The Impact of Institutions:
Do Veto Players Influence Regime Duration?
Introduction

In order to lay a due foundation for that separate and distinct exercise of the different powers of government, which to a certain extent is admitted on all hands to be essential to the preservation of liberty, it is evident that each department should have a will of its own; and consequently should be so constituted that the members of each should have as little agency as possible in the appointment of the members of the others. But the great security against a gradual concentration of the several powers in the same department, consists in giving to those who administer each department the necessary constitutional means and personal motives to resist encroachments of the others. The provision for defense must in this, as in all other cases, be made commensurate to the danger of attack.

-- “The Federalist No. 51”

Since the dawn of democracy itself, debate has raged regarding which economic and institutional circumstances are most conducive to the transition and eventual consolidation of democracy. While there appears to be greater consensus regarding which of those economic factors promote democratic consolidation, both institutional and economic components are prominently argued to be integral to the success of democratic regimes. Tracing the debate regarding institutional choice back to Montesquieu, it has focused primarily on system choices such as whether the regime is presidential or parliamentary or characterized by a multiparty or two-party structure. In the argument for selecting a presidential structure as articulated in “The Federalist No. 51,” restraining the ruling power was a matter not of preference but of dire necessity for the preservation of the liberties fundamental to the very essence of democracy. More recently, however, democratic consolidation literature has largely held these checks to be too restrictive, thereby encouraging legislative impasse rather than preventing authoritarian leadership. This analysis examines individual institutional structures while largely overlooking the way in which interactions between these system types affect regime survival. Without examining the interactions, any results from analysis will be incomplete, if not misleading. Thus, after correcting for economic discrepancies, this paper will seek to examine the combined effects of institutional and political structures and their interactions through the application of veto player theory.

The paper will adhere to the following format: after an initial discussion of the way in which key terms will be used throughout the paper, we will review the literature addressing the research on the impact of economic development as well as seminal examinations of various institutional choices by system. Next, we will examine how the criticisms advanced in these theories can be supplemented by the veto-player theory proffered by Tsebelis to provide a more comprehensive understanding of the way institutions interact within regimes. This analysis will be followed with a presentation of our empirical findings. Here we employ both a logit and a survival model to test the effect of increases in level of economic development and the number of operative veto players on the survival of
Definitions

For our definitions of “regime” and “democracy”, we rely exclusively on Przeworski et al. (2000: 13-73), in any case where a theory of concern employs a definition that diverges significantly from either of these, the variances will be noted. “Regime” will refer to “a system of rules and practices that determine who has political rights, how they can be exercised, and with what effects for the control over the state. Hence, even if dictators succeed one another, the regime, in our sense of the term, remains the same as long as it remains a dictatorship” (Przeworski et al, 2001: 18). Essentially, “democracy” is defined as “a regime in which government offices are filled by contested elections” (Przeworski et al, 2000: 19). Elections are considered contested if both the chief executive and the legislature are elected and more than one effective party exists. This term is defined in opposition to dictatorship, thus if a regime does not meet the above criteria it is classified a dictatorship for the purposes of this paper. For a more comprehensive explanation of these terms, see Przeworski et al (2001:13-73).

Presidentialism will be defined as any system in which the executive and the legislative are each independently elected to offices with predetermined, fixed terms. This definition is consistent with those offered by Linz (1990), Stepan and Skach (1993), and Mainwaring (1993), as well as other articles discussed, unless otherwise noted. Parliamentarism will be defined as any system in which the executive is determined by the legislature and the government can disband the legislature. Again this definition corresponds with those provided by the aforementioned articles. However these definitions of parliamentarism and presidentialism do not exhaustively classify all democratic regimes. Thus, though the general theoretical component of this paper relies primarily on the distinctions between the two traditional forms of these two systems as outlines above, for our empirical analysis we will follow Beck et al (2001) in order to classify ambiguous regimes. Furthermore, two party systems will refer to any system with less than three effective parties while multiparty systems will be used to describe those systems with three or more parties.

Economic Development

Observing an increased trend among democracies toward consolidation, Przeworski and Limongi sought to examine the elusive relationship between democracy and modernization. Empirically they demonstrate that modernization neither produces nor hinders democracy, thus discrediting two contentions that had earlier received significant
support. Interestingly, however, they find that “once democracy has been established, the more well-to-do a nation the more likely it is to survive” (Przeworski and Limongi 1997: 166). They additionally assert that in 1985 PPP US dollars, above a per capita GNP of $6,055, an established democracy will survive interminably. Below that mark, a democracy is more likely to survive as a country’s per capita GNP increases. Furthermore, rather than serve as an impediment to the stability of democracy as per earlier hypotheses, all else equal, an increase in growth rate will produce an increased likelihood for consolidation. In a subsequent paper, Przeworski advances the theoretical argument supporting the aforementioned empirics. Specifically, through a theoretical construction of a cost-benefit analysis, Przeworski demonstrates that in rich countries the electoral loser stands to lose more through revolution than through accepting the electoral results, while he shows that this does not always hold in poor countries. Thus, in rich countries, democracy will always survive. The next conclusion that he draws from the data is that “constitutions are neither sufficient nor necessary” (Przeworski, 2001).

While this last assertion may be strictly correct, it seems at first glance to be overly dismissive of the relationship between institutional choice and democratic regime survival. Below the $6,055 GNP line, the existence of sustainable democracies in spite of the abysmal failure rate associated with such economically disadvantaged regimes would seem to be significant evidence that if any ties of commonality exist between these survivors that such ties might provide invaluable insight into non-economic forms of cultivating democracy. In fact, in examining the discrepancy between those regimes who in spite of inhospitable economic conditions are able to endure and those that are unable to surmount the obstacles posed to them by a poor economy, institutional choice seems to be a natural suspect for determining a systematized difference between the survivals and the failures. Przeworski’s own earlier findings on the matter support a strong relationship between institutional choice and regime survival, specifically that “the survival of democracy does depend on their institutional systems. Parliamentary regimes last longer, much longer than presidential ones” (Przeworski et al.1996: 46). This observation is qualified, however, the admission that “majority producing electoral institutions are conducive to the survival of presidential regimes…” (Przeworski et al. 1996: 46). Still, Przeworski stresses that an actual difference exists between institutional choices as, “this difference in durability is not an effect of the levels of economic development at which parliamentary and presidential regimes operated. While parliamentary systems are on the average found in wealthier countries, presidential democracies are less durable at almost every level” (Przeworski et al. 1996: 44-45). Although this analysis indicates, as does much of the literature, that parlimentarism outshines presidentialism in terms of the democratic performance it effects, it also suggests that presidentialism itself may not be structurally incompatible with the survival of democracy, if indeed
mechanisms to enable majority production within presidential systems decrease the negative impact presidentialism seems to have on democratic survival.

**Institutional Choices**

While Przeworski himself acknowledges that after correcting for disparities of economic development institutions do play some role in determining the success of a regime, significant research exists suggesting that institutions play a much larger role than Przeworski’s findings would indicate. Particularly, presidentialism and multipartism have each at one time been branded inhospitable to the survival of democracy. While criticism of multipartism has largely dissipated since the 1960s, the underlying logic is still worth noting. The two most vocal critics of the multipartism were Duverger (1954) and Hermens (1941). In a reserved attack, Duverger discussed the tendency of proportional representation to lead to fractionalization which he noted made it less likely that executives would be able to maintain and sustain majorities within the legislature ultimately making the passage of legislation more difficult. Hermens, using similar logic though speaking specifically to the fractionalization within established multiparty legislatures, goes so far as to attribute the rise of fascism to the selection of this system.

Since the 1960s, the number of successful democratic regimes employing multiparty systems seemed to render this criticism largely irrelevant, but in evaluating the way multipartism works, this criticism may be a necessary component to a complete understanding of the way institutions work in conjunction with one another. In other words, the criticism that the fractionalization promoted by multipartism produces obstacles toward achieving majorities may not be inaccurate. Rather, multipartism may indeed produce such obstacles, but the existence of such complications does not necessarily mean that regimes facing impediments to the production of majorities will be unable to achieve consolidated democracies.

Another institutional area of concern in democratic consolidation literature, as previously mentioned, has been the appalling performance of presidential regimes in comparison to their parliamentary counterparts. Unlike the experience of multiparty regimes where the system has seemingly been vindicated by the performance of democracies employing multipartism, presidentialism’s record with democratic failure has produced exactly the opposite result. Yet despite the differences in actualized performance, the main critique against this institutional form is again the difficulties it creates toward producing majorities (Linz 1990; Stepan and Skach 1993). Although the individual theories differ slightly in their articulation of the causal relationship between presidential systems and legislative impasse produced through abilities to achieve majorities, they agree that this occurs for two basic
reasons. First, presidential systems by definition elect their legislature and the executive independently and thus the natural correspondence of preference between the executive and the legislature that exists in parliament as a result of their definitional interdependence is absent in presidential systems. The second is while in parliamentary systems the legislature can be disbanded if the executive does not have a majority within the legislature whereas in presidential systems, both the executive and the legislature are elected for fixed terms and thus impasse cannot be avoided through dissolution of the legislature, as is an option in parliamentary systems (Linz 1990; Stepan and Skach 1993). This theoretical argument only becomes more persuasive when coupled with the empirical evidence offered by Stepan and Skach which they assert demonstrates that only three of the world's long-standing democracies are presidential systems. However, in noting the abysmal record of presidentialism, Stepan and Skach acknowledge a noteworthy common thread between these three countries. In an addition to being an aberration among the world's long-standing democracies in their choice of presidentialism, all three countries have less than 2.6 effective parties (Stepan and Skach 1993).

This commonality among successful presidential democracies seems hardly likely to be a coincidence. Rather, it seems more probable that two party systems act as facilitators for the consolidation of democracy within presidential systems. Or perhaps, presidential systems alone are not inherently detrimental to the consolidation of democracy, but rather by combining presidentialism and multipartism the difficulties of achieving majority assent on legislative issues becomes even more difficult than when either system is employed without the other. Further, this leads to a reassessment of the dismissal of criticisms of multipartism. Perhaps, multipartism, as argued by Duverger and Hermens does tend to inhibit majority support for the executive, quite similar to the ultimate criticism of presidentialism, but through successful combination with parliamentary systems which do not exacerbate this shortcoming, the flaws within the multipartism were masked.

This is essentially the argument Mainwaring advances in his 1993 article, "Presidentialism, Multipartism, and Democracy." Mainwaring does not dispute many of the disadvantages attributed to presidentialism, he merely asserts that the criticism is largely misplaced. Rather than focusing on the impacts of presidentialism, he addresses the results of combining presidential systems with multipartism. Specifically, he outlines three ways in which the combination is detrimental to the consolidation of democracy.

First, in multiparty presidential systems, an impasse between the legislature and the executive is more likely to occur than in parliamentary systems. Mainwaring supports this contention with the familiar logic offered by both Linz (1990) and Stepan and Skach (1993); multiparty presidential systems are less likely to produce a majority
opinion shared by both the legislature and the executive. Yet, while many previous scholars have linked this problem to presidentialism alone, Mainwaring notes that it is often not present in two party presidential systems (Mainwaring 1993).

Second, Mainwaring notes that two party systems reduce the likelihood that extreme political parties will gain significant power as political actors. This lack of extremism minimizes the penalties of electoral loss, as the opposition is not likely to be far from the other political party's preferences. Additionally, this minimization of the distance between competing parties' ideologies facilitates compromise between the two parties (Mainwaring 1993).

This leads to the third difficulty attributed to the combination of presidentialism and multipartism by Mainwaring, that is the difficulty introduced by the differences in coalition building in presidential as opposed to parliamentary systems. The first difference Mainwaring defines is that in parliamentary systems the members of government coalitions are held responsible for the results of government action. In presidential systems, conversely, this is not the case, and thus the enforcement of loyalty to the coalition is dramatically weakened. The second important difference according to Mainwaring is that often, in presidential systems, cabinet members openly do not support the government, whereas, in parliamentary systems, this is not the case. Finally, the incentives to break from the coalition are greater in presidential systems as the benefits of popular public sentiment to do so are usually not balanced by the comparably severe consequences implemented by parliamentary coalitions (Mainwaring 1993).

Mainwaring proposes that, as long as the president's party is in the majority in the legislature and systematically supports him, the president enjoys the support of a stable coalition within the legislature, or if the president lacks a reliable coalition within the legislature but is able to establish effective shifting coalitions, presidential systems can produce effective legislation without the perils suggested by critics of presidentialism. Due to the nature of two party presidential systems, at least one of these is likely to be present.

Mainwaring found that, "in six of seven stable presidential democracies, the president's party controlled, on average, over 45% of the seats in the lower chamber" (Mainwaring 1993, 214). Thus, there is a high likelihood that the president's party will enjoy either majority support or close to it. If a majority is not attained by the president's party within the legislature, the proximity to a majority means that the president will only have to garner a small percentage of his support through coalitions, making the prospect of forming such coalitions easier and, thus, more probable. Further, the convergence of two party systems to the center generally causes the parties to be closer in ideology than in multiparty systems, facilitating both coalitions, as well as, compromise. Mainwaring does not dispute that forming effective majority agreement between legislature and executive is more difficult in general in
presidential systems than in parliamentary systems. He does, however, take issue with the notion that this difficulty will always render presidentialism a system that is inhospitable to stable democracy. Rather, he notes that aspects of the problem attributed by critics to presidentialism, such as the dilution of support for individual parties, are actually introduced by multipartism. In addition, he notes that the problems of presidentialism often only come into play when the system is combined with that of multipartism, as two party systems offer mechanisms to reduce immobility while multipartism exacerbates it (Mainwaring 1993).

In addition to having ample theoretical support for the existence of this “difficult combination,” Mainwaring also offers significant empirical support. Only 22.6% of democracies survived past the 25-year mark set by Mainwaring as the age at which a democracy could be considered stable as opposed to 56.8% survival among parliamentary democracies. However, the four presidential democracies Mainwaring finds to be currently in existence have an average of 2.2 effective parties. Further, among all seven presidential democracies to have met the 25-year stability mark, all but one had fewer than three effective parties.

Though offering persuasive insight into the ability of two-party presidential to consolidate, several aspects of Mainwaring’s empirics are questionable. For instance, the 25-year mark introduced by Mainwaring is arbitrary and ignores newly developed countries making strides toward consolidation. This is especially important when evaluating the recent success of multiparty presidential systems. These countries could possibly offer evidence contrary to Mainwaring's argument, yet their youth excludes them from analysis. This number creates a serious lag in the predictive value of Mainwaring's theory. Further, Mainwaring does not specifically address the contribution of failure among multiparty presidential systems to the abysmal failure rate of presidential systems in general. He merely states that a discrepancy between the two rates exists without evaluating the magnitude or effect of that discrepancy.

Mainwaring’s difficult combination begins to address the problem of the broader array of institutional components to democratic consolidation, but it is still too narrow to effectively address the impact of the spectrum of possible institutional choices on the survival of democracy. As Cheibub and Limongi (2001) note, “Although policy performance is important for the survival of democratic regimes, we cannot deduce it from the basic constitutional principal” (176). They continue, “presidential regimes are not all alike, neither are parliamentary systems” (174). While they admit that in practice presidential regimes do not seem to perform as well as parliamentary democracies, they contend that our understanding of why this occurs is inadequate if not entirely inaccurate. Cheibub, focusing on the related criticism of presidential and parliamentary regimes in which the executive does not have a majority in the
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Legislature finds that, “minority presidents, minority governments, and deadlocks have no negative effect on the survival of presidential regimes” (2002: 301). He does note that while these three factors often associated with promoting breakdown do not, indeed, produce higher hazard rates that the production of legislative impasse does create a higher likelihood of breakdown.

**Veto Player Theory**

The question then would seem to be, what exactly produces legislative impasse? In developing his veto player theory, this is precisely the question which Tsebelis seeks to answer. In examining a regime’s ability to produce majorities on proposed legislation, Tsebelis looks not just at the effect of individual institutional structures on the passage of legislation, but instead, at the role these structures play in creating obstacles toward moving away from a policy status quo. Assuming that Mainwaring’s idea that presidentialism and multipartism combine to form a system detrimental to democratic consolidation when neither is so perilous alone, this indicates that somehow presidential systems incorporate multiparty systems differently than parliamentary systems do. Examining these interactions would not only provide better insight into which institutions offer the best hope for democratic consolidation but also allows a much larger range of examination into the interaction of these institutions than that of the question posed by Mainwaring.

In constructing this theory for combining institutional factors, Tsebelis defines veto players as “individuals or collective actors whose agreement is necessary for a change of the status quo. It follows that a change in the status quo requires the unanimous consent of all veto players (Tsebelis 2002: 19). Further, there are two types of veto players, institutional and partisan. Institutional veto players consist of those explicitly set out by the constitution of the regime. For example in the U.S., there are a total of 3 institutional veto players consisting of the president, the Senate and the House. However, there are also partisan veto players which Tsebelis describes as being “generated by the political game” (2002:19). The number of partisan veto players is determined by the positions various actors take within the spatial plane of policy possibilities. This number examines the effective veto players. Thus presidential systems “with legislatively strong presidents have one extra veto player…” (Tsebelis 2002: 72). However under the absorption rule which states, “if a new veto player D is added within the unanimity core of any set of previously existing veto players, D has no effect on policy stability” if this president’s party held a majority of seats within the legislature, they would not actualize as separate veto players (Tsebelis 2002: 28). Looking at the U.S. again, if all three institutional veto players were controlled by the same party, it is possible that the system would operate with
one effective veto player. However, a parliamentary system may have several partisan players if there is a ruling coalition consisting of several actors with distinct interests and positions in the spatial policy plane even if the legislature is the only institutional veto player under the system’s constitution. In other words, the first number quantifies the venues in which veto players may arise and the second determines how many actualize within those venues.

Once the number of veto players is determined, they are then situated on the spatial policy plane according to each of their preferences. Tsebelis further assumes that they each have circular indifference curves. Although he notes that this is a simplification, he maintains that to the degree that it does not accurately reflect the way players form preferences, this will not affect the accuracy of the analysis (Tsebelis 1995: 295). Thus once the policy status quo is established, no party can move from it without the assent of a majority of the effective veto players. He hypothesizes that as the number of veto players increases the size of the winset, from which the veto players can choose policies that would gain assent, decreases. As the winset decreases, the ability to move from the status quo decreases.

In addition to the number of veto players, their internal political cohesion also affects the size of the winset. This is particularly important when discussing collective veto players. In general, examining collective veto players is more complicated than their individual counterparts, although when dealing with partisan veto players the degree of simplicity associated with analyzing the single veto player depends largely on the ideological purity of the partisan player. Collective veto players do not demonstrate the same set of clear preferences as they are not constrained to the same transitivity of preferences to which individual players are subject (Tsebelis 2002: 41). As the preferences of the collective veto player are increasingly close together on the policy spectrum, this will increase policy stability while the reverse produces a decrease. An increase in the individuals constituting the collective veto player will decrease this cohesion and in turn decrease policy stability (Tsebelis 2002: 48).

Tsebelis conceptualizes policy stability and regime stability as inversely related. According to his theory, as the number of veto players continues to rise, eventually the winset could collapse to consist only of the status quo. At this point, policy is completely stable and no veto player can move from the status quo. Thus if the regime is faced with crisis or the dire need for remedy, there will be no remedy within the legal constructs of the state and thus the regime is highly susceptible to failure.

Following Tsebelis’s logic regarding the nature of collective veto players and regime stability as it is related to policy stability would seem to cast doubt on the view (Strom 1990; Cheibub and Limongi 2001; Cheibub 2002) that minority governments are no more susceptible to breakdown than majority governments. Tsebelis, in accord with his
theory of the functioning of collective veto players, does find that minority governments have higher levels of policy stability but that “these results are small and statistically insignificant” (Tsebelis 2002: 163). Since Tsebelis’s findings as to policy stability are not significant, it does not seem likely that this difference would lead to a discernable difference in regime stability. Thus, the two findings are not inconsistent.

This model, as proposed by Tsebelis, offers solutions to many of the difficulties that pervade analyses of single institutional factors by allowing for a single calculus that accounts not only for the presence of several institutional and political factor but also the interaction between them; however, the model also raises new difficulties. First, while this calculus could offer significant insight into the causes of legislative impasse and ultimately regime survival, it is not an easy number at which to arrive. Tsebelis himself notes, “the reader may object that my argument does not produce unambiguous classifications…My response to such objections is to plead guilty…” (Tsebelis 1995: 306). Especially when determining how to calculate collective veto players, determining the distance between partisan veto players and their various strengths in order to ascertain whether or not they are subsumed by the absorption rule or if they constitute separate veto players. The theoretical construct of ideological policy positions seems almost obvious on paper, but when trying to translate the uncertainties of political preference into a solid number in order to empirically examine the relevance, the logic becomes slightly less concrete.

This is not to mention the other factors that this number does not attempt to encompass. First, Tsebelis addresses the distinction between “strong” presidents and “weak” presidents, while at times this refers to whether the president constitutes an additional veto player or not, at others it refers to the presidents powers as an agenda setter. Tsebelis addresses this as an important power both within parliamentary and presidential regimes. According to Tsebelis, “The veto player who sets the agenda has a considerable advantage: he can consider the winset of the others as his constraint, and select from it the outcome he prefers” (Tsebelis 2002: 34). Tsebelis further notes that as policy stability increases the power of the agenda setter decreases (Tsebelis 2002: 35). This is true in the strict sense that the agenda setter will be more limited in which policies he can select, but in another sense agenda setting power seems most important when the winset is small, yet has not completely collapsed to the status quo. The concept of the winset implicitly assumes that at any point within the winset all players necessary for a majority would be better off than at the status quo. In practice, however, there is uncertainty about spatial locations of preferences and the status quo, not to mention the potentially paralysis-rendering debate that could ensue when veto players attempt not just to gain from the status quo but to gain more than the other veto players. In such a situation where any gains would be small, agenda setting could be crucial to policy mobility. The post-1988 Brazilian regime seems to be an example
where this might have come into play. The regime, characterized by a presidential system and proportional
representation resulting in a high degree of fractionalization within the legislature saw presidential introduction of
“86% of the bills enacted since 1988, and the rate of approval of the bills introduced by the executive was 78%,”
leading Cheibub and Limongi to conclude that “This outcome results from both the organization of the Brazilian
congress and the president’s control of the legislative agenda” (2001: 172).

Then there is the issue of veto players who are neither institutional nor partisan such as courts and central
banks. While Tsebelis assumes that, “while the number of [external] veto players may vary by issue over time, these
variations will cancel each other out when applied across several issues for sufficiently long periods of time”
(Tsebelis 1995: 308). While this does not seem to be an entirely unreasonable assumption to make for the limited
purpose of examining the effects of veto players in a larger context, ignoring external veto players could prove
misleading if institutional or structural choices are linked systematically with especially high or low rates of
outsourcing legislative issues to veto players outside those associated with the typical legislative process.

Further, though Tsebelis offers empirical support for his hypothesized relationship between veto players and policy
stability, this seems tenuous at best. His analysis for the most part focuses on a limited selection of regimes focusing
on the European Union nations, and even within this limited scope his analysis of legislation is again focused on
“significant” legislation an unavoidably subjective term. However, even if his theories regarding the connection
between veto players and policy stability is accepted, this is still a far jump to regime instability caused by legislative
impasse resulting in dictatorial takeover.

Finally, even if Tsebelis’s theory is correct, his predictions for regime instability do not necessarily address what the
ideal number of veto players would be. Following Tsebelis’s contract, one veto player would be associated with
practically no policy stability, leaving the country subject to the whims of the veto player. It seems uncertain without
further analysis, whether this veto player in a democratic system would exercise such power in dictatorial fashion or
whether the construct of the overriding system would result in greater gains from the self-imposition of some degree
of policy restraint unless extenuating circumstances require otherwise. There is some support (Shugart and Carey
1992) for the notion that regimes function better when there is some degree of policy constraint in place; however,
there is nothing to indicate that a lack of such restraints would in any way impede consolidation. Thus while
Tsebelis’s theory itself predicts an increase in regime instability as the number of veto increases, its predictive ability
for low levels of veto players seems uncertain.
Hypotheses

We hypothesize that the survival of democratic regimes is related to the number of veto players and the level of economic development within a state.

Hypothesis 1: Level of economic development has a significant impact on regime duration. Below the $6,055 GDP per capita mark, increases in the level of economic development should positively affect democratic regime survival.

This hypothesis, already set forth and empirically supported by Przeworski, is repeated here to avoid prejudicing the results of the analysis by the exclusion of this integral component in regime survival.

Hypothesis 2: Institutional choices have a significant impact on regime duration. Below the $6,055 GDP per capita mark, increases in the number of veto players should have a negative effect on the survival of democratic regimes.

In accordance with Przeworski’s conclusions, we anticipate that over the $6,055 affluence demarcation all established democracies will survive. Below this mark, we expect that an increase in the number of veto players will have a negative impact on democratic regime survival. In other words, below the affluence mark, institutions have a significant impact on the duration of regime through their contribution to the number of veto players operating within a state.

The Data

The data have been compiled from two different datasets the first being the “ACLP World Political/Economic Database”[1] created by Alvarez, Cheibub, Limongi, and Przeworski (1997). The dataset begins in 1946 and includes entries for 199 countries through 1999. The second of the two datasets used is “Database of Political Institutions, Version 3.0”[2] authored by Beck et al (2001). This second set is smaller containing data on 179 countries between 1975 and 1997. Due to the variance in breadth and scope of the datasets, only the countries and years found in both datasets will be considered in this analysis.

Each dataset has a variable that codes for democracy. In ACLP, REG is coded 1 if the regime is a dictatorship.
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The DPI codes a variable \( \text{LIEC} \) that is coded 1-7 based on the degree of electoral competition. Any regime for which \( \text{LIEC} \) is greater than 6 is considered a democracy. While for the purposes of this analysis the \( \text{LIEC} \) variable will be used to make the determination between democratic and dictatorial regimes, the conclusions of both the \( \text{LIEC} \) and \( \text{REG} \) variables were the same in the overwhelming majority of instances.

The variable \( \text{AGER} \) from the ACLP gives the age of each regime for each entry. The variable extends beyond the constraints of the dataset. Thus for regimes in existence prior to 1946 \( \text{AGER} \) is coded according to the earlier entry time of the regime, this removes left-hand censoring.

The Independent Variables

Veto Players- The number of veto players is determined by the \( \text{CHECKS2A} \) variable from the DPI. This variable is 1 if \( \text{LIEC} \) is less than five. However, since the following analysis only examines the set of democracies, which by definition have \( \text{LIEC} \) values greater than or equal to 6, this will not come into play. Otherwise the variable is coded as follows:

For presidential systems- \( \text{CHECKS2A} \) is the sum of “1 (for the president), and the number of relevant legislative chambers. The number of legislative chambers is dropped to zero if either of the following is true: closed list=1 and the president’s party has more than 50% of the seats in the legislature…plus one for every veto player whose L-C-R orientation is closer to that of the opposition party than to the party of the executive” where “the veto player is the 1st government party” (Beck et al. 2001).

For parliamentary systems- \( \text{CHECKS2A} \) “is the sum of 1 (for the PM) and the number of parties in the coalition. The number of parties in the coalition is reduced by one if closed list = 1 and the PM’s party is in the coalition…plus one for every veto player whose L-C-R orientation is closer to that of the opposition party than to the party of the executive” where “the veto players are the three largest government parties” (Beck et al. 2001).

Thus this variable not only accounts for the number of institutional veto players within a system, it also incorporates the number of partisan veto players. Additionally, by taking into account the distance of veto players from one another, the calculus addresses Tsebelis’s absorption rule in that a veto player would not act as an independent veto player if its policy preferences were subsumed by another veto player. These considerations make this a reasonable approximation of the variable described by Tsebelis.
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Level of Economic Development—In order to determine the level of economic development, we use the LEVELPWT variable from the ACLP. This variable that measures GDP per capita in 1985 USD PPP is taken from the Penn World Tables 5.6. It should be noted that the $6,055 mark is an empirical finding. As no democracy within the ACLP dataset, from which we take all economic data, was found to fail above this level. “wealthy” countries within the dataset, by definition, did not experience failure during the observation period.

Affluence—Since Przeworski finds that when GDP per capita 1985 PPP $US is over $6,055 any established democracy will survive, we are only interested in countries below this mark. Thus we create a dummy variable which we title “WEALTHY” and code this variable 1 if a country’s GDP per capita is above this mark and 0 if it is equal to or below this mark.

Failure—We create a variable entitled “FLE” to denote when the failure, in this case democratic breakdown leading to dictatorship, has occurred. This variable is coded 1 when a country that is democratic in the present year is a dictatorship in the next, 0 for every year when a regime that is democratic in the present year remains democratic in the next, and it is missing for regimes that are not democracies.

Empirical Tests

As we are interested in examining the survival of democratic regimes, the initial reaction might be to run a regression using regime duration as the regressand and CHECKS2A and LEVELPWT as the regressor. However, this specification creates two obstacles that make OLS estimation and inappropriate choice. First, the primary purpose of this paper is to examine the effects produced by two time-varying variables. Both the number of veto-players and the level of real GDP in a regime are subject to change on a yearly basis. While averages of the two could be found and used as regressors, they would serve as rough approximations at best. Further, all democratic regimes that are still in existence at the end of the observation period would be right-hand censored. In other words, the regression would examine continuing regimes as though their duration at the point of analysis was their terminal point even though they might survive years, decades, or centuries longer.

Hence we shift from examining the duration of a regime by its pure age to the probability of its failure. Since we are interested in examining the probability that an event, namely democratic breakdown, will either occur or not occur for a given set of variables, we have a dependent variable that is qualitative. The data that we are examining is not grouped rather it is at the individual level thus eliminating the possibility of using OLS. Instead, we will perform
a logit. The logit model uses the maximum likelihood method. In order to estimate this we use the following equation:

\[ L_i = \ln(\frac{P_i}{1 - P_i}) = \beta_0 + \beta_1 \text{CHECKS2A}_i + \beta_2 \text{LEVELPWT}_i + u_i \] (1)

Where \( L_i \) is the logit for the person \( i \), \( P_i \) is the probability of the dependent variable being equal to one for person \( i \), in this case meaning that a democratic breakdown occurred, \((1 - P_i)\) is the probability that the event has not occurred. \( \text{CHECKS2A}_i \) is the number of veto players, \( \text{LEVELPWT}_i \) the GDP per capita and \( u_i \) the disturbance term for person \( i \).

We would expect that \( \text{CHECKS2A} \) would be positively related to the log-odds that a failure will occur in accordance with Tsebelis’s veto player theory. Namely since we believe that a rise in the number of veto players increases the level of policy stability which in turn increases the probability that breakdown will occur, we believe that the number of veto players will itself increase the probability of democratic failure. Further, we would expect that \( \text{LEVELPWT} \) would be negatively related to this value as Przeworski asserts that the likelihood of democratic survival is increased by the increase in GDP per capita. However, this highlights the most serious flaw in the utilization of the logit model. The theoretical information which we are seeking to examine is not related to regime failures in absolute terms. Rather these theories examine the relationship of various factors to duration. By using a logit model, each entry is determined to be either a survival or a failure; there is no attention to duration or censorship. Thus any democracy that lasted one year enters as a success regardless of whether it failed the next year, two years later, or existed for the entire span of the dataset. This inattention to duration will likely affect our results, and they may or may not conform to our expectations.

We run the logit analysis on the full dataset of non-wealthy democratic countries or those countries where the dummy variable \( \text{WEALTHY} \) is equal to zero. The results are listed in Table 1.

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Wealthy=0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Observations</td>
<td>700</td>
</tr>
<tr>
<td>Log-likelihood function</td>
<td>-117.07</td>
</tr>
<tr>
<td>LR Chi-squared (2)</td>
<td>7.31</td>
</tr>
<tr>
<td>Significance Level</td>
<td>0.0259</td>
</tr>
</tbody>
</table>

Table 1: Logit Estimates for Hazard Rates
Table 1: Estimates are a maximum likelihood estimate of a Logit model. Standard errors are in parentheses.

For non-wealthy democratic countries, the model is only significant at the 97% level and the LR statistic is relatively low. Only the coefficient for the constant term is significant at the 99% level. Still, the model yielded positive coefficients for CHECKS2A, as predicted, indicating that CHECKS2A increases the probability that democratic failure will occur, yet this coefficient was not statistically significant at the 99% level. Thus a 1 unit change in CHECKS2A results in a 0.2766404 change to the logit. Or a one unit change in CHECKS2A increases the odds of failure by $e^{0.2766404}$. Again the coefficient for the variable LEVELPWT is not significant at the 99% level. Yet, despite the lack of desired precision, the sign, as we anticipated, indicates that as the level of economic development increases the likelihood of regime failure decreases. The model indicates that a one unit increase in LEVELPWT would decrease the log-odds of failure by about 0.0002859.

As mentioned earlier, however, running a logit is not the most effective test of duration dependence. In attempting to correct the inability of the logit analysis to address not just if a failure occurs but when it occurs, as well as, the possibly inaccurate distributional assumptions made by the logit model, we turn to event history analysis (Zorn 2000). Event history analysis examines “how the duration spent in one social state affects the probability some entity will make a transition to another social state” (Box-Steppensmeier and Jones 1997: 1414). This description coincides exactly with what we are trying to ascertain, namely, how the economic level and the institutional structure of a democratic regime across the duration of its existence affect the probability that the democracy will transition to dictatorship.

The first step in running a survival analysis is to identify the “risk set.” The risk set is the set of individuals who are at risk of experiencing an event at every point of examination. In our analysis, this applies to all democracies. The “hazard rate” refers to the probability that a democracy will transition to dictatorship at any given time providing that failure has not previously occurred. However, as Allison (1984) notes, since there is no upper limit for the hazard rate, it cannot accurately be described as a probability. Rather, it should be thought of as “the unobserved rate at which events occur” (1984, 23). Since a democracy can theoretically become a dictatorship at any
time, we are dealing with a continuous-time model. The hazard rate for a continuous-time model, $h(t)$, can be defined as:

$$h(t) = \lim_{s \to 0} \frac{P(t, t+s)}{s} \quad (2)$$

where $P(t, t+s)$ refers to “the infinitesimal probability that an individual experiences an event in the interval from $t$ to $t+s$, given that the individual was at risk at time $t$” (Allison 1984, 23).

The dependent variable in the survival analysis consists of two components. The first is qualitative, whether or not the event in question, transition from democracy to dictatorship, has occurred. The second is the time of existence until either the event occurs or there is censoring. For the first component, we look to the created variable “FLE” for both models and for the second component we use the duration between the time of exit or censorship and the time of the initial entry in the dataset. The second model which corrects for left-hand censorship adds the age of the regime at the time of entry into the dataset given by AGER for the year of that entry into the duration until failure or truncation.

There are several continuous-time models available; in considering which to select, the primary concern is the different assumptions regarding duration dependence made by the various models. For example, among the parametric choices, the Weibull regression assumes that duration dependence increases or decreases linearly with the increase in time, the exponential model assumes no duration dependence, and the lognormal and loglogistic each have hazards that initially decrease and then increase over time. The semi-parametric Cox regression, however, does not make any assumptions about the hazard distribution over time. Box-Steffensmeier and Jones (1997) note:

Among the models that use time-varying covariates, the Cox regression is usually the preferred model…If the standard errors for the Weibull are substantially smaller than those for the Cox model, the Weibull model would be preferred because of efficiency. If the standard errors are similar, the Cox model is preferred because of its less restrictive assumptions (1436).

Further, they note that “one advantage of the parametric models is predicting what will happen after the ‘follow up’ period of the data…Another advantage of the parametric models is that it smooths the data; the disadvantage is that it may be the wrong model” (Box-Steffensmeier and Jones 1997: 1435-1436). As we have made no a priori assumptions or predictions about the distribution of the hazard distribution, we opt to use a Cox regression to avoid
erroneous parameterization.

The Cox proportional hazard model assumes the following hazard function:

\[ h(t \mid x) = h_0(t)\exp(\beta_k'X_i) \]  

Where \( h_0(t) \) is the baseline hazard estimated by partial likelihood estimation and \( X \) represents the vector of variables.

This model is then extended to incorporate time-varying covariates with the following model depicting the hazard rate as a function of two time-varying explanatory variables:

\[ h(t) = h_0(t)e^{\beta_1x_1(t) + \beta_2x_2(t)} \]  

Thus the hazard varies depending on the values of the covariates over time. (Box-Steffensmeier and Jones 1997). However, “Cox’s partial likelihood estimator provides a method of estimating \( \beta \) without requiring estimation of” \( h_0 \) (Greene 2003: 799). The Cox regression model that we will be running is:

\[ w_i = \beta_1\text{CHECKS2A}_i + \beta_2\text{LEVELPWT}_i + u_i \]  

The above equation lacks a constant term because in the Cox regression the constant term is absorbed by the baseline hazard. In estimating the resulting coefficients, “Signs of the coefficients from a hazard rate model indicate whether some particular variable increases or decreases the hazard rate” (Box-Steffensmeier and Jones, 1997: 433).

Initially we run the Cox regression on all non-wealthy democracies without adjusting duration to remove left-hand censoring. These results are listed in the first three columns. Following this we run the model again this time incorporating regime duration that extends beyond the initial entry recorded in our dataset. The results are listed below in Table 2.

| Table 2: Cox Proportional Hazard Model Estimates for Democratic Regimes with GDP Less Than $6,055 |
|---------------------------------------------------------------|---------------------|
| Model 1 (LHC) | Model 2 |
| Number of Observations | 700 | 700 |
| Log-likelihood function | -130.63 | -101.17 |
As we suspected, CHECKS2A has a positive impact on the hazard rate and is significant at the 98% level in both the left-hand censored model and Model 2 in which corrections were made for left-hand censoring. This indicates that an increase in the level of CHECKS2A increases the hazard to democracy, or decreases the probability of its survival. Further, consistent with Przeworski’s findings, LEVELPWT affects the hazard rate negatively in both models, indicating that as LEVELPWT increases the likelihood that a democratic regime will survive increases. The values of the coefficients for LEVELPWT are significant at the 99% level in the left-hand censored model and are significant at the 95% level in the second model. Additionally, both Cox regressions offer a higher degree of significance than was achieved with the logit analysis. The left-hand censored model was significant at the 99% level while the second model was significant at the 98% level meaning that at these levels respectively we may reject the null hypothesis that coefficients for both CHECKS2A and LEVELPWT are jointly zero.

It is not immediately clear why removing the left-hand censoring associated with the first model resulted in a decrease in accuracy. It should, however, be noted that correcting for left-hand censoring involved attributing unfair weight to the covariates that were present at the time of entry for regimes whose existence preceded the initial year of the dataset. In order to account for the duration of these regimes prior to the start date of the dataset, this initial entry was weighted as though it represented the conditions of the regime for the entire duration from its inception through the first year of the dataset. Since veto players tend to show less fluctuation across regimes, it may be less likely that this approximation would affect the estimation of the effect of CHECKS2A on the hazard rate; this could perhaps account for the fact that the loss in significance for CHECKS2A is only slight. LEVELPWT, on the other hand, is less likely to be accurately represented by the extension of entry year data to the origination of the regime. Further, since we are using the Cox regression in which the hazard rate is not dependent on time, it is perhaps more accurate to examine the results for the left-hand censored model which does not assume inaccurate values for the covariates in order to incorporate the entire duration as “The consequences of left censoring depend on the model being estimated. If the model specifies a hazard rate that does not depend on time...there is no problem whatever.
One simply treats the initial censored interval as if it began at the beginning of the observation period” (Allison 1984: 56-57).

Though the results achieved in all of the survival analysis models concur with our expectations, they seem preliminary at best. The dataset, being a compilation of two separate sets, has been truncated to a span just over twenty years. At first glance, the number of observations is quite large, but this number is deceptive. This creates limitations on two levels. First, since waves of democratic consolidation and breakdown have been hypothesized to occur in trends, the two decade window provided could be argued to be encompassing one or two trends rather than a more expansive view of democratic behavior. Additionally, the two decade period is further limited by the absence of economic data for some pertinent countries. The number of regime failures was reduced by one-sixth after countries for which no economic data was provided were removed.

Further, while the results support the hypothesis that an increase in the value of CHECKS2A increases the regime’s failure hazard by decreasing regime stability it is uncertain to what degree this can be linked to the accuracy of the veto player argument proposed by Tsebelis. First, while CHECKS2A attempts to capture the essence of veto player theory, it is not a perfect substitute for the calculus of veto players as described by Tsebelis. For example, rather than distinguish between “strong” presidents and “weak” presidents as Tsebelis does to determine if an extra veto player should be added to the number of veto players in a presidential regime, CHECKS2A does away with this distinction altogether by instead examining whether or not the president’s party maintains a majority in the legislature and the position of institutional veto players in relation to the largest government party to determine whether or not these agents do indeed act as separate veto players. Second, as far as the relationship demonstrated between CHECKS2A and the survival of democratic regimes can be seen as an approximation of the relationship between veto players and the survival of democratic regime, the causal argument linking the two is supported almost exclusively by theoretical arguments. Following Tsebelis’s argument, an increase in the number of veto players leads to a decrease in the size of the winset that would allow for movement from the status quo which leads to policy stability which then in turn leads to regime instability and ultimately to an increased likelihood of regime failure. While following Tsebelis’s carefully outlined propositions and proofs through the use of spatial diagrams makes these connections seem almost obvious, there, thus far, has been no conclusive empirical proof to demonstrate that this is indeed the progression of events. Thus, these results support Tsebelis’s ultimate conclusions regarding the connection between the number of veto players in a regime and regime stability but do not address the validity of his chain of causation. In order to test the underlying theoretical support empirically one would need to determine a
measure of a regime’s ability to produce majorities. However, finding a measure of this which is not by definition linked with policy stability is quite difficult. While some measures of policy stability have been established they are typically not as broad as the datasets used here and are often riddled with criticisms regarding their accuracy.

Additionally, there are several factors which Tsebelis addresses in his formulation of veto player theory that are not accounted for in this analysis. Internal cohesion of veto players, the presence of an agenda setter, and external veto players, though hypothesized to be of varying importance in the examination of the role of veto players in the function of policy production, are all elements that Tsebelis describes as components in the analysis of policy stability. Theoretically, these factors appear to be aspects of an overarching veto player theory and thus, it seems unlikely that even if they strongly mitigate the impact of an increase in the level of veto players on the survival of democratic that these three factors could individually or collectively account for the demonstrated veto player relationship without veto players themselves playing a role. However, it does seem possible that after taking these factors into consideration the results rendered by our analysis may overstate the role of the veto player in the hazard to the survival of democratic regimes.

In addition to this already expansive list, another area which should be explored for a more complete understanding of this analysis is other components influencing regime stability. For example some other aspects that Przeworski discusses in his analysis of the economic factors in the survival of democratic regimes are the percentage of other countries in the world that are democratic, the rate of real GDP growth, and a country’s past history with transition to authoritarian regimes. In other studies, these factors have been shown to cloud the influence of institutions on democratic regime survival. However, in that situation the level of GDP was not initially accounted but rather was among the variables which clouded institutional effect. Also, this study examined the effect of particular types of institutions and their simultaneous occurrence rather than examining the way they interact on an individual level as the CHECKS2A variable attempts to do.

**Conclusion**

Our analysis supports the contention that a rise in the number of veto players within a regime makes democracy increasingly difficult to maintain. Although our analysis leaves significant room for further research into the causal relationship as well as other actors influencing the relationship between veto players and regime duration, after correcting for the level of economic development, we find a significant relationship in nations whose GDP does not exceed $6,055 mark between a rise in veto players and an increase in the hazard rate for democratic regimes. In spite of the limitations of this analysis, it provides support for one of the most comprehensive arguments regarding
the relationship between institutional structures and regime duration.

Bibliography


Introduction


Turnbull, Bruce. "Nonparametric Estimation of a Survivorship Function with Doubly Censored Data."

[1] “ACLP World Political/Economic Database” will be henceforth referred to as ACLP.
[2] “Database of Political Institutions, Version 3.0” will be referred to as DPI for the remainder of the paper.