

IFN Working Paper No. 1507, 2024

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August 30, 2026

Abstract

The increasing electoral success of populist radical-right parties poses a significant challenge to established political parties in Western democracies. While mainstream parties often maintain a policy of non-cooperation with these newcomers, such *cordon sanitaire* strategies can become increasingly costly as radical parties gain support. This study examines the conditions under which established parties abandon their exclusionary stance, focusing on the case of the Sweden Democrats in Swedish municipal politics. We adapt time-series econometric methods to identify unknown thresholds at which exclusion costs become untenable, leading to shifts in coalition formation strategies. Our analysis reveals a critical threshold at approximately 18.5% electoral support, beyond which the probability of Sweden Democrats' inclusion in governing coalitions significantly increases. We demonstrate that as radical party support approaches this threshold, coalition sizes expand, office rents are redistributed, and the ideological dispersion of governing parties widens. Once the threshold is surpassed, these trends reverse. Our findings highlight the trade-offs mainstream parties face in responding to the rise of challenger parties and contribute to broader debates on coalition formation, party system change, and the accommodation of anti-establishment parties in democratic systems.

Keywords: coalition formation, cordon sanitaire, populist radical right, Sweden Democrats.

JEL: C78, D72, P00.

*We are grateful to the Editor (Tim Besley), three anonymous referees, Sirus Dehdari, Pär Nyman, David Strömberg, and seminar and conference participants at the Research Institute of Industrial Economics (IFN), the Gothenburg Research Group on Elections, Public Opinion and Political Behavior (GEPOP), and the 61st Annual Meetings of the Public Choice Society (Dallas) for helpful comments. We also thank Daniel Cavalieri Persson and Maja Cavalieri Persson for excellent research assistance and hundreds of municipality civil servants for responding to our survey.

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1 Introduction

Populist radical-right parties have moved from the margins to pivotal positions in many Western democracies (Guriev and Papaioannou 2022). Much attention focuses on cases where they enter government and affect policy directly (Funke et al. 2023). We emphasize a different margin: even when excluded from office, their electoral strength can change coalition bargaining. To maintain a cordon sanitaire, mainstream parties may need to assemble broader and more ideologically diverse coalitions and concede offices and policy influence to otherwise less attractive partners. These “prices of exclusion” have first-order implications for governance and accountability, and they fit naturally within economic theories of coalition formation in which parties trade off office spoils, policy, and electoral incentives (Baron 1993, 1991; Austen-Smith and Banks 1990; Laver and Shepsle 1990; Baron and Ferejohn 1989; Austen-Smith and Banks 1988).

A salient empirical puzzle is that mainstream responses vary sharply across settings. Some radical-right parties remain perpetual outsiders, whereas others have entered governing coalitions at least once. Why does a cordon sanitaire endure in some cases but collapse in others? We frame this as a comparison of two margins. On one side lies the *governing cost of inclusion*: cooperating with a radical party can alienate core supporters, complicate policy-making, and impose a voter-driven “repugnance” penalty on parties seen as legitimizing extremists (Leander 2024; Jacobs 2024). On the other side lies the *cost of exclusion*: maintaining a boycott can force mainstream parties into awkward minority arrangements or into broad coalitions that require substantial office and policy concessions to partners that are otherwise less attractive or less compatible (Sartori 1976; Warwick 1992). Mainstream parties weigh these costs conditional on the feasible set of coalition alternatives. A cordon is breached when the marginal cost of excluding the radical party exceeds the expected cost of including it.

Outline The reasoning above implies an empirically testable tipping-point logic: as a radical party’s vote share rises, the exclusion cost mounts while the inclusion cost remains roughly constant, eventually flipping mainstream incentives and punching a hole in the cordon. To put this idea to a test, we examine the populist radical-right Sweden Democrats party (see, e.g., Dal Bó, Finan, Folke, Persson and Rickne 2023 for further background), in particular its exclusion from and inclusion in governing coalitions in Swedish municipalities. The party made its parliamentary debut in the 2010 parliamentary election, after which the mainstream parties committed to not cooperating with the Sweden Democrats at all levels of government (Art 2011; Heinze 2018; Backlund 2020). At the local level, this commitment

had practically started already earlier and held up to the local election of 2018—despite the fact that the popularity of the party had been increasing steeply since the early 2000s, reaching more than one-fifth of the vote share in some municipalities. We discuss the context of our study in detail in Section 2, where we also outline a conceptual framework to motivate our empirical analysis.

To empirically assess whether there is a threshold in Sweden Democrats’ size at which coalition formation strategies shift, we combine data on election results and governing coalitions in Swedish municipalities with empirical methods often employed in time-series analysis to identify unknown kink points and discontinuities (Hansen 2000, 2017). We discuss our empirical approach and data further in Section 3.

In Section 4, we first show that the Sweden Democrats party is systematically excluded from governing coalitions in Swedish municipalities until its electoral strength passes a certain threshold. When the electoral support of the Sweden Democrats is less than around 18.5%, the party is almost always left in the opposition.¹ However, after reaching this point, the probability of the Sweden Democrats being included in the governing coalition increases drastically as the party size increases.

This convex relationship between the electoral support of Sweden Democrats and the probability of being incorporated in the governing coalition is unusual in the Swedish political landscape; for *all* other small and medium-sized parties, the coalition inclusion probability appears to be a concave function of party size. For the two main parties (the Social Democratic Party and the Moderate Party), the coalition inclusion probability is similarly concave in their vote share, and one of the parties is virtually always included in the governing coalition. The diverging patterns suggest that other parties that take part in governing party coalitions are willing to sacrifice office and policy perks to exclude the Sweden Democrats.

We then study how the number of political parties included in the governing coalition and dispersion of governing parties’ ideology evolve around this threshold. These findings are presented in Section 5. We see clear changes at the kink point for the Sweden Democrats’ size. In particular, before reaching the cutoff, the number of parties in the governing coalition increases in relation to Sweden Democrats’ vote share, and so does the ideological dispersion of the governing parties. Once passing the cutoff, the relationship becomes negative.² We argue that this is an (indirect) effect of the cordon sanitaire policy and show that it is unique to the Sweden Democrats. This observation is in line with a remark by Rydgren (2007) who

¹Note that in the Swedish proportional representation system, vote share is closely correlated with the seat share acquired by the party and also the voting power of the party.

²These factors may naturally affect the policy output of local governments. We further document dynamics in two policy outcomes—local income taxes and public spending—around the threshold.

points out that the presence of repugnant parties in the municipal council may result in the formation of large coalitions of parties that may even not have collaborated before, with the purpose of neutralizing the potential power of the radical party.

Although not part of our theoretical treatment of the problem at hand, we also consider the distribution of office rents—measured based on our newly collected data. The parties appear to be more willing to generate new paid positions for its coalition members and distribute a greater share of office rents to other parties, but only up until a certain point.

Related literature and our contributions Our findings have implications for the understanding of how democratic politics adapt to the rise of radical parties, the conditions under which political norms like the *cordon sanitaire* break down, and the strategic calculations that shape coalition formation in multiparty systems. Our work engages with the burgeoning literature on populist radical-right parties (Mudde 2007; Akkerman et al. 2016; Guriev and Papaioannou 2022). Much of this work focuses on explaining the rise of such parties (Edo et al. 2019; Fetzer 2019; Rodrik 2021; Bergh and Kärnä 2021, 2022; Gyöngyösi and Verner 2022; Dehdari 2022; Doerr et al. 2022; Dal Bó et al. 2023; Gabriel et al. 2023), how their successes influence other parties’ or voters’ policy positions (Abou-Chadi 2016; Abou-Chadi and Krause 2020; Johansson et al. 2023; Kärnä and Öhberg 2023; Tähtinen 2025), how parties and candidates can try to uphold *cordon sanitaire* against such parties in elections (Nibourel 2024), or what happens when they participate in government (Ferré and Manzano 2022; Dehdari et al. 2022; Riera and Pastor 2022; Funke et al. 2023). Furthermore, an increasing literature focuses on the economic impact of populist parties ruling (Guriev and Papaioannou 2022; Gromadzki et al. 2024; Brzezinski and Sałach-Drózdź 2024). Given the economic impact of populist parties in government, which differs from mainstream left- and right-wing parties, understanding when they become part of governing coalitions is important.

We contribute to this scholarship in political economics and political science by studying how the presence and growth of a populist radical right party shapes the formation of governing coalitions. Understanding how coalition bargaining shapes the allocation of office rents and policy outcomes is central to the theories of legislative bargaining and coalition formation in politics (Choate et al. 2019; Persson et al. 2007; Norman 2002; Baron 1993, 1991; Austen-Smith and Banks 1990; Laver and Shepsle 1990; Baron and Ferejohn 1989; Austen-Smith and Banks 1988). Empirical work has examined how diverse institutional features and party-level characteristics such as party size and ideology influence coalition membership and formateur selection (Fujiwara and Sanz 2019; Martin and Stevenson 2010; Bäck and Dumont 2008; Diermeier et al. 2003; Martin and Stevenson 2001). However,

this work only offers limited insights on how the rise of repugnant parties affects coalition formation and the outcomes thereof.³

Previous studies have shown that the presence of populist radical parties can complicate coalition negotiations, often leading to increased bargaining delays and more complex coalition formation situations (Geys et al. 2006; Loxbo 2010; Bäck et al. 2024). Our findings align with a more general result of Kayser et al. (2023) that changes in coalition inclusion probabilities can have substantial predictive power for policy and political outcomes. In all, the actual coalition involvement of the Sweden Democrats as well as the increased probability of them being included may matter for policy outcomes.⁴

2 Sweden Democrats in Local Government

This section provides background on the case we study: Sweden Democrats’ coalition participation (and non-participation) in Swedish municipalities. The first subsection discusses the Sweden Democrats party, and the second subsection describes Swedish local politics as well as coalition formation in the municipal government.

While national politics often dominate discussions of the radical right, we believe that examining local coalitions offers useful insights. The large number of municipalities provides statistical power, while the variation in local contexts allows us to isolate the importance of radical party size in coalition formation. In the third subsection, we lay out a simple conceptual framework to further illustrate the case at hand.

2.1 The Sweden Democrats Party

The Sweden Democrats has transformed from a minor fringe party into the second-largest political party over the past twenty years (Rydgren and Van der Meiden 2019), reflecting significant growth in voter support (see Figure 1). The Sweden Democrats has attracted support from voters across the Swedish political spectrum, but especially among individuals

³A side product of our analysis is an additional explanation to two puzzles observed in the empirical coalition formation literature. The first puzzle is that parties do not always receive office perks in proportion to their contributions to the coalition (Meriläinen and Tukiainen 2022; Bäck et al. 2011; Mershon 2001; Warwick and Druckman 2001; Browne and Franklin 1973), a prediction coined as “Gamson’s law” (Gamson 1961). The second one is that minimum winning coalitions—prominently hypothesized as a typical result of coalition formation by Riker (1962)—are not always formed, even if they are theoretically expected to maximize the spoils of office for the involved parties.

⁴A large literature shows that the size and composition of governments are important determinants of policies that are put in place. Persson et al. (2007), Schaltegger and Feld (2009), and Freier and Odendahl (2015), among others, study the link between the size of governing coalitions and various budgetary outcomes, and Pettersson-Lidbom (2008) and Folke (2014), for example, show that the political power that parties hold in local councils shapes diverse policy outcomes.

who previously voted for the traditionally dominant center-left Social Democrats and the center-right Moderate Party (Jylhä et al. 2019). The party has performed particularly well in locations where there are more social and economic “outsiders” (Dal Bó et al. 2023).⁵

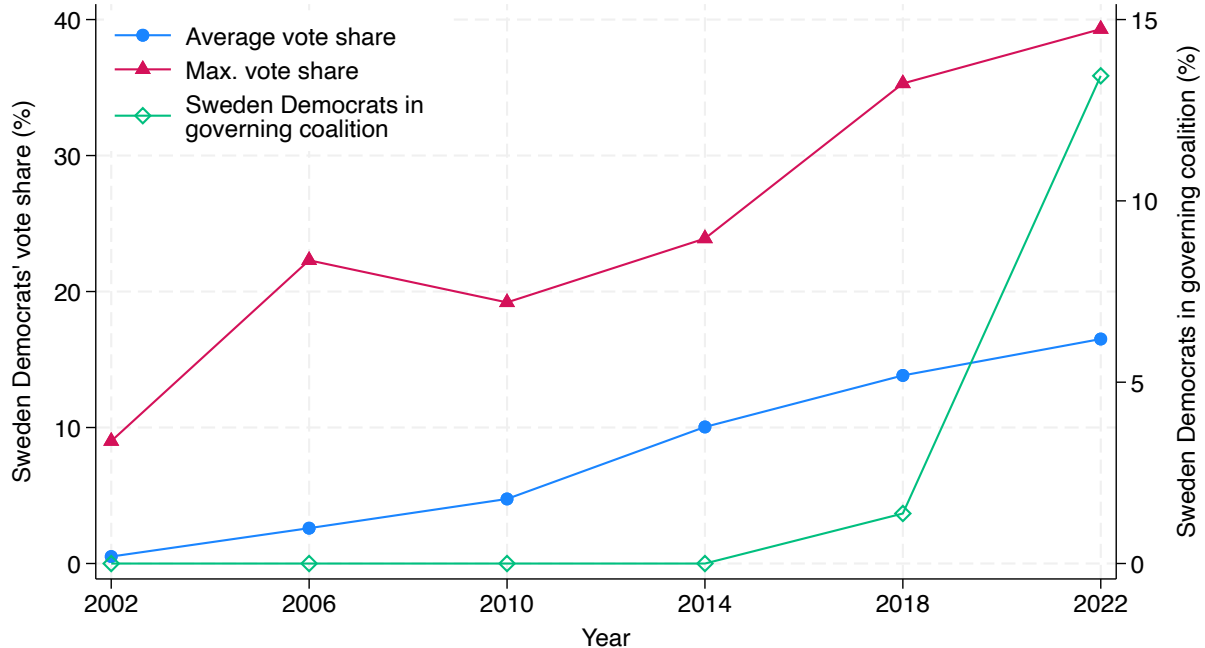


Figure 1. Sweden Democrats’ performance in local elections and participation in governing coalitions in Swedish municipalities.

Political scientists and sociologists have classified the party as a typical radical-right party (Rydgren 2007, 2018), or a populist right-wing party (Norris and Inglehart 2018). The Sweden Democrats’ political platform advocates for, e.g., tougher policies toward crime and reduced public funding for integration policies (Rydgren and Van der Meiden 2019).⁶ Despite being labeled right-wing, the party does not typically support free market policies or low public spending. Instead, they argue that reduced immigration can sustain a generous welfare state. This positioning is illustrated in Figure 2, which uses the Chapel Hill Expert Survey to show the policy positions of Swedish parties. Economically, the Sweden Democrats are closer to the left-wing parties than to the center-right parties, but they are clearly distinct in their stance on the GAL-TAN scale (Hooghe et al. 2002).⁷

⁵Jylhä et al. (2019) note that the voters of the Sweden Democrats are predominantly male, working-class, and less-educated. Dal Bó et al. (2023) document that the Sweden Democrat politicians also represent their voters in these characteristics.

⁶That said, the Sweden Democrats party has been increasingly successful in increasing the number of issues that they pursue (Erlingsson et al. 2014).

⁷Given the tasks of Swedish local governments, we think the economic policy position is a more important dimension of ideology from a pure policy point of view. However, the GAL-TAN position of the Sweden

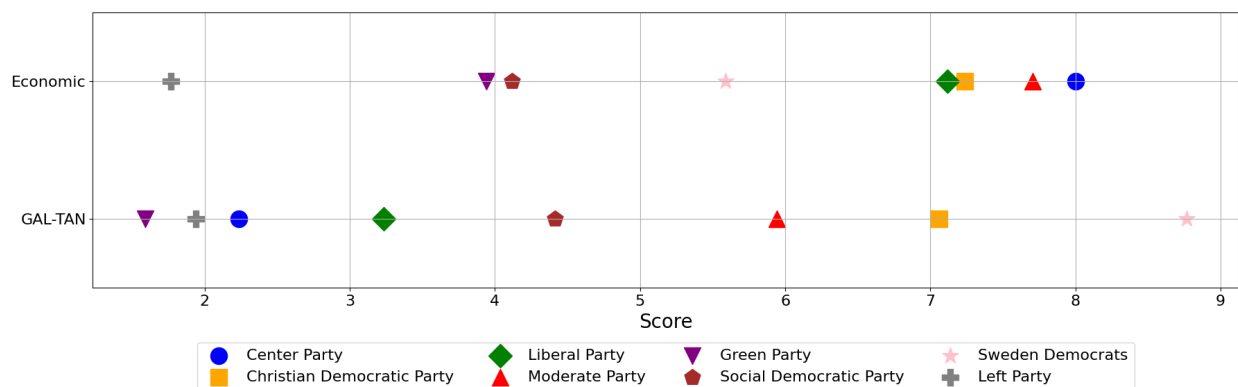


Figure 2. Policy positions of Swedish parties in 2018.

Notes: The data come from the Chapel Hill Expert Survey.

The rise of the Sweden Democrats has significantly influenced Swedish politics at different levels of government, particularly regarding coalition strategies and voter attitudes, and has created difficulties in forming efficient coalitions at the national level (Aylott and Bolin 2019). Initially, leaders of other political parties refused to debate with the Sweden Democrats due to multiple factors, such as fear of legitimizing xenophobic rhetoric, concerns about voter backlash and ideological differences. Despite the growing influence of the Sweden Democrats, mainstream parties committed to not cooperating with them at all levels of government, a stance that persisted at the local level until the 2018 elections (Backlund 2020). The cordon sanitaire against the Sweden Democrats was not merely an informal agreement, but a publicly declared stance by the mainstream parties. This created a situation where electoral success did not translate into governing power for the Sweden Democrats.

The Sweden Democrats party has been heavily disliked by voters across the political spectrum, as shown in Figure 3 which presents the average likability scores for each political party based on the SOM Institute voter survey. Over time, however, the Sweden Democrats have become less disliked among the supporters of the Moderate Party and the Christian Democratic Party. This shift in public perception likely contributed to the party's changing role in coalition politics. Following the 2022 parliamentary election, the Sweden Democrats began supporting the center-right ruling coalition, although they did not join the government. At the local level, the party has similarly coalesced with other center-right parties, typically the Moderate Party and/or the Christian Democrats. However, while at the national level coalitions have historically followed the conventional division to leftist and center-right

Democrats may well be one important reason why other parties typically want to distance themselves from the Sweden Democrats.

parties, coalitions across the political spectrum are more common at the local level than at the national level.



Figure 3. Average likability of political parties by year.

Notes: A larger number indicates a more favorable view of a party. The data come from the SOM Institute.

2.2 Local Governments in Sweden

There are 290 municipalities in Sweden. They are responsible for providing a large share of local public services that comprise the Swedish welfare state, ranging from childcare to sanitation. These services are financed through local taxes set and collected by the municipalities. The municipalities are governed by local councils which have between 31 and 101 members. The local councils are elected every four years using a proportional representation system.

Local politics has been historically dominated by the center-left Social Democratic Party and the center-right Moderate Party, although some of the smaller parties have gained more

popularity locally.⁸ Today, the Sweden Democrats has varied support at the local level, from fairly limited support to being the largest political party.⁹

In Swedish municipalities, coalition government formation operates within a system of assembly government, where the executive committee’s composition is determined by proportional representation rather than majority confidence from the municipal council. However, since the 1960s, an informal practice of limited majority rule has been adopted, wherein committee leaders, akin to the prime minister, are appointed by a council majority. This quasi-parliamentary system emphasizes informal coalitions of parties rather than formal investiture votes, with a relative majority required for appointing committee leaders and passing municipal budgets (Bäck 2006). While informal, the governing coalitions are salient to voters.

Other parties excluded the Sweden Democrats systematically from the governing coalitions also in the municipal government (Backlund 2020). However, as we saw in Figure 1, this cordon sanitaire started breaking apart already in 2018, and coalition participation of the Sweden Democrats became even more prevalent after the 2022 election. We illustrate the coalition participation of all Swedish parties in Online Appendix Figure OA2. Furthermore, Online Appendix Figure OA3 presents the typology of governing coalitions by electoral term.

Although we do not seek to explain why other parties do not want to govern with the Sweden Democrats, prior work provides us with some ideas. For example, Leander (2024) presents lessons from interviews with political elites in a small set of Swedish municipalities, arguing that five aspects of social relations matter: (dis)satisfaction, (in)appropriate behavior, (dis)trust, (un)familiarity, and leadership. These ideas are also central to the analysis of Axelsen (2024) who describes a social-norms based theory of cordon sanitaire, focusing on why such a policy is upheld, and applies his theory to the case of Sweden Democrats in Swedish local governments.

2.3 Conceptual Framework

Before proceeding to the empirical analysis, let us outline a simple conceptual framework for understanding when and why cordon sanitaire policies against populist radical right parties break down. Our central hypothesis is that there exists a size threshold at which mainstream parties become more likely to include such parties in governing coalitions.

⁸These smaller parties include the Christian Democrats, the Center Party, and the Liberal Party on the center-right, and the Left Party and the Green Party on the left. There are also other small parties and non-partisan groups that have gained popularity locally.

⁹The party grew organically mainly from the south of Sweden and has the least support in the northernmost parts of Sweden (Erlingsson et al. 2012). Online Appendix Figure OA1 maps Sweden Democrats’ electoral support at the local level over the years 2010–2022.

When forming governing coalitions in the presence of a populist radical right party, mainstream parties must decide whether to maintain democratic norms by excluding such parties or adapt to electoral realities by cooperating with them. Initially, mainstream parties might prefer exclusion due to electoral costs and reputational risks associated with coalescing with a populist radical party. However, as the populist party’s electoral strength grows, the relative costs of exclusion and inclusion also change.

One can distinguish between two types of costs that shape coalition decisions. First, the exclusion costs capture the difficulty of forming viable coalitions without the populist party and, on the other hand, potential benefits that mainstream parties forgo by not coalescing with the populist party. Exclusion costs tend to rise non-linearly as the populist party approaches a pivotal position, making alternative coalitions increasingly difficult to sustain. For instance, if the populist party wins enough seats to block the formation of a majority coalition, mainstream parties may be forced to form oversized coalitions with multiple small parties. This can lead to heightened ideological fragmentation, difficulties in crafting policy and even more dispersed policy rents.

Second, the repugnance costs—adapting the ideas of [Roth \(2007\)](#)—capture the (possibly uncertain) reputational and electoral penalties associated with legitimizing controversial parties. These costs may similarly evolve in a non-linear way as a function of party size. When the populist party is relatively small, forming coalitions with it could lead to large reputational costs, since the party can be considered as a radical fringe party without popular support. However, a larger party size could partially mitigate repugnance costs by signaling broader voter acceptance, thereby reducing the stigma of collaboration.

When deciding what kind of coalitions to form, parties weigh these costs against the benefits (office perks and policy outcomes) of different coalition alternatives. As the populist party’s vote share increases, exclusion becomes disproportionately costly when forming majorities without them requires bridging large ideological divides, accepting minority governments, or giving up political power to competing parties ([Meguid 2005](#); [Downs 2001](#)). Beyond a critical electoral threshold, inclusion may become the least costly option, even if repugnance costs persist. Inclusion then alters both coalition composition and the distribution of office rents.

The threshold effect could manifest itself as a *kink* or *discontinuity* in coalition formation behavior. A kink could arise as exclusion costs rise non-linearly when coalitions without the populist party become increasingly difficult to sustain, particularly as ideological distances widen or minority governments become unstable. A discontinuity may occur if crossing the threshold at which exclusion costs become untenable (relative to the benefits of exclusion and given other coalition options) yields a discrete gain in legislative stability or office rents,

providing an immediate incentive to include the populist party. Additionally, symbolic thresholds—such as surpassing a certain vote share—may signal broader legitimacy and shift public perceptions, triggering abrupt changes in coalition formation strategies.

We next propose a simple, conceptual model. This helps us put more structure on the idea that the coalition inclusion probability of the radical party shifts at a threshold point.

Model set-up The model in this section is deliberately stylized: its purpose is to organize our empirical analysis by generating qualitative, testable predictions—an interior inclusion threshold for a repugnant party, versus diminishing returns for ordinary parties—rather than to provide a complete theory of coalition bargaining or to be estimated structurally. We therefore favor transparent assumptions over realistic ones. Suppose that there are three main parties: S (the Social Democrats), the left-leaning mainstream party; M (the Moderates), the right-leaning mainstream party; and SD (the Sweden Democrats), the right-wing populist party, formerly considered politically “untouchable” by the mainstream parties. There is also a set of various smaller parties, $P = \{p_1, p_2, \dots, p_k\}$, across the ideological spectrum. Each party i has a seat share s_i such that $\sum s_i = 1$.

The utility of the mainstream parties S and M depends on both policy outcomes and the “cost” of cooperating with SD . Parties $\{S, M\}$ prefer coalitions closer to their ideal point (lower policy distance) but face a contamination cost when including SD . For party I , the utility is defined as:

$$U_I(C) = \begin{cases} -\alpha \cdot d(C, I) - \beta \cdot |C| & \text{if } SD \notin C \\ -\alpha \cdot d(C, I) - \beta \cdot |C| - \gamma & \text{if } SD \in C. \end{cases}$$

Here, $d(C, I)$ is the policy distance between coalition C ’s position and party I ’s ideal point (parties prefer smaller distances), $|C|$ is the number of parties in the coalition (parties prefer smaller coalitions to maximize office benefits), $\gamma > 0$ represents the cost of cooperating with SD , and $\alpha, \beta > 0$ are weight parameters.

Assumption A1 (membership-based payoffs). Throughout, we treat the coalition’s policy position—and hence $d(C, I)$ —as determined by which parties belong to C , not by their seat shares. Seat shares therefore affect payoffs only through the majority-feasibility constraint $\sum_{i \in C} s_i \geq 1/2$. This is a deliberate simplification: it lets the comparative statics below turn on which coalitions are feasible rather than on how a coalition’s platform would be reweighted as seats shift, and it is the natural reading when the governing platform reflects a negotiated compromise among the parties at the table rather than a seat-weighted average.

Assumption A2 (initial exclusion). We impose one assumption capturing the cordon sanitaire at low SD size: when SD holds no seats, the policy benefit it could bring to a coalition never outweighs the size and repugnance costs of admitting it. Formally, for every coalition C with $SD \in C$,

$$\alpha [d(C \setminus \{SD\}, M) - d(C, M)] < \beta + \gamma.$$

The bracket is the reduction in policy distance to M that SD 's presence would deliver; the assumption says that this gain, valued at α , is strictly smaller than the coalition-size cost β plus the repugnance cost γ saved by dropping SD . It nests the simpler geometric condition $d(C \cup \{SD\}, M) \geq d(C, M)$ (adding SD never moves the coalition closer to M) as the special case in which the bracket is non-positive, but it is weaker: it permits SD to be economically close to M —as our data suggest (Figure 2)—while still being excluded at low seat shares, provided the repugnance cost is large enough to offset any such proximity.¹⁰

Coalition formation process Let us focus on cases where either S or M is the coalition formateur. Both S and M first consider coalitions that exclude SD . For $\{S, M\}$, the preferred coalitions satisfy the condition $C_I^1 = I \cup P'$ if $\sum_{p_i \in P'} s_i + s_I \geq 1/2$. If multiple such coalitions exist, party I would choose the one maximizing $-\alpha d(C, I) - \beta |C|$.

Due to ideological distance, S will not form a coalition with SD , leaving M as the pivotal actor when SD -inclusive coalitions are considered. Party M evaluates all feasible majority coalitions, both those excluding and those including SD , and chooses the one maximizing its utility.

Coalition-selection rule We summarize the potential coalition outcomes with a simple selection rule rather than a full bargaining protocol; it is a reduced-form device for clarifying the comparative statics, not an equilibrium of an explicitly specified game. If C_S^1 exists, S forms coalition C_S^1 . Else, if C_M^1 exists, M forms coalition C_M^1 . Otherwise, M compares V_{excl} , its maximum utility from any SD -excluding majority coalition, against V_{incl} , the analogous quantity for SD -including coalitions, and includes SD if and only if $V_{\text{incl}} \geq V_{\text{excl}}$.¹¹ Proposition 1 studies the relevant subcase in which M is the formateur, since S never considers SD -inclusive coalitions, and analyzes the comparison branch of the rule. When C_S^1

¹⁰The condition is automatically satisfied whenever adding SD does not reduce the coalition's distance to M (so the bracket is ≤ 0), and otherwise requires only that $\gamma > \alpha [d(C \setminus \{SD\}, M) - d(C, M)] - \beta$. Lowering γ far enough would eventually violate it—which corresponds precisely to the regime in which the cordon sanitaire does not hold and SD is acceptable even when small.

¹¹If no majority coalition is possible, there could be a minority government or early elections. We abstain from analyzing these outcomes in detail.

or C_M^1 exists, SD is excluded regardless of the comparison; because forming either becomes weakly harder as the SD seat share grows (all non- SD parties weakly lose seats), those branches operate at low SD seat shares and only reinforce exclusion there, preserving the threshold structure.

Key predictions We now formalize the threshold logic. To obtain comparative statics, we parameterize the model by $\theta = s_{SD} \in [0, \bar{\theta}]$ and assume (**Assumption A3**, monotone seat shares) that *each* non- SD party's seat share is continuous and weakly decreasing in θ , so that the *total* non- SD seat share is $1 - \theta$: other parties lose seats to the Sweden Democrats.¹² Let $V_{\text{excl}}(\theta)$ denote the formateur's maximum utility from the best majority coalition that excludes SD , and let $V_{\text{incl}}(\theta)$ denote the analogous quantity for coalitions that include SD . The formateur includes SD if and only if $V_{\text{incl}}(\theta) \geq V_{\text{excl}}(\theta)$.

PROPOSITION 1 (Threshold effect): *Suppose M is the formateur, that feasible coalitions must contain M , and that Assumptions A1 (membership-based payoffs), A2 (initial exclusion, so $V_{\text{excl}}(0) > V_{\text{incl}}(0)$), and A3 (monotone seat shares) hold. Assume further (**Assumption A4**, reversal) that there exists some $\theta_H \in (0, \bar{\theta}]$ at which $V_{\text{incl}}(\theta_H) \geq V_{\text{excl}}(\theta_H)$. Then the set of θ at which M includes SD is an upper interval: there exists a threshold $\tau = \inf\{\theta : V_{\text{incl}}(\theta) \geq V_{\text{excl}}(\theta)\}$ such that SD is excluded from the governing coalition for $\theta < \tau$ and included for $\theta > \tau$. Moreover, τ is weakly increasing in γ .*

The proof (see Online Appendix A) rests on a single-crossing argument. By Assumption A1, the utility function $-\alpha \cdot d(C, I) - \beta \cdot |C| - \gamma \cdot \mathbf{1}[SD \in C]$ depends only on *which* parties are in the coalition, not on their seat shares; seat shares enter only through the majority constraint. As θ grows, the feasible set of excluding coalitions weakly shrinks (non- SD parties lose seats), so $V_{\text{excl}}(\theta)$ is weakly decreasing. Conversely, for any SD -inclusive coalition, its non- SD members are a subset of all non- SD parties and therefore collectively lose at most θ seats, while SD gains exactly θ ; the feasible set of including coalitions thus weakly expands and $V_{\text{incl}}(\theta)$ is weakly increasing. Since $V_{\text{excl}}(0) > V_{\text{incl}}(0)$ (by A2) and the ranking reverses at some higher θ_H (A4), exclusion gives way to inclusion at a single threshold τ .

Within a single municipality, Proposition 1 predicts a *discontinuity*: the formateur discretely switches from excluding to including SD at τ . The threshold τ is not a primitive but is determined by the local primitives (α, β, γ) and the configuration of smaller parties via Proposition 1, so it varies across municipalities. Although the model is stated in seat shares ($\theta = s_{SD}$), Swedish municipal elections use proportional representation, so a party's seat

¹²The proof in Online Appendix A (step (ii)) uses the per-party condition, not merely the total: if one non- SD party could grow while another shrank faster, an SD -inclusive coalition relying on the shrinking party could lose feasibility as θ rises, and V_{incl} need not be monotone.

share is approximately equal to its vote share once it clears the (low) minimum-representation threshold. We therefore use θ for either and read the vote-share empirics as the empirical counterpart of the seat-share comparative statics, with the seat-share specification (Online Appendix Figure OA7) providing a direct test in the model’s native units. Let F denote the resulting cross-sectional CDF of τ . As an illustrative mapping from these municipality-level thresholds to an aggregate pattern, assigning a common value θ across municipalities gives

$$\Pr(SD \text{ included} \mid \theta) = \Pr(\tau \leq \theta) = F(\theta).$$

Reading the *observed* inclusion curve as $F(\theta)$ requires the further assumption that the cross-sectional distribution of municipality-level thresholds does not vary systematically with observed SD support except through θ itself. Because municipalities with high SD support may also differ in repugnance, party configuration, or local political culture, we read the resulting curve as an illustrative qualitative prediction rather than as a structural conditional probability—consistent with the descriptive stance we take throughout the empirical analysis. If F has a continuous, unimodal density, this aggregate probability is smooth and convex below the mode and concave above it—near zero for small θ , then rising steeply as θ enters the main mass of the threshold distribution, and tapering off thereafter (see Corollary 1 in the Online Appendix). Our empirical specification fits a piecewise-linear regression with a single change in slope at an estimated cutoff $\hat{\vartheta}$, which we refer to throughout the empirical analysis as a “kink.” A single slope change can capture the convex take-off around the threshold but not the subsequent concave saturation, so the piecewise-linear fit tests the convex half of the prediction directly; because our sample extends well above the estimated threshold, we rely on the complementary lowess fit (Figure 4) to gauge the concave tapering in that in-sample region.

A note on other (non-repugnant) parties For a party j with $\gamma_j = 0$, the single-crossing logic of Proposition 1 applies in the same way: each municipality—indexed by its parameters ω —has a threshold $\underline{s}_j(\omega)$ at which j becomes worth including, and j governs whenever $s_j \geq \underline{s}_j(\omega)$. Aggregating across municipalities, the inclusion probability at seat share s_j is the fraction of municipalities whose threshold lies below it:

$$\Pr(j \text{ included} \mid s_j) = \Pr(\underline{s}_j(\omega) \leq s_j) = G_j(s_j),$$

where G_j is the cross-sectional CDF of inclusion thresholds. The shape of the inclusion curve as a function of size is therefore the shape of this CDF.

For an accepted coalition partner, the natural baseline is *diminishing marginal returns* to size: once j is represented in the council, raising its seat share from, say, 3% to 4% should lift its inclusion probability by at least as much as raising it from 4% to 5%. Equivalently, G_j is concave above the minimum representation threshold r_j (the smallest seat share at which j is guaranteed at least one council seat). The economic reason is saturation. Without a stigma barrier, j 's first seats above r_j matter most—they are what allow a bloc to reach a majority; once j is already a viable partner in most municipalities, additional seats add inclusion in progressively fewer remaining places. In threshold terms, the cross-sectional density of $\underline{s}_j(\omega)$ is highest just above r_j and thins out thereafter. We treat diminishing returns as a hypothesis about the cross-sectional distribution of inclusion thresholds, not as a derived implication of $\gamma_j = 0$; the appendix formalizes the micro-to-macro aggregation (Remark 1).

The Sweden Democrats are the exception that highlights this baseline. Repugnance suppresses inclusion at low size regardless of pivotality, so for SD the early increments do little and the marginal effect of size *rises* before it falls—an initial convex segment, followed by saturation. The aggregate inclusion curve is therefore convex-then-concave (Proposition 1 and Corollary 1), and we estimate the transition near 18.5%. Diminishing returns from the outset is the signature of an ordinary party; an interior acceleration is the signature of repugnance. Both are directly visible in the inclusion curves (Figure 4 for the Sweden Democrats and Online Appendix Figure OA4 for the other minor parties), so the distinction is empirically tested rather than assumed.

Diminishing returns is not a universal feature of $\gamma_j = 0$. A hypothetical non-repugnant party that is far from M in policy space would itself face large inclusion thresholds, since the formateur would only find it worthwhile to include such a party when its seat contribution is substantial enough to offset the policy-distance cost. Across municipalities, this would push the inclusion thresholds into the interior of $[0, 1]$ and could in principle produce an interior acceleration analogous to—though mechanistically distinct from—the Sweden Democrats pattern: ideological distance alone, rather than repugnance, would suppress early inclusion. We do not observe such a party in our data, as we discuss next.

For the Swedish minor parties in our data—the Center Party, the Left Party, the Liberal Party, the Christian Democrats, and the Green Party—the diminishing-returns baseline appears well justified. Each of these parties is ideologically close to at least one of the two main blocs (see Figure 2), making them natural coalition partners even at modest sizes.¹³

¹³The threshold for a given minor party may be high in municipalities where the opposing bloc leads coalition formation, but such cases are captured by the cross-sectional variation in municipality-level thresholds.

Because the policy cost of including them is low, their inclusion thresholds are near zero in most municipalities: a small seat share is typically enough to make them attractive whenever the formateur needs additional partners to secure a majority. Of course, a minor party’s inclusion probability in practice also depends heavily on the strength of its natural bloc partner: for instance, the Liberal Party is more likely to govern when the Moderate Party is the formateur and needs coalition partners. These correlations between party sizes are implicitly captured by the cross-sectional variation in municipality-level inclusion thresholds, which depend on the full configuration of parties in each municipality. This is precisely the pattern we document empirically. As shown in Online Appendix Figure OA4, all non-SD minor parties exhibit a concave relationship between party size and coalition inclusion probability, with the steepest increases occurring at low vote shares and the relationship flattening as the party grows—consistent with the diminishing-returns baseline described above.

Our simple model yields less stark predictions regarding the size of the governing coalitions, the policy platforms of the governing coalition, and the allocation of office rents. Nevertheless, we will also examine such outcomes to complement our empirical analysis, along the lines of the verbal reasoning presented above.

3 Empirical Approach and Data

We now describe the methods and data that we use to understand how the coalition involvement of the Sweden Democrats depends on its size, and how other outcomes evolve around this threshold.

3.1 Identifying Unknown Kink Points and Discontinuities

The main hypothesis that we want to test is that once the Sweden Democrats reaches a certain size, it becomes increasingly costly and difficult for the established parties to keep it out of governing coalitions. At this cutoff, let us call it ϑ , we would expect to see a “tipping point.” The unknown threshold in our statistical model corresponds to the point at which exclusion costs begin to outweigh repugnance costs, given the extent to which other parties care about policy and office rents and inclusion or exclusion of the Sweden Democrats party.

The exact nature of the tipping point depends on various factors, such as power relations of all parties represented in the local government, expected punishment from the electorate from coalescing with a radical party (or some other type of cost of coalescing with a populist radical-right party), and policy-, office- and vote-seeking tendencies of parties participating

in the coalition bargaining process. We remain agnostic about the exact manifestation of the potential tipping point and allow for the possibility of a discontinuous jump in the probability of Sweden Democrats becoming part of the governing coalition and a discontinuity in the first derivative (i.e., the slope when regressing an indicator for the Sweden Democrats belonging to the governing coalition on a function of its size).

We borrow methods often used in time-series econometric analyses to identify unknown kink points and discontinuities (Hansen 2000, 2017). This approach is akin to regression discontinuity and kink designs (Lee and Lemieux 2010; Card et al. 2015).¹⁴ Instead of time, we apply these to an important measure of party size, namely electoral support (i.e., party vote share).

Suppose that we are interested in the following, piece-wise linear regression that also allows for a discontinuity at the kink point:

$$\begin{aligned} \mathbf{1}[\textit{Sweden Democrats in governing coalition}]_{mt} = & \\ & \alpha_0 + \alpha_1 \mathbf{1}[\textit{Sweden Democrats' vote share} \geq \vartheta]_{mt} \\ & + \alpha_2 \mathbf{1}[\textit{Sweden Democrats' vote share} < \vartheta]_{mt} \times (\textit{Sweden Democrats' vote share}_{mt} - \vartheta) + \\ & \alpha_3 \mathbf{1}[\textit{Sweden Democrats' vote share} \geq \vartheta]_{mt} \times (\textit{Sweden Democrats' vote share}_{mt} - \vartheta) + \epsilon_{mt}. \end{aligned} \quad (1)$$

Here, m refers to municipality and t refers to election year, and ϵ_{mt} is the error term. The coefficient α_1 measures the discontinuity at the threshold ϑ , while α_2 and α_3 are the slopes of the relationship below and above it. In some specifications, we also include additional control variables.

We need to estimate the parameters α_0 , α_1 , α_2 , α_3 , and ϑ . The solution to this problem can be found numerically by a grid search over ϑ , obtaining $\hat{\alpha}$ s for each candidate value, and then fixing $\hat{\vartheta}$ and $\hat{\alpha}$ s so that the sum of squared residuals (SSR) is minimized (Hansen 2017).¹⁵ If there is a discontinuous jump at the cutoff, we would expect to see $\alpha_1 \neq 0$. Similarly, if there is a change in the slope at the cutoff, it should be the case that $\alpha_2 \neq \alpha_3$.¹⁶

¹⁴For example, Card et al. (2008) use a similar approach to test for discontinuities in the dynamics of neighborhood racial composition. However, due to sample size limitations, we are unable to use the state-of-the-art methods for point estimation and statistical inference. Therefore, we take our analysis as descriptive rather than causal.

¹⁵Note that in specifications with control variables, we include these variables also in the estimation of ϑ .

¹⁶We use vote share instead of seat share to have a continuous metric of party size without mass points which would be present in the seat share metric. We verify robustness to using the seat share as the running variable instead. Note that we could also allow a more flexible relationship between the outcome and the running variable, Sweden Democrats' vote share. However, a graphical inspection of the data suggests that a linear function approximates the underlying shape of the data reasonably well. We complement this analysis by fitting lowess to the data, but taking the cutoff estimate from the piece-wise linear approach.

3.2 Data

We use information on local election results obtained from Statistics Sweden (SCB). Our data cover seven elections between 1998 and 2022. In these data, we observe the electoral performance of each party (vote and seat shares). We have additionally collected information on the composition of the governing coalitions from the Swedish Association of Local Authorities and Regions.

We also collect novel data on the allocation of office rents in Swedish local governments. We measure these rents by the number of paid part- or full-time positions working for the local government. While most politicians are so-called leisure politicians who attend local council meetings on their free-time and maintain their everyday jobs after election (Dal Bó et al. 2017), there are some who are paid to perform their tasks. Allocating these positions is a form of bargaining that is affected by the coalition size and strength of each party. Since there are no official data on the number of paid politicians or which party they belong to, we sent a survey to all 290 Swedish municipalities and asked for this information from 2002 to 2022.¹⁷

4 Party Size and Coalition Inclusion

We discuss two sets of results in this section. First, we show that the Sweden Democrats party is systematically excluded from governing coalitions in Swedish municipalities but only until it reaches a certain size. Second, we document that this convex relationship between the electoral support of Sweden Democrats and the probability of being incorporated in the governing coalition is very unusual, as the coalition inclusion probability appears to be a concave function of party size for all other parties. These results are robust to different definitions of party size.

4.1 Sweden Democrats

We begin by plotting the relationship between party size and being included in the governing coalition for the Sweden Democrats in Figure 4. The figure shows linear (solid line) and lowess (dashed line) fits estimated separately on both sides of $\hat{v}$. We also show evenly spaced binned averages (green dots), where the bins have been selected following Calonico et al. (2015).

Our analysis suggests that there is a threshold point at 18.5% vote share for the party. Up until this point, the Sweden Democrats are almost never part of the governing coalition.

¹⁷Not all municipalities responded to our survey despite Sweden’s strict right-to-information laws, and many were not able to locate data going all the way back to 2002.

While there is no discontinuous jump at the cutoff, there is a clear change in slope. It grows tenfold from 0.003 to 0.03. This difference in slopes is also statistically significant with $p < 0.01$.

The 18.5% threshold likely represents a tipping point where the electoral costs of continued exclusion begin to outweigh the reputational costs of collaboration. This level of support typically translates to the Sweden Democrats being the third-largest party in the local government.

We complement the graphical analysis with Table 1 which also assesses robustness to including additional covariates. We first control for year fixed effects to account for the fact that there was a nationwide cordon sanitaire in place up until the 2018 municipal election, and before that coalescing with the Sweden Democrats would have been costlier. This barely affects the estimation results, and the difference in slopes is still statistically significant while there is no significant discontinuous jump at the cutoff. The same applies if we control for region indicators to account for the fact that there is a strong geographical gradient in the spread of the party or an indicator for having a right-wing majority to account for the fact that such parties have been more willing to coalesce with the Sweden Democrats. The final column includes all covariates, with the result remaining unchanged. When including the covariates in the regression, we also allow ϑ to vary. However, we find a robust threshold of 18.5% in all specifications.

4.2 Patterns for Other Parties

Are the patterns shown in Figure 4 specific to the Sweden Democrats, or do we see a similar relationship between party size and coalition inclusion probability for other parties? In Online Appendix Figure OA4, we conduct a similar analysis for all other small and medium-sized parties. Although there is no twin of the Sweden Democrats in Swedish politics, we see these parties as a useful point of comparison: the average vote share of Sweden Democrats in our data is 8% (standard deviation = 7.4), while the average vote shares of the other small and medium-sized parties (Center Party, Left Party, Liberal Party, Christian Democratic Party, and Green Party) vary between 3.8% and 12.2%.

The convex relationship between party size and coalition inclusion probability observed for the Sweden Democrats is unique among Swedish parties. For all parties in Online Appendix Figure OA4, we detect a concave relationship between party size and coalition inclusion probability. Although we see discontinuous jumps and kinks in all cases, the Sweden Democrats party appears to be clearly distinct from any other party. For all of the other small and medium-sized parties, the coalition inclusion probability increases steeply

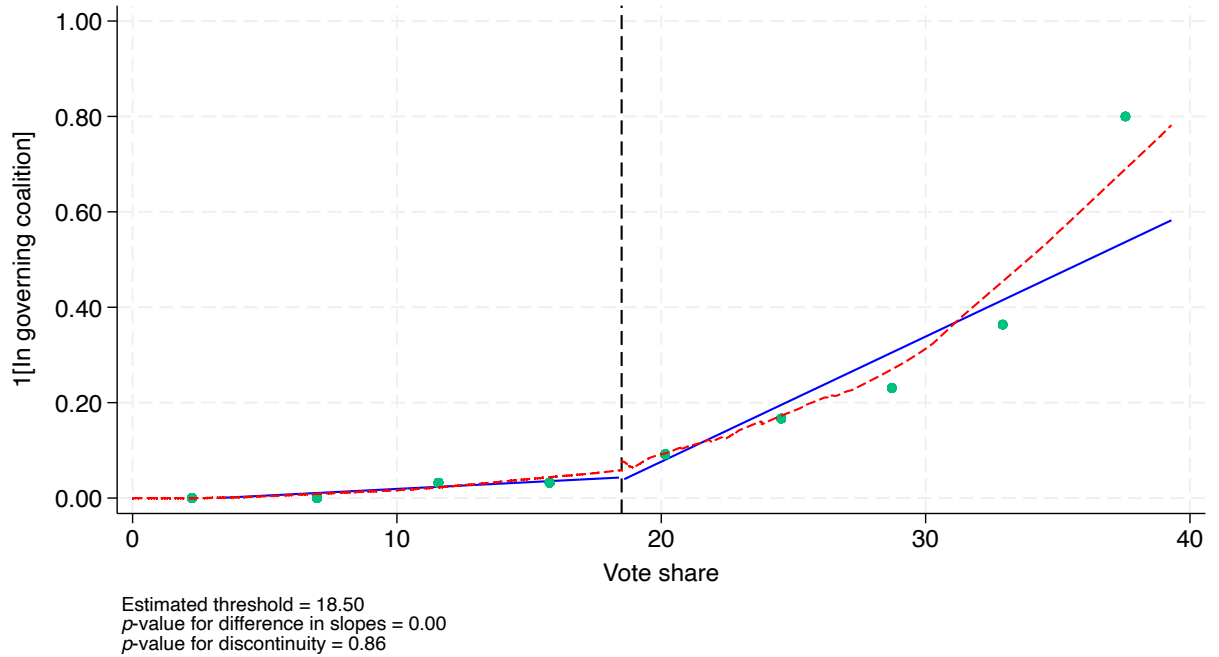


Figure 4. Party size and coalition inclusion probability: Sweden Democrats.

Notes: The figure shows linear (solid line) and lowess (dashed line) fits estimated separately on both sides of the threshold. The threshold has been estimated to minimize the *SSR* of the regression, allowing for a change in slope and a discontinuous jump at the cutoff point. We also show evenly spaced binned averages, where the bins have been selected following [Calonico et al. \(2015\)](#).

until reaching a cutoff point—which tends to be significantly smaller than for the Sweden Democrats—after which the slopes remain positive but less steep than before the threshold. For all parties except for the Liberal Party, this threshold virtually coincides with the parties being guaranteed at least some representation in the municipality. This observation, unlike the result we find for the Sweden Democrats, echoes the conclusion of [Carozzi et al. \(2022\)](#) that the marginal entry of one additional party in Spanish local governments is associated with shifts in coalition formation outcomes.

The pattern is also distinct from that for the two main parties in Swedish politics, the Social Democratic and the Moderate Party. For them, the probability of participating in the governing coalition increases steadily until the party either is close to holding or holds an absolute majority of the seats and can govern alone or together with some small party (see Online Appendix Figure [OA5](#)).

Table 1. Regression results for the Sweden Democrats.

	(1)	(2)	(3)	(4)	(5)
Sweden Democrats' vote share (below threshold)	0.003** [0.001]	0.000 [0.001]	0.003** [0.001]	0.003** [0.001]	-0.002 [0.002]
Sweden Democrats' vote share (above threshold)	0.026** [0.006]	0.025** [0.006]	0.026** [0.006]	0.026** [0.006]	0.024** [0.006]
Threshold	-0.006 [0.034]	-0.013 [0.034]	-0.007 [0.035]	-0.006 [0.034]	-0.010 [0.035]
<i>N</i>	1520	1520	1520	1520	1520
Mean of dependent variable	0.03	0.03	0.03	0.03	0.03
Estimated threshold (vote share)	18.5	18.5	18.5	18.5	18.5
<i>p</i> -value for difference in slopes	0	0	0	0	0
<i>p</i> -value for discontinuity	.86	.7	.84	.86	.76
Year		✓			✓
Region			✓		✓
Right-wing majority				✓	✓

Notes: The dependent variable is an indicator for the Sweden Democrats party being included in the governing coalition. The threshold has been estimated to minimize the *SSR* of the regression, allowing for a change in slope and a discontinuous jump at the cutoff point. Robust standard errors clustered at the municipality level are reported in brackets. * and ** denote statistical significance at 5% and 1% levels, respectively.

4.3 Alternative Measures of Party Size

Whether party vote share is the right metric of party size can be debated. For evidence that marginal changes in vote shares matter for outcomes related to coalition formation, see, for instance, [Fujiwara and Sanz \(2019\)](#). We corroborate our findings by showing that we obtain a qualitatively similar pattern when using party seat share ([Warwick and Druckman 2001](#); [Mershon 2001](#); [Bäck et al. 2011](#)) or voting power ([Ansolabehere et al. 2005](#); [Snyder et al. 2005](#))—which may better reflect parties' bargaining power—as metrics of party size.

In Online Appendix Figure [OA7](#), we use the seat share as the measure of party size instead of the party vote share, restricting our sample to parties that have a non-zero seat share. The results are in line with the analyses that we show here in the main text. We observe a convex relationship only for the Sweden Democrats, for whom the estimated threshold (about 19.7% of the municipal council seat share) is also significantly higher than for other parties which exhibit a distinctively different shape between party size and the coalition inclusion probability.

We also detect a convex pattern for the Sweden Democrats and a concave pattern for all other minor parties when we use the [Shapley and Shubik \(1954\)](#) index as a measure of party size (Online Appendix Figure [OA8](#)). The Shapley-Shubik power index measures the share

of all possible permutations of parties in which a given party is pivotal—that is to say, they change a coalition from losing to winning.¹⁸

Based on the similarity of the findings employing different metrics of party size, we conjecture that our identified threshold effect represents a robust feature of coalition formation in Swedish municipalities rather than an artifact of any particular measurement choice. This consistency also speaks to our interpretation that the threshold reflects a point of change in the cost-benefit calculation of coalition formation—rather than a measurement-driven phenomenon or something stemming purely from parties’ bargaining strength—where the marginal costs of exclusion begin to outweigh the preferences for maintaining the *cordon sanitaire*.

5 How Inclusion and Exclusion of the Sweden Democrats Shape Office Rents and Policy

Having established a threshold effect in the Sweden Democrats’ coalition inclusion, we now examine how this threshold shapes the outcomes of coalition formation, office rent distribution, and policy positions. We hypothesize that the approach to this threshold, and its crossing, significantly alter political bargaining and outcomes.

Motivating examples Parties can alter office rents in two ways: by changing the size of the pie or by dividing the pie differently. Let us consider two examples to illustrate this. During the period 2010–2014, Stockholm was ruled by a typical center-right coalition with all the four non-socialist parties in a coalition. With the Moderate Party being the largest political party, they held six out of ten full-time (paid) politician positions.¹⁹ During the period 2018–2022, the four center-right parties were not able to get a majority due to the increased support for the Sweden Democrats which they refused to cooperate with. Hence, they chose to include the Green Party in the ruling coalition. The party was able to gain two full-time seats despite their low electoral support which was nevertheless sufficient to create a majority coalition. The Moderate Party in turn sacrificed two full-time positions, leaving them with only four seats.

Another example is Malmö, the third-largest city in Sweden. During 2014–2018, it was ruled by a leftist coalition, with the Social Democrats being the largest party. During the 2018–2022 period, the left-wing coalition was not able to gain a majority due to the

¹⁸We compute this measure using the `vpowerrin` package on Stata (Ecker 2019).

¹⁹In larger municipalities, the opposition parties typically have a few full-time positions, in this case a total of three.

increased representation of the Sweden Democrats. They convinced the small, center-right Liberal Party to support them.²⁰ In return for their contribution to the governing coalition, they acquired three full-time positions. Rather than redistributing political positions, Malmö increased the total number of full-time politicians.

In both of these cases, it is not just the allocation of office rents that changes. Which parties are involved in the governing coalition naturally changes the ideological composition of the governing coalition which plausibly matters for the policies that are put in place (Cervellati et al. 2024).

5.1 Empirical Analysis

To move from anecdotal evidence to empirical estimates, we now use the threshold $\hat{\vartheta}$ estimated using equation (1) and estimate the same regression kink model for office rent and policy outcomes.

Distribution of office rents Figure 5 illustrates the regression results for office rents graphically. We examine how the coalition size (Panel A), the number of paid full-time and part-time positions allocated to political parties (Panel B), the largest party’s share of these paid positions (Panel C), and the Herfindahl-Hirschman index of the cross-party allocation of the paid positions (Panel D) evolve as the Sweden Democrats party grows larger in popularity.

We see that before reaching the cutoff point, coalition sizes tend to follow an increasing trend. After the cutoff point, this trend is reversed, and coalition sizes start becoming smaller. We may speculate that the formateurs are willing to incorporate more parties in the governing coalitions to avoid coalescing with the Sweden Democrats—until this becomes too costly, politically and otherwise. The parties also appear to generate new paid positions to the coalition members and distribute a greater share of office rents to the junior coalition partners—up until a certain point.²¹

The observed increase in coalition size as the threshold is approached likely reflects established parties’ attempts to build broader alliances to maintain government control

²⁰The Liberals decided to form a coalition with the Social Democrats instead of joining a right-wing coalition that would rely on support from the Sweden Democrats. Roko Kursar, the group leader for the Liberals in Malmö, commented on the coalition, stating that “[w]e have been clear that we will not become dependent on the Sweden Democrats. My voters are proud that we stand by what we have said” (see <https://www.svt.se/nyheter/lokalt/skane/klart-med-socialdemokratiskt-styre-i-malmo>; accessed August 26, 2024).

²¹We do not observe the workload share of part-time positions and therefore cannot construct full-time equivalent (FTE) measures. Online Appendix Figure OA9 reports the number of paid full-time and paid part-time positions separately; both series exhibit the same qualitative pattern.

without the Sweden Democrats. However, once the threshold is crossed, the inclusion of the Sweden Democrats allows for smaller, potentially more ideologically cohesive coalitions.

We present detailed regression results in Panel A of Table 2 which reports the regression results without (odd columns) and with (even columns) additional covariates. Although the statistical significance and sign of the left-hand slopes varies slightly across specifications, our conclusions regarding the sign (and statistical significance) of the change in slopes remain unchanged.

Finally, Online Appendix Figure OA10 illustrates changes in coalition participation for minor parties' coalition participation as the Sweden Democrats' vote share approaches and surpasses the 18.5% threshold. The Center Party, in particular, benefits from the cordon sanitaire, as its probability of coalition inclusion increases steadily up to the threshold, after which the probability declines (Panel A). A similar, albeit less pronounced, pattern is observed for the Christian Democrats and the Green Party (Panels D and E). For the Left Party, the slope remains negative on both sides of the threshold, but a noticeable upward jump occurs at the cutoff (Panels B and C).

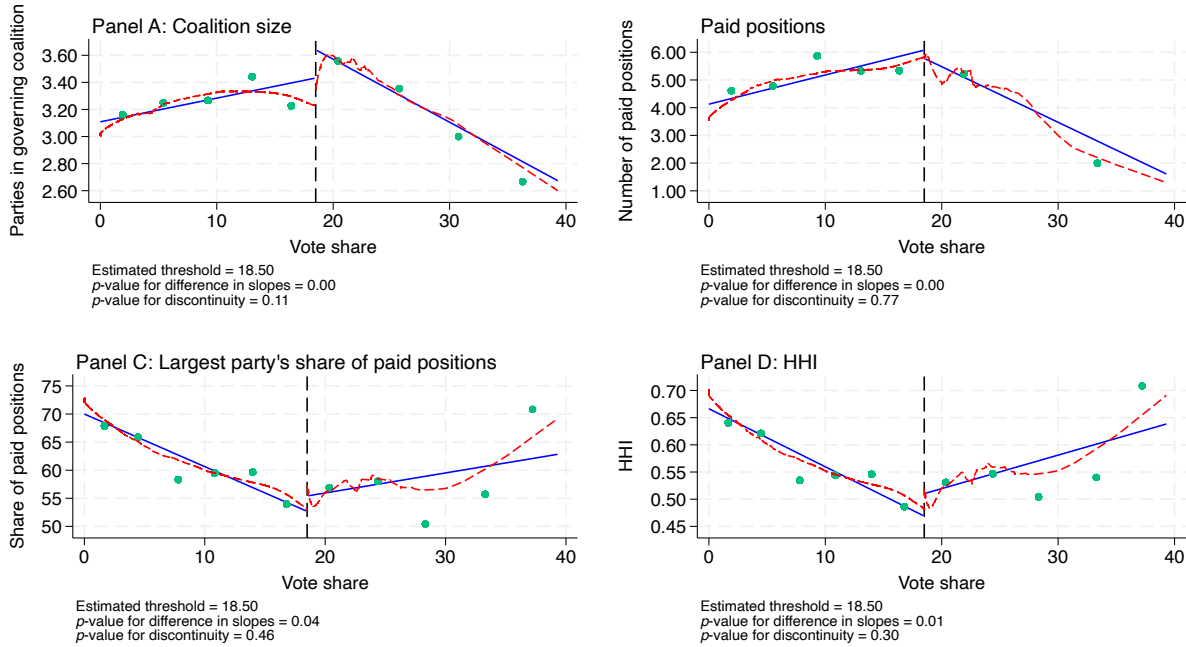


Figure 5. Size of the governing coalition and distribution of office rents.

Notes: The figure shows linear (solid line) and lowess (dashed line) fits estimated separately on both sides of the threshold. The threshold has been estimated to minimize the SSR when regressing an indicator for the Sweden Democrats being in the governing coalition on its vote share, allowing for a change in slope and a discontinuous jump at the cutoff point. We also show evenly spaced binned averages, where the bins have been selected following Calonico et al. (2015).

Implications for policy and the ideological composition of the governing coalition

We then consider two policy outcomes—municipal spending per capita (1,000s SEK) and local income tax rate—and the ideological range of governing parties, measured by the distance between the maximum and minimum economic and GAL-TAN ideology among the parties included in the coalition (see Figure 6 and Table 3).

We do not see any clear changes in the relationship between Sweden Democrats’ vote share and tax rate. However, for spending per capita, we observe a clear increasing trend on the left-hand-side of the cutoff and decreasing trend on the right-hand-side of the cutoff. This is in line with the increased coalition size we documented earlier; larger governing coalitions may lead to more spending, for instance, due to a political common pool problem (Persson et al. 2007).²²

We also see that government ideology becomes more dispersed toward the threshold, after which it becomes less dispersed the more popular the Sweden Democrats party and, thus, the larger the probability of its coalition inclusion.²³

5.2 Instrumental Variable Estimation

We complement our analysis with an IV approach which provides more direct estimates of how the outcomes covary with the government involvement of the Sweden Democrats. We instrument $\mathbf{1}[\widehat{\text{Sweden Democrats in government}}]$ with the threshold indicator $\mathbf{1}[\text{Sweden Democrats' vote share} \geq \vartheta]$ and its interaction with the (recentered) running variable, $\mathbf{1}[\text{Sweden Democrats' vote share} \geq \vartheta] \times (\text{Sweden Democrats' vote share} - \vartheta)$. The first stage thus fits the same piecewise-linear kink-and-jump form as specification (1), and the second stage takes the form

$$y_{mt} = \delta_0 + \delta_1 \widehat{\mathbf{1}[\text{Sweden Democrats in government}]_{mt}} + \delta_2 \text{Sweden Democrats' vote share}_{mt} + \mu_{mt}, \quad (2)$$

where Sweden Democrats’ vote share enters as a control for the smooth relationship between party size and the outcome.

This approach is akin to a fuzzy regression kink design. However, as before, we are cautious in terms of drawing causal conclusions from the analysis. These results are

²²We speculate that the downstream policy effects are more muted because Sweden Democrats’ economic positions are not far from the mainstream center-right (see also Figure 2).

²³These observations resonate with what we see in Online Appendix Figure OA3 which shows the types of governing coalitions across electoral terms covered by our data. Starting after the 2014 election, we see that cross-bloc coalitions have been becoming increasingly more prevalent, while the share of pure left-wing coalitions has been steeply decreasing.

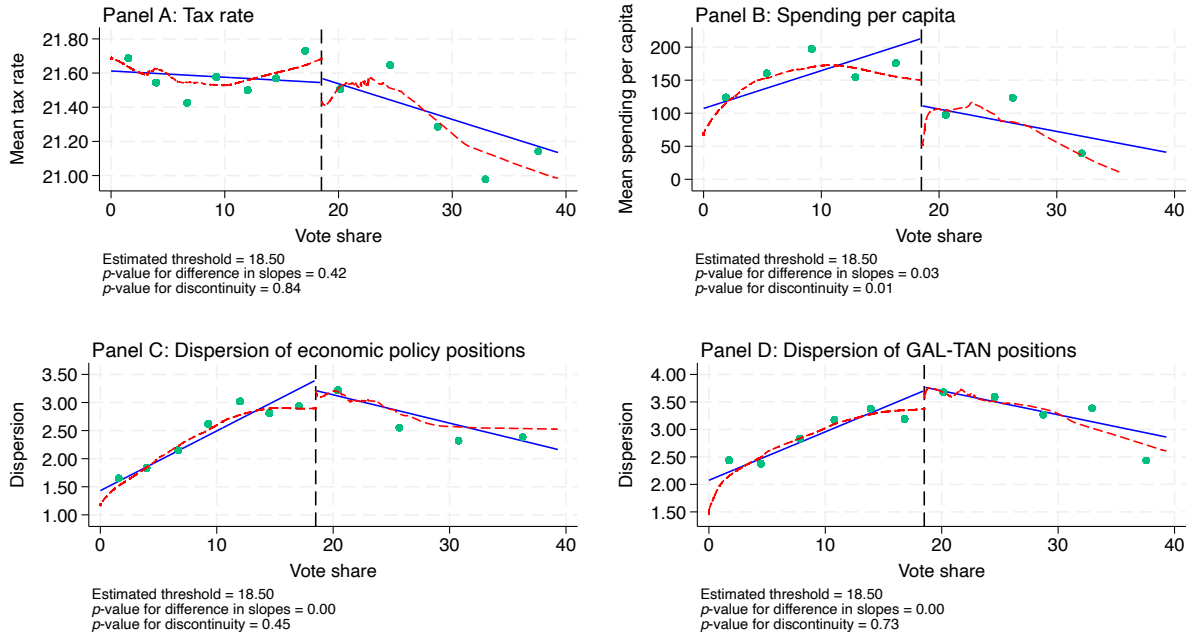


Figure 6. Policy outcomes and ideological dispersion of governing coalitions.

Notes: The figure shows linear (solid line) and lowess (dashed line) fits estimated separately on both sides of the threshold. The threshold has been estimated to minimize the *SSR* when regressing an indicator for the Sweden Democrats being in the governing coalition on its vote share, allowing for a change in slope and a discontinuous jump at the cutoff point. We also show evenly spaced binned averages, where the bins have been selected following [Calonico et al. \(2015\)](#).

best understood as a rescaling of the threshold evidence rather than as an independent identification strategy.²⁴

Panel A of Tables 2 and 3 reports how outcomes change around the estimated threshold, and the first stage how the probability of Sweden Democrats' inclusion changes at the same point. Panel B reports the corresponding Wald ratio, which rescales the reduced-form change into an outcome difference per unit increase in the probability that SD is in government. This is a local object, informative mainly for municipalities near the threshold and for outcomes that crossing it actually alters.

The estimates, which we present in Panel B of Tables 2 and 3, corroborate our earlier findings. When Sweden Democrats are included in governing coalitions, (i) coalition size is

²⁴The estimates have a causal interpretation if the exclusion restriction holds. That is to say, conditional on a function of Sweden Democrats' vote share (and covariates), crossing the estimated threshold must affect the outcomes only through the induced change in whether Sweden Democrats is included in the governing coalition. Put differently, absent Sweden Democrats entering government, the relationship between Sweden Democrats' vote share and the outcomes should not itself exhibit a kink or discontinuity at that vote-share level. We admit that this is a strong assumption that is unlikely to hold, which warrants caution in making causal claims based on the pattern we find.

smaller, (ii) there are fewer paid positions, (iii) the largest party holds a larger share of the paid positions, (iv) the allocation of the paid positions is less dispersed, and (v) the policy positions of the parties involved in the governing coalition are less dispersed.

Table 2. Regression results for office payoffs.

	Coalition size		Paid positions		Largest party's share of paid positions		HHI	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A								
Sweden Democrats' vote share (below threshold)	0.014*	0.019	0.065	-0.059	-0.821**	0.158	-0.009**	0.001
	[0.007]	[0.014]	[0.068]	[0.106]	[0.178]	[0.439]	[0.002]	[0.005]
Sweden Democrats' vote share (above threshold)	-0.046**	-0.048*	-0.201**	-0.229*	0.357	0.973	0.006	0.011
	[0.018]	[0.022]	[0.074]	[0.090]	[0.615]	[0.629]	[0.006]	[0.006]
Threshold	0.235	0.300*	-0.001	-0.054	1.893	0.094	0.031	0.012
	[0.129]	[0.134]	[1.023]	[0.921]	[3.706]	[3.522]	[0.040]	[0.037]
<i>p</i> -value for difference in slopes	0	.01	.01	.23	.07	.23	.02	.17
<i>p</i> -value for discontinuity	.07	.03	1	.95	.61	.98	.44	.75
Panel B								
1[Sweden Democrats in governing coalition]	-2.067**	-2.247**	-9.198*	-5.162	41.785*	23.820	0.554*	0.289
	[0.692]	[0.862]	[3.944]	[4.370]	[20.025]	[19.427]	[0.219]	[0.207]
First-stage <i>F</i>	11.48	11.84	11.11	11.39	11.91	12.32	11.91	12.32
<i>N</i>	1520	1520	1036	1036	1017	1017	1017	1017
Mean of dependent variable	3.27	3.27	5.04	5.04	61.95	61.95	0.58	0.58
Estimated threshold (vote share)	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Year		✓		✓		✓		✓
Region		✓		✓		✓		✓
Right-wing majority		✓		✓		✓		✓

Notes: The dependent variables are indicated as column titles. The threshold has been estimated to minimize the *SSR* of the regression, allowing for a change in slope and a discontinuous jump at the cutoff point. Robust standard errors clustered at the municipality level are reported in brackets. * and ** denote statistical significance at 5% and 1% levels, respectively.

6 Concluding Remarks

We study the politics and economics of trying to uphold a cordon sanitaire against a populist right-wing party, the Sweden Democrats. We find that established parties systematically keep the Sweden Democrats out of the governing coalitions, but only up until a certain point. When the party becomes sufficiently large, the costs of exclusion become untenable and the cordon sanitaire begins to break apart. While previous studies have noted the challenges posed by radical right parties to coalition formation (e.g., [Mudde 2007](#)), our work provides the first quantitative evidence of a specific threshold effect. This contributes to debates about the mainstreaming and normalization of radical right parties ([Akkerman et al. 2016](#); [Valentim 2024](#)) by identifying a tipping point in their political acceptance to governing coalitions.

Table 3. Regression results for policy outcomes and ideological composition of the governing coalition.

	Tax rate		Spending		Spread of economic ideology		Spread of GAL-TAN ideology	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A								
Sweden Democrats' vote share (below threshold)	-0.004 [0.009]	0.028** [0.010]	3.588 [2.212]	-5.106 [4.271]	0.097** [0.010]	0.094** [0.022]	0.073** [0.009]	0.013 [0.017]
Sweden Democrats' vote share (above threshold)	-0.021 [0.020]	0.026 [0.015]	-3.382 [3.370]	-9.079 [5.655]	-0.050 [0.027]	-0.018 [0.026]	-0.044 [0.023]	-0.058* [0.027]
Threshold	0.025 [0.123]	0.111 [0.071]	-83.823* [40.460]	-69.010 [52.846]	-0.118 [0.249]	-0.050 [0.231]	0.171 [0.178]	0.462* [0.179]
<i>p</i> -value for difference in slopes	.44	.89	.1	.55	0	0	0	.02
<i>p</i> -value for discontinuity	.84	.12	.04	.19	.64	.83	.34	.01
Panel B								
1[Sweden Democrats in governing coalition]	-0.686 [0.858]	0.048 [0.578]	-483.924 [331.846]	-248.260 [354.389]	-6.685** [1.501]	-4.458** [1.253]	-4.699** [1.237]	-2.262* [1.118]
First-stage <i>F</i>	11.48	11.84	2.04	2.07	11.26	11.71	11.26	11.71
<i>N</i>	1520	1520	1235	1235	1435	1435	1437	1437
Mean of dependent variable	21.57	21.57	148.60	148.60	2.37	2.37	2.90	2.90
Estimated threshold (vote share)	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Year		✓		✓		✓		✓
Region		✓		✓		✓		✓
Right-wing majority		✓		✓		✓		✓

Notes: The dependent variables are indicated as column titles. The threshold has been estimated to minimize the *SSR* of the regression, allowing for a change in slope and a discontinuous jump at the cutoff point. Robust standard errors clustered at the municipality level are reported in brackets. * and ** denote statistical significance at 5% and 1% levels, respectively.

Our findings are consistent with the following narrative: Established parties trade off office rents and policy to keep the Sweden Democrats out of the government, but they are only willing to make sacrifices up to a certain extent. During this process, politicians increase the size of their political coalition, which entails adding more political parties to the ruling coalition, leading to an expansion or redistribution of political offices. Increased prominence of the Sweden Democrats also shapes the ideological composition of governing coalitions, suggesting that there may be fundamental consequences for policy outcomes as well. For the two largest parties, this means that they can either form a coalition with the historical nemesis, or a repugnant populist party. In the choice between Scylla and Charybdis, only the Moderates have so far chosen a coalition with the Sweden Democrats. It remains to be seen if the Social Democrats will change their stance in the future.

Although our empirical analysis focuses on Sweden, the mechanism we study is portable.²⁵ In any multiparty system where (i) government formation requires coalition bargaining,

²⁵Mainstream treatment of populist radical-right parties varies sharply across settings: for instance, Rassemblement National in France and the German Alternative für Deutschland remain perpetual outsiders, while the Danish People's Party, Austria's FPÖ, Italy's Northern League, and the Dutch PVV have all entered cabinet at least once.

(ii) cooperation with a specific party carries a reputational or “repugnance” cost (Roth 2007; Leander 2024; Jacobs 2024), and (iii) that party’s pivotality rises with its seat share, the exclusion cost will typically increase with the party’s size. In such settings, exclusion can be “purchased” through broader and more ideologically heterogeneous coalitions and greater concessions to coalition partners up to a tipping region, after which inclusion becomes more likely. The tipping-point argument we make (and empirically document)—coalition expansion and growing ideological dispersion up to a threshold, followed by a steep rise in inclusion probabilities—therefore yields testable implications for other contexts as well.

We take our analysis as a first pass to understanding the role that radical party size plays in their inclusion in or exclusion from governing coalitions. We hope that this study sets forth a further research agenda. Let us outline some potential avenues for future work.

First, the recent successes of radical parties on the right and the left across Europe call for comparative investigation of the hypothesis that we have studied. A cross-country analysis would have its own merits, possibly enabling analysis of heterogeneities in party size threshold across different electoral and party systems and other factors. Especially the potential differences between populist radical left and right-wing parties could be interesting to assess. Gathering similar data from local governments in other countries where the coalition participation of radical parties is more common could enable a more sophisticated estimation of regression-discontinuity and regression-kink designs in the spirit of what we do in the present paper.²⁶

Second, the existing formal models of coalition bargaining are not perfectly suited to understanding coalition formation in the presence of repugnant parties. The empirical patterns we document may further offer food for thought for theorists who are interested in analyzing these types of coalition formation situations beyond the simple conceptual framework we present in the present paper.²⁷ Coupling a carefully crafted model with the suitable data could enable a structural estimation of how parties weigh the different trade-offs when deciding whether to coalesce or not with a radical party or other aspects of government formation when radical parties are involved.

²⁶An obvious limitation of the “global approach” that we take due to the limited number of times that the Sweden Democrats party has been involved in governing coalitions is that we place weight also on observations that are further away from the threshold. The ideal empirical study should exploit the randomness of election outcomes right around the cutoff for causal identification (de Magalhaes et al. 2025; Hyttinen et al. 2018; Card et al. 2015; Gelman and Imbens 2019).

²⁷Some important steps toward this direction are taken in Afsar and Weibull (2021) who examine the Shapley values of different coalition options in government formation in Sweden, accounting for the fact that some parties have a strict preference to never coalesce with each other.

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Online Appendix to “Between Scylla and Charybdis: The Trade-Offs of Coalition Formation under Radical-Right Pressure”

Gustav Karreskog Rehbinder, Anders Kärnä, Jaakko Meriläinen, and John Norell

A Proofs of Theoretical Results

We prove Proposition 1, state a corollary, and record two remarks that formalize and contextualize the discussion of non-repugnant parties in Section 2.3. The result below formalizes the stylized single-crossing logic of Section 2.3; its assumptions are chosen for transparency, and it should be read as an illustration of that mechanism rather than as a general theorem about coalition formation. Recall the model set-up from Section 2.3: the formateur M chooses a majority coalition containing M to maximize $U_M(C) = -\alpha \cdot d(C, M) - \beta \cdot |C| - \gamma \cdot \mathbf{1}[SD \in C]$, where $d(C, M)$ is the policy distance between the coalition’s position and M ’s ideal point, $|C|$ is the number of coalition parties, and $\gamma > 0$ is the repugnance cost of including SD . For ease of reference, we restate the assumptions from Section 2.3 with their labels.

Assumption A1 (membership-based payoffs). The coalition’s policy position—and hence $d(C, M)$ —is determined by which parties belong to C , not by their seat shares; seat shares enter payoffs only through the majority constraint $\sum_{i \in C} s_i \geq 1/2$.

Assumption A2 (initial exclusion). For every coalition C with $SD \in C$,

$$\alpha [d(C \setminus \{SD\}, M) - d(C, M)] < \beta + \gamma :$$

the policy-distance reduction that SD could bring to a coalition, valued at α , never outweighs the size cost β plus the repugnance cost γ saved by dropping SD . Beyond A1 and non-negativity, this is the only restriction we place on d , and it is used only in part (iii) below. It nests—but is weaker than—the geometric condition $d(C \cup \{SD\}, M) \geq d(C, M)$.

Assumption A3 (monotone seat shares). Parameterize by $\theta = s_{SD} \in [0, \bar{\theta}]$ for some $\bar{\theta} \in (0, 1]$. As θ increases, the total non-SD seat share is $1 - \theta$, and each non-SD party's seat share $s_i(\theta)$ is continuous and weakly decreasing.

By A1, the objective depends only on which parties belong to C , so both V_{excl} and V_{incl} below are maxima of a θ -independent objective over θ -dependent feasible sets. Define:

$$V_{\text{excl}}(\theta) = \max_{\substack{C: M \in C, SD \notin C, \\ \sum_{i \in C} s_i(\theta) \geq 1/2}} \{ -\alpha \cdot d(C, M) - \beta \cdot |C| \},$$

$$V_{\text{incl}}(\theta) = \max_{\substack{C: M \in C, SD \in C, \\ \sum_{i \in C \setminus \{SD\}} s_i(\theta) + \theta \geq 1/2}} \{ -\alpha \cdot d(C, M) - \beta \cdot |C| - \gamma \}.$$

Write $\mathcal{F}_{\text{excl}}(\theta)$ and $\mathcal{F}_{\text{incl}}(\theta)$ for the two feasible sets, with the convention that a maximum over an empty set equals $-\infty$.

Proof of Proposition 1. We establish four facts.

(i) $V_{\text{excl}}(\theta)$ is weakly decreasing in θ . The feasible set is $\mathcal{F}_{\text{excl}}(\theta) = \{C : M \in C, SD \notin C, \sum_{i \in C} s_i(\theta) \geq 1/2\}$. Since each $s_i(\theta)$ is weakly decreasing, any coalition feasible at θ' is also feasible at any $\theta < \theta'$, so $\mathcal{F}_{\text{excl}}(\theta') \subseteq \mathcal{F}_{\text{excl}}(\theta)$. Maximizing the same (θ -independent) objective over a weakly smaller set yields a weakly lower optimum.

(ii) $V_{\text{incl}}(\theta)$ is weakly increasing in θ . Take any SD -inclusive coalition C with non-SD members $C' = C \setminus \{SD\}$ and any $\theta' > \theta$. Since each non-SD seat share is weakly decreasing and the total non-SD loss is exactly $\theta' - \theta$, the subset C' collectively loses at most $\theta' - \theta$ seats, while SD gains exactly $\theta' - \theta$. Hence C 's total seat share weakly rises:

$$\sum_{i \in C'} s_i(\theta') + \theta' \geq \left[\sum_{i \in C'} s_i(\theta) - (\theta' - \theta) \right] + \theta' = \sum_{i \in C'} s_i(\theta) + \theta,$$

so any coalition feasible at θ remains feasible at θ' : $\mathcal{F}_{\text{incl}}(\theta) \subseteq \mathcal{F}_{\text{incl}}(\theta')$. Maximizing the same objective over a weakly larger set yields a weakly higher optimum.

(iii) $V_{\text{excl}}(0) > V_{\text{incl}}(0)$. At $\theta = 0$, SD holds no seats. Take any $C \in \mathcal{F}_{\text{incl}}(0)$. Since $M \in C$ and $SD \in C$, we have $|C| \geq 2$. Let $C' = C \setminus \{SD\}$; then $M \in C'$, $|C'| \geq 1$, and C' has the same total seat share as C , so $C' \in \mathcal{F}_{\text{excl}}(0)$. Comparing values, and using $|C'| = |C| - 1$,

$$\begin{aligned} & [-\alpha d(C', M) - \beta |C'|] - [-\alpha d(C, M) - \beta |C| - \gamma] \\ &= \alpha [d(C, M) - d(C', M)] + \beta + \gamma = (\beta + \gamma) - \alpha [d(C', M) - d(C, M)] > 0, \end{aligned}$$

where the strict inequality is Assumption A2 (initial exclusion). Hence every SD -inclusive feasible coalition is strictly dominated by an SD -excluding feasible coalition, so $V_{\text{excl}}(0) > V_{\text{incl}}(0)$.

(iv) *Reversal at some θ_H (Assumption A4).* We assume there exists $\theta_H \in (0, \bar{\theta}]$ with $V_{\text{incl}}(\theta_H) \geq V_{\text{excl}}(\theta_H)$; together with (iii) this is what places the threshold inside the parameter range. (By (iii), any such reversal point is necessarily strictly positive, so restricting attention to $\theta_H > 0$ is without loss.) The assumption is mild and admits transparent sufficient conditions, neither of which requires SD to approach a majority. It holds at some $\theta_H \in (0, 1/2]$ whenever the only feasible SD -excluding majority there is the coalition of all non- SD parties and M weakly prefers its best SD -inclusive coalition to that all-party exclusion coalition. As a limiting special case, if $\bar{\theta} > 1/2$ then for any $\theta > 1/2$ the total non- SD seat share $1 - \theta$ falls below $1/2$, so $\mathcal{F}_{\text{excl}}(\theta)$ is empty and $V_{\text{excl}}(\theta) = -\infty$ by convention, while $V_{\text{incl}}(\theta)$ remains finite because the grand coalition (which contains both M and SD) is always feasible; the reversal then holds automatically for any finite γ .

By (i)–(iv), the difference $V_{\text{excl}}(\theta) - V_{\text{incl}}(\theta)$ is weakly decreasing in θ (in the extended-real sense, since V_{excl} is weakly decreasing and V_{incl} weakly increasing), is strictly positive at $\theta = 0$ by (iii), and is weakly negative at θ_H by (iv). A weakly decreasing function that changes sign has $\{\theta : V_{\text{excl}}(\theta) - V_{\text{incl}}(\theta) \leq 0\}$ as an upper interval; equivalently, $\{\theta : V_{\text{incl}}(\theta) \geq V_{\text{excl}}(\theta)\}$ is an upper interval, so monotonicity alone—without any appeal to the piecewise-constant structure of the value functions—delivers the threshold. Defining $\tau = \inf$ of this set, SD is excluded for $\theta < \tau$ and included for $\theta > \tau$. (No zero crossing need exist—the difference may jump across zero without ever equaling it; the $\inf$ characterization does not require one.) The single boundary point $\theta = \tau$ is resolved by the formateur’s tie rule (include iff $V_{\text{incl}} \geq V_{\text{excl}}$) and is immaterial to the comparative statics. Finally, increasing γ shifts V_{incl} down uniformly without affecting V_{excl} , so the inclusion set weakly shrinks and its infimum τ is weakly increasing in γ (with the convention $\inf \emptyset = +\infty$: if the higher γ eliminates inclusion altogether, the threshold moves above $\bar{\theta}$, consistent with weak monotonicity). $\square$

Across municipalities, primitives $(\alpha_m, \beta_m, \gamma_m)$ and party configurations vary. Suppose the assumptions of Proposition 1 hold in each municipality, so that each has a threshold $\tau_m \in [0, \bar{\theta}]$ determined by its primitives; τ_m is thus an endogenous object induced by the primitives, not a free parameter.

COROLLARY 1 (Aggregate convex-concave inclusion probability): *Suppose the joint distribution of primitives across municipalities induces a continuous cross-sectional distribution of τ_m with CDF F and a continuous, unimodal density f . Then the aggregate inclusion probability when the SD seat share equals θ (equivalently, its vote share under*

proportional representation),

$$\Pr(SD \text{ included} \mid \theta) = \Pr(\tau_m \leq \theta) = F(\theta),$$

is convex in θ for values of θ below the mode of f and concave for values above it.

Proof. By Proposition 1, a municipality includes SD when $\theta > \tau_m$ and excludes it when $\theta < \tau_m$; the boundary case $\theta = \tau_m$ occurs with probability zero because the cross-sectional distribution of τ_m is continuous. The inclusion probability at SD seat share θ therefore equals $\Pr(\tau_m \leq \theta) = F(\theta) = \int_{-\infty}^{\theta} f(t) dt$. By unimodality, f is non-decreasing on $(-\infty, m]$ and non-increasing on $[m, \infty)$, where m denotes the mode, and the integral of a non-decreasing (non-increasing) function is convex (concave). Hence F is convex on $(-\infty, m]$ and concave on $[m, \infty)$. Since f is continuous, F is moreover continuously differentiable, so the convex-to-concave transition is smooth rather than a kink: without continuity of f , a unimodal density with a jump at the mode would produce a literal kink in F there. $\square$

This corollary rationalizes our empirical finding at approximately 18.5% vote share. The aggregate inclusion probability is theoretically a smooth, convex-to-concave function—not a literal kink in the mathematical sense, which would be a discontinuity in the first derivative. The piecewise-linear specification we estimate in Section 3 approximates the convex take-off of this transition by a single change in slope at the estimated cutoff $\hat{\vartheta}$ —what we refer to throughout the empirical analysis as a “kink”—while the concave tapering above the mode is captured by the complementary lowess fit rather than by the single kink itself. The estimated $\hat{\vartheta}$ corresponds roughly to the region where the threshold density is highest (i.e., near the mode), which is also where the curvature of F changes sign. As in Section 2.3, reading the *observed* inclusion curve as $F(\theta)$ requires the invariance assumption that the cross-sectional distribution of municipality-level thresholds does not vary systematically with observed SD support except through θ itself; we accordingly read the aggregate curve as a qualitative prediction rather than as a structural conditional probability.

REMARK 1 (Aggregation for non-repugnant parties): *This remark formalizes the aggregation argument underlying the note on non-repugnant parties in Section 2.3. Fix a municipality with parameters ω and a party j with $\gamma_j = 0$. Parameterize by $s_j \in [0, 1]$, with each non- j party’s seat share continuous and weakly decreasing in s_j (so the total non- j seat share is $1 - s_j$). As in Proposition 1 (Assumption A1), the formateur’s objective depends only on which parties belong to C , not on their seat shares, which enter solely through the majority constraint. As s_j increases, the feasible set of j -inclusive majority coalitions weakly expands (by the same logic as step (ii) of Proposition 1: the seats j gains compensate for any losses*

among j 's non- j coalition partners), while the feasible set of j -exclusive coalitions weakly shrinks (non- j parties lose seats). By the same single-crossing logic, there exists a threshold $\underline{s}_j(\omega)$ —with the convention $\underline{s}_j(\omega) > 1$ if no feasible seat share triggers inclusion—such that j is included in the optimal coalition when $s_j > \underline{s}_j(\omega)$ and excluded when $s_j < \underline{s}_j(\omega)$; the boundary point is resolved by the formateur's tie rule and is immaterial for the aggregation below, which assumes a continuous cross-sectional distribution.²⁸

Aggregating across municipalities, the inclusion probability at seat share s_j is

$$\Pr(j \text{ included} \mid s_j) = \Pr(\underline{s}_j(\omega) \leq s_j) = G_j(s_j),$$

where G_j is the cross-sectional CDF of inclusion thresholds, with density g_j . Since $G'_j(s_j) = g_j(s_j)$, the inclusion curve G_j is concave on $[r_j, 1]$ if and only if g_j is non-increasing on $[r_j, 1]$, where r_j denotes the minimum representation threshold (in Swedish municipalities, roughly 2%–3%, depending on council size).²⁹ This is the diminishing-returns condition discussed in Section 2.3: empirically, going from $s_j = 3\%$ to $s_j = 4\%$ raises the inclusion probability at least as much as going from 4% to 5%. We treat it as a hypothesis about the cross-sectional distribution of inclusion thresholds rather than as a derived implication of $\gamma_j = 0$; the inclusion curves of all non-SD minor parties (Online Appendix Figure OA4) are consistent with it.

REMARK 2 (Saturation baseline vs. stigma-shifted threshold): Proposition 1 (with Corollary 1) and Remark 1 together describe two regimes of the same cross-sectional aggregation mechanism. For an accepted coalition partner, the inclusion-threshold density is concentrated near the representation threshold r_j and decays above it; the aggregate inclusion probability is therefore concave throughout the represented range, reflecting the diminishing marginal value of seats once the party is already a useful potential partner in most municipalities (saturation baseline). For the Sweden Democrats, the repugnance cost $\gamma > 0$ weakly shifts every municipality's inclusion threshold to the right (Proposition 1) and hence moves the threshold density into the interior of $[0, 1]$. The aggregate inclusion probability is then convex below the mode (repugnance suppresses early inclusion) and concave above it (saturation eventually takes over). The piecewise-linear specification used in our empirical analysis approximates the convex take-off of this transition by a single change in slope at the estimated cutoff—what we refer to throughout as a “kink”—while the concave tapering

²⁸ $\underline{s}_j(\omega)$ may equal zero in municipalities where j is policy-attractive enough that its inclusion reduces $d(C, M)$ by more than β/α ; conversely, $\underline{s}_j(\omega)$ may exceed 1 if j is too policy-distant ever to be included. We do not assume any particular value of $\underline{s}_j(\omega)$ in any one municipality; the relevant object is its cross-sectional distribution.

²⁹ r_j is determined by the seat-allocation rule and council size. For the empirical analysis we restrict attention to parties with non-zero seat shares, so the relevant range of s_j is $[r_j, 1]$.

is gauged by the complementary lowess fit. Both density assumptions are directly observable as the shape of the inclusion curve, and hence empirically testable; the figures are consistent with each in its respective domain.

B Additional Figures

Figure OA1 This figure maps the electoral performance of the Sweden Democrats across Swedish municipalities in 2010, 2014, 2018, and 2022. We see that the party first increased its popularity in the southern parts of Sweden and eventually became popular also in other parts.

Figure OA2 Here, we illustrate the share of municipalities in which each party belongs to the governing coalition across the elections. The general pattern is that the Social Democratic Party, the Moderates, and the Center Party appear to be most commonly part of these coalitions, although the minor parties also participate fairly often. Starting after the 2018 and especially the 2022 elections, Sweden Democrats have increased their political power by being incorporated into municipal governing coalitions.

Figure OA3 Figure OA3 shows the distribution of different types of governing coalitions across time. Pure left-wing or center-right coalitions were more frequent until after the 2014 election, after which especially left-wing coalitions have become less prevalent. At the same time, cross-bloc coalitions (with or without other parties) have been becoming much more common. For example, starting in 2011, only about one fourth of municipalities had such governing coalitions, but in twelve years this number increased roughly two-fold.

Figure OA4 In Figure OA4, we study whether the relationship between the vote share and the coalition inclusion probability for other minor parties in Swedish local politics is similar to the Sweden Democrats. The convex relationship between party size and the coalition inclusion probability in the case of the Sweden Democrats turns out to be unusual.

For all other minor parties, we detect a concave relationship between the party size and the coalition inclusion probability. Although we see discontinuous jumps and kinks in all cases, the Sweden Democrats party appears to be clearly distinct from any other party. For all of the other small and medium-sized parties, the coalition inclusion probability increases steeply until reaching a cutoff point—which tend to be significantly smaller than for the Sweden Democrats—after which the slopes remain positive but less steep than before the

threshold. For all parties except for the Liberal Party, this threshold virtually coincides with the parties being guaranteed at least some representation in the municipality.

Figure OA5 The pattern for the Sweden Democrats is also distinct from that for the two main parties in Swedish politics, the Social Democratic and the Moderate Party. For them, the probability of participating in the governing coalition increases steadily until the party either is close to holding or holds an absolute majority of the seats and can govern alone or together with some small party.

Figure OA6 In Figure OA6, we estimate the cutoff points and associated discontinuities and shifts in slopes while excluding parties that gain no representation in the local council. For some parties (in particular, the Liberal Party, the Christian Democrats, and the Green Party), the model that minimizes the *SSR* is simply a linear regression of the coalition inclusion probability on party vote share. For the Left Party, the pattern is similar to what we find in Figure OA4. For the Center Party, the relationship between the coalition inclusion probability and the party size is roughly flat around 50% probability until the party reaches a support of about 20%, after which the slope becomes upward tilting. In conclusion, for all parties, the pattern is very different from the Sweden Democrats who are still systematically excluded until they reach a certain size.

Figure OA7 In Figure OA7, we estimate the cutoff points and associated discontinuities and shifts in slopes using the seat share as the running variable. The figure shows that the shape is very similar to what we found when measuring party size by the vote share.

Figure OA8 In Figure OA8, we estimate the cutoff points and associated discontinuities and shifts in slopes using the Shapley-Shubik index as the running variable. The figure shows that the shape is very similar to what we found when measuring party size by the vote share.

Figure OA9 Our main measure of office rents counts the number of paid political positions (full-time and part-time). The survey data do not report the workload share of part-time posts, so we cannot construct full-time equivalent measures. To assess whether the results could be driven by “splitting” full-time jobs into multiple part-time positions (redistributing positions across more individuals), Figure OA9 reports the number of paid full-time and paid part-time positions separately. Both series display the same qualitative pattern around the threshold, which is inconsistent with a pure splitting mechanism in which full-time positions would decline while part-time positions rise.

Figure OA10 Figure OA10 illustrates changes in coalition participation for minor parties' coalition participation as the Sweden Democrats' vote share approaches and surpasses the 18.5% threshold. The Center Party, in particular, benefits from the cordon sanitaire, as its probability of coalition inclusion increases steadily up to the threshold, after which the probability declines (Panel A). A similar, albeit less pronounced, pattern is observed for the Christian Democrats and the Green Party (Panels D and E). For the Left Party, the slope remains negative on both sides of the threshold, but a noticeable upward jump occurs at the cutoff (Panels B and C).

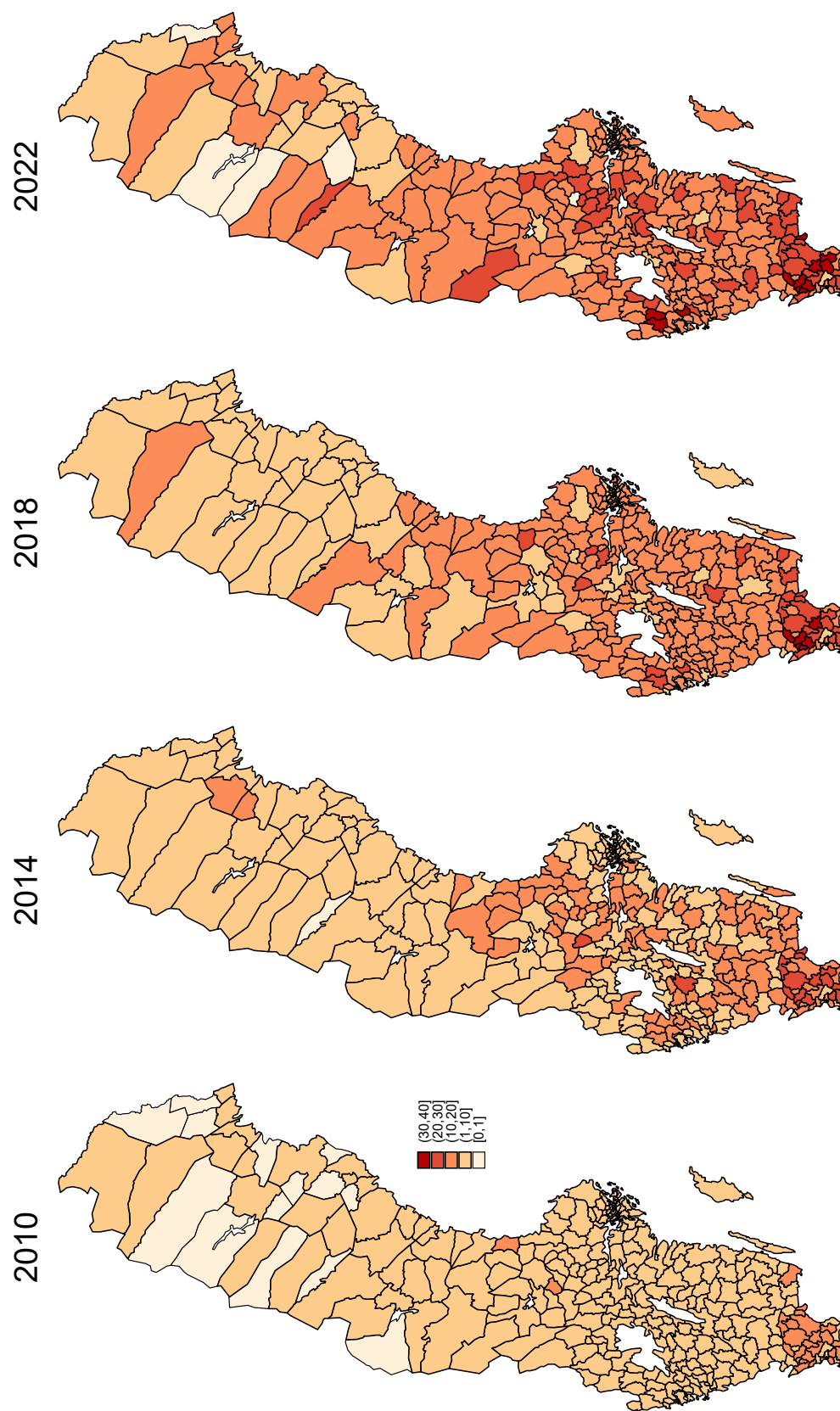


Figure OA1. Electoral performance of the Sweden Democrats in Swedish municipalities, 2010–2022

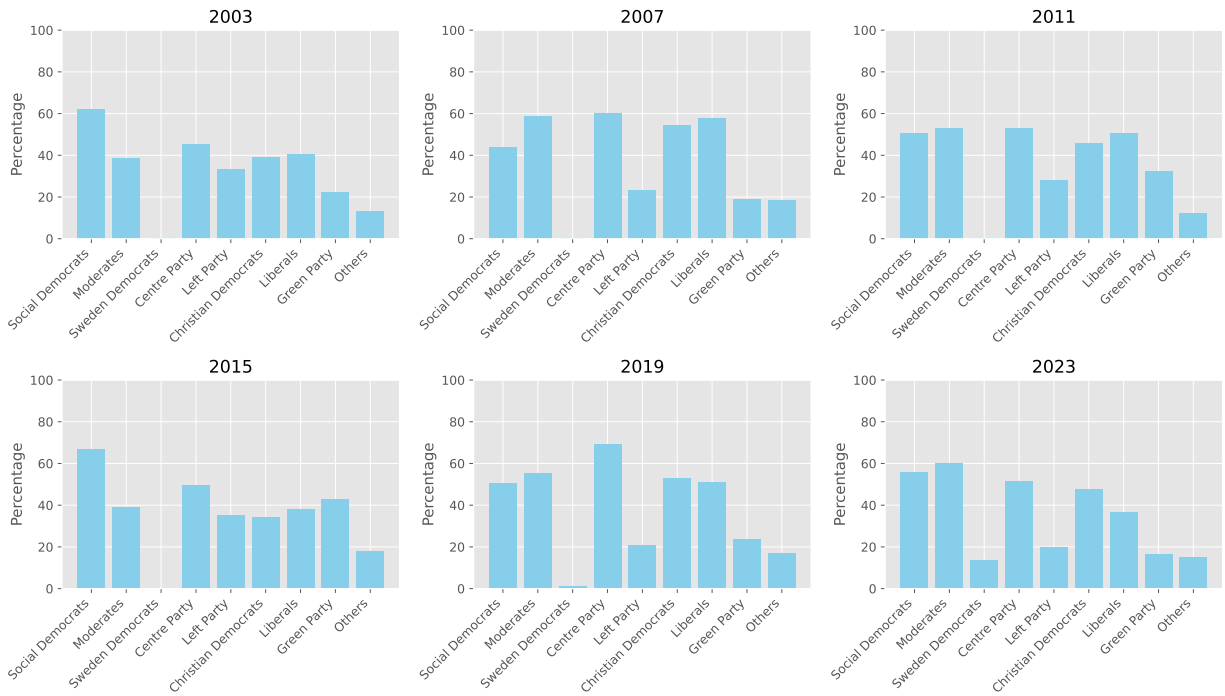


Figure OA2. Parties' participation in governing coalitions.

Notes: The figure shows the share of local governing coalitions that each party belongs to by each term included in our data. “Others” includes minor parties not represented in the Swedish parliament and local political groups that are not registered parties.

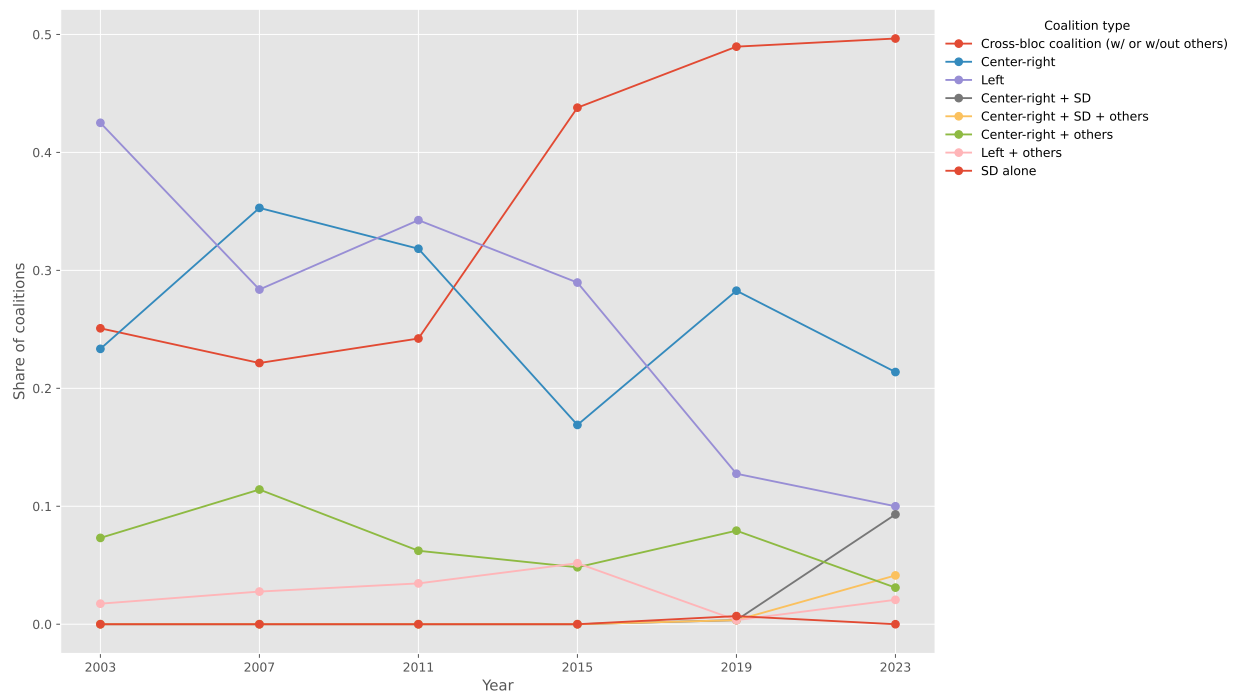


Figure OA3. Typology of governing coalitions in Swedish municipalities.

Notes: The coalition types are ordered by their prevalence in the term starting in the year 2023.

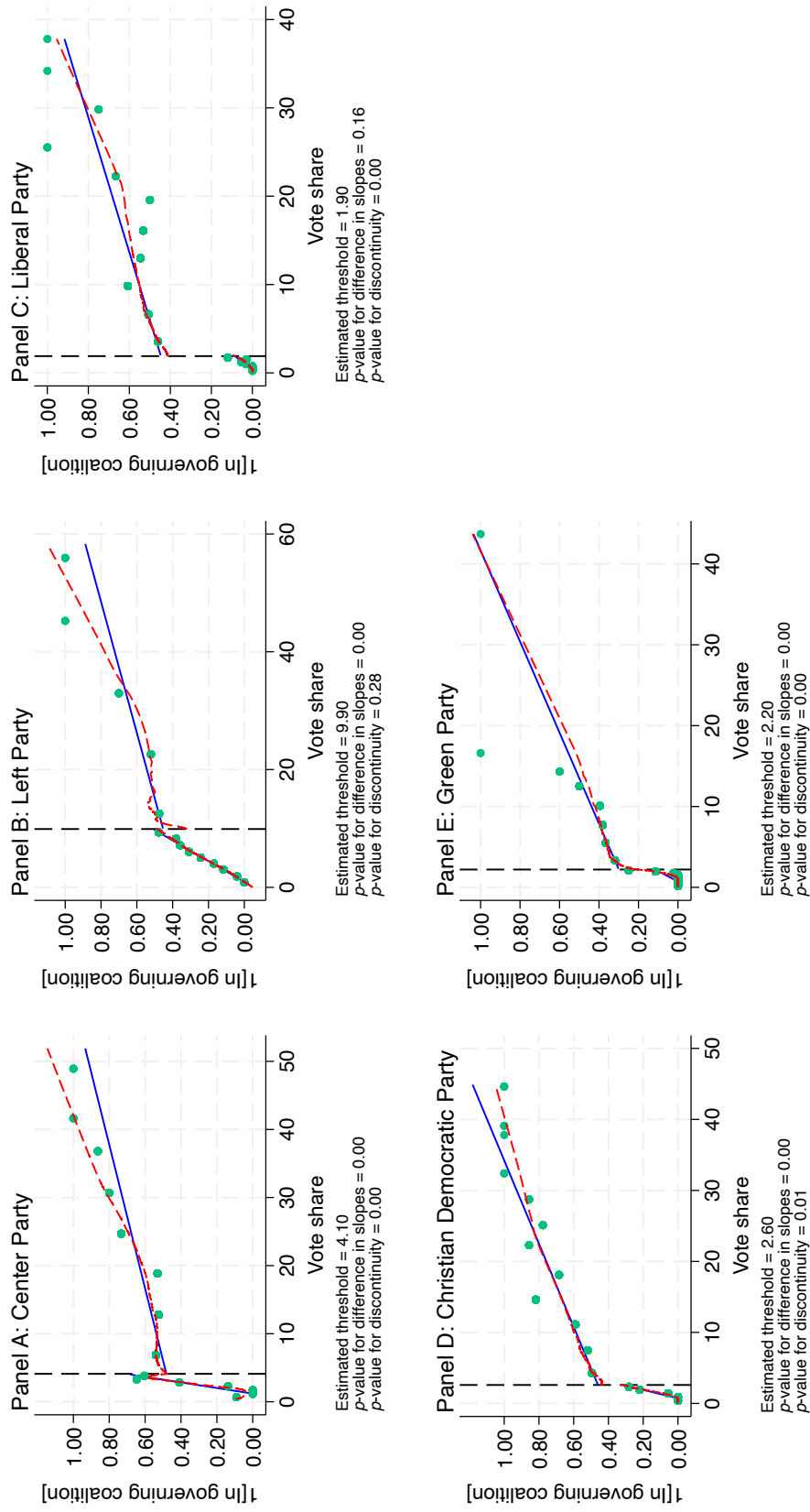


Figure OA4. Party size and coalition inclusion probability: Other small and medium-sized parties.

Notes: The figures show linear (solid line) and lowess (dashed line) fits estimated separately on both sides of the threshold. The thresholds have been estimated to minimize the *SSR* of the regressions, allowing for changes in slope and discontinuous jumps at the cutoff points. We also show evenly spaced binned averages, where the bins have been selected following [Calonico et al. \(2015\)](#).

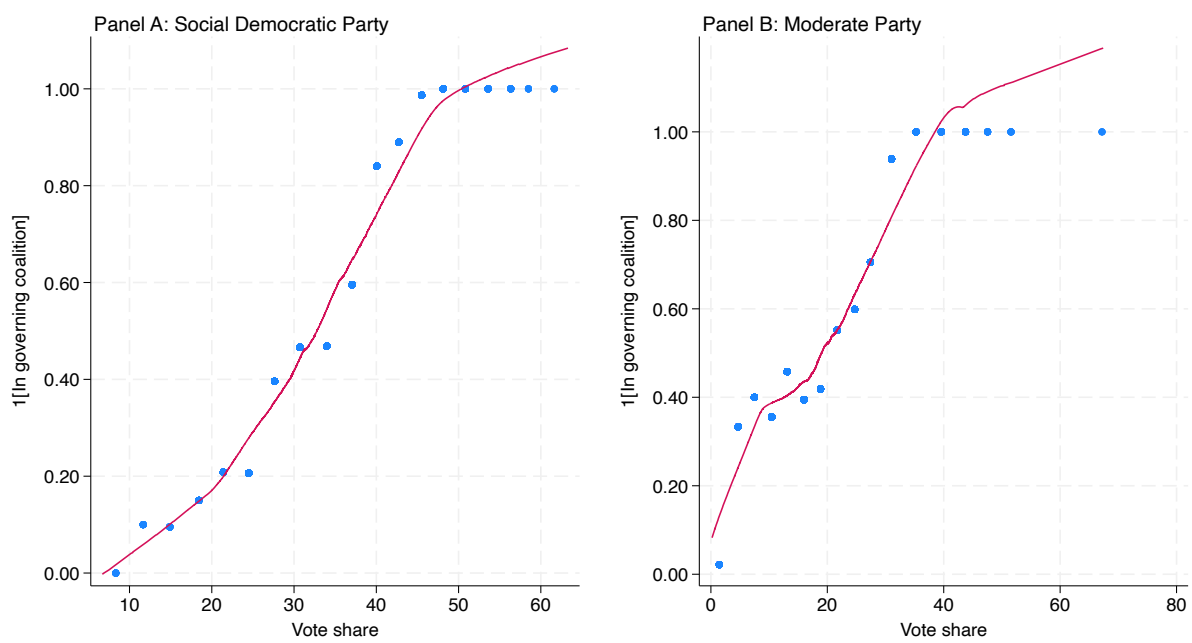


Figure OA5. Party size and coalition inclusion probability for the Social Democratic Party and the Moderate Party.

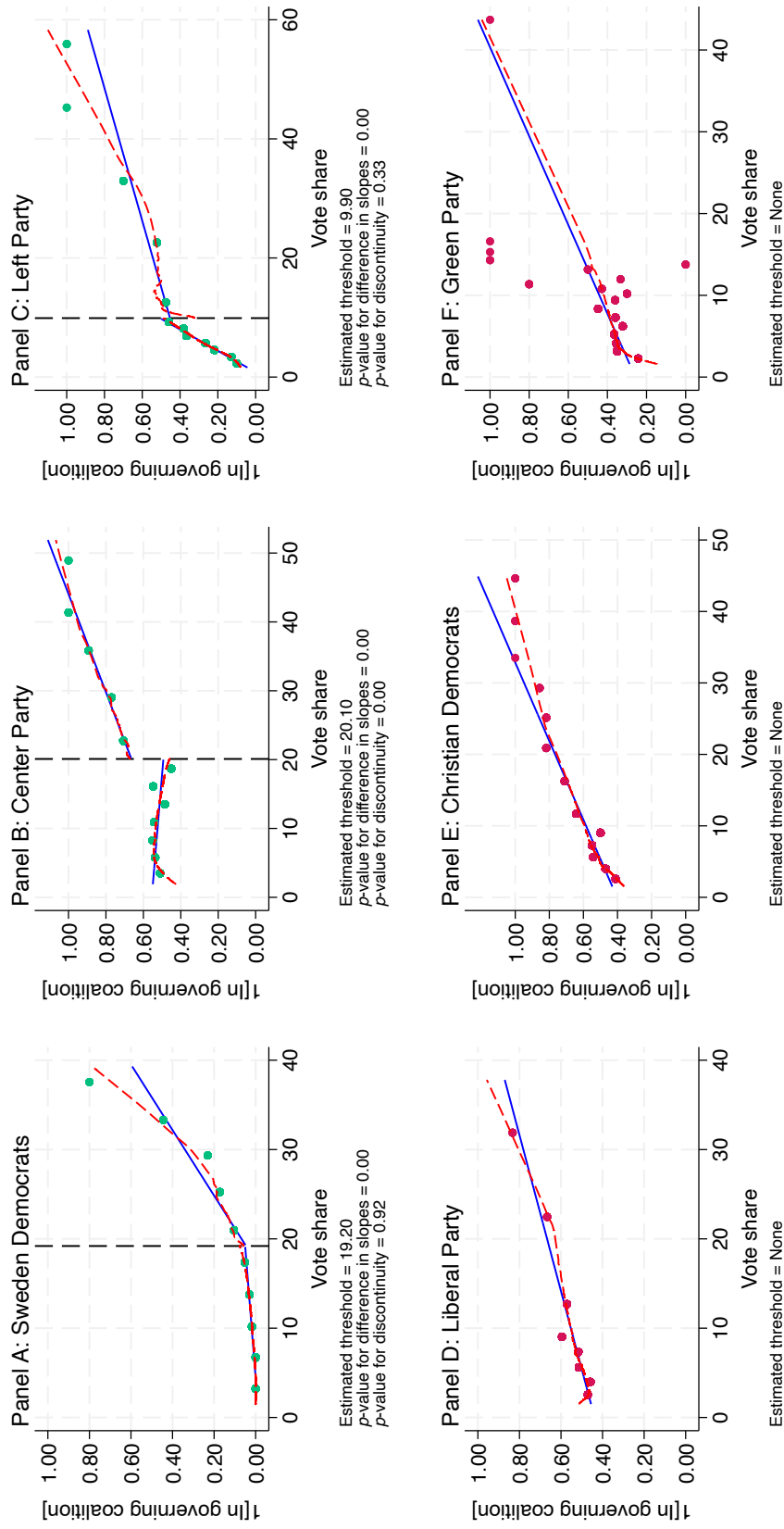


Figure OA6. Party size and coalition inclusion probability: Excluding parties with no representation.

Notes: The figures show linear (solid line) and lowess (dashed line) fits estimated separately on both sides of the threshold. The thresholds have been estimated to minimize the *SSR* of the regressions, allowing for changes in slope and discontinuous jumps at the cutoff points. We also show evenly spaced binned averages, where the bins have been selected following [Calonico et al. \(2015\)](#).

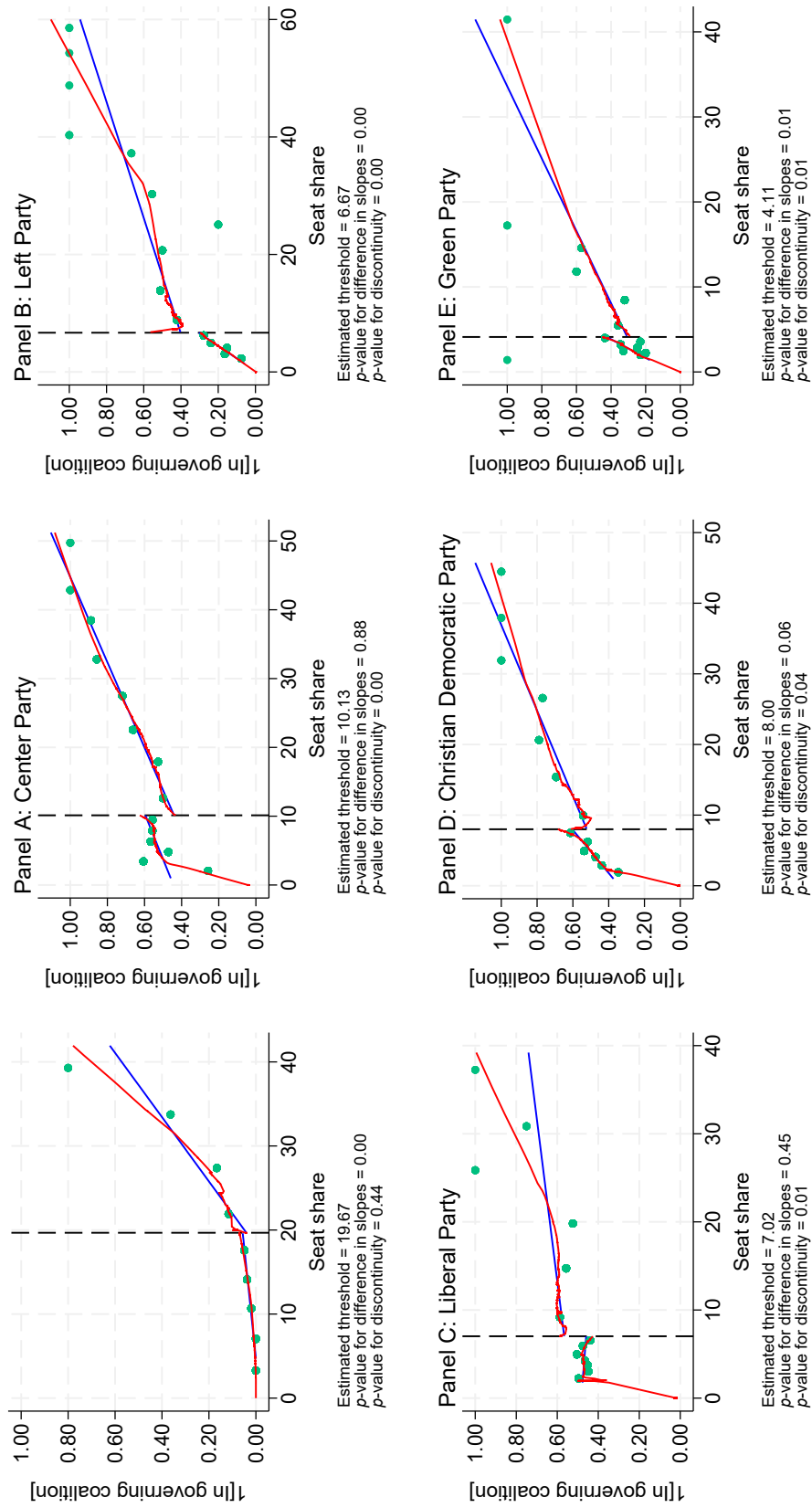


Figure OA7. Party seat share and coalition inclusion probability.

Notes: The figures show linear (solid line) and lowess (dashed line) fits estimated separately on both sides of the threshold. The thresholds have been estimated to minimize the *SSR* of the regressions, allowing for changes in slope and discontinuous jumps at the cutoff points. We also show evenly spaced binned averages, where the bins have been selected following [Calonico et al. \(2015\)](#).

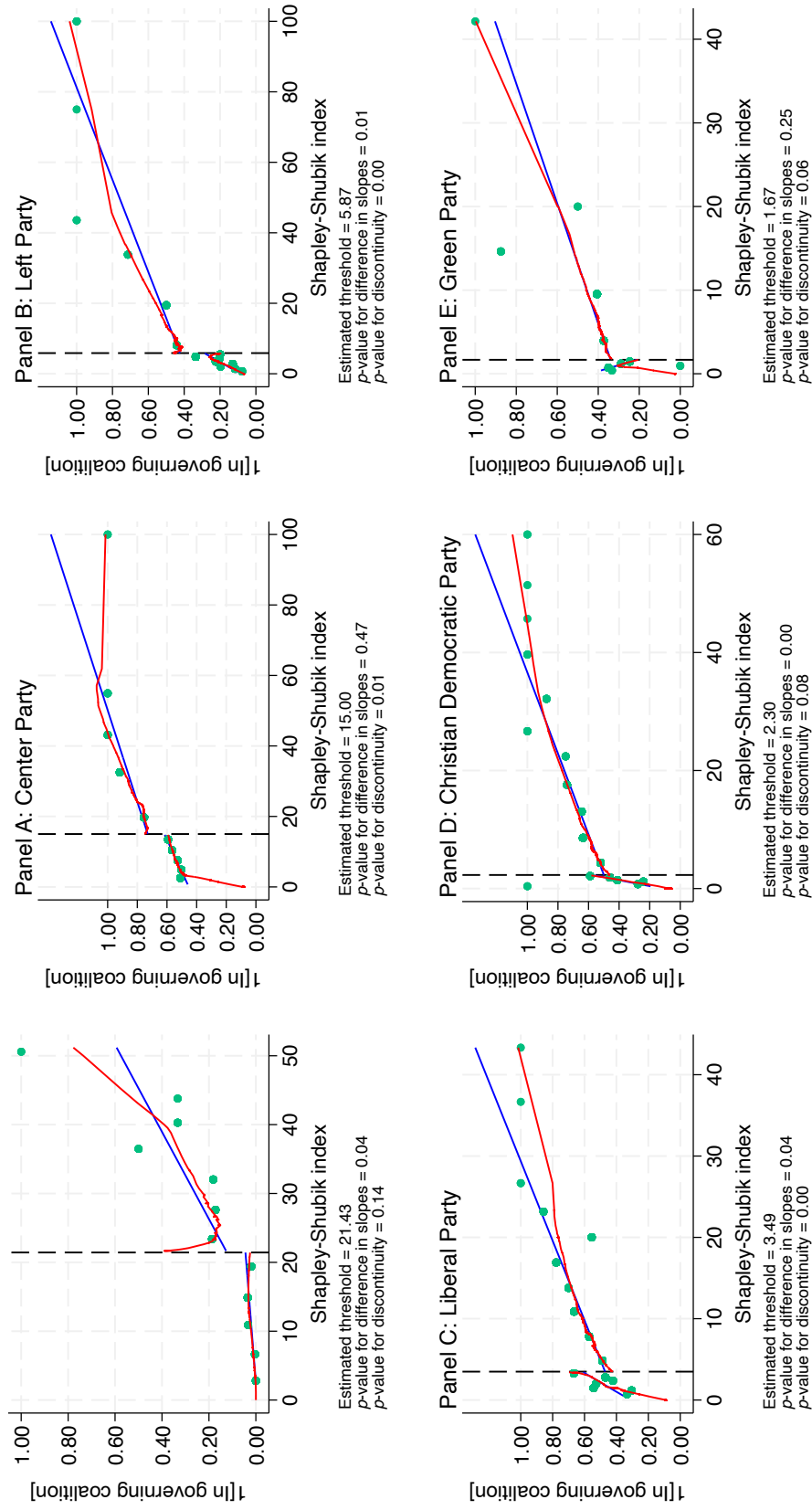


Figure OA8. Party voting power and coalition inclusion probability.

Notes: The figures show linear (solid line) and lowess (dashed line) fits estimated separately on both sides of the threshold. The thresholds have been estimated to minimize the *SSR* of the regressions, allowing for changes in slope and discontinuous jumps at the cutoff points. We also show evenly spaced binned averages, where the bins have been selected following [Calonico et al. \(2015\)](#).

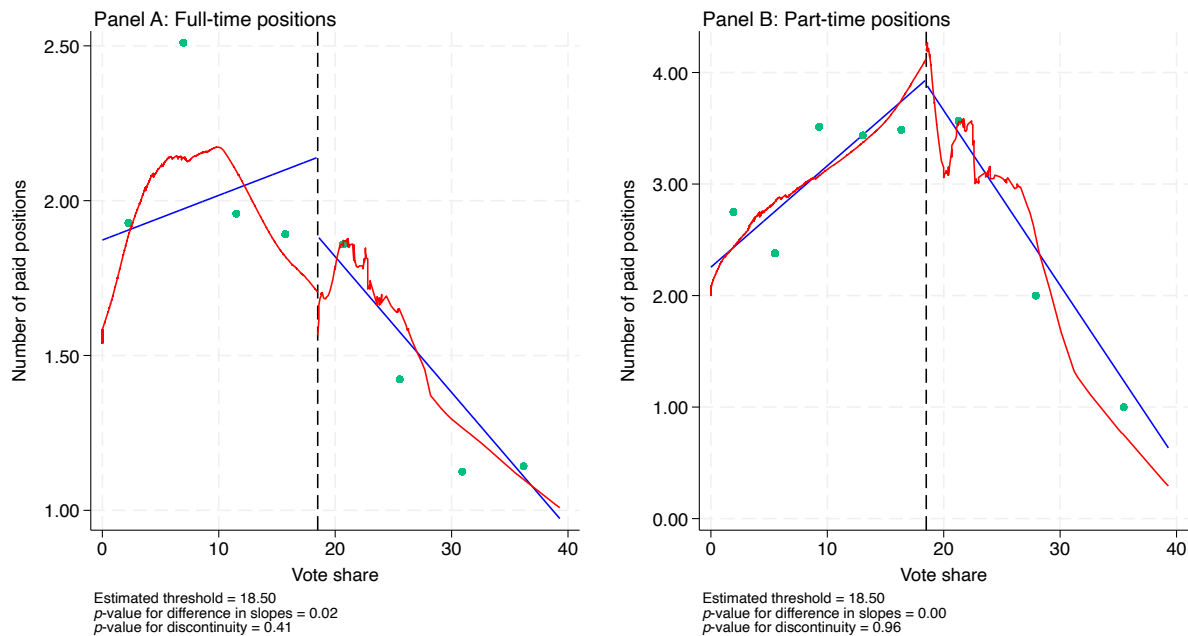


Figure OA9. Graphical representation of results for paid full-time and part-time positions separately.

Notes: The figure shows linear (solid line) and lowess (dashed line) fits estimated separately on both sides of the threshold. We illustrate how the number of full-time positions (Panel A) and the number of part-time positions (Panel B) evolve around the threshold which has been estimated to minimize the SSR when regressing an indicator for the Sweden Democrats being in the governing coalition on its vote share, allowing for a change in slope and a discontinuous jump at the cutoff point. We also show evenly spaced binned averages, where the bins have been selected following [Calonico et al. \(2015\)](#).

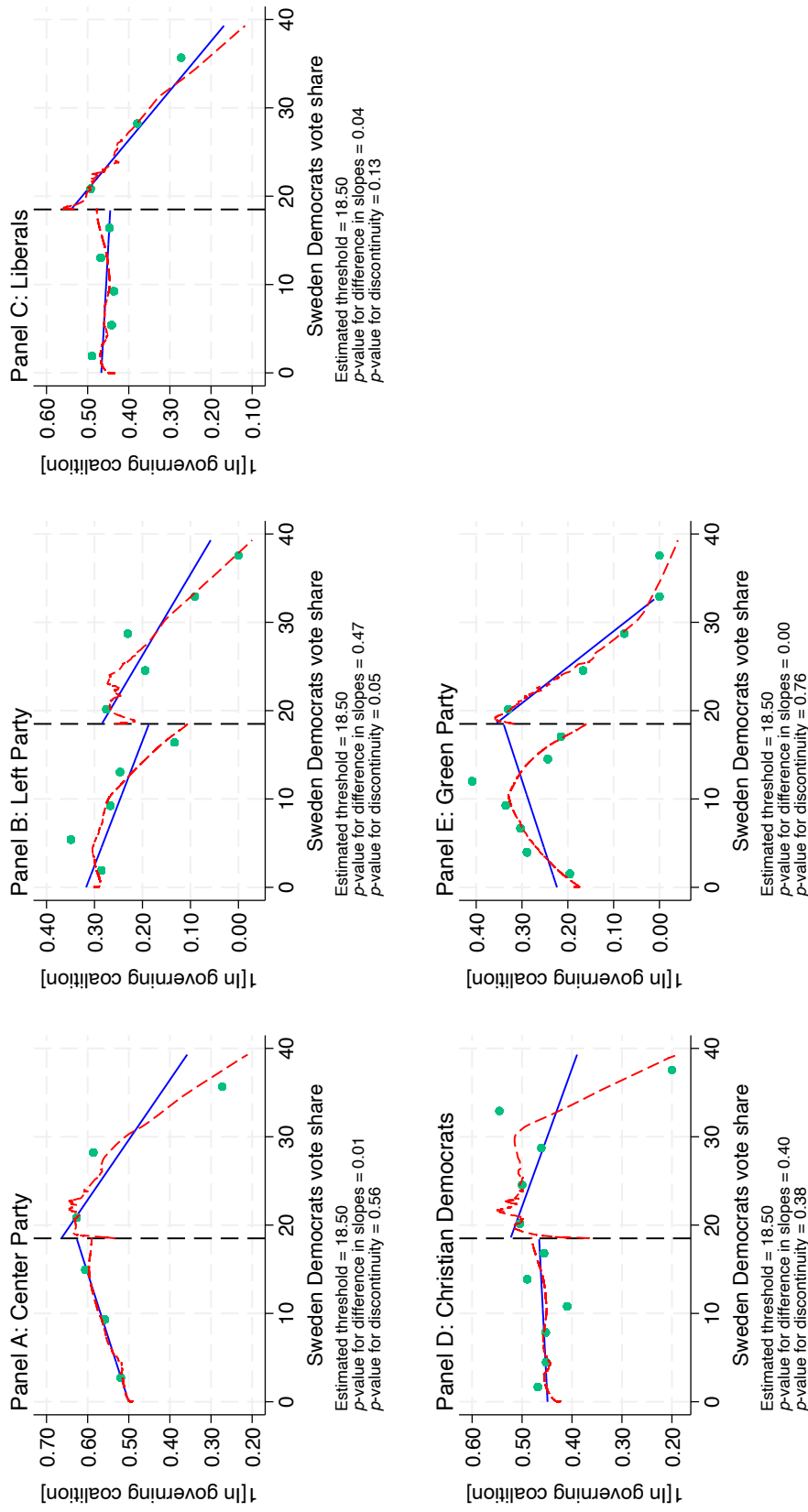


Figure OA10. Sweden Democrats' growth and minority parties' coalition participation.

Notes: The figure shows linear (solid line) and lowess (dashed line) fits estimated separately on both sides of the threshold. We illustrate how the coalition inclusion probability of each minor party evolves around the threshold which has been estimated to minimize the *SSR* when regressing an indicator for the Sweden Democrats being in the governing coalition on its vote share, allowing for a change in slope and a discontinuous jump at the cutoff point. We also show evenly spaced binned averages, where the bins have been selected following [Calonico et al. \(2015\)](#).