Cycles in public opinion and the dynamics of stable party systems

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A B S T R A C T

We study a dynamic model of elections where many parties may enter or exit political competition. At each election a new political leadership arrives for each party. The leadership cannot choose the party's platform (ideological identities are fixed) but must decide whether or not to contest the election. Contesting elections is costly and this cost is higher if the party has recently been inactive. The distribution of voters' ideal policies, or *public opinion*, changes over time via a Markov process with a state independent persistence parameter. We characterise stable party systems where the set of contestants is invariant to the recent most observed opinion. We show that stable party systems exist only when public opinion is sufficiently volatile, while highly persistent moods lead to instability and change in the party system whenever public opinion changes.

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1. Introduction

The impermanence of public opinion is well documented in political science.[1] As put succinctly by Stimson (1999), "we expect it to cycle back and forth, left and right, as leaders and followers change their views of government policy over time." One would therefore expect political outcomes to stagger along with the time dynamics of public opinion where ideologically new parties take the centre stage while some established parties cease to dominate. Yet, for close to a century now, Western democracies have exhibited a remarkable continuity and stability in their party systems, both in terms of number of contestants and their ideological positions (see Bartolini and Mair, 1990).[2]

This raises a challenging question that has been largely ignored: what makes party systems stable when public opinion is inherently volatile and when do stable party systems break down? Most formal theories on the entry and exit of political parties are static (e.g. Feddersen et al., 1990; Greenberg and Shepsle, 1987) and do not deal explicitly with the changes in party systems induced by an ever-changing public opinion. Dynamic models of the evolution of the party system have recently appeared in the literature but, to the best of our knowledge, they have either assumed a fixed number of parties (usually two) or have assumed random processes for entry (a recent survey of the results is in Duggan and Martinelli, 2014). Merrill et al. (2008) provides statistical evidence for the existence of cycles in American politics and proposes a simple adaptive model in which the two main parties change their positions over time as the median voter changes positions.

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[1] See the special issue of *Electoral Studies* (19, 2000) for a large literature on this.
[2] The appearance of new parties and the decamping of established ones are also not rare. Hug (2001) finds that in 22 major Western democracies as many as 361 new parties have formed since 1945.

However, they do not consider entry and exit and they do not provide 'microfoundations' for party behaviour. Duggan and Forand (2013) study a model with a finite set of voters in which the political state (that includes public opinion in terms of the location of the set of decisive voters) changes over time via a Markov process. Elections are always a two-candidate contest, one being the incumbent party (who has the option of withdrawing from the race) and the other being a random challenger with unknown type. Our paper instead studies large elections (where there are a continuum of voters) and explicitly deals with the entry and exit decisions of parties. We analyse a model in which established parties have a structural advantage (they do not have to pay the 'entry cost') but at every period there are multiple potential entrants who may decide strategically to challenge the existing parties or stay out. Also, party identities live for ever, though the leadership has a short-term horizon.

Our theory of first-past-the-post elections is based on two important stylised facts of competitive democracies. First, both party entry and permanence over time are costly (see e.g. Abramson et al., 1995 for the American case). Barriers to entry exist in any competitive democracy. Besides entry, running a party – new or well established – involves operating costs in each period. Thus, at any period, the total cost of participating in an election is strictly higher when the party is new.

Second, public opinion changes over time with an element of randomness and yet exhibiting a certain degree of persistence. The existence of cycles in public opinion has been recognised for a long time. Stimson (1999, 2004, 2012) documents how the attitudes of the American public on various issues tend to move over time. On the other hand, Byers and Peel (1997), DeBoef (2000), Lebo et al. (2000) and Wlezien (2000) show that an important feature of political time series is persistence. We model the evolution of political mood as a Markov process determined by a single parameter representing 'persistence' – the probability that public opinion will remain the same in the next election. We assume that each current public opinion continues to the next period with this probability and otherwise changes to a new one from a fixed finite set of possible opinions and we allow the persistence parameter to vary stochastically over time.

Another important feature of our model is motivated by some very strong empirical evidence that a party's ideology remains more or less fixed over time (see for example, Budge, 1994; Adam et al., 2004). We model this by assuming that there is a given set of potentially active parties identified by ideological stands that cannot be altered. Thus, while newly appointed leaders decide whether to compete (and thus be active in our sense) or not during their leadership tenure, their only credible policy platform remains fixed to the given party ideology. This is similar to the Citizen-Candidate models of Osborne and Slivinski (1996) and Besley and Coate (1997) but with an important distinction. In their models, politicians have strong ideological biases that bereave them from their ability to make credible policy commitments different from their ideal points. In our case, politicians are not 'ideologues' in that sense as all they care about is winning elections. However their party affiliation constrains them from choosing electoral platforms freely, unlike in the case of the standard Downsian paradigm.

A party system is called stable if, independently of the true public mood in the immediately held elections, each party finds it strictly profitable to continue contesting and no new party finds it profitable to enter in the forthcoming elections. Since in each period each party has a new leader, this notion of stability implies that in spite of the fact that public mood can change, each active party expects to win with sufficiently high probability to cover the costs of running in the next elections while leaders of inactive parties do not find it beneficial to enter and cover the entry and running costs for that period.

We show that in order to have a stable multi-party system, persistence of public opinion cannot be too high or too low – that is, public opinion must be intermediately volatile. A high degree of persistence invites exit of defeated parties while a low degree invites new entry. We then report conditions on the exact nature of the distributions that are necessary and sufficient to obtain the Duverger's Law of a two-party system that is in addition stable. These requirements yield a refinement of the conditions found in Brusco and Roy (2011), where a static citizen-candidate model is studied under aggregate uncertainty. We then study long run dynamics of a stable multi-party system and show that stability will typically be impaired when the political mood does not change and the same party keeps winning elections. In that case at some point in the future, either some of the losers will exit or some entry will occur. We then argue that the requirement of intermediate amounts of volatility in public moods for a stable party system to be sustained is robust to various extensions of the basic model.

The rest of the paper is organised as follows. Section 2 lays out the basic elements of the model. In Section 3 we discuss the notion of stability and characterise stable party systems. In Section 4 we address long run outcomes and dynamics. Conclusions are in Section 5. Appendix A contains the proofs, Appendix B shows how to compute stable equilibria for an example with normal distributions and Appendix C provides additional discussion on some regularity conditions.

2. The model

Elections are held at each period $t = 0, 1, \ldots$. There is a finite set $P = \{1, \ldots, r\}$ of (potential) political parties. Each party i has a fixed identity given by a point x_i on the ideology-policy line $\mathbb{R}$. The set $X = \{x_1, \ldots, x_r\}$ is thus called the set of *feasible policies*. Parties are labeled so that $x_1 < x_2 < \ldots < x_r$.

Parties are 'run' by political leaders (or, simply, *politicians*) who live for a single period. A politician who becomes the leader of party $i \in P$ must adopt the policy platform x_i given by party i's identity. While politicians are constrained to adopt the fixed identity of their parties, they can decide whether or not to contest the election under the party banner. Thus, at