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The Race to the Base

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Abstract

We study multi-district legislative elections between two office-seeking parties when one party has an initial valence advantage that may shift and even reverse during the campaign; and, each party cares not only about winning a majority, but also about its share of seats. When the initial imbalance favoring one party is small, each party targets the median voter. For moderate imbalances, the advantaged party maintains the centre-ground, but the disadvantaged party retreats to target its core supporters; and for large imbalances, the advantaged party advances toward its opponent, raiding its moderate supporters in pursuit of an outsized majority. *JEL* D72

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A near-axiomatic logic of two-party elections is that to win the contest, a party must carry the support of the median voter. To the extent that political parties care solely about winning the election, their platforms should therefore converge to the median voter's most-preferred policy (e.g., Hotelling 1929, Downs 1957). In legislative elections, however, winning is *not* everything. In fact, winning a majority of legislative seats may be neither necessary nor sufficient for a party to achieve its goals.

Two examples help illustrate this point. In 1992, John Major's Conservative party won a majority of seats in the House of Commons, and the largest number of votes of any party in British electoral history. Nonetheless, Major's overall majority fell from 102 to a mere 21 seats. Despite its victory, Major's government was persistently hampered by its small majority, which contributed to its first legislative defeat just over one year later.

In 2017, by contrast, Jeremy Corbyn's Labour party failed to win a majority of seats. Nonetheless, the party advanced its minority by 30 seats, and successfully denied the Conservative party its previously-held parliamentary majority. The press concluded that, despite its failure to achieve outright victory, Labour had triumphed over expectations of an electoral rout.

At the start of the 2017 election campaign, Theresa May enjoyed a 39 percentage point popularity advantage over Jeremy Corbyn.¹ May opted for "an aggressive strategy... parking her tank on Labour's lawn in heartlands such as the North East and the North West of England".² To the extent that "a party's electoral strategy is often betrayed by the pattern of seats visited by its leader", May's campaign visits are instructive: she allocated only 33 percent of her visits to Conservative-held seats.³ Instead, she spent the vast majority of her time in front line constituencies and even moderately safe Labour seats.⁴ May also targeted moderate Labour supporters with policy proposals that included a price cap on energy bills—a policy commitment that had been featured in Labour's 2015 election manifesto.⁵

By contrast, Labour's 2017 campaign opted for a defensive strategy, eschewing battleground

¹ YouGov, 18-19 April 2018.

² "What Theresa May's campaign stops tell us about her failed strategy", *The Telegraph*, 13 June 2017.

³ "Analysis shows Theresa May spent half of campaign targeting Labour seats", *The Guardian*, 8 June 2017.

⁴ Of the Labour-held seats May visited, Labour's average victory margin in the previous 2015 election exceeded 10 percentage points. See "General election 2017: A tale of two campaigns", *BBC News*, 15 May 2017, and *The Telegraph*, 13 June 2017.

⁵ In that election cycle, David Cameron ridiculed energy price caps as evidence of Ed Miliband's desire to live in a 'Marxist universe'. See "Tories accused of stealing Labour's energy price cap promise", *The Guardian*, 23 April, 2017.

constituencies in favor of shoring up support in areas where the party already enjoyed large majorities. Jeremy Corbyn devoted 52 percent of his campaign visits to defending Labour-held seats, of which the vast majority had been won in the previous 2015 election with victory margins of over 20 percentage points.⁶ The party also opted for a radical manifesto that promised to nationalize public utilities, abolish university tuition fees, and levy new taxes on firms with highly-paid staff.⁷ Pundits concluded that the parties were running "two entirely unconnected election campaigns".⁸ Observers who believed that a more moderate platform would maximize Labour's election performance found the party's strategy "baffling":⁹ why did it forego the centrist—or even right-leaning—route that led Tony Blair's party to a majority of 179 seats in 1997?

Our paper asks: under what circumstances does an office-seeking party in a legislative election want to target its electoral platform toward its traditional supporters, rather than centrist voters? If that party targets its traditional supporters, should the opposing party try to maintain its hold on the centre-ground, cater to its own base, or instead try to raid its opponent's more moderate supporters? And, how do the answers to these questions depend on parties' expectations about their popularity, the extent of voters' partisan loyalties, and the relative marginal value that a party derives from winning additional seats below, at, or above the majority threshold?

To address these questions, we develop a model of two-party competition between two office-motivated parties in a multi-district legislative election. For example, the election could determine control of a legislative chamber such as the U.S. House of Representatives, or the British House of Commons. After the parties simultaneously choose platforms, an aggregate net valence payoff shock in favor of one party is realized. Each voter in every district then casts his or her ballot for one of the two parties. We assume that one of the parties holds an initial advantage, in that the valence shock is expected to favor that party. For example, its leadership may perceived as more competent; alternatively, its opponent may be dogged by scandal or simply worn out by a long period of incumbency.

We assume throughout that each party's payoff depends solely on its share of districts, or seats in the legislature. However, this does not imply that parties care solely about *winning* the election. If a party wins more than half of the total districts (seats), it not only derives a large fixed

⁶ Labour's majority was 20 percentage points or higher in 32 of the 36 Labour-held seats Corbyn visited. See *The Guardian*, 8 June 2017.

⁷ "For the Many, Not the Few", *Labour 2017 Election Manifesto*, https://goo.gl/GZaTbk.

⁸ BBC News, 15 May 2017.

⁹ "The baffling world of Labour's election strategy", *The Spectator*, 27 April 2017.

payoff from majority status, i.e., from winning the election, it also receives a strictly increasing payoff from any additional seats that it wins beyond the majority threshold. The fixed office rent reflects the value of majority status *per se*: in a parliamentary democracy, majority status confers the right to form the government regardless of the size of a party's majority. Even in presidential systems, majority status grants a party control over crucial aspects of the legislative process, including scheduling bills and staffing committees. However, additional seats beyond the majority threshold are also valuable: they help insulate the majority party from the threat of confidence votes in a parliamentary context, insure against defections of a few party members on key votes, and mitigate the obstructionist legislative tactics that a minority party can employ.

If, instead, a party holds minority status, i.e., if its share of seats falls below one half, its payoff nonetheless strictly increases in its share of seats. This reflects that a stronger minority receives more committee positions, and can more effectively derail the majority party's agenda by use of parliamentary procedures that privilege a more numerous minority.

We obtain a unique equilibrium, in pure strategies, for all levels of the initial popularity imbalance between the parties. The equilibrium characterization can be indexed according to whether the initial imbalance is small, moderate, or large.

If the advantage is *small*, both parties locate at the policy preferred by the median voter in the median district. The reason is that—with a small imbalance—both parties remain competitive for majority status, encouraging them to compete aggressively to win the election, outright. This reflects that while winning isn't everything, it certainly matters a lot.

If the advantage is *moderate*, the disadvantaged party assesses that its prospect of winning an outright majority is distant enough that it is no longer worthwhile to single-mindedly pursue outright victory. Instead, it reverts to moving its policy platform away from the median voter in the median district, and in the direction of its core supporters. This choice may initially seem paradoxical, because this shift renders the party's prospects of winning even more distant. However, the shift also *increases* its anticipated share of seats in the relatively more likely event that the election consigns the party to minority status. The reason is that the party raises its attractiveness to its core supporters by differentiating itself ideologically from the advantaged party. With further increases in the valence imbalance, the disadvantaged party retreats further toward its base, as the prospect of losing the election rises.

By contrast, with a moderate advantage, the advantaged party maintains its strategy of targeting its platform at the policy preferred by the median voter in the median district. Pursuing

its weaker opponent makes the advantaged party more palatable to its opponent's core supporters, but it also weakens the party's policy appeal to its own core supporters. Because the party's advantage is only moderate, it still faces a meaningful risk of winning only a minority of seats. Under the assumption that a party places a premium on defending its minority seats, versus winning additional majority seats, the advantaged party therefore holds back from pursuing its fleeing opponent.

Finally, if the imbalance is *large*, the disadvantaged party continues its retreat by locating its platform even further from the centre and toward its core supporters. But now the advantaged party gives chase, moving its platform beyond the median voter in the median district and into the disadvantaged party's ideological territory. This is strategically appealing for three reasons. First, the party's strong advantage makes it less concerned about the risk of losing the election—i.e., of failing to win a majority of seats; instead, its focus shifts to generating a comfortable seat advantage *conditional on winning majority status*. Second, it reduces the policy wedge between the parties, which heightens the salience of the advantaged party's net valence advantage, raising its appeal amongst all voters. Third, it capitalizes on the opportunity created by the disadvantaged party's increasingly extreme lurch to raid its more moderate supporters.

While platforms fully converge when initial imbalances are small, we show how changes in political primitives in the context of either a moderate or large initial imbalance either exacerbate or mitigate the disadvantaged party's incentive to revert to its base.

The disadvantaged party increasingly retreats to its base whenever its initial disadvantage grows. The reason is that the party is less competitive for a majority, and its priority increasingly shifts to defending its anticipated minority. The disadvantaged party also retreats further whenever the parties' relative popularity becomes more volatile. More volatile preferences raise the prospect of a large swing on election day. On the one hand, this popularity swing may favor the disadvantaged party. On the other hand, if the popularity swing favors the advantaged party, the weaker party's core districts will be the front lines of the electoral contest. Under the assumption that a party places a premium on retaining its seats in the event of a legislative minority, the heightened risk of a swing in favor of its stronger opponent weighs most heavily on the disadvantaged party, encouraging it to adopt a more defensive strategy. Finally, the disadvantaged party further retreats when the partisan loyalty of traditional supporters declines, as they are now less easily taken for granted.

Because the advantaged party maintains its position in the centre, these changes trigger in-

creased platform polarization. Once the imbalance is large enough, however, further increases in the popularity imbalance induce *both* parties to move toward the disadvantaged party's core supporters, with the stronger party advancing more quickly.

Our premises and results contrast starkly with existing models of party positioning in elections. In the framework developed by Calvert (1985) and Wittman (1983), policy-motivated parties face uncertainty about the preferences of the electorate—specifically, the median voter's most preferred platform. In equilibrium, if a party becomes *more* advantaged, i.e., if the expected location of the median voter moves toward its most-preferred policy, *both* parties advance toward the advantaged party's ideal policy.

Our framework predicts the opposite. In particular, consistent with the campaigns of Tony Blair or Theresa May, when the advantaged party's net valence advantage is large enough, an increased electoral imbalance encourages both parties to move in the direction of the *disadvantaged* party's base. The advantaged party invades its opponent's ideological turf to pursue a strong majority, while the disadvantaged party retreats to its base to try to rally its core supporters. The first implication seems to describe well Tony Blair's electoral strategy in 1997 to transition his party to *New Labour*, at a time when the party enjoyed a clear preference advantage amongst voters. This advantage was so strong that even *The Sun* newspaper, which had supported the Conservatives in every election in the previous twenty years, endorsed Labour, condemning the Conservatives as "tired, divided and rudderless". Our prediction also characterizes May's efforts to win over moderate Labour supporters in 2017. The second implication closely corresponds to Bogdanor's summary of the Conservative lurch to the right from 2001 to 2010, in which "three successive Conservative leaders... responded to defeat by seeking to mobilize the Tory 'core' vote". ¹¹

While our analysis focuses on legislative elections, our finding that an advantaged party advances on its weaker opponent—rather than cater to its own core voters—extends to the candidate-centered elections that are the focus of the Calvert-Wittman framework. Like both Bill Clinton and Tony Blair, Emanuel Macron—a former Socialist party minister—leveraged a large popularity advantage in his 2017 presidential campaign to adopt a 'Third Way' manifesto that included reductions in corporate taxes and public spending, increased defense spending, and allowing firms to negotiate additional working hours beyond the country's 35-hour work week.

Groseclose (2001) augments the Calvert-Wittman framework by introducing a deterministic

¹⁰ See Butler and Kavanagh (1997).

¹¹ "The Conservative Party: From Thatcher to Cameron", New Statesman.

valence advantage for one party. However, Groseclose does not establish existence or uniqueness of an equilibrium. Moreover, his main theoretical results are limited to a context with a small valence advantage (specifically, moving from no advantage to an arbitrarily small advantage), and his framework features a single (median) voter—precluding the question of whom to target that is fundamental to our framework. The predictions that he derives when an equilibrium exists differ substantially from our office-motivated context. For example, his framework predicts that if the advantaged party's net valence advantage is very large, then it always adopts more extreme policy positions in the direction of its ideal policy.

Our framework predicts the opposite: the advantaged candidate responds to a large advantage not by adopting extreme positions favored by its own core supporters, but instead by targeting its opponent's moderate supporters. Our analysis reconciles campaigning by the Australian Labor Party (ALP) during the first of several election victories, in 1983. The election came at a time of high unemployment, high inflation, industrial unrest and a prime minister (Malcolm Fraser) who had only recently survived an internal leadership challenge. The incumbent government was so unpopular that former ALP leader Bill Hayden quipped that "a drover's dog could lead the Labor Party to victory, the way the country is and the way the opinion polls are showing up..." During the election and in government, the party—whose constitution still declares it to have "the objective of the democratic socialization of industry, production, distribution and exchange"—promoted tariff reductions, tax reforms, limits on union activity, transitioning from centralized bargaining to enterprise bargaining, privatization of government enterprises, and banking deregulation.

Aragones and Palfrey (2002) and Hummel (2010) characterize equilibria in a Downsian setup with purely office-motivated candidates and a deterministic net valence advantage. As in our setting, the advantaged candidate benefits from raising the salience of this valence advantage. This encourages the advantaged candidate to mimic the disadvantaged candidate, and the disadvantaged candidate to try to differentiate itself from the advantaged party. These "chase-and-evade" incentives yield equilibria in mixed strategies. Both papers are limited to characterizing a particular mixed strategy equilibrium, under the restriction either of a small (Aragones and Palfrey, 2002) or large (Hummel, 2010) initial valence advantage.¹³

¹² "Statements from Hayden Bowen, Hawke", *The Canberra Times*, 4 February 1983.

¹³ Aragones and Palfrey (2005) endow candidates with private information about their preferences, obtaining a pure strategy equilibrium. As the relative weights placed by candidates on policy outcomes as opposed to office rents converge to zero, the distribution over candidates' policies approaches the mixed strategy equilibrium in Aragones and Palfrey (2002).

In contrast with both Groseclose (2001) and Aragones and Palfrey (2002), our framework generates a unique pure strategy equilibrium. This stems from our distinct approach to representing the parties' electoral uncertainty. Existing work assumes that parties (or candidates) are *certain* about the net valence advantage on election day, but *uncertain* about voters' policy preferences. In particular, they are uncertain about the median voter's preferred policy. To see why this generates equilibria in mixed strategies in an office-motivated setting, notice that whenever the advantaged and disadvantaged parties adopt the same platform, the party with a known net valence advantage wins the support of *every* voter, *regardless* of policy preferences. As a result, chase-and-evade incentives overwhelm all other considerations.

In our setting, by contrast, parties face no uncertainty about voters' policy preferences, but are uncertain about whether an initially favored party's popularity advantage will increase, narrow, or even reverse by the time of the election. So, even if the parties locate at the same platform, each has a chance of winning the election. Our approach to representing parties' electoral uncertainty follows a large probabilistic voting literature (e.g., Lindbeck and Weibull, 1987, Persson and Tabellini, 2002, and Banks and Duggan, 2005).

While our framework also has chase-and-evade incentives, they are tempered by incentives to target specific voters—such as the median voter, or a party's core voters—depending on the party's forecast of its popularity, and its relative value of winning additional seats below, versus at and above the majority threshold. For example, if parties only care about winning a majority of seats, each locates at the median voter's ideal policy, regardless of the popularity imbalance.

Our framework offers an explanation for why parties may instrumentally choose relatively extreme policies. In Eguia and Giovannoni (2019), a party that is sufficiently disadvantaged to-day may give up on a mainstream policy, and instead invest in an extreme policy; it does so not to increase its office-motivated payoffs today, but instead to gamble on a shock to voters' preferences in a subsequent election. Our explanation emphasizes that the instrumental adoption of extreme policies in the face of a likely election defeat arises not only via dynamic office-holding incentives, but also via static office-holding incentives that emphasize the value of a strong minority position.

Bierbrauer, Tsyvinski and Werquin (2017) conduct a quantitative text analysis of party manifestos in German federal elections. They observe that Angela Merkel's centre-right Christian Democratic Union (CDU) gained in popularity versus her main challenger, the centre-left Social Democratic Party (SPD) over the period 2005 to 2017. At the same time, Merkel increasingly adopted policies traditionally advocated by the SPD. To get at this, Bierbrauer et al. (2017) build

an endogenous turnout model in which proposed party policies fully converge on a policy position preferred by followers of the weaker party. In contrast, we predict that the parties propose identical policies only when neither party has a large initial advantage. Otherwise, the weaker party retreats to its base, while the stronger party either maintains the centre-ground, or—if the imbalance is large enough—pursues its weaker opponent. Our predictions are consistent with the authors' findings that, over the period 2005 to 2017, the CDU and SPD party policies were differentiated but both moved in the direction of the (increasingly) weaker party's core supporters.

Our multi-district framework is closest to Callander (2005). In his model, two parties simultaneously choose national platforms, in the face of local candidate entry, generating equilibrium platforms that differ greatly from ours. Other authors—for example, Austen-Smith (1984), Kittsteiner and Eyster (2007), and Krasa and Polborn (2018)—study multi-district competition in which party platforms are an aggregate of decentralized choices by local candidates. Our framework, like Callander's, instead reflects a context in which voters predominantly assess their view of the party on the basis of its national platform.¹⁴

I. Model

Two parties, L and R, simultaneously choose campaign platforms, z_L and z_R , prior to an election. The policy space is the real line, \mathbb{R} . Competition involves multiple districts, with the winner of each individual district determined by majority rule. Each district features a continuum of voters, and each voter i is indexed by his or her preferred policy, x_i . There are a continuum of districts: each district is indexed by its median voter's preferred policy m, and district medians are uniformly distributed on the interval [-1,1].

If party L implements platform z_L , a voter i with preferred policy x_i derives payoff

$$u(x_i, z_L) = -|z_L - x_i| - \theta x_i. \tag{1}$$

¹⁴ In Polborn and Snyder (2017), a party's platform is assumed to reflect the preferences of its median elected legislative candidate. Thus, in contrast to our approach, it is determined after the election, after net valence shocks are realized.

¹⁵Under Assumption 2, below, the distribution of voters' ideal policies within each district serves only to determine the location of the median voter's ideal policy in that district.

If, instead, party R implements its platform z_R , the voter derives payoff

$$u(x_i, z_R) = -|z_R - x_i| + \rho.$$
 (2)

Here, ρ is a preference shock, uniformly distributed on the interval $[\rho_0 - \psi, \rho_0 + \psi]$. It captures developments that unfold over the course of an election campaign—right up to election day—including performances by party leaders in public debates or town hall meetings, or scandal revelations. If the legislative election coincides with a presidential election, ρ could also capture evaluations of a party arising from its presidential candidate's campaign. Its mean ρ_0 could reflect voters' relative assessment of the parties at the outset of a campaign—for example, evaluations of its leadership, or perceptions of competence that are inherited from a party's previous spell in government. Without loss of generality, we assume that $\rho_0 \geq 0$, so that R is the "advantaged" party.

The policy-related part of voters' preferences has two distinct components. The first component, $-|z_P - x_i|$, is a linear policy loss that increases with the distance between party P's policy platform and voter i's preferred policy. The second component, which states that voter i derives an additional net value $-\theta x_i$ from party L, has multiple interpretations. For example, it could reflect a fixed party policy position on another dimension of policy conflict (as in Xefteris, 2017). Our running interpretation is that $-\theta x_i$ reflects partisanship, i.e., a voter's "early-socialized, enduring, affective... identification with a specific political party" (Dalton, 2016) that transcends short-term policy platforms that parties adopt from one election to the next, and which intensifies in a voter's ideological extremism. Our approach captures the fact that the average voter in Alabama perceives a different net value from a Republican versus a Democrat than the average voter in Rhode Island—above and beyond any evaluation of the parties' policies.

In sum, a voter with preferred policy x_i prefers party L if and only if:

$$\Delta(x_i; z_L, z_R, \rho) \equiv \underbrace{|z_R - x_i| - |z_L - x_i|}_{\text{Platform gap}} - \underbrace{\theta x_i}_{\text{Partisan gap}} - \underbrace{\rho}_{\text{Valence gap}} \ge 0.$$
 (3)

Let $d_P \in [0,1]$ denote the share of districts won by party $P \in \{L,R\}$, and let M_P denote the event that party P wins a majority of districts. Party P's payoff is

$$u_P(d_P) = M_P[r + \beta(d_P - 1/2)] + (1 - M_P)\alpha d_P.$$
(4)

A party receives a fixed payoff of r > 0 if it wins the election. Higher values of r reflect the majoritarian organization of a legislature: winning a majority gives a party agenda-setting authority, and control over committee assignments and leadership. And, in a parliamentary democracy, winning a majority yields formal control over the executive branch.

Parties also value winning additional seats both below and above the majoritarian threshold. Even if a party fails to achieve a majority, it still gains from winning more seats. And, if a party achieves a majority, it values increasing its share of seats above the majority threshold. To capture this idea, we let $\alpha>0$ denote the marginal value of winning additional districts that nonetheless keep a party's total share of districts less than a majority; and we let $\beta>0$ denote the marginal value of winning additional districts above and beyond the majority threshold. This piecewise linear formulation facilitates tractable solutions, and, as we show in the Appendix, may be viewed as an approximation of more sophisticated payoff schedules.

We adopt the convention that when a voter is indifferent between the parties, she votes for party L. We also assume that when the parties tie in a district, L wins the district. Finally, when each party wins one half of the districts—which occurs with probability zero—L wins the majority. These tie-breaking rules are without loss of generality.

Additional Assumptions. We impose two assumptions throughout the paper; the first assumption focuses on party preferences, while the second assumption relates to voters' preferences.

Assumption 1:
$$\alpha \ge \beta$$
 and $r > \frac{1}{2} \left(\alpha + \frac{\psi}{\theta} (\alpha - \beta) \right)$.

The first preference restriction $\alpha \geq \beta$ says that the marginal value of additional seats to a minority party exceeds that for a majority party, above and beyond the gains from winning majority status. We later describe properties of equilibrium policy platforms under the alternative assumption that $\beta > \alpha$. As we discuss below, we view $\alpha \geq \beta$ as inherently more plausible.

For majority status to convey a benefit, it *must* be that $r > \alpha/2$. The second preference restriction says that parties sufficiently value winning majority status. We make this assumption solely to streamline exposition, and relax it in Section 4.

Assumption 2:
$$\rho_0 - \psi < -1$$
, and $\theta > \rho_0 + \psi + 1$.

Recall that the preference shock ρ is uniformly distributed on $U[\rho_0 - \psi, \rho_0 + \psi]$, that without loss of generality $\rho_0 \geq 0$, and that district medians are uniformly distributed on [-1,1]. $\rho_0 - \psi < -1$ ensures that, in equilibrium, each party wins the election with positive probability. $\theta > \rho_0 + \psi + 1$

ensures that, in equilibrium, each party wins a strictly positive fraction of its core districts, ensuring interior solutions.

The interaction proceeds as follows.

- 1. The parties simultaneously select platforms z_L and z_R .
- 2. The preference shock ρ is realized and observed by all agents.
- 3. Each voter chooses to vote for one of the two parties.
- 4. The winning party implements its promised platform, and payoffs are realized.

Discussion. In our framework, parties know voters' policy preferences, but face uncertainty about whether party *R*'s initial relative popularity advantage will increase, narrow, or even reverse during the election. Both Aragones and Palfrey (2002) and Groseclose (2001) adopt the opposite perspective that at the time parties choose platforms, they perfectly forecast their relative popularity on election day, but face uncertainty about voters' policy preferences—specifically, the median voter's preferred policy.

Our approach reflects the view that an individual's perceptions of a party or party leader's competence, honesty and charisma—arising from campaign rallies, public debates and town halls, and (social) media coverage—fluctuate far more over the course of a single election cycle than his or her views on policy issues such as taxation, health care or gay marriage. They therefore constitute the first-order source of uncertainty facing parties in an election. For example, while Theresa May started the 2017 election with a 39 percentage point popularity advantage, her popularity fluctuated throughout the campaign, and by polling day her margin had diminished to 10 percentage points. In addition to its substantive motivation, our modeling framework yields a unique equilibrium in pure strategies, facilitating our goal of describing strategic behavior in real-world election campaigns.

Beyond the value that parties derive from winning a majority of districts, r, we assume that they derive an incremental value α from an additional seat below the majority threshold, and β from an additional seat in excess of a majority. We will verify that, under Assumption 2, districts can be ordered according to the location of their medians. Thus, the assumption that $\alpha \geq \beta$

¹⁶Londregan and Romer (1993) also assume that a net valence shock is realized after parties choose platforms. In their policy-motivated setting, each party locates closer to its preferred policy as voters place more emphasis on the valence shock, relative to platforms.

¹⁷ "Opinion Polling for the United Kingdom General Election, 2017", https://goo.gl/7mTYQW.

implies that a party places a premium on successfully defending one of its core districts, versus winning one of its opponent's. We view this as natural for several reasons.

First, a party's incumbent legislators will typically be drawn disproportionately from its core districts. Defending these seats is likely to matter more than winning new seats (as in, for example, Snyder Jr, 1994). This would be true if existing incumbents are in a position to directly influence the party's platform, and "naturally value the seats the party already holds more than new ones it might win" (Cox and Katz, 2002, 36). Party leaders can also be expected to prioritize trusted friends and allies over bringing in freshmen whose loyalties are untested, and whose reputations are undeveloped. Incumbents also possess seniority, which contributes to their legislative efficacy through formal rules as well as informally via their expertise and experience (Miquel and Snyder Jr, 2006).

Second, the assumption captures dynamic electoral considerations that extend beyond the immediate election cycle. While an outsized majority may build momentum in future elections, or in a party's other electoral arenas, a party whose showing is so disastrous that it cannot successfully retain its core constituencies can be expected to face a heightened vulnerability to splits, internal leadership challenges and factional conflict. This view is corroborated by Peabody (1967), who finds that: "Strong victories promote good will and generally reflect to the benefit of party leaders. Conversely, defeat results in pessimism, hostility and a search for scapegoats. If the net losses are particularly severe, as many as thirty to fifty seats, then the possibilities of minority leadership change through revolt are great enhanced." A severely weakened party may struggle to attract high quality candidates to contest subsequent elections, or even face the entry of rivalrous parties.

In a Supplemental Appendix, we provide two distinct sets of explicit policy-motivated primitive foundations for $\alpha \geq \beta$. We prove that the property that parties care more about winning their core constituencies emerges naturally when parties internalize the preferences of their constituents—i.e., of the voters in districts that elect the party's candidates. This approach was first developed in Caplin and Nalebuff (1997), and subsequently applied to party formation and electoral competition by Baron (1993) and Roemer (2001). It also emerges when parties believe that larger electoral margins allow the winning party to more aggressively pursue its policy goals without making concessions to the losing party—as in Alesina and Rosenthal (1996).

¹⁸ We are grateful to an anonymous referee, who proposed this rationale.

II. Results

We begin by identifying the share of districts won by each party for any platform pair (z_L, z_R) and net valence advantage ρ —and thus each party's probability of winning the election. Recall that a voter with preferred policy x_i weakly prefers party L if and only if $\Delta(x_i; z_L, z_R, \rho) \geq 0$, defined in (3). Assumption 2 implies that the partisan preference parameter θ exceeds 2. This means that for any pair of platforms a voter's relative value from party L strictly decreases in her type, x_i .¹⁹ Therefore, there is a unique policy $x^*(z_L, z_R, \rho)$ such that a voter weakly prefers party L if and only if her ideal policy lies weakly to the left of x^* . So, party L wins a district with median m if and only if $x^*(z_L, z_R, \rho) \geq m$. Using the fact that district medians are uniformly distributed on [-1, 1], party L's share of districts is given by

$$d_L = \frac{1}{2} + \frac{x^*(z_L, z_R, \rho)}{2}.$$

Party L wins the election if and only if $x^* \ge 0$, i.e., if and only if it is preferred by the median voter in the median district, who has ideal policy zero. We have:

$$x^*(z_L, z_R, \rho) \ge 0 \iff |z_R| - |z_L| \ge \rho.$$

Henceforth, we call the median voter in the median district the *median voter*. Substituting into the party payoff function in equation (4) yields party L's expected payoff:

$$\pi_L(z_L, z_R) = \frac{1}{2\psi} \int_{\rho_0 - \psi}^{|z_R| - |z_L|} \left(r + \beta \frac{x^*(z_L, z_R, \rho)}{2} \right) d\rho + \frac{1}{2\psi} \int_{|z_R| - |z_L|}^{\rho_0 + \psi} \alpha \left(\frac{1}{2} + \frac{x^*(z_L, z_R, \rho)}{2} \right) d\rho. \tag{5}$$

Party R's corresponding expected payoff is:

$$\pi_R(z_L, z_R) = \frac{1}{2\psi} \int_{\rho_0 - \psi}^{|z_R| - |z_L|} \alpha \left(\frac{1}{2} - \frac{x^*(z_L, z_R, \rho)}{2} \right) d\rho + \frac{1}{2\psi} \int_{|z_R| - |z_L|}^{\rho_0 + \psi} \left(r - \beta \frac{x^*(z_L, z_R, \rho)}{2} \right) d\rho. \tag{6}$$

We now characterize equilibrium platforms choices and highlight how they depend on R's initial advantage (ρ_0), uncertainty about how preferences will evolve over the course of the election (i.e., uncertainty about ρ , captured by ψ), the relative value of seats to the minority party (α) versus the majority (β), and the value of winning a legislative majority (r). We first establish that

 $^{^{19}}$ This holds even if $z_R < z_L$, which does not occur in equilibrium.

our framework produces a unique equilibrium, in pure strategies.

Theorem 1. *Under Assumptions* 1-2, there exists a unique pure strategy equilibrium.

To understand why a pure strategy equilibrium obtains, recall that there exists a unique district median voter who is indifferent between the two parties, whose preferred policy $x^*(z_L, z_R, \rho)$ satisfies:

$$\Delta(x^*; z_L, z_R, \rho) = |z_R - x^*| - |z_L - x^*| - \theta x^* - \rho = 0.$$
(7)

Henceforth, we refer to this indifferent district median voter as the 'swing voter'. While parties know that the median district's *median voter* has preferred policy zero, they face uncertainty about the identity of the *swing voter* due to the valence shock, ρ .

Party L wins districts whose median voter's preferred policy lies weakly to the left of the swing voter's preferred policy, $x^*(z_L, z_R, \rho)$. It therefore wins the support of the median voter, and thus a majority of seats, if $x^*(z_L, z_R, \rho) \geq 0$. In that event, the swing voter is a median voter in one of party R's core districts. Conversely, R wins a majority if $x^*(z_L, z_R, \rho) < 0$, in which case the swing voter is a median voter in one of L's core districts.

In Figure 1, the black line identifies the swing voter's preferred policy $x^*(0,0,\rho)$ when the parties both locate at the median voter's preferred policy of zero. A district with median voter to the left of $x^*(0,0,\rho)$ votes for L, and a district with median voter to the right of $x^*(0,0,\rho)$ votes for R. Expression (3) reveals that party L secures the support of the median voter—and therefore wins the election—if and only if the shock resolves in its favor, i.e., if and only if $\rho \leq 0$.

What are the consequences of a shift by party L away from the median voter's preferred policy to the policy a<0, given that R locates at zero? By moving away from the median voter, L differentiates itself from its stronger opponent, generating a new swing voter $x^*(a,0,\rho)$ for each realization of the valence shock ρ .

This new location is highlighted by the blue line in Figure 1. L's policy differentiation makes it relatively *more* attractive to voters with ideal policies to the left of $\frac{a+0}{2}$. If $\rho \geq -\theta a/2$, i.e., if the net valence shock resolves sufficiently strongly in favor of party R—L's relocation moves the swing voter further to the right. When this is so, L increases its share of legislative seats even though it loses the election.

However, L's policy differentiation also makes it relatively *less* attractive to voters with ideal policies to the right of $\frac{a+0}{2}$. If, despite $\rho_0 > 0$, the preference shock favors R less strongly, i.e., if

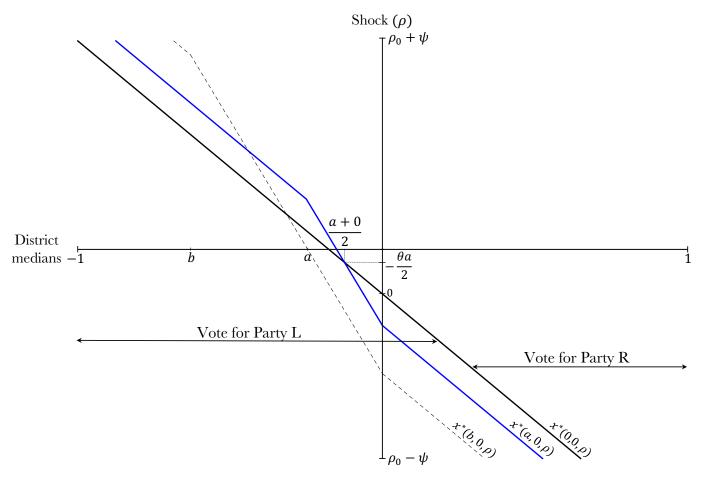


Figure 1 – Possible locations for the swing voter, depending on the valence shock ρ and party L's platform z_L , when party R locates at the median voter, i.e., when $z_R = 0$.

 $\rho < -\theta a/2$, then L's relocation moves the swing voter further to the *left*, reducing the share of districts that it wins in the event that party L either wins majority status, or loses a close election. Moreover, L's move to the left lowers its prospect of winning a majority, because the median voter now strictly prefers R on policy grounds.

Were L to locate at an even more extreme policy—such as b in Figure 1—then it would further buttress its minority seat share in the event of a very large swing in favor of party R. However, locating more extremely would also further cede support amongst its more moderate core districts, as well as R's core districts, and further reduce its prospects of a majority.

The parties choose platforms before they learn the net popularity advantage favoring party R, so they do not know the identity of the swing voter when they choose platforms. Thus, L's decision about whether to target the median voter, or instead to abandon her in favor of its core supporters, turns on its forecast of R's relative popularity on Election Day. This forecast is determined

by ρ_0 , the mean of the net valence shock in favor of R. If ρ_0 is large, L anticipates that it is very unlikely to win a majority, and that the swing voter will be a median in one of its core districts. This encourages party L to move away from its stronger opponent to avoid an electoral rout.

Similar considerations guide party R. Suppose, for example, that L locates at a in Figure 1, and R is choosing between the median voter's preferred policy, versus co-locating at L's platform. In the event of a sufficiently favorable popularity shock of $\rho > -\theta a/2$, the decision to pursue L moves the swing voter to the *left*, further increasing R's share of districts. If, instead, $\rho < -\theta a/2$, then chasing L moves the swing voter to the *right*, lowering R's prospect of winning a majority and its share of districts in the event of an adverse popularity shock.

In sum: the parties' trade-offs depend on their forecast about the relative Election Day popularity of the parties. Together with platform choices, this popularity determines the likely location of the swing voter, and thus the front lines of the electoral battle. The next three propositions establish that how these trade-offs resolve, and thus the characterization of the unique equilibrium, can be indexed according to whether the initial imbalance is small, intermediate, or large.

Proposition 1. If party R's advantage is **small** in the sense that

$$0 \le \rho_0 \le \frac{\theta(2r - \alpha) - (\alpha - \beta)\psi}{\alpha + \beta} \equiv \underline{\rho}_0,$$

then both parties locate at the ideal policy of the median voter in the median district:

$$z_L^*(\rho_0) = 0, \quad z_R^*(\rho_0) = 0.$$

A party wins a majority of districts only if it is preferred by the median voter in the median district, with ideal policy zero. When the parties are initially balanced, i.e., when ρ_0 is zero, each party is equally competitive for a majority. Because parties place a premium r on majority status, each party aggressively pursues an outright victory.²⁰

Starting from a position of initial symmetry, i.e., starting from $\rho_0 = 0$, increases in ρ_0 reduce L's chances of winning, but do *not* alter the policy platform that maximizes this probability. Thus—and to an extent that is proportional to the value r of winning majority status—L's electoral strategy continues to target a legislative majority by way of a centrist policy platform even as its prospects of winning deteriorate. Notice that as $(\alpha - \beta)\psi$ increases—implying a greater rela-

 $^{^{20}}$ Under Assumption 1, $r>\frac{\alpha}{2}+\frac{\psi}{2\theta}(\alpha-\beta)$, which implies that $\underline{\rho}_0>0.$

tive concern for incremental minority versus majority seat shares, $\alpha-\beta$, combined with the greater electoral risk encapsulated in ψ —the upper bound of initial imbalance for which the disadvantaged party wants to compete directly with the advantaged party ($\underline{\rho}_0$) falls.

When the imbalance between the parties is large enough, L no longer prefers to engage in unmitigated competition with R for outright victory.

Proposition 2. *If party R's advantage is intermediate in the sense that*

$$\underline{\rho}_0 \le \rho_0 < \underline{\rho}_0 + (\alpha - \beta)\psi \frac{2\theta\alpha + \alpha - \beta}{(\alpha + \beta)(\alpha\theta + \alpha - \beta)} \equiv \overline{\rho}_0,$$

then party L retreats to its base,

$$z_L^*(\rho_0) = \frac{\theta(2r - \alpha) - \alpha(\rho_0 + \psi) + \beta(\psi - \rho_0)}{\alpha - \beta + 2\alpha\theta} < 0,$$

but R still locates at the ideal policy of the median voter in the median district, choosing $z_R^*(\rho_0) = 0$.

When the electoral imbalance in favor of party R surpasses an initial threshold $\underline{\rho}_0 > 0$, the disadvantaged party L's competitive environment shifts by enough to merit a change in electoral strategy. A sufficiently high ρ_0 implies that L's prospect of winning a majority—even when targeting the *median* voter, directly—becomes a distant prospect. In essence: the party's core vote is likely to become its swing vote.

Anticipating a significant prospect that the swing voter will be a median in one of its core districts, L's best electoral strategy reverts to galvanizing its base by selecting a platform $z_L(\rho_0) < 0$. By distancing itself from party R, it offers a meaningful programmatic alternative to R's centrist platform: policy differentiation partly mitigates L's valence disadvantage amongst voters who value more left-wing policies. While retreating from the political centre further reduces L's prospect of winning a majority of districts, $\rho_0 > \underline{\rho}_0$ implies that party L no longer finds it worthwhile to target an outright victory. That is, acknowledging that it is very likely to hold minority status, L's priority reverts from solely pursuing a majority to instead balancing this objective against the need to secure the most advantageous minority share of seats possible.

By contrast, the same primitives encourage party R to maintain its hold on the ideological centre-ground. Its prospect of winning the election is maximized by selecting the policy preferred by the median voter in the median district. Party R could chase L into its own ideological turf, in order to increase its seat advantage conditional on holding a majority. However, its initial electoral

advantage is small enough ($\rho_0 < \overline{\rho}_0$) that it does not want to risk its prospect of winning. Chasing disadvantaged party L makes advantaged party R more palatable to moderate left-wing districts, but it harms R's standing with both the median voter and R's own core voters. And, in the event that R fails to win a majority, the swing voter will be one of R's core supporters. To the extent that R values insuring itself against an adverse popularity shock, it prefers not to give chase.

To see this point more clearly, notice that the size of the interval $[\underline{\rho}_0, \overline{\rho}_0]$ is proportional to $(\alpha - \beta)\psi$, and the interval is empty when $\alpha = \beta$. This size provides a measure of the advantaged party's incentive to hold back versus give chase. As it advances on its retreating opponent by shifting its platform to the left:

- 1. it raises its appeal amongst its opponent's core supporters and therefore—conditional on winning—raises its share of districts by moving the swing voter's preferred policy to the *right*. It values these districts at rate β ; but,
- 2. it lowers its appeal amongst its own core supporters, and therefore—conditional on losing—lowers its share of districts by shifting the swing voter's preferred policy to the *left*. It values these districts at rate $\alpha \ge \beta$.

As the wedge $\alpha - \beta$ increases—amplified by the magnitude of the election risk ψ —the advantaged party increasingly prefers to 'play it safe', holding back even as its initial advantage increases.

These channels generate natural effects of primitives on party L's platform, and thus the degree of policy divergence between the parties.

Corollary 1. When Party R's advantage is intermediate, Party L increasingly retreats to its base—and thus platform divergence increases—whenever

- 1. its initial disadvantage ρ_0 increases,
- 2. the marginal value of minority seats α increases, or
- *3. uncertainty about voter preferences* ψ rises.

Conversely, L increasingly targets the median voter when

- 1. the value of majority status r increases, or
- 2. $party loyalty \theta$ increases.

If party loyalty θ amongst more ideologically polarized voters rises, party L grows less worried about losing support amongst its core districts—the rate at which higher valence shocks ρ_1 shift the identity of the swing voter further into its core districts slows. This encourages the party to target centrist districts whose support is crucial for the party to win.

When parties anticipate a more volatile electorate via a higher ψ , then for any pair of platforms, there is a heightened prospect of a large post-election imbalance between the majority and minority party via more extreme realizations of $\rho \sim U[\rho_0 - \psi, \rho_0 + \psi]$. If the disadvantaged party competes more aggressively by moving its platform toward its opponent, it could win more seats in the event of a majority, but it may lose even more seats in the event of an unfavorable realization that consigns the party to minority status. Here, with $\alpha > \beta$, a concern for core districts encourages the weaker party to hasten its retreat. Thus, our framework predicts that platform polarization is greater when party loyalty is weaker (θ smaller) and attitudes toward the parties, or party leaders, are more volatile.

Finally, if the imbalance between the parties is very large, then party R becomes so emboldened by its initial advantage over L that it abandons the pursuit of mere victory, and instead chases its weaker opponent in an effort to plunder its moderate supporters.

Proposition 3. *If party* R's advantage is *large*, i.e., $\rho_0 > \overline{\rho}_0$, then party L retreats by more to its base:

$$z_L^*(\rho_0) = \frac{(\alpha - \beta + \beta\theta)(\theta(2r - \alpha) - (\alpha + \beta)\rho_0) - \beta\theta\psi(\alpha - \beta)}{\theta(\alpha^2 - \beta^2 + 2\alpha\beta\theta)} < 0,$$
 (8)

and party R advances toward party L's base:

$$0 > z_R^*(\rho_0) = z_L^*(\rho_0) + (\alpha - \beta) \frac{(\alpha + \beta)(\psi - \rho_0) + \theta(2r - \alpha)}{\alpha^2 - \beta^2 + 2\alpha\beta\theta} > z_L^*(\rho_0).$$
 (9)

When the electoral imbalance in favor of party R is very large, party L overwhelmingly focuses on consolidating support amongst its base—the most likely location of the swing voter, and thus the most likely frontline of the political battle. In turn, party R also advances into L's ideological territory to win over centre-left districts that are increasingly ill-served by the more extreme L party. By reducing the policy differentiation between the parties, R intensifies the salience of its comparative valence advantage in the eyes of the likely swing voter, further increasing its support. If $\alpha = \beta$, then the parties locate at the same platform, reflecting the unmitigated chase-and-evade logic of Aragones and Palfrey (2002). As $\alpha - \beta$ increases, the advantaged party chases

less quickly, reflecting a greater concern for an adverse valence shock that places the swing voter in one of its own core districts. Nonetheless, a sufficiently large advantage ($\rho_0 > \overline{\rho}_0$) makes party R less concerned about the risk of losing the election, and instead more focused on generating the largest possible legislative majority when it wins.

Corollary 2 summarizes the effect of primitives on the parties' platforms, and their consequences for platform divergence, when one party has a large valence advantage.

Corollary 2. When party R's advantage is *large*, i.e., $\rho_0 > \overline{\rho}_0$, a further increase in R's advantage ρ_0 leads both party L and party R move toward L's base, and platform divergence decreases.

As party L grows more disadvantaged, it faces even greater incentives to target its base; by differentiating itself further from the advantaged party, it increases its appeal to its core supporters, consolidating its minority position. However, party R is also further emboldened to advance into its opponent's home turf. Its incentives are two-fold; a higher ρ_0 strengthens R's incentives to chase the increasingly weakened L and—independently—it wants to use its platform to turn centrist districts that L has abandoned, in pursuit of an outsized majority. The net effect is that platforms further converge, with the speed of convergence increasing in β , the marginal value of seats conditional on majority status.

Corollary 2 highlights that party R's platform moves to the left faster than party L's, so that the net effect is to reduce policy differentiation between the parties. Conversely, if ρ_0 decreases, both parties move their platforms toward the median voter in the median district, but party L moves more slowly than party R, increasing the degree of platform divergence.

Other changes in primitives may lead to different effects for the advantaged versus the disadvantaged party, and may hinge on other features of the political environment.

Corollary 3. Suppose party R's advantage is **large**, i.e., $\rho_0 > \overline{\rho}_0$. When the marginal value of minority seats, α , increases, party L increasingly retreats to its base. By contrast, when α increases, party R moves towards L's base.

As α rises, party L grows more concerned about not losing the election too badly, so it increasingly targets its core supporters. Party R, however, faces two conflicting incentives. First, as α increases, it too has a stronger incentive to consolidate its core support by reverting to the right, i.e., in the direction of its base. However, as party L increasingly moves toward its base, party R also faces a stronger incentive to advance toward party L's platform in order to reduce the

policy differentiation between parties, and therefore heighten its comparative valence advantage. Because party R's initial advantage is large, it resolves in favor of chasing party L even more aggressively. The reason is that with a large advantage, the stronger party worries less about pleasing its core supporters, and instead prefers to reduce its platform differentiation with party L, in order to further press its advantage.

Corollary 4. Suppose party R's advantage is **large**, i.e., $\rho_0 > \overline{\rho}_0$. As the value of majority status r increases, both party L and party R revert toward the ideal policy of the median voter in the median district, but platform divergence increases.

A party wins a majority if and only if it is preferred by the median voter. A higher value r of majority status encourages both parties to target this voter. Corollary 4 highlights that party R's platform moves faster than party L's. To see why, recall that party L remains at a competitive disadvantage; moving toward the centre raises its attractiveness to moderate voters, but dampens its relative appeal amongst its base. This represents a trade-off for party L. For party R, however, moving back toward the centre raises its appeal to both centrists and its core supporters.

Because both trade-offs are complementary to party R, but opposing for party L, the net effect is to increase platform divergence: L reluctantly abandons its base, while R's increased desire to win implies that its platform choice is governed less by the incentive to chase L, and more by the incentive to maximize its appeal to the median voter in a bid for outright victory.

Corollary 5. Suppose party R's advantage is **large**, i.e., $\rho_0 > \overline{\rho}_0$. As electoral volatility ψ increases, both party L and party R revert toward their respective core supporters, and platform divergence increases.

When there is a large initial wedge in the parties' initial strength, more uncertainty *always* raises platform divergence. This reflects that both parties grow more concerned with insuring themselves against adverse popularity shocks by consolidating their core supporters. Greater volatility raises the prospect that the election will result in a larger imbalance in favor of one of the parties. Because $\alpha - \beta > 0$, each party resolves in favor of buttressing its seat share in the event that it is consigned to minority status.

What about $\beta > \alpha$? In the less plausible context in which $\beta > \alpha$, the parties fully converge on the ideal policy of the median voter in the median district when R's advantage is not too large—as in our benchmark setting. However, with a sufficiently large initial advantage, the shape of preferences may induce parties to engage in implausible risk-taking behavior, generating platform separation in which party R gambles on a left-wing platform, leaving the centre-ground to its weaker

opponent. Our benchmark presentation of $\alpha \geq \beta$ reflects the more empirically-relevant scenario in which relatively strong parties may court their opponent's core supporters (as detailed in Proposition 3), but never to the extent that their own core voters are better served by their opponent.

In addition to the office-motivated justifications that have provided for $\alpha > \beta$, in a Supplementary Appendix we provide explicit policy-motivated justifications, identifying primitive assumptions under which this property emerges naturally. We also relax our assumption that parties put a large premium $r > \frac{1}{2} \left(\alpha + \frac{\psi}{\theta} (\alpha - \beta) \right)$ on winning a majority.

III. Conclusion

We analyze two-party competition in multi-district legislative elections. We ask: how do initial electoral imbalances encourage an office-seeking party to target its traditional supporters, rather than the centrist voters that are crucial for outright victory? If a party targets its traditional supporters, when should the opposing party maintain its focus on courting centrist voters, and when instead should it chase its opponent, targeting voters who are more ideologically disposed toward its opponent? And, how do the answers to these questions depend on parties' expectations of how voters attitudes might change over the course of the campaign, the strength of pre-existing party loyalty, and the relative marginal value that a party derives from winning additional seats below, at, or even above the majority threshold?

A small initial imbalance does not deter a disadvantaged party from the sole pursuit of outright victory by way of a centrist policy agenda. However, a sufficiently large imbalance induces it to revert in favor of a strategy that consolidates its core supporters, in order to avoid a catastrophic defeat. Similarly, an advantaged party initially prefers to maintain uncontested control of the political centre to further fortify its prospects of a post-election majority. But, if the imbalance is large enough, it chases its opponent to plunder its increasingly ill-served moderate supporters; the advantaged party's goal evolves from seeking to win, to winning with a larger post-election majority. Thus, we predict that a very advantaged party uses its strength as an opportunity to expand the frontier of its political support beyond the median voter; as illustrated by the campaigns of Tony Blair or Theresa May.

In ongoing work, we use our framework to study the dynamics of political campaigns in contexts where some voters cast ballots early, or make up their minds before a campaign concludes. That is, some voters cast their ballots after an initial valence shock that favors one of the parties, but before the parties have communicated their policy commitments, and prior to any other

developments—such as leader debates, town hall meetings, or personal revelations—that occur over the course of a campaign. We interpret these voters as 'early deciders', who are insensitive or inattentive to the twists and turns of election campaigns.

If the initial valence shock favoring one of the parties is small, the parties converge on a platform that—rather than targeting the median voter in the median district, as in Proposition 1—
moves toward the advantaged party's core districts, by an increment that grows with both the
magnitude of the initial valence shock and the fraction of early deciders. It appears as if the parties believe that voters have shifted ideologically in favor of the advantaged party. In fact, voters'
policy preferences have *not* changed. Instead, the strategies reflect that the initially more popular
party enjoys a larger share of support amongst early deciders, and thus gains a starting lead in the
polls. In order to win the election, the initially less popular party therefore needs to offset its disadvantage by carrying strictly more than a majority of supporters amongst the remaining voters.
This leads it to move beyond the ideological centre-ground, targeting voters that are ideologically
disposed toward its advantaged opponent. Thus, the disadvantaged party designs its policy to
appeal to its rival's voters even though ideology is *not* the source of its disadvantage.

References

Alesina, Alberto and Howard Rosenthal, "A Theory of Divided Government," *Econometrica*, 1996, 64 (6), 1311–41.

Aragones, Enriqueta and Thomas Palfrey, "Mixed Equilibrium in a Downsian Model With a Favored Candidate," *Journal of Economic Theory*, 2002, 103 (1), 131–161.

_ and _ , "Electoral Competition Between Two Candidates of Different Quality: The Effects of Candidate Ideology and Private Information," in "Social Choice and Strategic Decisions," Springer, 2005, pp. 93–112.

Austen-Smith, David, "Two-Party Competition with Many Constituences," *Mathematical Social Sciences*, 1984, 7 (2), 177–198.

Banks, **Jeffrey S and John Duggan**, "Probabilistic Voting in the Spatial Model of Elections: The Theory of Office-Motivated Candidates," in "Social choice and strategic decisions," Springer, 2005, pp. 15–56.

- **Baron, David P**, "Government Formation and Endogenous Parties," *American Political Science Review*, 1993, 87 (1), 34–47.
- **Bierbrauer, Felix, Aleh Tsyvinski, and Nicolas D Werquin**, "Taxes and Turnout," Working Paper 24123, National Bureau of Economic Research December 2017.
- **Butler, David and Dennis Kavanagh**, *The British General Election of 1997*, Palgrave Macmillan UK, 1997.
- **Callander, Steven**, "Electoral Competition in Heterogeneous Districts," *Journal of Political Economy*, 2005, 113 (5), 1116–1145.
- **Calvert, Randall L.**, "Robustness of the Multidimensional Voting Model: Candidate Motivations, Uncertainty, and Convergence," *American Journal of Political Science*, 1985, 29, 69–95.
- **Caplin, Andrew and Barry Nalebuff**, "Competition Among Institutions," *Journal of Economic Theory*, 1997, 72 (2), 306–342.
- **Cox, Gary W and Jonathan N Katz**, Elbridge Gerry's Salamander: The Electoral Consequences of the Reapportionment Revolution, New York: Cambridge University Press, 2002.
- **Dalton, Russell J**, "Party Identification and its Implications," *Politics: Oxford Research Encyclopedias*, 2016, pp. 1–19.
- **Downs, Anthony**, An Economic Theory of Democracy, New York: Harper and Row, 1957.
- **Eguia, Jon X and Francesco Giovannoni**, "Tactical Extremism," *American Political Science Review*, 2019, 113 (1), 282–286.
- **Groseclose, Timothy**, "A Model of Candidate Location When One Candidate Has a Valence Advantage," *American Journal of Political Science*, 2001, 45, 862–886.
- Hotelling, Harold, "Stability in Competition," Economic Journal, 1929, XXXIX, 41–57.
- **Hummel, Patrick**, "On the Nature of Equilibria In a Downsian Model With Candidate Valence," *Games and Economic Behavior*, 2010, 70 (2), 425–445.
- **Jr, James M Snyder**, "Safe Seats, Marginal Seats, and Party Platforms: The Logic Of Platform Differentiation," *Economics & Politics*, 1994, 6 (3), 201–213.

- **Kittsteiner, Thomas and Erik Eyster**, "Party Platforms in Electoral Competition with Heterogeneous Constituencies," *Theoretical Economics*, 2007, 2 (1), 41–70.
- Krasa, Stefan and Mattias K Polborn, "Political Competition in Legislative Elections," American Political Science Review, 2018, 112 (4), 809–825.
- **Lindbeck, Assar and Jörgen W Weibull**, "Balanced-budget redistribution as the outcome of political competition," *Public choice*, 1987, 52 (3), 273–297.
- **Londregan, John and Thomas Romer**, "Polarization, Incumbency, and the Personal Vote," in William Barnett, Normal Schofield, and Melvin Hinich, eds., *Political Economy: Institutions, Competition, and Representation*, New York: Cambridge University Press, 1993, pp. 355–377.
- **Miquel, Gerard Padro I and James M Snyder Jr**, "Legislative Effectiveness and Legislative Careers," *Legislative Studies Quarterly*, 2006, 31 (3), 347–381.
- **Peabody, Robert L**, "Party Leadership Change in the United States House of Representatives," *American Political Science Review*, 1967, 61 (3), 675–693.
- **Persson, Torsten and Guido Enrico Tabellini**, *Political Economics: Explaining Economic Policy*, MIT press, 2002.
- **Polborn, Mattias and James Snyder**, "Party Polarization in Legislatures with Office-Motivated Candidates," *The Quarterly Journal of Economics*, 2017, 132 (3), 1509–1550.
- Roemer, John E, Political Competition: Theory and Applications, Harvard University Press, 2001.
- **Wittman, Donald**, "Candidate Motivation: A Synthesis of Alternative Theories," *American Political Science Review*, 1983, 77, 142–157.
- **Xefteris, Dimitrios**, "Multidimensional Electoral Competition Between Differentiated Candidates," *Games and Economic Behavior*, 2017, 105, 112–121.