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The Journal of Politics is currently published by Southern Political Science Association.

Economic Performance, Institutional Intermediation, and Democratic Survival

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The breakdown of democracies has long been associated with poor economic performance. This study attempts to determine whether different configurations of democratic institutions can mediate the effects of poor economic performance. Using an original data set that includes all democracies from the period 1919 to 1995, we use continuous-time duration analysis to test hypotheses derived from the literature on democratization. Specifically, we test the interaction of party system and the configuration of legislative and executive power (parliamentarism and presidentialism) with economic performance to explain the likelihood of breakdown. Results suggest that majoritarian variants of democracy are more resistant to economic contraction than pluralist ones. Under conditions of economic growth, pluralist democracies outperform majoritarian ones.

The question of why some states are democratic and some are not lies at the heart of contemporary comparative politics. Issues of regime type and regime change are likely to endure because of the important normative ramifications of democracy. Political scientists have approached regime change in two ways: (1) the transition to democracy, and (2) the breakdown of democratic regimes. A majority of recent work has focused on the former due to the preponderant direction of regime change in the last few decades.

In this article we examine which factors determine whether democracies break down or survive. Within the literature, there are two predominant schools of thought. The first focuses on economic performance while the second empha-

sizes political institutions. To date, only a few large-*n* studies have attempted to integrate these two lines of thought. Absent from this literature has been a thorough investigation of the durability of different institutional patterns in varied economic contexts. Specifically, the interaction of economic and institutional factors has not been fully explored. In this article we examine whether certain types of democracy (majoritarian and pluralist) are better insulated from breakdown given different kinds of economic performance. We constructed these types taking into account two aspects of institutions highlighted in the literature on democratic survival—party systems and macro-institutional design. The key theoretical linkage between institutions and economic performance, we argue, lies in the qualities of dispersing or concentrating power in majoritarian and pluralist democracies.

To test our hypotheses, we constructed an original data set that includes all democracies in the period 1919–1995. The data set consists of 115 countries with 156 episodes of democracy. We use continuous-time, event-history methods to analyze the data.

We begin with a discussion of the relevant literature and a presentation of the theoretical positions from which we derive our hypotheses. Then we discuss our data and research design. Finally, we discuss our results and assess their significance.

Economic Performance and the Survival of Democracy

Works that link the fate of democracy to economic factors emphasize either the effects of economic performance (Gasiorowski 1995; Linz 1978; Przeworski and Limongi 1997), pace of development (Huntington 1968; Olson 1982), or level of development (Bollen 1979; Cutright 1963; Gasiorowski and Power 1998; Lipset 1959; Neubauer 1967; Przeworski et al. 1996).[1] These studies find that higher levels of economic development and positive economic performance enable democracies to endure. An exception, Olson's thesis that rapid economic growth threatens democracy, has found less empirical support.

This literature argues that positive growth and higher levels of development encourage the survival of democratic regimes by alleviating socioeconomic conflict. Poor economic performance and lower levels of development raise the stakes of socioeconomic conflict, raise levels of discontent, and increase the attractiveness of extra-systemic solutions, thus increasing the likelihood of regime breakdown (Dahl 1971; Haggard and Kaufman 1995; Huntington 1991; Im 1987; Linz 1978; Lipset 1959; Seligson and Muller 1987).

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[1] While we are aware of the distinction between treatments of democratic "survival" and treatments of liberal democracy, the results of each of these streams of research have implications for the study of democratic survival. Negative movements on a scale of liberal democracy may be suggestive of eventual breakdown.

Whereas there is a long tradition of linking level of development and regime type,[2] recent scholarship has also linked level of development to democratic survival. Przeworski and Limongi conclude that "once established, democracies are likely to die in poor countries and certain to survive in wealthy ones" (1997, 167). They base this on the finding that democracies with a GNP per capita of less than $1,000 had an expected lifetime of eight years, those between $1,001 and $2,000, 18 years, and those above $6,055 were found to be essentially impregnable (Przeworski et al. 1996; Przeworski and Limongi 1997). Following this literature, we expect highly developed countries to be less prone to breakdown.

Poor economic performance, conceptualized in terms of economic contraction, has also received substantial attention in the literature.[3] Downturns of this nature, particularly if they are severe and prolonged, are strongly associated with breakdown in all democratic regimes, especially newly inaugurated ones (Haggard and Kaufman 1995). The impact of a year of negative growth on democratic survival is quite robust and consistent across various samples. Findings from South America between 1945 and 1988 (Przeworski and Limongi 1993), the postwar third world (Gasiorowski 1995), and the period 1950 to 1990 (Przeworski and Limongi 1997) show that a single year of negative growth is enough to significantly increase the probability of democratic breakdown.[4] When negative growth lasts for more than one year, the effects on democratic survival are even bleaker (Przeworski and Limongi 1993). Therefore, we expect that negative growth will produce democratic breakdowns.

Olson (1982) and Huntington (1968) suggested that rapid economic growth could also destabilize democracy. Accelerated growth is said to produce social upheaval by disrupting traditional social relations. Both the *nouveau riches* and

[2] Early empirical work identified a positive linear relationship between democracy and development (Cutright 1963; Lipset 1959). Subsequent work found a curvilinear relationship; democratic performance increased and then leveled off at a certain level of development (Jackman 1973; Neubauer 1967). Challenges to these findings have suggested that perhaps modernization theory is at best a weak predictor of democracy (Arat 1988; Gonick and Rosh 1988). Improved measures and methodology have since confirmed modernization theory in its curvilinear form (Burkhart and Lewis-Beck 1994). Dissenting from this view, O'Donnell (1973) and Lipset, Seong, and Torres (1993) have argued that economic development does not always promote democracy. There are historical paths of development that may result in increased development leading to authoritarian political solutions (bureaucratic-authoritarianism being the most commonly cited).

[3] There is a literature that attempts to gauge the impact of inflation on democratic survival, although its findings have been modest. Moderate inflation actually seems to promote democratic stability. However, hyperinflation (over 30%) has strong deleterious effects, reducing a democracy's life expectancy from 71 years (with moderate inflation) to an average of 16 years (Przeworski et al. 1996). Gasiorowski (1995) and Power and Gasiorowski (1997) found inflationary pressures increase the risk of breakdown for democratic regimes, but only in the period prior to the early 1970s.

[4] The effect of negative growth is greater for poor democracies. For the poorest nations experiencing negative growth, Przeworski and Limongi (1997) found an average democratic life expectancy of nine years. The comparable figures for mid-level and wealthy nations were 20 years and "everlasting life."

the *nouveau pauvres* will develop new expectations and frustrations about their positions in society that may destabilize democracy.

There is little evidence to support the contention that high positive growth rates destabilize democratic regimes. In fact, the research shows just the opposite— that positive rates of economic growth, measured in change in per capita GDP, deter coups d'etat (Londregan and Poole 1990) and promote stable democracy (Haggard and Kaufman 1995). Haggard and Kaufman report that in a collective 462 years of positive economic growth between 1960 and 1990, democracies survived 97% of the time, leading them to conclude that growth has beneficial effects by "reducing the frustrations and conflicts resulting from inequality or other social cleavages" (1995, 325–26).

However, Olson's argument concerns the pace of development, not the existence of positive growth itself. Olson believed that high rates of positive growth could cause democratic breakdown. It is possible, given the right set of circumstances, that unusually high rates of growth will lead to democratic breakdown.

Institutional Variation and Breakdown

The literature on consolidation and stability of democratic regimes points to a number of different institutional variables that affect democratic survival. Both macro-institutional structure and party systems have received substantial attention.

Macro-institutional structure is the way in which the relationship between the executive and legislature is configured. The main varieties are presidentialism and parliamentarism. Linz (1994) and Lijphart (1994a) have argued that the former contributes to the fragility of democracies by promoting a number of pathologies (e.g., winner-take-all electoral competition, the rigidity of fixed terms for the executive, and a propensity toward deadlock between the executive and legislature) and that the latter is a superior choice for democratic stability. Riggs (1993) and Stepan and Skatch (1994) have assembled supporting data from the developing world. Przeworski et al. (1996), in a survey of all democracies from 1950 to 1990, also provide strong evidence of this thesis. Shugart and Carey (1992), who include interwar Europe in their sample, do not present as clear a finding, showing the performance of both presidentialism and parliamentarism to be mixed. To the contrary, Power and Gasiorowski (1997) and Mainwaring and Shugart (1997) present evidence that raises doubts about the greater fragility of presidentialism.[5]

There is also an older literature on democratic breakdown that focused on party and electoral systems rather than macro-institutional structure. Electoral

[5] The difference between Power and Gasiorowski's (1997) study and those of the others may be a product of how they define and operationalize their dependent variable, democratic consolidation. Of their three measures, the most rigorous considers democracies consolidated after 12 years of continuous operation. This includes some cases that subsequently broke down and are not considered durable democracies in other studies. In their subsequent study Gasiorowski and Power had no consistent findings on presidentialism and consolidation (1998, 758).

systems have important ramifications for the composition of the legislature and the nature of the party system, including whether electoral victory translates into a legislative plurality or majority, as well as the total number of parties represented in the legislature. In systems where governments are formed on the basis of parliamentary support, this bears on whether governments are single-party or coalitional in nature and how many parties are necessary to form a government. In the case of coalition governments, the number of parties can affect their potential for stability. In presidential systems, such features will determine whether government is divided or not, increasing the potential for interbranch conflict. In the literature, both two-party and moderate multiparty systems are described as being much more resistant to democratic breakdown than extreme multipartism (Linz 1978; Sartori 1976, 140).

In this article, we do not consider the effects of the two dimensions in isolation from each other but in terms of their interaction. It is quite clear that different combinations of macro-institutional structure and electoral rules have different effects on the performance of the political system. Indeed, Horowitz (1990) pointed out that parts of Linz's original criticism of presidentialism were based on political outcomes that were, at least in part, attributable to the electoral system. Presidentialism, when combined with single-member district voting systems, is quite different from when it is combined with purely proportional representation. It certainly affects how often divided government occurs.

The strongest arguments in this regard concern the interaction of presidentialism and proportional representation (particularly in the Latin American context). Most observers point to the regularity with which this combination breaks down (Mainwaring 1990; Przeworski et al. 1996; Shugart and Carey 1992; Valenzuela 1993). Here again, Power and Gasiorowski dissent from the consensus: "multipartism poses no apparent obstacles to the success of presidential rule" (1997, 146).

While macro-institutional structure and party systems have been used separately to explore the stability of democracy, they can be combined to produce a typology of democratic regimes. It is precisely such a typology that we use to more systematically explore interaction effects as they relate to our dependent variable. In Figure 1, we distinguish between the two main types of macro-institutional structure (parliamentary and presidential). Party systems are categorized according to patterns of representation. This is a product of the interaction of the political and socioeconomic cleavages in society and the fashion in which the electoral system translates votes into seats.[6]

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[6] From an institutional perspective, the way in which an electoral system translates the percentage of votes received in an election to the percentage of seats received in a representative body, or what can be described as proportionality, is most important. In highly proportional systems, the percentage of votes received will be very close to the percentage of seats awarded. Disproportional systems are restrictive: they reward larger parties with a greater share of the mandates in the legislature than their percentage of votes.

FIGURE 1

Types of Democratic Systems According to Macro-institutional Structure and Party System

Macro-institutional Structure — **Party System**

	Predominant Party	Two Party	Moderate Multiparty	Extreme Multiparty
Parliamentary	Majoritarian	Quasi majoritarian	Mixed	Mixed
Presidential	Mixed	Mixed	Quasi-pluralist	Pluralist

We have divided party-systems in a quadripartite fashion based on distinctions in the qualitative literature (especially Sartori 1976, Chap. 6). Predominant party arrangements include those cases in which one party rules with a decisive legislative majority. The next demarcation, two-party, includes cases where one-party receives a majority, but one not so overwhelming as the predominant-party type. The next class in this dimension is moderate multiparty. This includes cases that require a small number of parties to form a governing coalition or pass legislation (corresponding to the cases that Sartori describes as moderate pluralism). The last class, extreme multipartism, represents a situation of high fractionalization in the legislature (corresponding to those systems that Sartori qualified as extreme pluralism [1976, 26]). As systems move from left to right in the party dimension, we expect that they will give up governability at the expense of representativeness (i.e., a higher degree of multipartism will be more representative of society, while a legislature with fewer parties will facilitate the task of forming majorities).

The interaction effects in which we are interested are those that Colomer (1995, 95) has described as majoritarian and pluralist patterns of democracy.[7]

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[7] Colomer's categories clearly owe much to the notions of "majoritarian" and "consensus" democracy that Lijphart coined in his long-term study of democratic institutions (the latest iteration is Lijphart 1999). The ambiguous position of presidentialism in Lijphart's formulation makes his conceptualization less useful than Colomer's for our purposes. It is important to note that Lijphart's own contribution to the presidentialism/parliamentarism debate (1994a) treats presidentialism as majoritarian because of the winner-take-all nature of presidential elections.

We are interested in these patterns because they represent the extremes in the ways in which democracies concentrate or diffuse power. Majoritarian systems concentrate power to the greatest degree by fusing executive and legislative power in parliamentary governments based on disciplined one-party rule. The latter is often promoted by restrictive electoral systems (majoritarian, SMD, or other variations that promote governability at the expense of representation).[8] These sorts of systems are concentrated in the upper left-hand corner, the darkest shaded area, of Figure 1. Those systems that diverge by one class in the party system dimension (parliamentary two-party systems) have been qualified as quasi-majoritarian.

Pluralist systems disperse power to the greatest degree by separating executive and legislative functions through presidential government and have highly fractionalized legislatures. The latter is quite often the product of highly proportional electoral systems. These sorts of systems are concentrated in the lower right corner of Figure 1, in the white cell. As above, those systems that diverge by one class in the party dimension we have qualified as quasi-pluralist. Our residual category, "mixed" (denoted in light gray), includes systems that concentrate power in one dimension while dispersing it in another.[9]

Putting Economics and Institutions Together

It is the qualities of dispersing or concentrating power in majoritarian and pluralist democracies that we theorize as important for how democracies fare in relation to economic performance. Majoritarian systems should fare better under conditions of crisis because their ability to concentrate power should allow them to formulate politically coherent policy responses to crisis. First, governments will tend to be based on one or a small number of parties. Second, the parliamentary majorities on which governments are based will tend to be larger than the share of the votes on which they were elected (sometimes substantial majorities will even be based only on popular pluralities), reducing the diversity and range of actors that need to be incorporated into a policy

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[8] There are exceptions to this. For instance, given a strongly bifurcated polity, a two-party system would not be out of the question under proportional representation. With a substantial number of locally concentrated minorities, multipartism is not incompatible with a single member district.

[9] It may strike some readers as odd that we pair systems that seem very different together in the mixed category. Conventionally speaking, parliamentarism with an extreme multiparty system is seen as very different from presidentialism with a predominant party system. However, both fall into our mixed category because they concentrate power in one dimension and disperse it in another. In a parliamentary extreme-multiparty system, parliamentarism concentrates power while extreme multipartism disperses it. In a presidential predominant-party system, presidentialism disperses power while the predominant party system concentrates it. Thus, both of these combinations concentrate power in one dimension and disperse it in another, though they do so in opposite dimensions. However, in the power concentrating/dispersing characteristic of systems we hypothesize as important to economic crisis management, both are mixed.

consensus. Third, the fusion of executive and legislative power and the incentives that parliamentary systems pose for party loyalty within the prime minister's party also simplifies the task of framing a policy response to the crisis.[10]

Under conditions of economic crisis, pluralist systems with their propensity to disperse power are much more likely to deadlock, making them more prone to break down. Their ability to formulate responses to crisis is more limited because of the necessity of formulating a consensus or compromise between the legislative and executive branches. The highly representative nature of the electoral system almost always makes it difficult for the party of the president to achieve a majority in the legislature. This leads to an almost permanent condition of divided government, which under crisis conditions will strongly complicate the business of achieving legislative majorities. Further, the diversity of interests that any legislative majority will have to incorporate into a coalition to support a response to crisis will be broader, on average, than under majoritarian electoral systems. This is because strongly representative systems admit a broader variety of interests into the legislature.

For the reasons outlined above, pluralist democracies are much more likely to deadlock under conditions of economic crisis than majoritarian democracies and thus should exhibit a higher level of breakdown. This leads to our first hypothesis:

H1: Under conditions of economic contraction, pluralist systems should experience shorter episodes of democracy than majoritarian systems.

Following the same logic as above, we expect pluralist systems to fare better than majoritarian ones under conditions of economic expansion due to the more representative nature of their party systems. Under conditions of growth, it should be relatively easy to satisfy the broader constituencies that would underlie a majority under pluralism. This should create greater overall satisfaction with democracy. Majoritarianism, which produces legislative majorities on the basis of narrower social constituencies, has the potential to distribute the benefits in an unequal fashion. If majoritarian systems reward only the narrow interests on which they are based, they risk losing the advantages that economic growth may provide. This leads to our second hypothesis:

H2: Under conditions of economic expansion, majoritarian systems should experience shorter episodes of democracy compared to pluralist systems.

[10] There needs to be a strong qualification introduced here. The parliamentary systems that Sartori calls "assembly government" would probably not function in this way during crisis because of the absence of a strong prime minister (1994, 110). This should not affect our findings because most parliamentary systems of this type rely on proportional representation. They should thus fall in the mixed boxes in the upper right-hand corner of Figure 1.

Data and Measurement

Our unit of analysis is the democratic episode, where episode represents a distinct period of democracy in a country's history. While previous data sets have been limited either to the post-World War II period or to the third world, we included all cases of democracy beginning with the interwar period.[11] We began our coding of cases either in 1919[12] or with a new transition to democracy and ended them with either a democratic breakdown or a right censoring in 1995.[13]

We define as democratic any regime that approaches Dahl's (1971) minimum criteria for polyarchy, specifically those that permit a high level of contestation and include a large part of the adult population. We began our consideration of which cases to include by consulting the existing data sets that classify polyarchies or democratic regimes over a substantial period of time—*Polity III* (Jaggers and Gurr 1995), the *Political Regime Change Dataset* (Gasiorowski 1996), *Freedom in the World* (Freedom House), and *Classifying Political Regimes* (Alvarez et al. 1997). Where there was substantial consensus between the data sets, we included these cases. However, because the time frames of these data sets were different, they differed on certain cases, and we were skeptical of particular codings, we consulted a wide variety of general works on democratization and political systems, as well as individual country histories, in order to make definitive decisions about which countries to include.

Many data sets that attempt to operationalize polyarchy explicitly ignore the participation component of Dahl's conceptualization (Alvarez et al. 1997, 19; Bollen 1991, 6–7; Gasiorowski 1991). Since many of these studies only consider the post-World War II period, by which time most franchise restrictions had disappeared, this was not as important as it was for our study. We were compelled to pay greater attention to the participation component of Dahl's definition[14] because of the even larger number of cases in which the political system was competitive but not fully inclusive in the interwar era.

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[11] While we have democracy-episode and institutional data for almost all the interwar cases, we were able to collect utilizable economic data in only 76.5% of these cases.

[12] In the case of the several democracies whose origins predate 1919, we began their series in 1919, left censoring the earlier portion of their episodes (Australia, New Zealand, Norway). We treat the two other cases (France, Switzerland) that often are considered early democracies differently for reasons that will become clear later.

[13] In certain cases where democracy was interrupted by German conquest and occupation in WWII, we have omitted the wartime years and treated democracy as continuous.

[14] For instance, Przeworski et al. define democracy as "a regime in which governmental offices are filled as a consequence of contested elections. Only if the opposition is allowed to compete, win, and assume office is a regime democratic" (1996, 50). This definition ignores the inclusive participation component of Dahl's (1971) concept. Given that their study looks at democracy from 1950 to 1990, this is not a problem because most of their cases of new democracies evolved out of mass polities that were already inclusive.

Those studies that pay attention to the inclusiveness criterion, including Dahl's, do not provide clear-cut guidelines to operationalize the level of inclusiveness necessary for a polyarchy.[15] From a conceptual point of view, we found Coppedge and Reinecke's quadripartite demarcation ("universal adult suffrage," "suffrage with partial restrictions," "suffrage denied to large segments of the population," "no suffrage") the most useful (1991, 50). We chose a cut-off point of 50% for inclusiveness because it seemed to capture their two first distinctions. This also seemed to capture cases that would fall within the upper right-hand quadrant of the property space that Dahl developed to characterize polyarchy and other forms of rule (1971, 7).

There were two other reasons why we chose this cutoff point. First, the quantitative literature on democratization and democratic survival is composed of data sets that already include similar cases.[16] This is the literature that this article addresses, and we wanted our results to be comparable to those of the earlier studies. Second, in order to increase the size of our interwar sample, we engaged in a moderate degree of concept stretching to increase the number of cases in our study. This means that our data set includes both polyarchies and near polyarchies (notably a number of competitive Latin American regimes that posed literacy requirements on franchise, which has the effect of excluding a portion of the lower classes, and the United States prior to the inclusion of African Americans in the South with the passage of the Voting Rights Act).[17] Because of the 50% cutoff, our operationalization excludes all cases where women were denied the franchise.

We excluded countries for other reasons as well. In cases where we detected substantial voting fraud, enough to change the outcome of the election,[18] we did not consider a case polyarchic. We also paid careful attention to questions of sovereignty, not including in our sample many cases in which, despite competitive elections, full sovereignty was not formally achieved. We excluded from our set of democracies many countries in which internal wars and extensive civil disturbances were contemporary to elections. In cases in which there was either extensive or extreme violence connected to the electoral process that

[15] Dahl breaks participation into three categories (under 20%, 20%–90%, and over 90%). Hadenius' study excludes the two countries (South Africa and Western Samoa) in which less than 20% of the population was allowed to vote (1992, 39–40). In his second data set, Gasiorowski elaborates a participation criterion: "a highly inclusive level of political participation exists in the selection of leaders and policies such that no major (adult) social group is excluded" (1997, 471). He does not, however, explicate how he operationalized this.

[16] For instance, both Alvarez et al. (1997) and Gasiorowski (1996) include Brazil and Chile in the 1950s when there still were substantial literacy restrictions on voting. Similarly, Bollen (1991) gives both countries very high democracy scores for 1960 (Brazil 90.5, Chile 99.7).

[17] Obviously, it is not our intent to sanction such antidemocratic practices as democratic by including these cases in the data set.

[18] By the phrase "enough to change the outcome of the election," we mean the election of a different candidate to chief executive or to substantially alter the balance of party forces in the legislature.

inhibited voters from expressing themselves openly, we excluded those cases. We also excluded cases in which political parties representing a large portion of the political spectrum were banned from participation.[19] However, in these instances we made allowances for "militant democracy."[20] The cases and the years of their duration are included in Appendix 2.

Dependent Variable

The dependent variable is the duration (in years) of a country's democratic episode(s). Each individual episode of democracy is coded separately. The data set contains 2,693 country-year cases within which were 156 episodes of democracy. Democratic duration ranged from 1 to 77 years, with an average life span of 19.8 years.

Given that we collected data in yearly increments, coding the initiation and termination of an episode required special attention. We adopted a first quarter cutoff decision rule for regime initiation: if a nation initiated democracy in the first three months of year t, the initiation was coded as having occurred in year $t - 1$. If the initiation occurred after the first three months of year t, we coded the initiation as having occurred in year t. The same decision rule applied for the breakdown of a regime. If an episode did not experience a breakdown by 1995, we right censored the case. The first quarter cutoff is justified for the following reason: given that economic performance is the main explanatory factor in our models and that the effects of a bad economy may lag political responses on the order of months rather than years, we expect fairly immediate economic conditions to affect political relations within a state.

Independent Variables

Our main independent variables measure economic performance and institutional configuration. We include several additional variables to control for factors that have been associated with democratic breakdown in the literature. We collected economic data from *Monitoring the World Economy* (1995), *the International Financial Statistics Yearbook*, UN publications such as the *United Nations Statistical Yearbook*, and country-specific sources. We collected data on party distributions within the legislature and executive-legislative relations from var-

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[19] As in the case of voting fraud, we omitted cases when we thought such exclusion was significant enough to change electoral outcomes.

[20] The notion of militant democracy (from the German *Streitbare Demokratie*) holds that democracies may ban parties that are committed to their violent overthrow. In West Germany, it has been used to exclude antidemocratic political forces on the far right and far left. In cases where banned parties were committed to the violent overthrow of the political system, served as stalking horses for aggressive external powers (e.g., the communists in Finland in the interwar era), or were associated with former ruling authoritarian forces that committed crimes against humanity (e.g., neo-Nazis in Germany), we did not consider their banning sufficient condition for excluding a country as a democracy.

ious sources, including *The Political Handbook of the World*, the CIA's *World Fact Book*, *The Journal of Democracy*, *The International Almanac of Electoral History* (Mackie and Rose 1982), *Electoral Studies*, *Encyclopedia Electoral Latinoamericano y del Caribe* (Nohlen 1993), secondary accounts, statistical annuals, and consultations with specialists. We utilized data on religious and ethnic fractionalization from the Cultural Composition of Interstate System Members, Correlates of War Project (Singer 1997) that we supplemented with statistical annuals.

ECONOMIC PERFORMANCE. We used the annual change in real GDP per capita for each case, measured as the proportion of change from the previous year in constant 1990 units.[21] This allows us to investigate the unit effects of changes in growth, positive or negative, on the hazard rate.

INSTITUTIONAL FORM. We construct institutional form from two components: macro-institutional structure and the number of parties within the legislature. The former is an ordinal-level variable ranking the separation of legislative and executive power. This variable takes on two possible values (Parliamentary = 0, and Presidential = 1). We classified executive-legislative relations according to Sartori (1994). Systems were classified as Presidential "if and only if, the head of state i) results from popular election, ii) during his or her pre-established tenure cannot be discharged by a parliamentary vote, and iii) heads or otherwise directs the governments that he or she appoints" (Sartori 1994, 84). Parliamentary systems are those in which parliament is sovereign. "Thus parliamentary systems do not permit a separation of power between parliament and government . . . all the systems we call parliamentary require governments to be appointed, supported[22] and, as the case may be, discharged, by parliamentary vote" (Sartori 1994, 100).

The other variable in this construct is the number of parties in the legislature. We attempt to capture the majority-building potential of a legislative body by considering the number of parties in the lower house. We used the Laakso-Taagepera index (1979) to calculate the effective number of parties existing in

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[21] In order to ensure the integrity of the time series, we never calculated change across sources.

[22] This obviously does not exhaust the universe of potential patterns of executive/legislative configuration. Within the comparative politics literature on democratic institutions, semi-presidentialism (executive dyarchy between a popularly elected president and a prime minister selected by and responsible to parliament, see Duverger 1980) is considered a third major macroinstitutional type. There are also certain countries that have unique systems that do not easily fit into any category (e.g., Switzerland). Given the small number of cases of "semi-presidential" or "other" institutional forms, we left these cases out of the analysis. This would have meant the inclusion of several additional cells into the institutional matrix without a substantial population of cases to populate them. Consequently, we omitted several cases including Weimar Germany, France (it changed from parliamentarism to semi-presidentialism in 1958), contemporary Poland, Sri Lanka, and Switzerland from this analysis.

the lower house.[23] Figure 2 presents a histogram of the number of parties. In trying to determine significant cutoff points to classify party systems according to the effective number of parties, we found little overt discussion of this question in the literature.[24] We have classified party-system according to four classes based on the distinctions in the qualitative literature. While we do not think there is a complete coincidence between our quantitative measures and

[23] Where the effective number of parties, $EP = 1/\sum_{i=1}^{n} P_i^2$, where P_i is the share of seats won by the ith party. We treat any "other" categories as Taagepera (1997) recommends. For each case that had a value in the "other" category, we calculated the number of parties' score for independents as both a single block of seats and as singular party seats. We then averaged these two fractionalization scores to produce the final number of parties.

We chose to use the Laakso-Taagepera measure of the effective number of parties rather than the measure developed by Molinar (1991). In assessing these measures and Wildgen's alternative, Lijphart notes that of the three systems, Molinar's gives greatest weight to the largest party, Wildgen favors the small parties to the greatest extent, and Laakso-Taagepera falls somewhere in the middle of the other two (1994b, 69–70). In looking at a number of cases in our data which we knew well, and holding Sartori's qualitative rules for counting parties (coalition or blackmail potential) as our standard (1976, 122–3), we were not convinced that either Molinar or Laakso-Taagepera is an ideal measure but, on the whole, were more comfortable with Laakso-Taagepera's numbers.
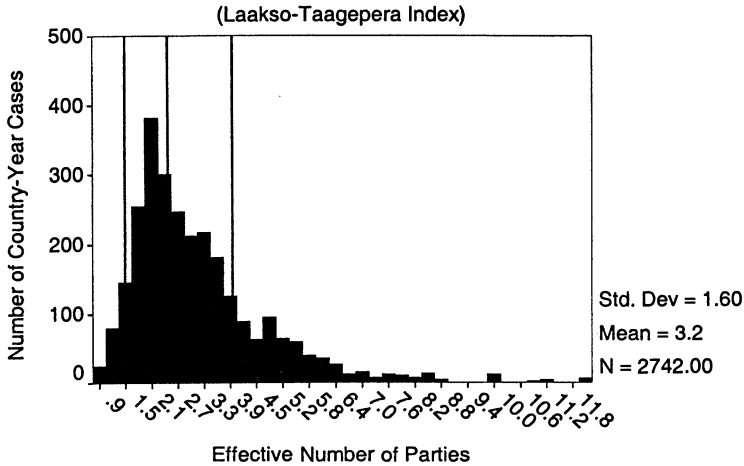
We will mention just a few examples. For instance, if we examine Germany in the 1960s we perceive that Molinar understates the number of parties. For instance, in 1961 three parties—the SPD, CDU/CSU, and FDP (190, 242, 67 out of 499 total)—won mandates. Eventually, a grand coalition of the two largest parties (SPD and CDU/CSU) was formed. However, any two of the three parties could have formed a viable coalition, and the excluded party would have constituted the only opposition in parliament. In this case, we found Laakso-Taagepera's figure of 2.51 more accurate than Molinar's 2.03. In looking at Weimar Germany, we also found Molinar's measures to be less accurate, often measuring a number of parties in the system fewer than the number of parties that sat in the government.

In looking at Sweden in the 1960s, we also were more comfortable with the numbers produced by Laakso-Taagepera, though not completely. In 1964, the social democrats took 113 mandates out of 232, just short of a majority. In order to form a government they needed the support of at least one party (or its abstinence during voting) to form a government. In theory, the social democrats could have turned either to the left or to the right to get this support. In this situation Molinar gives the number of parties at 1.8 whereas Laakso-Taagepera puts the number at 3.25. Given the fluidity of the potential coalitions, Laakso-Taagepera seems to capture the situation better. However, if one looks at the next election (1968), in which the social-democrats took better then 50% of the mandates (125 of 233) and the strength of the other parties was dispersed (29, 37, 3, 32, 43), Molinar seems to do somewhat better in putting the number of parties at 1.5 to Laakso-Taagepera's 2.87. In these two examples, both measurements seemed to discriminate inadequately between a one-party government and a coalition government situation. Molinar seemed to do better in the one-party case, while Laakso-Taagepera did better in the coalition situation. Given the lack of a clear-cut verdict in the literature on relative merits of the counting systems, the more widespread use of Laakso-Taagepera, and our qualitative assessment of a number of cases, we opted to use Laakso-Taagepera over Molinar.

[24] A handful of studies have tried to incorporate the effective number of parties into their analysis. For instance, Stepan and Skatch draw a distinction between systems that have fewer than three parties and those that have three or more to reiterate the point on the problematic nature of multiparty-presidentialism (1994, 121–2). Power and Gasiorowski take Stepan and Skatch's figure of three as the demarcation point for multiparty democracy. However, they demarcate their data in a quadri-partite fashion (<1.8 parties, ≥1.8 <2.4, ≥2.4 <3.0, ≥3.0) to try to gauge the effect of party

FIGURE 2

Histogram of the Effective Number of Parties (Lower House)

The three reference lines included in the histogram mark the grouping cutoff points of 1.5, 2.5 and 4.0 from left to right.

qualitative conceptions, we believe that the numbers get at the preponderant number of cases.

We have designated the range below 1.5 as predominant party electoral outcomes (those cases in which one party holds a decisive majority in the legislature). The range from 1.5 to 2.49 parties coincides with a two-party electoral outcome (those cases in which in the largest party has a more modest majority).[25] The range from 2.5 to 3.99 captures those electoral results we have qual-

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systems and constitutional arrangements on democratic consolidation (1997, 144–5). Neither explicitly explains how they arrived at these cutoff points, nor do Power and Gasiorowski explicate the meaning of their other three ranges. Mainwaring (1993), on the other hand, uses both a series of quantitative descriptors (predominant party, two-party, multiparty) that come from the qualitative literature on party systems, as well as Rae's fractional index and Laakso-Taagepera's effective number of parties to talk about the effects of different types of party systems on presidentialism. However, he does not explicitly connect the qualitative categories with either system of measurement (for an extension of his arguments, see Mainwaring and Shugart 1997).

[25] Note that what we are qualifying is not the nature of the party system, for instance, characterizing a period in which one party rules for an extended period of time (like the social democrats in Sweden or the LDP in Japan) as predominant, but the results produced by a specific election. It is important to remember that systems that are categorized as two-party (like many SMD-plurality arrangements) often have elections that produce fewer than two parties on this scale. The existence of two parties does not always coincide with the meaning of two-party system in the qualitative literature.

ified as moderate multipartism (requiring a moderate number of parties to form a coalitional or legislative majority).[26] Last, the range above 4.0 parties represents extreme multipartism (situations of high fractionalization).

We then combined the executive-legislative variable with the effective number of parties to produce the eight-cell typology discussed above. These eight types were grouped as described in the theoretical section to produce an ordinal scale ranging from one through five (1 = Majoritarian Systems, 2 = Quasi-majoritarian, 3 = Mixed, 4 = Quasi-pluralist, and 5 = Pluralist). Appendix 1 includes an enumeration of all our cases in terms of institutional form and year.[27]

RELIGIOUS AND ETHNIC FRACTIONALIZATION. Religious and ethnic fractionalization within a country is measured by Rae and Taylor's (1970) fractionalization index. This index produces the probability that two randomly selected persons from one country will not belong to the same social group.[28] We calculated this index for both religion and ethnicity in each country. These data were, however, only available by decade and therefore are constant throughout each 10-year period (Singer 1997, supplemented by statistical annuals). We expect higher levels of fractionalization to lead to increased chances for breakdown.

NUMBER OF DEMOCRATIC COUNTRIES IN THE REGION. We measure the "demonstration effect" (Gasiorowski 1995) of democracy on other countries as the total proportion of countries in a region that are democratic in any given year. The regions used to construct the "populations," modified from Gasiorowski (1995), were Latin America, Europe, sub-Saharan Africa, Northern Africa, the Middle East, South Asia (which runs from Pakistan and Afghanistan through

[26] Though Sartori uses five as his cutoff point for effective parties to distinguish between moderate and extreme multipartism, this is but one dimension of his multidimensional typology. While we expect the kind of polarization, politics of outbidding, etc., that compose his type to be associated with a large number of parties (1976, 26), we realize there are cases where moderate pluralism is possible with a large number of parties (e.g., interwar Czecho-Slovakia). We have chosen four rather than five as the cutoff point because in looking at a number of cases in our data set, we observed that in higher multiparty outcomes, the systems of enumeration do not seem to count in the same way as Sartori. As the number of parties proliferates, the number of parties fitting Sartori's criteria for effective (coalition or blackmail potential) seems to grow larger than the systems of counting admit.

[27] Due to the high multicollinearity introduced into the model by including the interaction term along with its component parts, we subtracted the respective means of both the economic performance variable and the institutional form variables before interacting them (Friedrich 1982).

[28] We used Rae and Taylor's (1970) measure of fractionalization, given as

$$F = 1 - \sum_{i=1}^{n} \left(\frac{n_i}{N} \right) \left(\frac{n_i - 1}{N - 1} \right),$$

where F ranges from 0 to 1.

Myanmar), East Asia, North America, and Oceania. We expect that higher levels of regional democracy will promote democratic durability.

NUMBER OF PAST DEMOCRATIC EXPERIENCES. Huntington (1991, 47) has speculated that past democratic failures lead to political learning that promotes future democratic success. We are not sure this is the case because multiple episodes of democracy may be indicative of inherent problems of instability. Nevertheless, we control for this contingency. To operationalize a country's experience with democracy and the possible effects of democratic learning, we coded—within any given episode of democracy—the total number of previous experiences with democracy that a country had prior to the beginning of, but not including, the current episode.

GDP PER CAPITA (LEVEL). To control for level of development, we include a measure of GDP per capita. We used the Penn World Tables (Summers and Heston 1995), which contain reliable data on a level consistent across cases only in the period after 1950 and interpolated where possible in the case of missing data.[29]

Methodology

Given that we want to study the amount of time that passes between the installation of a democratic regime and its breakdown (or, alternatively, until 1995), we use event history methods to model this process. Specifically, we are interested in modeling the *hazard rate*, which is "the instantaneous probability that episodes in the interval $[t, t + \Delta t]$ are terminating provided that the event has not occurred before the beginning of th[e] interval" (Blossfeld, Hamerle, and Mayer 1989, 31). Thus, when using explanatory variables in a duration model, the point is to determine how the hazard rate is affected by the covariates highlighted by the theoretical model. Technically, the hazard rate is defined as:

$$\lambda(t) = \lim_{\Delta t \to 0} \frac{1}{\Delta t} P(t \le T < t + \Delta t | T \ge t)$$

In this study, the hazard rate refers to the risk[30] that a country moves from a state of democracy to a state of nondemocracy.

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[29] Given the time range of our data, in particular the interwar cases, it was not possible to gather information on absolute levels of economic performance across countries. The lack of CPI conversion factors and the inability to locate interwar national income time-series data frustrated our efforts to gather reliable information on levels of economic performance. To ensure that the findings based upon the analysis of the maximum number of cases in the data set were not related to economic level, we ran a secondary analysis (not reported here) in which we used regional dummies as proxy measures for economic level. Specifically, we included dummies for the most and least developed regions (Western Europe and sub-Saharan Africa) (Maddison 1995). The inclusion of these dummies did not alter our findings.

[30] Although it is easy to think of "risk" as a probability, it is actually a rate. It can take values greater than one, which, obviously, probabilities cannot.

We utilize continuous-time hazard techniques for several reasons. First, like discrete-time techniques, continuous-time models allow for multivariate analysis. Second, many functional forms of continuous-time techniques allow for time-varying covariates. Several of our independent variables vary within a given democratic episode, and incorporating this intra-episode variation provides us with much more information. Third, continuous-time models allow for the explicit testing of duration dependence by estimating the duration dependence parameter, p.

Of the several possible functional forms of the hazard rate, we have chosen to estimate fully parametric models with a Weibull form for three reasons: (1) It allows multivariate analysis. (2) Unlike the normal or log-normal forms, the Weibull allows for relatively trouble-free estimation with time-varying covariates. (3) It estimates a parameter indicating the presence of positive, negative, or no duration dependence. This last point is particularly important given that we are interested in the possibility that democracy may become institutionalized over time. With no covariates included in the Weibull model, the form of the hazard rate is

$$\lambda(t) = \lambda p (\lambda t)^{p-1}$$

where λ is a constant and p represents the nature of the duration dependence.[31] The introduction of covariates into the model relaxes the assumption that λ is a constant. Instead,

$$\lambda = e^{\beta X_i}$$

where the coefficients are estimated using maximum likelihood.

In many subject areas where event history is applied, the destination state (in this case "nondemocracy") is absorbing. An absorbing destination state means that the transition to that state is the only transition that any given unit will experience. However, this does not hold for democracy. Although sometimes the destination state will be absorbing—as when a democracy breaks down and is never reinstated—it is possible for states to experience multiple democratic episodes. Ideally, we could capture the effects of the previous democratic episodes in statistical techniques. However, we are not aware of any statistical applications that allow for both multi-episode models and the incorporation of time-varying covariates. Given this tradeoff, we choose to treat all democratic episodes as statistically independent in order to capture the additional information provided by time-varying covariates.

Results

The results of the hazard analysis are provided in Table 1. Before moving to a discussion of the individual independent variables, we begin with a brief discussion of the overall performance of our models. An examination of the log-

[31] If $p < 1$, the dependent variable exhibits negative duration dependence. When $p > 1$ there is positive duration dependence. When $p = 1$ there is no duration dependence.

TABLE 1

Hazard Model (Weibull) Failure Time Coefficients, Effects on Democratic Survival

Variable	Model 1 Main Model No Interaction Term		Model 2 Main Model with Interaction Term		Model 3 Post-1950 with Interaction Term		Model 4 Post-1950 with GDP per capita Level	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Institutional Form	−0.1323	0.2043	0.0116	0.1960	0.0087	0.2406	0.0421	0.1656
Economic Growth	5.1381	2.0046**	4.6773	1.9006**	4.3331	1.7863**	2.7193	1.5436*
Econ Growth × Institutional Form	—	—	5.2435	1.7858***	5.7885	1.9037***	5.0032	1.3772***
Religious Fractionalization	0.1615	0.7856	0.3116	0.7742	0.2951	0.8236	−0.8281	0.6713
Ethnic Fractionalization	−1.7832	0.6880**	−1.7461	0.7000**	−1.9006	0.7211***	−0.1338	0.6548
Regional Democracies	3.4005	3.4005***	3.3152	0.8760***	3.0792	0.8801***	0.4249	0.6747
Past Attempts at Democracy	0.0320	0.3706	0.0483	0.3535	−0.0248	0.3922	−0.2252	0.2658
GDP per capita Level	—	—	—	—	—	—	0.0006	0.0001***
Constant	3.3374		3.3127		2.3603		2.3603	
p (duration parameter)	0.9498		0.9799		1.0442		1.4716	
Log-Likelihood	−102.4		−100.3		−93.0		−67.4	
Log-Likelihood, Constant Only	−129.7		−129.7		−117.1		−96.1	
Number of Democratic Spells	127		127		124		116	
Number of Data Points (country-years as Democracy)	2184		2184		1857		1831	

***$p < 0.01$, **$p < 0.05$, *$p < 0.10$, two-tailed tests.

Note: Standard errors clustered on country code.

likelihoods in Table 1 shows that the full models we estimated performed better than the respective null models (constant only). The addition of our explanatory variables greatly improved the performance of the model, as the difference in log-likelihood values are statistically significant at $p < .001$. Therefore, we are reasonably sure that our independent variables are adding explanatory power. It is also the case that the duration dependence parameter does not deviate significantly from 1.0 in our main results. This strongly suggests that there is, in fact, no duration dependence. This result has interesting substantive ramifications to which we will return.

Table 1 includes four models. We are most interested in Model 2, but include Models 1, 3, and 4 to show the robustness of our findings. The first column contains the results of our main model with the economic change and macro-institutional structure variables without the interaction term. This model displays the effects of the key variables in the additive manner often used in the existing literature. We see in this column that economic performance appears to matter more than institutional form. The GDP per capita change variable is highly significant and in the expected direction,[32] while the institutional form variable does not achieve even the minimum standard level of significance. This basic model provides more evidence for those who argue that economic performance is crucial for democratic survival.

Model 2 presents the results of our model using all cases in the data set. In this model the interaction of economic performance and institutional form emerges as significant.[33] As in Model 1, economic performance remains significant and institutional form remains insignificant. The comparison of the results of these two models leads us to believe that the effect of economic change and institutions is more than additive. It is the way that institutions mediate economic performance, as our theoretical argument suggests, that affects democratic survival. The substantive effects of this variable are discussed below.

Both Model 3 and Model 4 contain results of analyses run on just the post-World War II era (after 1950). We include these results in order to show that our main finding is robust, given that our use of interwar cases made it difficult to incorporate a measure of level of development. Model 3 addresses whether our findings are produced by the inclusion of the interwar years by eliminating those years from the sample. Model 4 adds GDP per capita to the postwar

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[32] The coefficients here are represented in accelerated failure time form, which means that positive coefficients indicate "longer" democracy, while negative coefficients indicate "shorter" democracy. This should not be confused with hazard rate coefficients, in which the signs have the opposite meaning.

[33] We also broke apart our institutional form variable into five dummies and interacted each of these with economic performance. This model supported our ordinal scaling of the institutional form variable with each of the components stacking above the other. In this variation, we continued to find that majoritarian regimes were more likely to break down under conditions of economic growth than under contraction.

model to ensure that the omission of this important variable did not produce our main results.[34]

The findings in Models 3 and 4 show that the results concerning the interaction term are quite robust. In both models, the interaction term is significant at $p < .01$. The independent effect of change in GDP per capita change remains quite strong and in the expected direction. Also consistent is the performance of the institutional form variable, which never achieves statistical significance in any of the models. Model 4 replicates the findings in the literature on level of development. This variable is highly significant and suggests that more developed democracies (higher GDP per capita) can expect to last longer than less developed democracies.

Table 2 and Figure 3 both display the estimated substantive effects of the interaction term by presenting the expected duration of democracy, given certain values of the independent variables in model 2. We estimated the expected duration using the procedure described in Greene (1990).[35] In order to produce the expected durations, we assign differing values for the economic and institutional variables (with the interaction term adjusted accordingly) and set the control variables at their means. For the economic growth variable, we set the value at -4% to capture the expected duration under conditions of poor economic performance and to -2% growth to capture the effect of more moderate economic contraction. For positive growth, we present the effects of 2% and 4% growth on democratic duration. We also include zero growth for comparative purposes.

We can assess our hypotheses about institutional form, economic performance, and democratic breakdown by examining the data in Table 2 and Figure 3. Upon examination of Figure 3, it is quite clear that institutions matter. We observe a range of diverse values for different democratic subtypes across economic performance. This is strong evidence that institutional form is impor-

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[34] We also ran models including several other independent variables, such as whether or not the country was a British colony, region dummy variables (Western Europe, sub-Saharan Africa, and Latin America), and a dummy variable for microstates. The introduction of these variables into the model did not affect the sign, magnitude, or significance of the interaction variable. In addition, none of these variables were significant in their own regard in the main model.

We also ran a model to test whether the functional form of the interaction term varied across level of development. To do this, we created a dummy variable to code higher and lower levels of development. We included the dummy variable as an additive term to test for an intercept effect and as a multiplicative term interacted with the "Economic Growth-Institutional Form (EG-IF)" variable in the model to test for a change in the functional form of the coefficient for the EG-IF variable. We did this for development cutoffs of both $6,000 (1985 ppp) and $4,000 (1985 ppp). In both of these models, the intercept effect was significant and positive as expected and the EG-IF remained significant. However, the interaction terms with level of development were not significant, suggesting that the EG-IF coefficient does not vary across level of development.

[35] Greene (1990) reports an incorrect specification of the expected duration for the Weibull model. See Bennett (1997) for a corrected version.

TABLE 2

Marginal Effects of Institutional Form Variable on Democratic Survival Given Different Levels of Economic Performance, Measured in Years

	GDP per Capita Growth Rate				
Institutional Form	−4%	−2%	0%	2%	4%
Majoritarian	156.70	142.34	129.30	117.45	106.69
Quasi-majoritarian	111.31	112.29	113.28	114.28	115.29
Mixed	79.07	88.59	99.25	111.20	124.58
Quasi-pluralist	56.17	69.88	86.96	108.19	134.63
Pluralist	39.90	54.86	76.19	105.27	145.48

Note: All control variables are set at their means. These values are as follows: Religious Fractionalization .3709; Ethnic Fractionalization .3312; Regional Democracies .5683; Past Attempts at Democracy .1718.
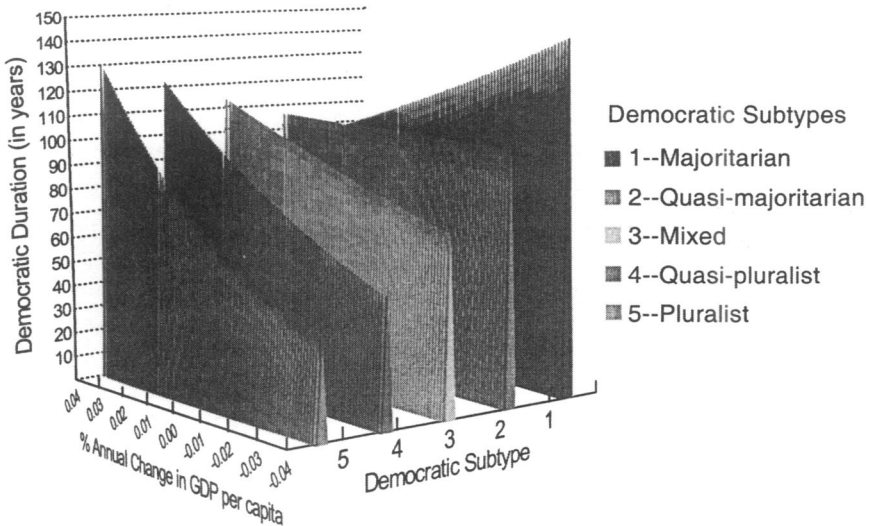
tant for how democracies fare under different economic conditions. In the first column of Table 2, we see that the effect of severe negative growth on democratic survival is indeed modified by institutional form. With a contraction of −4% in GDP per capita, we see that pluralist democracies are expected to last 39.9 years. In contrast, majoritarian governments are expected to last nearly 156.7 years, over three times as long as pluralist regimes. Majoritarian governments continue to survive significantly longer than pluralist forms even given a more moderate (−2%) level of poor performance (majoritarian—142.34 years versus pluralist—54.86 years). The same pattern emerges for cases in which there is zero growth. Majoritarian regimes still perform somewhat better than pluralist regimes. These results provide strong support for Hypothesis 1—that pluralist institutions are far less durable in the face of poor economic performance.

Under conditions of positive economic growth, Table 2 and Figure 3 also show that pluralist and quasi-pluralist regimes survive longer. Under conditions of strong positive growth (4%), pluralist democracies are expected to last over 145 years. In contrast, majoritarian regimes are expected to last 106.69 years. In other words, pluralist regimes are expected to last about 30% longer than majoritarian democracies under high rates of economic growth. This result provides solid confirmation of our second hypothesis.

While this finding is consistent with Hypothesis 2, one aspect of this result was unanticipated. Majoritarian governments last longer under conditions of economic contraction than under conditions of positive growth (losing almost 50 years when growth goes from −4% to 4%). We did not expect this result and it is counterintuitive. Existing theory provides at least a partial potential explanation for this finding. Olson's hypothesis that high rates of economic

FIGURE 3

Democratic Duration by Economic Performance and Democratic Subtype

growth can be destabilizing may have some merit given the "correct" institutional configuration. However, this only explains why majoritarian regimes do better at 2% growth than at 4% growth. It does not explain why majoritarian regimes do better with no growth or economic contraction than with moderate positive growth. Although we do not show predicted durations from Models 3 or 4, it is important to note that this result is robust across all models that include the interaction term.

Another interesting result is that quasi-majoritarian forms of democracy are stable across all ranges of economic performance. The results from Table 2 show that the change in expected duration for the quasi-majoritarian subtypes is negligible over the entire economic range. Specifically, we see that at the −4% level, quasi-majoritarian forms of democracy are expected to last 111.31 years, while at the 4% level the expected duration is 115.29 years. Thus, two-party parliamentary regimes do reasonably well under both positive and negative economic conditions and, according to our findings, should be the most stable form of democracy. The consistent performance of two-party majoritarian regimes holds across all of our models.

Of our four control variables, only two achieved statistical significance. First, ethnic fractionalization is significant and negative, which means that democ-

racy is at greater risk in ethnically fractionalized societies in comparison to homogenous ones. Second, the coefficient of the variable that captures the proportion of democratic states that exist in a given country's region is positive and significant. This replicates Gasiorowski's finding (1995) on the existence of a "demonstration effect." However, both of these findings drop out when a variable for level of development is included in Model 4.[36]

Last, we address the issue of duration dependence from a substantive perspective. As was mentioned above, the duration parameter in our main model was not significantly different from 1.0. This leads us to conclude that there is no evidence to indicate the presence of positive or negative duration dependence.[37] As discussed in Przeworski et al. (1996), this result has ramifications for the concept of democratic consolidation. Negative duration dependence would have suggested that as democracies last longer, their rate of breakdown would decline. However, our main results corroborate the findings of Przeworski et al. and do not provide any support for the notion of democratic consolidation. Democracies in our sample are no more likely to survive to time$_{t+1}$ given that they have reached time$_t$.

Conclusion

Our findings show that in and of themselves institutions do not determine democratic survival. The impact of institutions on durability varies according to economic performance. Specific subtypes of democracy, majoritarian and pluralist, are more or less resistant to the effects of poor economic performance, depending upon the way they concentrate or disperse decision-making power.

Unlike previous studies, we do not claim that macroinstitutional structure alone explains survival. In our model, parliamentarism and presidentialism have an effect on survival in combination with different party systems due to the extent that they concentrate or disperse decision-making power. This represents a step away from the Linz hypothesis on presidentialism that has so dominated the discussion on democratic survival.

We now turn to the performance of the specific institutional forms under different economic conditions. Of the five, we find that quasi-majoritarianism, which corresponds to the Westminster model, does not vary with economic performance. The Westminster model thus effectively insulates democracy from

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[36] This suggests that the learning effect, as measured, may be capturing regional patterns of development and that people do not mobilize along ethnic lines in more developed countries.

[37] The only indication that there is duration dependence of any kind comes from Model 4. Unlike arguments for the consolidation of democracies, this model suggests that the longer democracies endure, the more likely it is that they will break down. However, the magnitude of the shape parameter indicates only a marginal impact on the expected duration. In addition, the introduction of level of development, which has a positive trend over time, is a likely cause for this duration dependence.

Appendix 1
Cases by Institutional Form and Year

Macroinstitutional Type	Effective Number of Parties (Laakso-Taagepera)			
	1–1.49	1.5–2.49	2.5–3.99	4.0–10.0
Parliamentary	Antigua 84–93	Antigua 81–83, 94–95	Austria 19–22, 27–33, 86–95	Andorra 93–95
	Bahamas 77–81	Australia 19–21, 29–30, 43–48,	Australia 22–28, 31–42, 49–76, 80–82	Belgium 36–38, 68–95
	Barbados 86–90	77–79, 83–95	Bangladesh 91–95	Barbados 81–85
	Dominica 80–84	Austria 23–26, 55–85	Belgium 19–35, 39–40, 46–49, 54–57, 61–67	Czech Republic 92–95
	Grenada 84–89	Bahamas 73–76, 82–95	Bulgaria 94–95	Czechoslovakia 20–39
	Jamaica 76–88	Barbados 66–80, 91–95	Canada 21–25, 45–48, 62–67, 72–73	Denmark 45–46, 68–70, 73–95
	Malaysia 64–68	Belgium 50–53, 58–60	Czechoslovakia 90–91	Estonia 19–31, 92–94
	Mauritius 95	Belize 81–95	Denmark 19–40, 47–67, 71–72	Germany 49–52
	Myanmar 48–50	Bulgaria 90–93	Estonia 32–34, 953	Greece 26–27
	Saint Lucia 82–86	Canada 19–20, 26–44, 49–61,	Germany 53–56, 61–64, 83–95	Iceland 83–94
	Saint Vincent 79–83, 89–95	68–71, 74–95	Greece 32–36	Israel 49–68, 77–80, 88–91
	Sri Lanka 77	Dominica 78–79, 85–89	Grenada 90–95	Italy 83–95
	Tanzania 61–62	Gambia 66–69	Hungary 90–95	Latvia 22–34, 93–95
	Trinidad 71–75, 86–90	Germany 57–60, 65–82	India 67–70, 77–79, 89–95	Lithuania 20–26
		Ghana 57–60, 69–72	Iceland 45–82, 95	Luxembourg 73–78
		Greece 28–31, 75–95	Ireland 22–37, 43–68, 73–76, 81–95	Netherlands 19–40, 46–76, 81–85,
		Grenada 74–79, 95	Israel 69–76, 81–87, 92–95	94–95
		India 53–66, 71–75, 80–88	Italy 19–22, 48–82	Niger 93–95
		Ireland 38–42, 69–72, 77–80	Japan 52–57, 72–95	Norway 21–26, 30–32, 73–76, 89–95
		Jamaica 63–75, 89–95	Lithuania 92–95	Papua New Guinea 87–95
		Japan 58–71	Luxembourg 19–40, 46–73, 79–95	Poland 19–26
		Lithuania 91	Macedonia 91–95	Slovakia 94–95
		Malaysia 59–63, 69	Madagascar 93–95	Slovenia 90–95
		Mali 92–95	Malta 64–65	Solomon 82–95
		Malta 66–95	Mauritius 67–75, 91–94	Spain 31–36
		Mauritius 76–90	Moldova 94–95	Sudan 56–58
		Myanmar 51–58	Netherlands 77–80, 86–93	Suriname 88–89
		Nepal 91–95	New Zealand 22–24, 28–30	Sweden 91–93
		New Zealand 19–21, 25–27, 31–95	Nigeria 60–63	Thailand 75–76
		Nigeria 64–66	Norway 19–20, 27–29, 33–40, 46–72, 77–88	
		St. Kitts and Nevis 83–88, 95	Papua New Guinea 77–86, 92–95	
		Saint Lucia 79–81	St. Kitts and Nevis 89–94	
		Saint Vincent 84–88	Sierra Leone 62–66	

Presidential				

Top band

(bold, N = 83)
- Sierra Leone 67
- Somalia 60–69
- South Korea 61
- Spain 82–85
- Suriname 75–79, 91–95
- Trinidad 62–70, 76–85, 91–95
- Turkey 69–71, 77–80
- United Kingdom 24–95
- Vanuatu 80–90

N = 83

(N = 766)
- Slovakia 92–93
- Spain 78–81, 86–95
- Sri Lanka 48–76
- **Sudan 65–69, 86–89**
- Sweden 19–90, 94–95
- Turkey 61–68, 73–76
- **Uganda 62–66**
- United Kingdom 19–23
- Vanuatu 91–95

N = 766

(N = 332)
- Benin 91–95
- Bolivia 82–88
- **Brazil 50–64, 90–95**
- **Chile 49–64, 69–73, 90–95**
- Ecuador 84–95
- Guatemala 50–52
- **Indonesia 55–57**
- Panama 94–95
- **Peru 90–92**
- Philippines 87–91
- Portugal 79–81
- Venezuela 63–72

N = 332

Presidential band

(bold, N = 70)
- Botswana 66–68, 74–93
- Chad 60–62
- Congo 61–63
- Gambia 87–91
- Haiti 95
- Kenya 63–66
- Madagascar 65–71
- Philippines 57–60, 69–72, 95
- Seychelles 93–95
- Venezuela 48
- Zambia 91–95
- Zimbabwe 90–95

N = 70

(N = 276)
- Argentina 84–86
- **Benin 60–62**
- Botswana 69–73, 94–95
- Colombia 74–95
- Costa Rica 50–57, 70–73, 78–95
- **Dominican Republic 63, 78–85**, 94–95
- **Gambia 70–86, 92–94**
- Guyana 92–95
- Honduras 90–95
- Madagascar 61–64
- Mozambique 94–95
- **Myanmar 59–62**
- Namibia 90–95
- Nicaragua 90–95
- Panama 94–95
- Paraguay 91–95
- Peru 80–89
- Philippines 53–56, 61–68
- South Africa 94–95
- Taiwan 92–95
- Tanzania 95
- United States 20–95
- Uruguay 34–35, 58–70
- Venezuela 83–87

N = 276

(N = 146)
- Argentina 87–95
- Bolivia 89–95
- Brazil 47–49, 86–89
- **Burkina Faso 78–80**
- Chile 65–68
- **Congo 92–93**
- Costa Rica 58–69, 74–77
- Dominican Republic 86–93
- Ecuador 79–83
- El Salvador 91–95
- **Ghana 79–82**
- **Guatemala 48–49, 53–54**
- Malawi 94–95
- **Nigeria 79–83**
- Philippines 92–94
- **Portugal 25–26, 76–78**
- South Korea 88–95
- Uruguay 46–57, 71–73, 85–95
- Venezuela 58–62, 73–82, 88–95

N = 146

(N = 101)
- Benin 91–95
- Bolivia 82–88
- **Brazil 50–64, 90–95**
- **Chile 49–64, 69–73, 90–95**
- Ecuador 84–95
- Guatemala 50–52
- **Indonesia 55–57**
- Panama 94–95
- **Peru 90–92**
- Philippines 87–91
- Portugal 79–81
- Venezuela 63–72

N = 101

Note: Sequences ending with breakdowns are in bold.

Appendix 2
Democratic Episodes in the Data Set

Andorra 93–95	Guatemala 46–54	Paraguay 91–95
Antigua and Barbuda 81–95	Guyana 92–95	Peru 80–92
Argentina 84–95	Haiti 95	Philippines 53–72, 87–95
Australia 19–95	Honduras 90–95	Poland 19–26, 89–95
Austria 19–33, 55–95	Hungary 90–95	Portugal 19–26, 76–95
Bahamas 73–95	Iceland 44–95	Romania 92–95
Bangladesh 91–95	India 53–75, 77–95	Russia 93–95
Barbados 66–95	Indonesia 55–57	St. Kitts and Nevis 83–95
Belgium 19–40, 46–95	Ireland 22–95	St. Lucia 79–95
Belize 81–95	Israel 49–95	St. Vincent 79–95
Benin 60–62, 91–95	Italy 19–22, 48–95	Sao Tome 91–95
Bolivia 82–95	Jamaica 63–95	Seychelles 93–95
Botswana 66–95	Japan 52–95	Sierra Leone 62–67
Brazil 47–64, 86–95	Kenya 63–66	Slovakia 92–95
Bulgaria 19–20, 90–95	Latvia 22–34, 93–95	Slovenia 90–95
Burkina Faso 78–80	Lithuania 20–26, 91–95	Solomon Islands 78–95
Canada 19–95	Luxembourg 19–40 46–95	Somalia 60–69
Cape Verde 91–95	Macedonia 91–95	South Africa 94–95
Chad 60–62	Madagascar 61–71, 93–95	South Korea 61, 88–95
Chile 49–73, 90–95	Malawi 94–95	Spain 31–36, 78–95
Colombia 74–95	Malaysia 59–69	Sri Lanka 48–83
Congo 61–63, 92–93	Mali 92–95	Sudan 56–58, 65–69, 86–89
Costa Rica 50–95	Malta 64–95	Suriname 75–79, 88–89, 91–95
Czech Rep. 92–95	Mauritius 67–95	Sweden 19–95
Czechoslovakia 20–39, 90–91	Moldova 94–95	Switzerland 71–95
Denmark 19–40, 45–95	Mongolia 92–95	Taiwan 92–95
Dominica 78–95	Mozambique 94–95	Tanzania 61–62, 95
Dominican Republic 63, 78–95	Myanmar 48–62	Thailand 75–76
Ecuador 48–52, 79–95	Namibia 90–95	Trinidad 62–95
El Salvador 91–95	Nepal 91–95	Turkey 61–71, 73–80, 83–95
Estonia 19–34, 92–95	Netherlands 19–40, 46–95	Uganda 62–66
Finland 19–95	New Zealand 19–95	Ukraine 91–95
France 19–40, 45–95	Nicaragua 90–95	United States 20–95
Gambia 66–94	Niger 93–95	United Kingdom 19–95
Germany 19–33, 49–95	Nigeria 60–66, 79–83	Uruguay 34–73, 85–95
Ghana 57–60, 69–72, 79–82	Norway 19–40, 46–95	Vanuatu 80–95
Greece 26–36, 75–95	Papua New Guinea 77–95	Venezuela 48, 58–95
Grenada 74–79, 84–95	Panama 94–95	Zambia 91–95
		Zimbabwe 90–95

the vagaries of economic performance. To our knowledge, this is the first study to report such a finding.

We find our results on majoritarianism peculiar. We do not understand why this type fares better under economic contraction than under moderate levels of economic growth. Of all the types that we have identified, majoritarianism occurs with the least frequency. Therefore, we understand why this type has not received a place of prominence in the literature. Nevertheless, existing theory does not provide any ready-made explanation for this result. From a normative

perspective, however, we find it reassuring that this most rare and most unrepresentative form of democracy performs differently from more inclusive variants given the centrality of representation and responsiveness to democracy.

Last, our findings for pluralist and quasi-pluralist democracies are consistent with the literature on presidentialism in Latin America. These two subtypes, which combine presidentialism with representative party systems, explain the poor record of presidentialism in the Latin American context. Given the way these two subtypes perform under conditions of economic contraction and the periodic problems that many Latin American countries have experienced, this result now makes better sense. However, this does not mean that under conditions of sustained positive growth that these systems will fail with the regularity suggested by the literature on Latin American presidentialism. In fact, our model predicts that these systems would do quite well in a positive economic environment.

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