillment of Marcos' intentions was to utilize democratic institutions as instruments to create a personal power base which could eradicate those democratic practices. Political power was thus acquired through the manipulation of a competitive democracy where national elections and the legislative process played an integral role. Also the ability of Marcos to accumulate an irrefutable power structure was facilitated by an established power base amassed by accomplishments of the party that Marcos belonged to at the time; the Nacionalista Party. The development and enactment of economic policies was reduced to secondary importance since Philippine political leaders found political power acquired faster through electoral victories rather than the pursuit of economic development.

The purpose of this paper is to trace the pre and post martial law political history of the Philippine republic, in order to examine (1) whether the intensely competitive pre-1972 democracy was a self destructive system which would have inevitably collapsed into a one party rule and (2) if the implementation of martial law could have permanently eliminated the possibility of a viable two party democracy. Part II will trace Philippine politics following the granting of its independence by the United States on July 4, 1946 until the declaration of

martial law on September 21, 1972. Part III will discuss the consequences that Philippine society faced after the elimination of political institutions that were most common prior to the declaration of martial law.

## II. Prelude

This section provides documentation corroborating the theory presented in the previous chapter where the despite the existence of an extremely powerful political party, the two party system still functions. The historical facts verify that differences in party platforms or ideology play an insignificant role in maintaining the political competition. The main contributing factor by which political power is amassed is through dispensing party resources to political associates as a means of generating a greater political resource base during elections. However allegations alone of widespread graft and corruption in partically all of the pre-Marcos administrations exacerbated the decline in the perception that the incumbent was politically powerful. During the Marcos presidency, allegations of graft and corruption were equally as rampant. Marcos instead dispensed large amount of resources to control the Philippine media for the purpose maintaining his political influence particularly during what was supposed to be the lame duck period of his administration. Also this section discusses how legal,

political and financial barriers verify the assumption made in the theoretical model that a democratic process can be limited to (but nevertheless survive) with only two parties competing without the possibility of entry.

## II. Pre-Martial Law Philippine Politics

The abolition of well entrenched political institutions, the silencing of what was known as the most liberal press in Southeast Asia, and the overall elimination of democratic traditions could not have been contrived without a premeditated process. Marcos did not deny this. In Notes on the New Society Marcos called this preconceived blueprint OPLAN Sagitarius and its eventual implementation was required for two specific reasons: (a) to quell a violent overthrow of the Philippine republic engineered by a combination of rightest Moslem elements in the southern part of the Philippines and the communist oriented New People's Army based in the north, and (b) to rescue the masses from political and economic domination by the privileged segment of society Marcos called the oligarcic elite.

The rationale for such an intemperate solution to the problems of insurgency and an assymetric social structure was based on two beliefs. First, it was believed that the ideology indoctrinated in Philippine society by its former western colonizers contained many aspects ill suited for a

people in dire search for national sovereignty and independence. Therefore these foreign based institutions were apt to function with substantial inefficiency. In claiming to have formed a foreign policy founded on a national identity, Marcos said:

The consequences of a colonial past, the circumstances that shadowed the recovery of national independence in 1946, and the illusion of security under the mantle of another power--all this served to detain the early maturation of our foreign policy...We began self government under the illusion that we can be entrusted to the wisdom and might of a powerful nation. . . We are, by now, only too well aware of the social conditions in the period before martial law. The oligarchy, the big landlords and the commercial elite who were dominantly represented in politics had much to gain from the maintenance of the status quo--and this naturally extended to foreign policy. To be sure the oligarcic elite would have least wanted to see the last of our so-called special relations with the United States.

Secondly, there existed evidence dating back thirty years to support the argument of a continued deterioration of Philippine society prior to 1972 when American patterned (and sanctioned) democracy functioned. The much acclaimed communist rebellion that persists today found its roots in March 1942 with the official organization of the Hukbo ng Bayan Laban sa Hapon: Hukbalahap or HUKS. The group was originally formed for the purpose of emancipating the republic from Japanese occupation. However, the underlying social problems that the HUK rank and file experienced were worsened when the American led military in the mid-1940's disarmed and conducted mass arrests of HUKS with the

intention of returning large estates and plantations to their respective landlords who had fled to Manila during World War II, temporary abandoning their property to the HUKS. The disdain between the HUKS and the landlords continued as the latter found solace in support from the post war government in Manila. Unable to resolve this increased agitation, Manuel Roxas, first president of the Philippine republic, issued a proclamation in March 1948 declaring the HUK movement "an illegal association organized and maintained to commit acts of sedition and other crimes, for the purpose of overthrowing (the) present government under the Constitution." <sup>10</sup> The HUKS had no recourse but to retreat to the mountains of Central Luzon where they continue to wage an expanding armed struggle inspired by its communist led political and military factions, the National Democratic Front, and the New <sup>11</sup> People's Army.

The proclamation condemning the HUK movement was not without its political origins (and consequences). Roxas was graced with the endorsement of General Douglas MacArthur and American High Commissioner Paul McNutt. In haste to terminate post-war hostilities while at the same time appease the U.S. liberators, Roxas campaigned under the proposition that all Filipinos "mentally", if not physically, resisted the four year Japanese occupation of the Philippines. This in effect reduced the significance



of the HUKS original efforts and thus gave Roxas legal authority to declare the HUKS as treasonous rebels who could thus be imprisoned since their brand of resistance to the Japanese differed from that of Roxas who echoed mostly the sentiments of MacArthur and the American government.

However Roxas himself resembled a rebel within his own political ranks. Up until the 1946 presidential election, the Philippine political scenario was dominated by one political party, the Nacionalista, created by and for the country's "independence-first" chief executive, Manuel Quezon. Quezon encountered nominal opposition in the 1941 election from the Progressive Party whose standard bearer was Senator Juan Sumulong. Upon the death of Quezon in the early 1940's, his vice-president and successor, Sergio Osmena Sr., waged a losing campaign versus Roxas who vaulted from the ranks of the Nacionalista to form a political faction called the Liberal Party. This change of political allegiance initiated the practice of politicians vacillating among parties to suit their political ambitions. The country's extremely popular third president, Ramon Magsaysay, won the 1953 race ran on the Nacionalista banner, but only after being coaxed to defect from the Liberal Party. In 1965, although he was a ranking member of the Liberal Party, Marcos switched allegiance and ran a successful campaign as a Nacionalista. Countless numbers of politicians at the local and Congressional level

switched parties until the declaration of martial law in 1972. A rare exception to this took place in 1967 when Lorenzo Sumulong (son of Quezon's 1941 opponent and an incumbent Nacionalista senator), refused to run as a guest candidate of the Liberal Party after losing his party's nomination for re-election. Sumulong's reluctance to change parties was due to his feeling that the two party democratic system had been destroyed by the frequent propensity of politicians to change their party loyalty, and thus his decision to accept defeat was meant to return some semblance of integrity to the two party system.

Philippine democracy was also negatively stereotyped by a peculiar (but consistent) occurrence which characterized administrations prior to that of Marcos. This was the prevalence of widespread graft and corruption. The first post-independence administration of Elpidio Quirino was marred with scandals which eventually culminated with impeachment charges submitted formally against the chief executive. Although the impeachment investigation in Congress failed to find sufficient evidence to recommend impeachment hearings against Quirino, his administration's credibility was virtually destroyed by the time he ran for reelection in 1953.

Two instances in particular led to Quirino's political demise. In 1949, the government agency responsible for administering and acquiring large estates

purchased two such properties. The outright owner of one estate was a retired American, General Ernest Burt, who was also co-owner with a hospital of the other estate purchased. From these two transactions, the Philippine government was supposed to compensate the hospital the amount of three and a half million pesos and Burt one and a half million pesos. By the end of 1949 with Burt already residing in the United States, he approached both U.S. State Department officials and the Philippine embassy in Washington to complain that he had not received any compensation for his share of the transaction. However more damaging was Burt's accusation that he was informed that one half of his share was given (unknowingly to him) as kickbacks to two Philippine government officials: Quirino's brother and the Secretary of Justice. The scandal initiated an intense investigation in the Philippine Senate where Burt's Manila attorney-in-fact Jean Arnault refused to divulge the names of the government officials that were allegedly paid off. The refusal earned Arnault a contempt of Congress citation which resulted in a prison sentence. For his lack of cooperation, the Philippine government refused payment to Burt but more importantly, the integrity of President Quirino's brother and the accused cabinet secretary was never re-established, a fact that permanently tainted the honor of that administration accelerating the decline in Quirino's

political power base.

Although what became known as the Tambobong-Buenavista Estates Deal did not implicate Quirino directly, other accusations were serious enough to warrant the filing of impeachment charges. The malfeasance allegations arose from a bitter political clash between Quirino and Senate President Jose Avelino. As Manuel Roxas' vice-president and concurrent Secretary of Foreign Affairs, Quirino felt overshadowed by Avelino who was in a better position to increase his influence and patronage to those seeking political factors. When Quirino suddenly assumed the presidency following the death of Roxas in 1948, the new president lost no time in having Avelino removed as Senate President. In search of revenge, Avelino gathered a coalition of supporters to file impeachment charges against the president. Specifically the charges against Quirino were that:

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- (1) when he was Vice-President and concurrently Secretary of Foreign Affairs, he used funds appropriated for the Department of Foreign Affairs in the repair and remodeling of his private residence in Dewey (now Roxas) Boulevard, (2) that from the Peace and Order Funds he used P2,360.70 for the purchase of 250 billboards which he gave as gifts to his relative and friends, and P1,398 for the air passage to Hawaii of his relative, a priest by the name of Rev. Osmundo Calip; (3) that he spent P88,000 for furniture in Malacanang, for the purchase of gifts, and for the piano lessons of his daughter. There were three other charges which were practically abandoned during the investigation because not a scintilla of evidence was presented in support thereof.

After a lengthy and thorough investigation, a congressional committee recommended that the impeachment charges be dropped due to insufficient evidence, thus saving Quirino his political life until the 1953 election where he lost the presidency to a popular protege, Ramon Magsaysay.

Magsaysay's pro-American and anti-HUK administration received raves from Washington. After all, despite being a political turncoat (Liberal to Nacionalista for the purpose of running for president in 1953), Magsaysay's administration was not embroiled in any scandal, which suited public opinion sufficiently during that era. Tragically on March 17, 1957 President Magsaysay perished in an airplane crash thus elevating Vice-President Carlos Garcia to the presidency.

Under the Garcia administration a nationalist movement burst forth which became known as the Filipino first policy. Import quotas were established to protect Philippine industry. Financial institutions and public utilities were being turned over to Filipino administrators. The print media also experienced a change to Philippine editors. Sadly, though, graft resulting from political patronage flourished. One astute  
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observation was made by author-historian Nick Joaquin:

Yet the day of Filipino First was also a gross period of graft in government, where influence was peddled wantonly and the traffic in import licenses spawned a whole nouveau-riche class.

Though the argument was how cute to have robber barons at last not white or yellow but brown, the Garcia scandals were to make the word nationalist a dirty word and the post Elvis young would seek other terms as too much heart.

As a confidential assistant to President Garcia, Benigno Aquino observed the inner trappings of power:

Garcia was the captive of his friends and friends were whoever had helped him. He had such a keen sense of gratitude. . . he (Garcia) would say...you know, one must find ways and means to repay old friends.

Although he was able to ride on the sentiment of Magsaysay's legacy in 1957, Garcia's graft ridden administration resulted in his defeat in 1961. In fact, Garcia's 1957 election was not a mandate for the Nacionalistas either since for the first time in Philippine history, the opposition party's (Liberal Party) candidate was elected vice-president thus driving a wedge between the two highest positions of the executive branch. Garcia's vice-president, Diosdado Macapagal siezed upon his four years of "inactivity" to conduct a four year campaign for the presidency which he won handily in 1961. However the electoral defeat did not cease Garcia's practice of dispensing political favors. During the lame duck period of his term, Garcia appointed approximately more than two hundred associates and proteges to significant positions in the government. This exercise of favoritism became known as "midnight appointments." The preponderance of Garcia loyalists was a source of major difficulty to the incoming

Macapagal administration in 1962.

The administration of Macapagal inherited not only the midnight appointees of the preceding administration but also its corrupt practices. A major scandal that had its origins during Garcia's presidency but eventually plagued the following administration, and particularly Macapagal's integrity, was the Stonehill Case. Harry Stonehill was an American businessman who had been given preferential treatment to obtain import licences by the Garcia administration to pursue his business interests in the tobacco industry. As was eventually unraveled by a preliminary investigation of Stonehill's activities by then Justice Secretary Jose Diokno, the web of corruption was documented in a "blue book" which implicated various senators, congressmen, and executive branch officials.

Upon public revelation of Stonehill's "blue book", three Congressional investigations commenced to determine the depth of the illegal activities within the legislative and executive branches of government. With three committees already pursuing the scandal, Macapagal announced the formation of his own administrative committee to assess the level of participation of incumbent executives. Eventually, evidence surfaced that Stonehill requested that no less than twelve presidential appointees be of his approval in exchange for his support of Macapagal's candidacy over Garcia in the 1961 election.

With this patronage in tact after the election, the Congressional investigations divulged that the formation of a fourth committee by Macapagal was to thwart publicity of the scandal and limit its revelations of corruption to members of the previous administration. This attempted obstruction of justice was unsuccessful. However, when four cabinet members were implicated in the Stonehill case, Macapagal upheld the innocence of two, accepted the resignation of another two, but reappointed the latter couple to other positions; one becoming Philippine ambassador to Washington, D.C. Despite its partial success in implementing economic reforms, the Macapagal administration never fully recovered from the ramifications of the Stonehill case which subsequently drove the incumbent to defeat in 1965 at the hands of Ferdinand Marcos.

Under the first term of the Marcos administration, the Philippines' sixth after the 1946 liberation, the allegations of graft and corruption were just as rampant as during the previous administrations. Nevertheless, Marcos was determined not to permit any issue of corrupt practices impede the growth of a political power base that could be used to extend the duration of his presidency. As early as 1968, Congressional observers were alarmed by staggering increases in the Philippine military budget, an armed forces establishment saddled with almost one dozen generals



who were not retired despite the mandatory retirement age of 65, and a militarization of civilian government officers with the purpose of indoctrinating local officials into the Marcos fold.<sup>15</sup> It was also divulged that approximately P275 million pesos (\$80 million) in public funds were being siphoned to fatten Marcos' re-election fund which included P100 million in presidential pork barrel and \$5.6 million for the First Family Gardening Fund.<sup>16</sup> Later in the same year it was alleged that kickbacks to administration officials were being amassed from highway and other public works projects totalling P20 million. Despite these and several other accusations, in 1969 Marcos managed to become the first Philippine chief executive to win reelection.

Graft and corruption was made more severe by certain cultural and commercial institutions. For example, prior to the declaration of martial law, an extremely liberal (almost licentious) press freedom contributed to mounting tensions between the media and the executive branch. The cessation of press freedom after 1972 spurred the evolution of pro-Marcos literature, which supported the contention that martial law and the ensuing authoritarian rule was required and instituted in the public interest. Documentation of this argument by Marcos himself was extensive and were best sellers in metropolitan Manila bookstores.<sup>17</sup> Alternatively the anti-Marcos publications (most of which were authored in the United States)

contended that Marcos and his immediate cronies devised a well crafted method to personally control Philippine society. The latter group promoted the point that the Marcos government, by abolishing its main opposition, satisfied the demands (for power) of competing and splintered interest groups within the political hierarchy and thus enabled its members to maximize their own incomes. Most notable among these books are *Two Terrorists Meet* by Steve Psinakis and *The Conjugal Dictatorship* by Primitivo Mijares.

To venture a detailed discourse on the issue of the impact of the media in the Philippines, the mechanisms that dispensed the freedom of speech must be examined. In a country which had an expansive rural sector where access to public information was lacking, the media, centered completely in the Manila metropolitan area should have been the focal point in dispensing the news for a democracy to flourish particularly with regards to the functioning of political institutions. A retrospective review of the Philippines' media reveals a faction of society always eager to exercise its constitutional right of free speech. However, at the same time most media circles were just branches of larger entrepreneurial conglomerates which were utilized to preserve or further the social status of their affluent proprietors rather than as forums to disseminate information.

Apparently none of the owners of the newspapers, television or radio stations saw any economic benefits in making their media source the main ingredient of their commercial pursuits. Thus the diffusion of information beyond that desired for personal enhancement itself became suppressed due to an overly competitive market where few took advantage of economies of scale. As a result of the inability to provide intra-industry standards to self regulate an intensely competitive market, economies of scale were not taken advantage of even though editorial and technological improvements occurred. Rosenberg cited the economic structure of media ownership leading up to martial law.  
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...before martial law, the oligarchy was large and dispersed...each major elite faction maintained its own media outlet to espouse and defend its primary economic interests. As long as the oligarchy was divided into these factions and no single faction dominated the others, an effective system of freedom of the press resulted, by default, if not by design. Freedom of the press, in this sense, meant freedom for one elite faction to espouse its views without restriction of another.

The Marcos government's initial attempt to intervene in an incessantly critical press came in 1970 with a weekly publication called Government Report. Used not only as a rebuttal to tainted journalism which had become criticized as irresponsible within its own circles, the Government Report was the first publication to arise from large quantities of government spending in the field of public

relations. This turn of events was found to be peculiar since all previous administrations prior to Mr. Marcos' had been tolerant of media attacks even though none of his predecessors were successful in their re-election attempts. Marcos, however, had already been elected to a second (and supposedly last) four year term when he commenced the barrage of pro-administration public relations expenditures. Apparently the need to shield himself and his collaborators from anticipated critics underscores an intention beyond that of implementing second term policies. To retaliate against the media, Marcos placed the Philippine Broadcasting Company and the Radio-TV Movie office directly under his own direction. The National Media Production Center purchased the Voice of America and and renamed it the Voice of the Philippines as a prelude to its eventually becoming the publicity center for the president's Public Information Office.<sup>19</sup> Although these shifts in ownership were made partly to promote social change in 1972, the legitimacy of these actions was dubious because instead of creating a forum to further exercise freedom of speech rights, media circles were polarized away from maintaining objective neutrality. According to one newspaperman: "If you're friendly (to the Marcos government) then the other newspapermen accuse you of being bought; if you're hostile, then Marcos accuses you of lying." In other words, the supply of

information essential to the survival of democracy became greatly restricted.

Other factors which impeded the development of Philippine democracy was that (a) political parties rarely differed on economic and military policies. In addition, (b) local government officials had little autonomy to function and thus had to hack their political souls to the incumbent administration.

An example of (a) was the long standing anti-communist stance of all Philippine presidents. The reasons for this was due to statutory entry barriers branded all activities (political and military) of the Communist Party illegal. As a result, the communists have attempted to infiltrate the political bandwagon by conducting acts of insurgency through the military wing of the known as the New People's Army (NPA). The NPA has had extremely potent, albeit illegal power of intimidation to exercise as it pleases in the rural areas. Prior to the imposition of martial law, these sporadic groups of insurrectionists would revert to ambushing political rivals to achieve recognition from neighboring landowners.<sup>20</sup>

As their influence increased, the proprietors of large and small estates would appease the NPA rebels by granting them unofficial jurisdiction in certain judicial matters. Despite the supposed end of martial law in 1981, these "courts" continued to function not due only to the

intimidation factor but because the hacenderos found that this method to be a more expedient alternative to the rather impotent rural courts or the inept and untrusted military forces. Stephen Solarz, Chairman of the U.S. Congressional Subcommittee on East Asian Affairs, stated in a 1974 New York Times article:

21  
During recent years, the New People's Army has expanded beyond the island of Luzon and established itself as a truly national insurgency. It has 10,000 to 20,000 men under arms, who collect taxes and dispense justice. They exert substantial or even controlling influence in roughly one-fifth of the barrios, the country's smallest political unit. The insurgents' front group, the National Democratic Front, can mobilize tens of thousands of people--mostly non-Communists--for anti-Government demonstrations.

Another policy from which Philippine political parties did not differ greatly was the desire to maintain a strong pro-U.S. slant to foreign policy. The U.S.-Philippine Trade Treaty of 1946 granting parity rights strictly to the Americans was a perfect example. The impact of this agreement was to give U.S. individuals and businessmen the same rights as Filipinos to own 60% of Philippine natural resources. Also the U.S. government was given sanctions to erect and maintain military installations free of any rental fee. However, the most controversial issue was the ordinance appended to the 1934 constitution. In this section, unlimited power was vested in the President of the United States despite the

existence of a commonwealth government. It bounded the  
Filipinos to limitless allegiance to the United States.<sup>22</sup>  
Preoccupation with American related issues, both domestic  
and foreign, influenced Philippine policy makers so much  
that a more Philippine oriented democracy suited to solving  
local problems did not develop.

The tendency of Philippine political parties to rely  
on a "Washington" generated foreign policy had strong  
ramifications on their parties inability to offer  
significantly differentiated policies. For instance,  
regardless of party alliance, (a) support for some U.S.  
military presence in the Philippines and the (b) support  
for a centralized form of government were policies never  
significantly deviated from between political parties. In  
fact any diversion from these endorsements were extremely  
marginal or thinly veiled political rhetoric.

On the aspect of the United States military presence,  
the magnitude of aid, explains the persistent approval of  
Philippine policy makers and the public alike to the  
martial law period. The 1951 Mutual Defense Treaty  
prescribed the foundation for the existence of 23 U.S.  
operated military bases on 180,000 acres of land. Also, as  
of January 1972, American military aid to the Philippines  
totalled \$631.7 million, having commenced at the end of  
World War II.<sup>23</sup> In addition to the bases serving as a  
safeguard against potential adversaries, in 1947 the Joint

Military Advisory Group (JUSMAG) was created with a high priority of training both American and Filipino troops in counter-insurgency operations thus insuring the Philippines against both external and internal aggression. Only during the latter years of the Marcos government was the U.S. military presence criticized, not due to an inadequacy of actual protection provided, but on the grounds that the bases served as a symbol of America's endorsement of the Marcos regime.

The issue of centralized authority in Manila can trace its roots to the first U.S. military government established in 1898. By 1901 separate legislative and executive departments were created but local governments were structured according to a system similar to that which functioned during the Spanish occupation. Adoption of the United States Constitution as a prototype during the 1934 Philippine Constitutional Convention further contributed to a centralized system since none of the original seventeen articles specified for the provision of limited local autonomy among the provincial governments. This policy was perpetuated throughout the post-war political era. The extent of the executive branch's domination over local local governments was recounted by Benigno Aquino during his tenure as a governor belonging to a party in opposition to that of the chief executive.

24

I read the Constitution. It made no mention of provincial governors. I dug in the



Administrative Code...then I realized. . . if I wanted to have a corrupt PC (Philippine Constabulary) officer transferred, it was the secretary of defense who had the final say. If I wanted an erring municipal health officer punished, the secretary of health had the final say. If a school official was derelict in his duties, the secretary of education had the final say. And if I wanted my provincial budget approved, the Secretary of Finance had the final say. All these cabinet members formed extensions of the President's personality. In effect all roads led to and ended in Malacanang (the presidential palace).

Despite these two characteristics of the political structure, the Philippines continued to be stereotyped as an Asian showcase of democracy before 1972. This was a mistaken view, however, since the 1934 constitution contained provisions for the legalization of authoritarian rule. Therefore any suspension of civil liberties could easily be justified within constitutional limits. Explicit provisions for the exercise of extraordinary powers were in fact exercised before September 1972 when, in 1950, then President Quirino suspended the writ of habeas corpus. Article VII, Section 10, paragraph (2) of the old (1935)  
25  
constitution stated:

The President shall be Commander-in-Chief of all Armed Forces of the Philippines and whenever it becomes necessary he may call out such armed forces to prevent and surpress lawless violence, invasion, insurrection, or rebellion. In case of invasion, insurrection, or rebellion, or imminent danger thereof, when the public safety requires it, he may suspend the writ of hebeas corpus or place the Philippines or any part thereof under martial law.

Thus a precedent had been established to provide the executive with extraordinary powers under a legal framework. Time evidenced the success of this strategy in that various circles considered the Philippines a viable constitutional democracy (at least publicly) despite martial law and Marcos' strong armed rule.<sup>26</sup>

To rectify these flaws in the political institutions, the Philippines attempted a massive uplifting until the imposition of martial law. The trend towards nationalism in domestic issues culminated as a Constitutional Convention convened in 1971 to negate influences of western democracies (the U.S. in particular) and generally restructure the political environment to conform to local public opinion.<sup>27</sup> Rosenberg found that:

Increasing local political activity and nationalist pressures in the years before martial law are cited as evidence that democracy was succeeding in the Philippines. . . . Economic policy and foreign policy were acquiring a nationalistic outlook. All these newly articulated and organized interests came together in the late 1960's in a call for a major overhaul of the 1934 constitution. After extensive debate and elaborate preparations, a constitutional convention was opened on June 1, 1971 to consider a broad range of social and political reform.

However the Constitutional Convention did little to dismantle the barriers preventing a more competitive democracy to evolve. The duopolistic essence of the political milieu was maintained between the Nacionalista and Liberal parties. Nevertheless this did not imply that

attempts were not made to interject a moderate (and legal) third party into the political scenario. During the early 1960's the Progressive Party of the Philippines (PPP) attempted to attract a significant constituency but failed because of an overwhelming budgetary disadvantage compared to its two competitors. The PPP died a quiet death after its candidate placed third in the 1965 presidential election won by Ferdinand Marcos. Also as earlier mentioned, when the Huk movement was outlawed, its leaders embraced a Maoist oriented leftist position from which evolved the Communist Party of the Philippines (CPP). Because its only resort was to function as an illegal association, the perception of its vitality were (and still are) channeled through its militant wing, the NPA.

Therefore, despite a promising start, the new Constitution's authors never addressed the possibility of the legalization of the Communist Party nor encouraged the organization of political factions meeting the needs of the country's vast cultural minorities. Instead the 1971 Constitutional Convention was sadly marred with allegations of indolence among the delegates and tampering on crucial issues by Marcos and his wife. The result was a renewed barrage of personal accusations and counter attacks. In an editorial in the now defunct Free Press (a weekly news magazine), speculation was made of the demise of the two party system since the minimal

ideological differences between Nacionalista and Liberal were more obvious than ever following major losses by the majority Nacionalista party during the 1971 election:<sup>28</sup>

Now to say that the Nacionalista Party is now dead is to assume that it was recently alive, that it existed as a political party with a separate identity from that of any other party. But that is not true. What did not exist cannot be said to be no longer existent, what was not alive cannot be said to be dead . . . In truth, there is no Nacionalista Party, and no Liberal Party, either. Both have no real existence as political parties. One is not nationalist and the other certainly not liberal. The two are mere conspiracies against the people, combinations of personal interests that temporarily coincide.

In actuality, most political observers anticipated that Marcos himself sought the disintegration of both existing political parties so that he could forge a coalition of his own preference and followers, i.e., a Marcos party. However in order to accomplish that task, the influence of the Nacionalista Party would have to be totally diminished such that its senior members with presidential aspirations (particularly those in Congress) would eventually alienate themselves and seek their own political base separate from the Marcos coalition and inner circle. For instance, Marcos' own pre-martial law vice-president, Fernando Lopez, resigned from the Marcos cabinet (Lopez had served as vice-president and Secretary of Agriculture and Natural Resources simultaneously) prior to the 1971 off-year elections and endorsed candidates from both parties in the 1971 contests.

Senator Jose Diokno resigned from the Nacionalista Party while Senator Eva Estrada Kalaw switched loyalty and ran under the Liberal Party banner and won re-election in 1971. Other Nacionalista leaders such as President of the Senate Gil Puyat, Senator (and ex-Vice-President) Emmanuel Pelaez, Speaker of the House of Representatives Jose Laurel and his younger brother, Senator Salvador Laurel contributed only marginal efforts to their party's cause in 1971.

These political mavericks sensed an increasing disintegration within their party but were myopic to the eventual termination of political activity one year later. Following the 1971 election where the Nacionalistas suffered substantial setbacks, Lopez stated in a Free Press interview:<sup>29</sup>

I believe that there will be a political realignment. Not only in the NP (Nacionalista) but also in the LP (Liberal) alike. All those against Marcos will band together. They will see to it that Marcos will no longer have power in 1973. The NP old guards will assert themselves again.

As a result the Nacionalista "old guards" were partly to blame for their party's debacle. Their inability to agree on a presidential standard bearer in 1965 within their own ranks led to the "importation" of Marcos from the Liberal Party. After restoring the power of the executive branch to his new party, Marcos led the Nacionalistas to substantial gains in the 1967 off-year elections. However in 1969, Marcos' reelection bid was met with no intra-party

opposition whatsoever; a rarity in party politics up to that point. Moreover, Marcos dispensed with the tradition of the party selecting its list of senatorial candidates (the Philippine Senate formerly consisted of 24 members elected at-large) via direct vote of the party's elite. Instead Marcos hand picked the Nacionalista slate in 1969 and 1971. Interestingly the Nacionalista slate in 1969 included Liberal Party guest candidate and frequent Marcos critic Senator Ambrosio Padilla. Also another leading Liberal Party figure, Congressman (and former Speaker of the House) Cornelio Villareal defected to aid the Nacionalista cause. In 1971, Nacionalista Party had no Liberal guest candidate on its senatorial slate. Therefore many observers attributed the turnaround of election results from 1969 to 1971 to a combination of a reluctance of the old guards to "coat tail" on a lame-duck president plus Marcos' hidden personal desire to perpetuate his power beyond 1973 using his own political proteges.

### III. Prelude

This section provides historical evidence to show that upon the declaration of martial law, Marcos' ruling coalition organized a political faction aimed at amassing political power to itself. The technique used required large expenditures of resources to conduct an image building campaign where Marcos and his political followers

could be perceived as the only political faction with any significant degree of influence. The eventual organization of a Marcos led political party enhanced the incumbent's ability to create a greater impression of political power since this new political party could dominate the legislature to the point where all of Marcos actions could be given legislative sanction. In the previous chapter, the theoretical model formulated, then concluded that if the sum of marginal accumulations of influence attained either through (1) the electoral process (2) through the legislative process, or (3) directly from previously accumulated influence, exceeded the rate by which influence declines naturally, the party with an influence advantage in the past can dominate the political process. This section draws factual analogies to the model.

### III. Consequences of Martial Rule on Political Power

According to Marcos, the aforementioned insurgency and societal factors instilled a necessity for some form of "democratic" revolution. What the country received was the termination of Congress, the emasculation of an impartial judiciary and a metamorphosis to a one-party-one-man rule. However, few outsiders lamented the abolition of the Philippine Congress not because of an overwhelming desire to have their laws formulated by decree but due to the dismal record of the legislature composed largely of

landowners and small town lawyers. Congress was viewed as a self-serving institution where the lawmakers pursued mostly their own self interests as well as the interests of the wealthy faction of their constituency. Business leaders criticized Congress for its overall inability to legislate a coherent economic policy. A 1969 study by Jeffery Williamson in the Quarterly Journal of Economics attributed the lack of growth in the Philippine economy to poor import substitution policies. Marcos stated that during the early days of martial law he restored legislative accountability by creating the barangays. Presidential decrees 86 and 86-A explicitly state the nature of the inception:

(the barangays)...shall constitute the base for citizen participation in governmental affairs and their collective views shall be considered in the formulation of national policies or programs. . .

Furthermore he defined the barangays as the element providing:

...opportunities for the more productive socialization of our communities. Because they constitute the smallest political unit, the barangays allow for reasonable discussion on issues of national, regional and community significance.

Despite the appealing characteristics of the barangays, their effectiveness was suspect because as mentioned earlier, decentralized government in the Philippines was never efficacious.

One pre-martial law indication that drastic judicial



reform in one configuration or another was near was the continued disregard for the legal institutions intact during that time. Civil disorder ranging from purse snatching, to rape to sensationally publicized murders were commonplace headlines in Manila's daily newspapers. Although much of the violence immediately preceding the martial law declaration involved no bodily injury, most of the negative publicity on the Philippines at that time concentrated on (a) the pervasive existence of criminal elements in the private sector, (b) the maintenance of private armies by the affluent sectors, and (c) widespread proliferation of outlawed insurgents in the rural areas. In his survey article in Pacific Affairs, Carl Lande stated that a mixture of the Philippines' corrupt political culture and absence of patriotic responsibility cannot be discounted in analyzing the pre and post 1972 events of the country. Lande conceded that such explanations would be either criticized by non-Filipinos as irrelevant or simply deplored by offended nationalists. Extremely cognizant of the expansion of social lawlessness, Marcos made civil order by any means the focal point of the implementation of emergency powers:

We had to restore civil order as the bedrock of any constitutional survival . . . Civil order is merely the rationale of all societies: enforcement of and obedience to the law. Thus, when I decided to place the entire country under martial law...it was imperative that we dismantle not only the apparatus of the insurgency movement, but also the whole system of violence

criminality that had virtually imprisoned our society in fear and anarchy.

The proclaimed results of the Marcos-martial law crackdown  
36  
were alarming:

A total of 523,616 firearms were confiscated in the first nine months alone (in the old society, according to the military, it would have taken us 40 years to collect these). One hundred forty-five private armies were disbanded and disarmed, and a good number of their political overlords were placed under detention. Twelve thousand criminal elements, suspects for crimes varying from petty theft to murder, were apprehended. P32 million worth of illegal drugs were seized, and the members of the vice rings were taken into custody.

However, this accomplishment was subject to scrutiny because of the technique used to return law and order. Marcos mobilized a covert police force to apprehend common criminals throughout the urban centers, supposedly using maximum tolerance. Nevertheless, countless suspected car thieves, purse snatchers, pick pockets, etc. were shot point blank by these surreptitious marshalls without any forewarning of their apprehension. Besides common criminals, a 1983 fact finding mission found that between 900 to 1,000 "public order violators" were in official custody; it turned out that "public order violators" was only government jargon for political detainees. The following passage came from a report of the fact finding  
37  
mission.

In the six detention facilities inspected, we found the following conditions to be common: overcrowding with common criminals and political detainees sharing the same cell;

meager food rations (roughly 6 pesos or 43 U.S. cents a day); insufficient medicines for a variety of ailments including tuberculosis, anemia, gastroenteritis and colitis; and irregular visits by prison health personnel. These conditions were further aggravated by the fact that many detainees had been held for a year or more under such circumstances.

It took six years after the declaration of martial law for Marcos to coalesce his political coalition and publicize its supposed legitimacy under the newly written constitution supposedly ratified by a public show of hands in 1973. His inner circle of loyalists consisted of wife Imelda, the military, cabinet ministers, technocrats and individuals from the political and private sectors whose loyalty to Mr. and Mrs. Marcos was unwavering. The latter group of private citizens was eventually coined as "cronies". By 1978 after ruling the Philippines single-handedly, Marcos decided to test the political viability of his coalition by calling an election for the members of the interim National Assembly (Parliament). His alliance was named the Kilusang Bagong Lipunan (KBL) or New Society Movement. The KBL, in essence, represented the establishment of the Marcos Party which many had speculated was emerging since 1971. Its list of candidates was headed by Mrs. Marcos who already was holding the positions of Minister of Human Settlements and Governor of Metro Manila. For its efforts, the opposition Liberal Party formally boycotted the 1978 election because of its belief that an election held during martial law was absurd

and inane. However a spirited effort of the opposition was mounted against Mrs. Marcos and followers in Metro Manila. The leading candidate of the opposition was Benigno Aquino, incarcerated following his conviction for subversion, murder, and illegal possession of firearms. Aquino was prohibited from campaigning.

The almost unanimous victory of the KBL, amid charges of vote tampering and widespread fraud, was hardly surprising. Nevertheless the interim National Assembly (Batasan Pambansa) was convened in June 1978 and publicized as a return to the normalization of the democratic process. However Marcos and the KBL were able to generate, through provisions of the new Constitution, sweeping powers to dominate the political system. This virtual monopoly was explained by Abueva:<sup>38</sup>

In addition to the 165 elected members, the body (Parliament) has thirty-five members appointed by the president and fourteen representatives of functional sectors of society chosen by their organizations. However Marcos as prime minister and president with indefinite tenure dominates the body. He can still legislate by decree, veto measures approved the interim Batasan Pambansa, or dissolve it altogether. The body cannot remove the prime-minister-president, ratify treaties, or repeal or modify any decree or edicts of the president.

Essentially what the government had successfully embarked on was to erect democratic institutions but still suppress the freedom of expression to give the impression that the political power the incumbent party had was

directly attributed to the functioning of those institutions. Upon the declaration of martial law, Marcos and his wife commenced the image building campaign when they titled the reformed Philippine democracy "The New Society." which became a prevalent slogan throughout the country. However Marcos' predecessor, Diosdado Macapagal found various peculiar similarities to the New Society terminology and several socialist ideologists.<sup>39</sup>

New Society...is a Maoist expression.  
Thus Mao says: For many years we communists have struggled for a cultural revolution as well as for a political and economic revolution, and our aim is to build a New Society and a new state for a Chinese nation.

Macapagal quoted Lenin citing Marx. Coincidentally he found<sup>40</sup> Lenin stating:

There is no trace of utopianism in Marx, in the sense that he made up a New Society. No, he studied the birth of the New Society out of the old, the forms of transition from the latter to the former as a natural historical process.

The indication of this indoctrination was the overwhelming victories of Marcos' KBL in the 1978 and 1981 elections. To any foreign observer, these elections demonstrated little in regards to the functioning of democratic principles. However, to the majority of Filipinos from whom the truth had been withheld for so long, these elections confirmed the continued stronghold of political power by one party. Finally, authoritarian rule Philippine-style allowed the fruits of corruption to be enjoyed by a privileged few. Marcos saw the fulfillment of

this requirement to the utmost. Labeled by critics as "crony-capitalism" a Time magazine article in the January 23, 1978 issue stated:

Since President Marcos imposed martial law in 1972, his relatives and cronies, as well as those of his glamorous wife Imelda, have been amassing huge fortunes. Their blatant influence peddling has prompted one amazed diplomat in Manila to observe: It's incredible what they've taken over.

A long article critical of Mrs. Marcos appeared in the Los Angeles Times by Keyes Beech titled "Imelda: The Philippines' Eva Peron" which not only attacked the First Lady's extravagance and pomposity but listed four prominent beneficiaries to the regime's amassed wealth. They were:

Among the principal beneficiaries of the Marcos connection...  
 Pacifico Marcos, younger brother of the president who owns or controls 50 corporations.  
 Roberto S. Benedicto, former ambassador to Japan, classmate and fraternity brother of the president, 30 corporations.  
 Benjamin (Kokoy) Romualdez, one of Imelda's brothers, former ambassador to Peking, who along with members of the Marcos class allegedly owns or controls 90 corporations.  
 Herminio Disini, one of the president's golfing cronies, who in six years paralyed a tiny cigarette filter manufacturing company into 30 companies with assets worth more than \$200 million.

With the control of all facets of Philippine society at their disposal, Ferdinand and Imelda Marcos were able to sustain absolute political power for thirteen years beyond what was previously permitted by the Constitution. For the Republic of the Philippines, the catharsis to the authoritarian rule and its policies commenced on August 21,

1983 when Benigno Aquino was assassinated upon returning to the Philippines after a three year exile in the United States. Whether or not the crime was committed with the knowledge and approval of the Marcos government is a topic that has been discussed by others.<sup>43</sup> The denouement to a continuous national outcry following Aquino's death was the February 7, 1986 election and finally Marcos' departure from power on February 26, 1986.

#### IV. Conclusion

This perspective on Philippine political history demonstrates that from the time the United States granted the Philippines its independence in 1946 until the proclamation of martial law in 1972, a viable two-party democracy functioned. However the democracy was flawed in that the political parties had little ideological differences between them so that when elections were held, success depended upon which of the two factions could outspend the other. Also, although the democracy was held in tact by the competition between the parties in the country's bi-cameral legislature, Congress was usually a forum to air accusations and counter-accusations of graft and corruption instead of formulating coherent policies for economic development. The prevalence of corruption allegations led to the defeat of each incumbent administration until 1969. Herein lies historical evidence

to corroborate the theoretical structure of the previous chapter. Until 1969, neither party could dominate the political system since the perception of political power vacillated between the two competing parties. After 1969, despite allegations of corruption, the incumbent administration was able to form a coalition and amass enough political power to compensate for the decline in influence coming from election defeats in 1971 and diminishing support within the legislature. Again, the parallels between this historical account and the model of the previous chapter show that the democratic process can move towards dictatorship when the powerful party can use its perceived influence to counter the rate by which political power depreciates.



APPENDIX

I. Existence of the Function for Net Augmented Influence

$V(a_t^A, a_t^B, K_{t-1})$  was assumed to be strictly concave in  $a_t^A$  and strictly convex in  $a_t^B$ . Similarly  $L(b_t^A, b_t^B, K_{t-1})$

was assumed to be strictly concave in  $b_t^A$  and strictly

convex in  $b_t^B$ . It was asserted in the text that there exists functions  $F(V_t, L_t)$  under which  $F$  is strictly

concave in  $(a_t^A, a_t^B)$  and strictly convex in  $(b_t^A, b_t^B)$ .

Note that  $F(V_t, L_t) = \alpha V_t + \beta L_t$ ,  $\alpha > 0$ ,  $\beta > 0$ , clearly suffices the properties of existence since:

$$\frac{\partial^2 F}{\partial a_t^A \partial b_t^B} = 0$$

Hence the Hessian of  $F$  with respect to  $a_t^A$  and  $b_t^A$  is:

$$\begin{bmatrix} \frac{\partial^2 V}{\partial a_t^A \partial a_t^A} & 0 \\ 0 & \frac{\partial^2 L}{\partial b_t^A \partial b_t^A} \end{bmatrix}$$

The above Hessian is negative definite because the diagonal elements are negative. Similarly, with respect to  $a$  and  $b$ , the Hessian is:

$$\begin{bmatrix} \frac{\partial^2 V}{\partial a^2} & 0 \\ 0 & \frac{\partial^2 L}{\partial b^2} \end{bmatrix}$$

This Hessian is positive definite since the diagonals are positive.

The linear function is not the only possibility.

Consider the following function  $F(V, L)$ . Let  $F^A(V, L)$  be the gross influence of A and let  $F^B(V, L)$  be the gross influence of B where  $F^A$  is strictly concave in  $V$  and  $L$  and  $F^B$  is strictly concave in  $V$  and  $L$ . Let  $V^A = -V^B = V$  where  $V$  is as defined in the text. Similarly let  $L^A = -L^B = L$  where  $L$  is defined in the text.

Then let  $F(V, L)$  be the net influence defined as:

$$F(V, L) = F(V, L) - F(V, L)$$

Consider the diagonal elements of the Hessian of F with respect to a and b.

$$\frac{\partial^2 F}{\partial a^2} = \frac{\partial^2 F}{\partial V^2} \frac{\partial V}{\partial a} + \frac{\partial^2 F}{\partial V \partial a} \frac{\partial V}{\partial a}$$

$$\frac{\partial^2 F}{\partial a^2} = \frac{\partial^2 F}{\partial V^2} \left[ \frac{\partial V}{\partial a} \right]^2 + \frac{\partial^2 F}{\partial V \partial a} \frac{\partial V}{\partial a}$$

$$- \frac{\partial^2 F}{\partial V^2} \frac{\partial V}{\partial a} - \frac{\partial^2 F}{\partial V \partial a} \frac{\partial V}{\partial a}$$

Note that

$$\frac{\partial^2 V}{\partial a^2} = - \frac{\partial^2 V}{\partial a^2}$$

and

$$\frac{\frac{\partial^2 V}{\partial a^2}}{t} = - \frac{\frac{\partial^2 V}{\partial a^2}}{t}$$

Therefore  $\frac{\partial^2 F}{\partial a^2} =$

$$\left[ \begin{array}{cc} \frac{\partial^2 F}{\partial a^2} & \frac{\partial^2 F}{\partial a^2} \\ \frac{\partial^2 V}{\partial a^2} & \frac{\partial^2 V}{\partial a^2} \end{array} \right] \left[ \begin{array}{c} \frac{\partial V}{\partial a} \\ \frac{\partial V}{\partial a} \end{array} \right]^2 + \left[ \begin{array}{cc} \frac{\partial F}{\partial a} & \frac{\partial F}{\partial a} \\ \frac{\partial V}{\partial a} & \frac{\partial V}{\partial a} \end{array} \right] \frac{\partial V}{\partial a}$$

The second term on the right hand side of the above derivative is definitely negative since  $\frac{\partial F}{\partial V}$  is

greater than zero and  $\frac{\partial F}{\partial V}$  is greater than zero and

$\frac{\partial V}{\partial a}$  is negative. The first term is ambiguous since

$\frac{\partial F}{\partial V}$  and  $\frac{\partial F}{\partial V}$  are both negative. However if

$F$  and  $F$  are the same quadratic functions of their

arguments, then  $\frac{\partial F}{\partial V} = \frac{\partial F}{\partial V}$  and the first

term is zero and  $\frac{\partial F}{\partial a}$  is shown to be less than

zero. Similarly,  $\frac{\partial F}{\partial b}$

$$\frac{\partial^2 F}{\partial a^2} - \frac{\partial^2 F}{\partial b^2} - \frac{\partial^2 L}{\partial t^2} + \frac{\partial^2 F}{\partial L^2} + \frac{\partial^2 F}{\partial V^2} - \frac{\partial^2 L}{\partial b^2}$$

If  $F^A$  and  $F^B$  are identical quadratics, the first term on the right hand side in the above second order partial is zero and  $\frac{\partial^2 F}{\partial b^2}$  is negative. The diagonal terms similarly are:

$$\frac{\partial^2 F}{\partial a^2} = \frac{\partial^2 F}{\partial L^2} - \frac{\partial^2 F}{\partial V^2} - \frac{\partial^2 L}{\partial b^2} - \frac{\partial^2 V}{\partial a^2} = 0$$

By making the interaction terms in the quadratic sufficiently small, the full determinant will be positive.

Similarly  $\frac{\partial^2 F}{\partial a^2} > 0, \frac{\partial^2 F}{\partial b^2} > 0$  also

hold. In essence,  $F$  is linear even though  $F^A$  and  $F^B$  are quadratic if  $F^A$  and  $F^B$  are identical. However, if  $F^A$  and  $F^B$  are not identical but are very close, then the following terms will not equal zero.

$$\frac{\partial^2 F}{\partial a^2} - \frac{\partial^2 F}{\partial a^2}$$

However the above terms will be small and hence the other terms of the second order direct partials will dominate and concavity in  $a_t^A$  and  $b_t^B$  will hold although  $F$  is not linear.

Similarly  $F$  will be convex in  $a_t^B$  and  $b_t^B$  although it is not linear, since the second term of the second order direct partials is positive and the first term is small.

## II. Legislative Success Function

In the text the function representing the value  $L_t$  was expressed as:

$$L_t = L_t(b_t^A, b_t^B, K_{t-1}) \quad (2)$$

It was assumed that increased expenditures of party A to push its legislative program(s) increased the proportion of net success in the legislature and increased expenditures of party B decreased the proportion of net success in the legislature. However, suppressed in the text's specification were (a) the fact that the party expenditures to increase its effectiveness trigger an increased effort by the party to push its platform, and (b) the concept that the legislative effectiveness function contains the parties' platforms as functions.

Therefore a more explicit specification of the legislative effectiveness function is:

$$L = Q - \frac{p^A + p^B}{2} \quad (A.1)$$

where:

$Q$  = the outcome of the legislature.

$p^A$  = the platform of party A.

$p^B$  = the platform of party B.

For the same reasons stated in the text, it is assumed that party A proposes a greater amount of expenditures.

Both platforms are assumed to be fixed amounts of proposed government expenditures. The outcome  $Q$  is specified as a weighted average of the parties' effort to push their respective platforms.

$$Q = \frac{p^A e^A}{E} + \frac{p^B e^B}{E} \quad (\text{A.2})$$

where:

$e^A$  = party A's effort in pushing its proposed platform.

$e^B$  = party B's effort in pushing its proposed platform.

$E = e^A + e^B$

As stated earlier each party's effort in pushing its platform is a function of the amount of expenditures the party allocates to push its platform and also net perceived influence.

$$e^A = (b^A, K^A)_{t-1}$$

$$e_t^B(b_t^B, K_{t-1}^B)$$

The  $e_t^A$  function is assumed to be concave in  $b_t^A$  and the  $e_t^B$  function is assumed to be convex in  $b_t^B$ . Substituting the above effort functions and (A.2) into (A.1) yields the following:

$$L = \frac{[p_t^A - p_t^B][e_t^A(b_t^A, K_{t-1}^A) - e_t^B(b_t^B, K_{t-1}^B)]}{2[e_t^A(b_t^A, K_{t-1}^A) - e_t^B(b_t^B, K_{t-1}^B)]} \quad (\text{A.3})$$

The intuition of (A.3) relates that increases the party expenditures to push its platform increases the party's effort to push its platform which will move the legislature's output closer to the platform of the party whose effort has been greater. Therefore assuming that party A increases its expenditures and party B's expenditures are constant:

$$\frac{\partial L}{\partial b_t^A} = \frac{[p_t^A - p_t^B] e_t^B(b_t^B, K_{t-1}^B)}{[e_t^A(b_t^A, K_{t-1}^A) + e_t^B(b_t^B, K_{t-1}^B)]^2} \frac{de_t^A}{db_t^A} > 0 \quad (\text{A.4})$$

Equation (A.4) confirms the result stated in the text that increases in expenditures by A to push a given platform make party A more effective. Diagram A.1 shows a number line where if L is positive, the outcome of the



legislature is closer to party A's platform which verifies that A is the more effective party in this instance.

By differentiating (A.4) with respect to  $b_t^A$ , it is

verified that L is concave in  $b_t^A$ .

$$\frac{\partial^2 L}{\partial b_t^A} = \frac{[p_t^A - p_t^B] e^{(b_t^B, K_{t-1}^B)} \frac{\partial^2 B}{\partial e} - \frac{[e^{(b_t^A, K_{t-1}^A)} + e^{(b_t^B, K_{t-1}^B)}] \frac{\partial^2 A}{\partial b_t^A} + [p_t^A - p_t^B] e^{(b_t^B, K_{t-1}^B)} \frac{\partial^2 A}{\partial e}}{[e^{(b_t^A, K_{t-1}^A)} + e^{(b_t^B, K_{t-1}^B)}] \frac{\partial^2 A}{\partial b_t^A} + [p_t^A - p_t^B] e^{(b_t^B, K_{t-1}^B)} \frac{\partial^2 A}{\partial e}} < 0$$

A similar derivation, qualified by assuming the  $p_t^B > p_t^A$ , illustrates that L is convex in  $b_t^B$ .

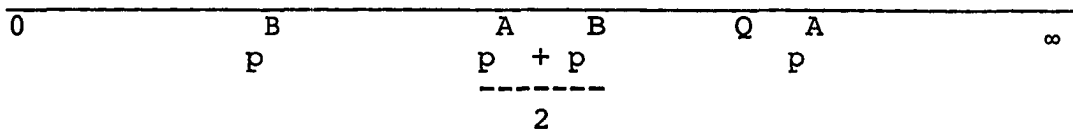


Diagram A.1

## ENDNOTES

## Notes to Pages 1-12

## CHAPTER ONE: THE THEORY OF POLITICAL SYSTEMS: AN ECONOMIC INTERPRETATION AND SURVEY

1. Ramon J. Cao-Garcia, Explorations Towards an Economic Theory of Political Systems, (Lanham, MD: University Press of America, 1983), p. 8.
2. See William Niskanen, Bureaucracy and Representative Government, (Chicago: Aldine-Atherton Inc., 1981).
3. Arnold Heertje (editor), Schumpeter, Vision, Capitalism and Socialism and Democracy After 40 Years, (New York: Praeger Publishers, 1981), pp. 79-80.
4. Heertje, Schumpeter, p. 82.
5. Cao-Garcia, Explorations, p. 78.
6. Ibid., p. 41.
7. Much of the discussion regarding the bureaucrat is attributed to William Niskanen, "Bureaucrats and Politicians," Journal of Law and Economics, XVIII, (December 1975), 617-43.
8. Cao-Garcia credits his politician's utility function to the work of Albert Breton, Economic Theory of Representative Government, (Chicago: Aldine Publishing Co., 1974), Chapter 7.
9. Amoz Kats and Steven Slutsky, "Majority Voting in the Pure Distributional Context: A Structure Induced Equilibrium", paper presented at the Conference on Mathematical Economics and Public Policy, University of Essex, March 1981, p. 2.
10. Rebecca Morton, "An Interest Group Voting Model of Public Good Provision", Working Paper No. 125, University of New Orleans, November 1984, pp. 3-5.
11. Ibid pp. 7-12.
12. Berholz, Peter, "Median Voter Theorem, Instability of Outcomes in Non-Oligarchic Societies and Constitutional Reform," Zeitschrift fur die gesamte Staatswissenschaft, (1984), p. 127.

Notes to pages 12-17

13. The corresponding literature where these five categories originated were concisely reviewed by Rebecca Morton, "An Interest Group Model of the Strategic Calculus of Voting", Working Paper Series No. 122, University of New Orleans, 1984, pp. 2-5.

14. Glen Atkinson, "Political Economy, Public Choice or Collective Action?", Journal of Economic Issues, XVII, 4, (December 1983), p. 1058. Part of this quote is attributed to Douglas C. North, "Structure and Performance: The Task of Economic History," Journal of Economic Literature, (September 1978).

15. Ibid., p. 1061.

16. Charles Rowley, "The Relevance of the Median Voter Theorem", Journal of Institutional and Theoretical Economics, 140/1, (1984), p. 105.

17. Ibid., p. 107

18. Cao-Garcia used the term buy as the mechanism which voters' preferences for government output is satisfied. However he also cautioned that all sectors of voters cannot be satisfied simultaneously because the process for revealing preferences is highly imperfect regardless of the political system. See Explorations, pp. 136-41.

19. Niskanen, Bureaucracy, p. 621

20. This analogy recalls the familiar marginal productivity model where there exists imperfect competition in the input market. The MSC curve can be formally proved to lie above the MC = ASP curve. The bureaucrat's output (MC) function is:

$$P_b = h(q_b)$$

where  $P_b$  is the bureaucrat's price for government goods,  $q_b$ . By assumption:

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$$\frac{dh}{dq}_b > 0$$

so the MC curve is positively sloped. The total cost for  $q$  is thus:

$$C(q)_b = P q_b = q h(q)_b$$

assuming zero fixed costs. The marginal social cost becomes:

$$MSC = \frac{dC}{dq}_b = h(q)_b + q_b \frac{dh}{dq}$$

which verifies that:

$$\frac{dC}{dq}_b > g(q)_b \text{ or that } MSC > MC$$

21. Cao-Garcia, Explorations, pp. 143-45.

22. The possibility of knowledge of the legislator's preference was termed oversight where two models exist: (1) demand revealing; the legislator makes known a demand function for bureaucratic output, requests cost information prior to making a decision, and (2) demand concealing; the legislature requires the bureau to present a supply schedule where the former can formulate a decision. See Gary Miller and Terry Moe, "Bureaucrats, Legislators and the Size of Government", American Political Science Review, Vol. 77, (June 1983), p. 301.

23. The mathematical solutions are:

$$\text{For D } \max B = pQ = (a - 2bQ)Q = aQ - 2bQ^2$$

$$B = a - 4bQ = 0 \quad Q = a/4b$$

$$\text{For C } B - C = 0 \text{ or } aQ - 2bQ^2 - (c + dQ)Q = 0$$

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$$\text{For } E \quad p = MC \text{ or } a - 2bQ + c + 2dQ$$

$$Q = \frac{a - c}{2(b+d)}$$

Obviously the efficient solution projects the smallest amount of bureaucratic output.

24. Ibid., p. 321.

25. The derivation of this result is from a straight forward maximization done by the legislator.

Let  $V$  = Votes

$P_o$  = service to the voters

$P_i$  = service to the interest group

$E_o$  = effort in pursuing the service to the voters

$E_i$  = effort in pursuing the interest of the interest  $i$  groups

The Lagrangian for  $i = 1, 2$  issues:

$$\mathcal{L} = V(P_o(E_o), P_1(E_1), P_2(E_2), R(P_1(E_1) + R(P_2(E_2)))) + \lambda (E_o - E_1 - E_2)$$

The first order conditions are:

$$\frac{\partial \mathcal{L}}{\partial E_o} = \frac{\partial V}{\partial P_o} \frac{dP_o}{dE_o} - \lambda = 0$$

$$\frac{\partial \mathcal{L}}{\partial E_1} = \frac{\partial V}{\partial P_1} \frac{dP_1}{dE_1} - \frac{\partial V}{\partial R} \frac{\partial R}{\partial P_1} \frac{\partial P_1}{\partial E_1} - \lambda = 0$$

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$$\frac{\partial \mathcal{L}}{\partial E} = \frac{\partial V}{\partial P} \frac{dP}{dE} - \frac{\partial V}{\partial R} \frac{\partial R}{\partial P} \frac{\partial P}{\partial E} = 0$$

If the constraint is binding, the legislator obtains every possible vote, with an unbinding constraint, the effort to one activity implies that votes are sacrificed for another activity.

26. Arthur Denzau and Michael Munger, "Legislators and Interest Groups: How Unorganized Interests Get Represented," paper presented at the Public Choice Society Meetings, March 30, 1984, p. 23

27. In a previous paper Becker described the competition between politicians and political parties. He found that competitive imperfections in politics are due to a combination of voter ignorance, large scale entry barriers, and periodic rather than continuous elections. His more recent research assumes that all individuals either belong directly or are represented indirectly by interest (or influence or pressure) groups. See "Competition and Democracy," Journal of Law and Economics, I, (1958).

28. Naturally, electoral loss (or victory) is only possible in a democracy.

29. Cao-Garcia, Explorations, p. 78.

30. The adjective "relative" plays an important part in the process since Laband cites three categories of deprivation: aspirational, detrimental, and progressive. See Laband, David, "Economics and Overthrows: Testing the Public Interest vs. the Private Interest Theories of Political Unrest," University of Maryland, mimeo, 1984.

#### CHAPTER TWO: INFLUENCE IN THE DYNAMICS OF A DEMOCRATIC TWO PARTY POLITICAL SYSTEM

1. Anthony Downs, An Economic Theory of Democracy, (New York: Harper and Row Publishers), 1957.

Notes on pages 39-48

2. "Premature Burial?," Philippines' Free Press (editorial), April 24, 1971, p. 1.

3. Kats and Slutsky, "Majority Voting," p. 4.

4. Definition taken from the context of most Principles of Economics textbooks. See Paul Samuelson and Richard Nordhaus, Economics, 12th Edition, (New York: McGraw Hill Book Co.), 1985, p. 110, and Richard Lipsey and Peter Stienner, Economics, 6th Edition, p. 386 (New York: Harper and Row Publishers), 1981.

5. D.A. Wittman, "Parties as Utility Maximizers," American Political Science Review, 67, (June 1973), pp. 490-98.

6. Gerald Kramer, "A Dynamic Model of Political Equilibrium," Journal of Economic Theory, 16/2, (December 1977), pp. 310-344.

7. Note that even through this model examines the interaction between opposing economic entities in a non-cooperative strategy, it is not presented like most finite games in matrix form. Definitely a twist on this model could include relaxing the assumptions that both parties exhaust all their resources on political activities every period. If such was the case, an alternative objective of the parties could be to maximize the surplus resources which they extract for themselves which could be expressed in a continuous time model. Analogies to this formulation are found in the public finance literature on revenue maximizing Leviathan type bureaucracies. Buchanan and Brennan (1977) stated that the amount the government can raise in tax revenue is constrained by the tax law embodied in the country's constitution which should incorporate (a) limiting the size of the tax base and (b) a tax structure advocating some degree of progressiveness. In particular, the Buchanan and Brennan model found that not limiting the size of the tax base will result in an inordinately large amount of public spending exceeding the level which assumed to be desirable in both the fiscal and political context. See Geoffrey Brennan and James Buchanan, "Towards a Tax Constitution for Leviathan," Journal of Public Economics, 8 (1977), 255-273. Tullock (1980) examined the welfare cost



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of tariffs, monopolies, and theft. He stated that the welfare loss as a result of monopolization is understated because any such loss in welfare implies that a wealth transfer has occurred. When the wealth transfer is exacerbated by theft, a greater welfare loss takes place since resources will be transferred to provide for greater protective measures in which case the thief will only increase his investment of capital required to conduct his trade. See J. Buchanan, R. Tollison and G. Tullock (editors) Towards a Theory of the Rent Seeking Society, (College Station: Texas A&M University Press), 1980.

CHAPTER THREE: THE EVOLUTION OF AUTHORITARIAN RULE:  
THE PHILIPPINES' EXPERIENCE

1. A Philippine Constitution completed in 1935 for the election of a president for one six year term without the possibility of re-election. In 1940 this was amended to a process similar to the election of U.S. presidents; one four year term with the possibility of re-election to one second year term.

2. Excerpts from a nationally televised speech on September 23, 1972 when Marcos formally made known the declaration of martial law throughout the Philippines.

3. Milton Friedman, Capitalism and Freedom, (Chicago: Chicago Press, 1962), p. 8.

4. Milton Friedman and Rose Friedman, Free To Choose, A Personal Statement, (New York: Harcourt, Brace, Jovanovich, Inc., 1980), p. 2.

5. Lorenzo Sumulong, My Years in Public Service, (Manila: 1981), p. 419.

6. Fourteen years after his first election in 1965, the standard of living of the Filipino dropped by 51 percent, and the value of the peso had sunk by 62 percent, according to the government's own figures. Mounting internal difficulties have combined with uncontrollable external problems to put the Marcos regime in a steep dive. These and other detailed statistics on the early stages of the Marcos administration and the Philippine economic downturn can be found in "Marcos, An Embattled Ruler," by Benigno Aquino in the Harvard International Review, November 1980.

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7. Ferdinand Marcos, Notes on the New Society, (Manila: The Marcos Foundaton, 1973), pp. 57-58.

8. As evidence to this, a common practice of pre-martial law politicians wishing to gain political strength was to change party allegiance. this point will be explain thoroughly later in the papaer' text. Also the frequence at which Philippine elections occured before 1972 made it very difficuclt for any majority party to enact and implement an effective long run economic policy.

9. Ferdinand Marcos, Notes on the New Society II, (Manila: The Marcos Foundation, 1978), p. 143-144

10. Pedro Gagelonia, Philippine History, (Navotas: Navotas Press, 1974), p. 240.

11. The illegalization of the HUKS galvanized further insurrection bent on Maoist inspired teachings. See Benigno Aquino, "Opposition in the Philippines," 1980 (mimeograph).

12. Sumulong, My Years, p. 70

13. Nick Joaquin, The Aquinos of Tarlac, (Philippines: Cacho Hermanos, 1983), p. 281

14. Joaquin, The Aquinos, p. 282

15. Benigno Aquino, "A Garrison State in the Make," Privileged Speech Delivered in the Philippine Senate, Ninoy Aquino Speech Series, February 5, 1968, pp. 1-8.

16. Benigno Aquino, "The Bridge of San Juanico, Mr. Marcos' Folly," Privileged Speech Delivered in the Philippine Senate, Ninoy Aquino Speech Series, July 15, 1968, pp. 38-50.

17. Carl Lande, "Authoritarian Rule in the Philippines: Some Critical Views," Pacific Affairs, Volume 55, Spring 1982, p.

18. David Rosenburg (editor), Marcos and Martial Law in the Philippines, (Ithaca: Cornell University Press, 1981), p. 152.

19. Ibid., p. 157.

## Notes to pages 125-136

20. One much publicized political killing was the alleged participation of Benigno Aquino in the conspiracy to murder a local political leader. Although the government's main witness against Aquino admitted to have murdered no less than fifty civilian and military personnel, his testimony alone was instrumental in Aquino's conviction on murder and subversion charges. See Benigno Aquino, Testimony From Prison, (Manila: 1984).

21. Stephen Solarz, "Press for Philippine Reforms," New York Times, August 8, 1984, p. 25.

22. Gagelonia, Philippine History, p. 194.

23. Rosenberg, Marcos and Martial Law, pp. 275-276.

24. Joaquin, The Aquinos, pp. 290-291. Aquino has a more in depth history of what became known as "turncoatism" in a priveleged speech before the Philippine Senate in 1968 titled, "A Carrot and Stick for Mr. Marcos," Ninoy Aquino Speech Series, (Manila: 1968).

25. The Constitution of the Republic of the Philippines, ratified on May 14, 1935.

26. During his 1981 visit to the Philippines to attend Marcos' inauguration under a new Constitution, U.S. Vice-President George Bush made a controversial pronouncement endorsing the Marcos government: "We stand with the Philippines, we stand with you sir. . .we love your adherence to democratic principles and to the democractic process." Los Angeles Times (editorial), July 2, 1981.

27. Rosenberg, Marcos and Martial Law, p. 19

28. Philippines' Free Press (Editorial), "Premature Burial," April 24, 1971, p. 55.

29. Edward Kiuvisala, "What Will the NP's Do Now?", Philippines' Free Press, November 27, 1971, p.5.

30. Lande, Pacific Affairs, p. 90

31. Jeffery Williamson, "Post War Economic Growth Trends in the Philippines," Quarterly Journal of Economics, 83, 1969, p. 93.

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32. Marcos, Notes on the New Society II, p. 159
33. Ibid., p. 160.
34. Lande, Pacific Affairs, p. 93.
35. Marcos, Notes on the New Society, p. 141.
36. Ibid., p. 142.
37. American Committee on Human Rights, et. al., Report of December 17, 1983, (Washington: Clearinghouse on Science and Human Rights, 1983), p. 10.
38. Rosenberg, Marcos and Martial Law, p. 57
39. Diosdado Macapagal, Democracy in the Philippines, (Ontario: Ruben J. Cusipag, 1976), p. 66.
40. Ibid., p. 66.
41. Reprinted in Psinakis, Two Terrorists Meet, (San Francisco: Alchemy Books, 1981),
42. Psinakis, Two Terrorists, pp. 225-226.
43. See Gerald Hill and Kathleen Thompson, The True Story and Analysis of the Aquino Assassination, (California: Hiltop Publishing, 1983) and Reports of the Fact Finding Board on the Assassination of Senator Benigno S. Aquino, Jr., (Manila: Mr. and Ms. Publishing, 1984).

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