

Explaining the formation of minimal coalitions: Anti-system parties and anti-pact rules

BENNY GEYS¹, BRUNO HEYNDELS² & JAN VERMEIR²

¹*Wissenschaftszentrum für Sozialforschung Berlin, Germany;* ²*Vrije Universiteit Brussel, Belgium*

Abstract. Recent theoretical arguments hold that the institutional setting of a political system influences coalition formation. Empirical analyses that confront these hypotheses have, however, been slow to emerge. We provide a first test of the relation between coalition formation and one element within this institutional setting: the existence of commitments *not* to join forces with certain ‘pariah’ parties (i.e., anti-pact rules). Specifically, we study the effect of the ‘cordon sanitaire’ around the Flemish extreme right-wing party Vlaams Blok over the period from 1976 to 2000. The results show that the refusal to coalesce with Vlaams Blok significantly affects the probability that ‘minimal winning’, ‘minimal number’ and ‘minimal size’ coalitions are formed.

Introduction

Coalition formation is often an important part of the political process. While forming a coalition government, decisions must be made about which coalition partners (and their policy preferences) and the number of partners with which one wishes to cooperate. Recently, it has been argued that the institutional setting has an important structuring influence on the coalition formation process. Two branches can be distinguished in this ‘neo-institutionalist’ literature (for reviews, see Martin & Stevenson 2001; De Winter 2002). One branch concentrates on institutions structuring pre-formation bargaining such as the existence of investiture votes or the designation of formateur parties (see, e.g., Baron & Ferejohn 1989). The other branch focuses on institutions structuring post-formation government decision making and how these affect coalition formation. This refers to the influence of, for example, qualified majority voting rules in parliamentary decision making, the power of pressure groups on governments, ministerial autonomy rules and so on (see, e.g., Strøm et al. 1994; Laver & Shepsle 1996).

In this article, we add to this expanding literature by concentrating on the effect of behavioural norms on the coalition formation process. In particular, we build on the notion that pre-electoral commitments (not) to coalesce with certain parties create ‘a powerful constraint on coalition bargaining and

formation' (De Winter 2002: 179). Though such commitments may designate the desire to coalesce with specific parties (if the election results makes this cooperation viable) or the aversion to cooperate with certain parties (i.e., anti-pact rules), our focus is on the latter component.¹ As such, we analyze how the exclusion of a party from the coalition bargaining process affects the final outcome of this process and, more specifically, how this influences the probability that minimal winning (MWC), minimal number (MNC) or minimum size (MSC) coalitions arise. A MWC includes only those parties needed to obtain a majority position, a MNC consists of the minimal number of parties that can form a majority government and a MSC controls the smallest possible majority of the seats in parliament.

The probability that a minimal coalition (MWC, MNC or MSC) comes about increases with the number of such coalitions that can be formed relative to the total number of coalitions attaining a majority position (termed 'winning coalitions'). In as much as the exclusion of a party through an anti-pact changes this fraction, it also changes the probability of forming a minimal coalition. Indeed, we argue that an anti-pact rule: increases the probability of MWC coalitions, affects the likelihood of MNC coalitions non-linearly depending on the size of the pariah party and does not affect the probability that MSC coalitions are formed. Our empirical test of these hypotheses is based on coalition formation in Flemish municipalities (1976–2000). The clearly identifiable anti-pact rule in Flanders – where the so-called 'cordon sanitaire' explicitly rules out cooperation with the extreme right-wing party Vlaams Blok – and the homogenous institutional setting provide us with an ideal testing-ground.² The results generally corroborate our theoretical predictions.

The remainder of the article is structured as follows. In the next section, we briefly review the literature on coalition formation and argue how exclusion of pariah parties through anti-pact rules is likely to affect coalition formation. Then we go on to describe the coalitions that have been formed in the Flemish municipalities over the period from 1976 to 2000. This section also discusses the extreme right party Vlaams Blok and the introduction of the 'cordon sanitaire'. The influence of the 'cordon sanitaire' around Vlaams Blok on the emergence of minimal coalitions is analyzed in the following section, controlling for other characteristics of the local party system.

Theories of coalition formation

Formal theories of coalition formation

Classic or formal theories of coalition formation attempt to explain (and predict) the coalition that forms after the election and are mainly interested in

the form these coalitions take (i.e., majority/minority, number of parties, ideological composition, etc.). They are inspired by rational choice (game) theory and spatial theories of party competition. Two principal approaches can be distinguished depending on the view with respect to the main aim of political parties (De Winter 2002). A first group of scholars assumes that parties are purely office-seeking and prefer to share power with as few parties as possible. In this approach, ideological preferences are not taken into account. A second group of scholars assumes that politicians are motivated by both policy goals and the desire to get into office. Disregarding ideological preferences, three main power- or office-oriented coalition types can be distinguished.

Given that the spoils of office are fixed, Von Neumann and Morgenstern (1953) argue that it is not rational to add members to a coalition when it already holds a majority. This would create an uncalled for division of the spoils of office. Hence, they hypothesize the formation of *minimal winning coalitions* (MWC). A coalition is minimal winning if a majority of the seats in parliament is secured and none of the coalition partners is (mathematically) superfluous. A party is superfluous if removing it from the coalition does not lead to the loss of the coalition's majority status. This, however, does not imply that this party, once in the coalition, is irrelevant for policy decisions. In fact, ignoring it for a given decision may lead to retaliations by this party in later decisions or even, when this is institutionally possible, the fall of the government (Laver & Schofield 1991; Tsebelis 1995). Consider, for example, the following percentage seat distribution: A = 40; B = 30; C = 18 and D = 12. Although this setting leads to eight coalitions that obtain a majority position, only four of these do not include superfluous parties. These four MWC are AB, AC, AD and BCD.

Leiserson's (1966) 'bargaining proposition' holds that negotiations and bargaining are costly and time-consuming. These costs increase with the number of parties involved in the bargaining process. Hence, to curtail these costs, political parties tend to minimize the number of parties in the coalition. This leads to the hypothesis of *minimal number coalitions* (MNC), which consist of the minimal number of parties that can form a majority government. Such coalitions are by definition also MWC, though the reverse is not necessarily the case. MNC thus is a special case of MWC. Referring to the above example, three MNC can be distinguished (AB, AC and AD).

Riker (1962) contends that the power of political parties is proportional to the number of seats they hold. This creates the incentive to choose coalition partners that (can) demand only few seats. Riker therefore predicts the formation of coalitions controlling the smallest possible majority of seats in parliament, known as '*minimum size coalitions*' (MSC). These are by definition also minimal winning (MWC), though not necessarily MNC. MSC, just as

MNC, is therefore a special case of MWC.³ The only MSC in the above example is AD (which obtains 52 per cent of the seats).

Institutional influences on coalition formation

More recently, scholars have emphasized the role of institutions in structuring the coalition formation process. A significant part of these endeavours employs proposal-based bargaining models, thereby building on the seminal work of Baron and Ferejohn (1989) (for additional references, see Ansolabehere et al. 2005).⁴ However, it is recognized that other institutional influences might also affect coalition formation. Indeed, two broad categories of institutional influences have been distinguished: institutions structuring pre-formation bargaining such as the existence of investiture votes or the designation of formateur parties, and institutions structuring post-formation government decision making such as qualified majority voting rules (for reviews, see Martin & Stevenson 2001; De Winter 2002). In the remainder of this article, we concentrate on one institutional factor affecting pre-formation bargaining. Specifically, we analyze how barring a party from the coalition bargaining process affects the final outcome of this process and, more specifically, how this exclusion influences the probability that minimal coalitions (i.e., MWC, MNC and MSC) are formed.

Anti-pact rules and minimal coalitions. Several arguments link the exclusion of a party from coalition bargaining to the likelihood of forming minimal coalitions. First, a priori excluding a party from the coalition formation process (as occurs under a fully credible and enduring anti-pact rule) increases the other parties' (perception of their) likelihood to be in future governments. This may well induce the temptation within these parties to show little voting discipline in the current government. To prevent a deadlock in decision making due to this lack of voting discipline, coalitions in excess of the minimal criteria are warranted.⁵ As such, MWC, MNC and MSC are expected to be less likely in the presence of such an agreement.

An alternative line of reasoning suggests rather that the presence of (large) anti-system parties increases the probability that minimal coalitions form. The basic idea underlying this argument is that such parties pose a threat to the democratic system.⁶ In order to face this challenge and block the growth of these parties (which often attract a lot of protest votes), a powerful and decisive government is needed. This increases the government's credibility as well as the electorate's confidence in its leadership. Given that a vast literature shows that more fragmented governments are less decisive (see, e.g., Roubini & Sachs 1989; Boix 1997; Perotti & Kontopoulos 2002; Ashworth et al. 2005),

the creation of oversized coalitions should become less likely when the excluded party strengthens. In other words, the probability of MWC, MNC and MSC increases.⁷

A final reason why an anti-pact might influence the probability of minimal coalitions is purely mathematical. To see this, consider a situation where elections lead to representation in parliament for n parties. A majority government can then be formed through a number of possibilities ranging from a one-party majority to the grand coalition, which includes all parties. Some of these coalitions adhere to the criteria of minimal coalitions, while others do not. Now, the probability that a minimal coalition (MWC, MNC or MSC) comes about depends positively on the number of such coalitions that can be formed given the election result divided by the total number of winning coalitions, where the latter group corresponds to all coalitions that obtain the necessary majority of the seats in parliament. In other words, the larger the share of minimal coalitions in the total number of winning coalitions, the larger (on average) the chance that such a minimal coalition will be formed, *ceteris paribus*.⁸

Clearly, excluding parties from coalition formation through anti-pact rules limits the number of winning coalitions (if only because the grand coalition is no longer possible). When none of these 'forbidden' coalitions conform to the criteria for minimal coalitions, the share of minimal coalitions in the total number of winning coalitions increases. As a consequence, the exclusion of one or more parties from coalition bargaining then increases the probability that a minimal coalition comes about. Hence, when the pariah party is not part of any minimal coalition, there exists a positive relation between anti-pact rules and the likelihood of minimal coalitions.

In reality, however, the number of minimal coalitions that can be formed generally also changes when a party is excluded from the coalition formation process. When the reduction in the number of minimal coalitions is relatively lower than that in the number of winning coalitions, the share of minimal coalitions rises. This in turn increases the probability of obtaining such a coalition. If the reduction in the number of minimal coalitions is relatively stronger, the probability of such coalitions will decrease. Hence, the probability of minimal coalitions depends on the relative strength of the change in the number of winning and minimal coalitions that can be formed. Let us consider this relation for each of the three types of minimal coalitions in turn.

Anti-pact rules and minimal winning coalitions (MWC). While every party that obtains seats is part of at least one winning coalition (i.e., the grand coalition), it will generally also partake in a number of minimal winning coalitions. Importantly, for each party it holds that the share of winning coalitions it is

involved in (i.e., the number of winning coalitions including this party relative to the total number of winning coalitions that can be formed) is at least equal to the share of minimal winning coalitions in which it participates. For example, in a situation with three equal sized parties, each party is a member of three of the four winning coalitions (i.e., 75 per cent) and two of the three minimal winning coalitions (i.e., 66.67 per cent). Hence, a decrease in the number of parties available for coalition bargaining owing to an anti-pact rule reduces the number of winning coalitions relatively stronger than the number of MWC coalitions. As a consequence, the likelihood of forming MWC coalitions necessarily increases after imposing an anti-pact rule (or, at least, does not decrease the likelihood of these coalitions). A positive relation between the likelihood of MWC coalitions and the exclusion of pariah parties then follows.

Anti-pact rules and minimal number coalitions (MNC). Excluding a party from coalition bargaining is likely to affect the probability of MNC coalitions in a non-linear fashion depending on the size of the excluded party. The reason is that the probability of being included in a MNC coalition is dependent upon the size of the party. Indeed, larger parties are (much) more likely to be included in such a coalition than small parties. The number of possible MNC coalitions thus is likely to decrease when the excluded party is large, but often remains unaffected when that party is very small. Given that the number of winning coalitions always decreases with the exclusion of a party, this leads to a higher probability of MNC coalitions when excluding a small party, but a lower probability of such coalitions when the excluded party becomes large.

Consider, for example, a situation in which six parties obtain seats and the percentages of seat shares are: A = 30; B = 19; C = 16; D = 13; E = 12 and F = 10. In this situation, 32 winning coalitions can be formed, ten of which have the minimal number of parties that can reach a majority position (or 31 per cent). Now, excluding the smallest party through an anti-pact rule reduces the number of winning coalitions to 12 and the number of MNC coalitions to 6. Hence, when each of these coalitions is equally likely to come about, the probability of forming a MNC increases to 50 per cent (the same holds when excluding party B, C, D or E). Excluding the largest party from the coalition process reduces the number of winning coalitions to 6 and makes it impossible to attain any of the initial MNC.

Anti-pact rules and minimum size coalitions (MSC). Any party obtaining representation in parliament – both small and large ones – might be part of a MSC coalition (or *the* coalition of minimum size as there is generally only one such

coalition possible) depending on the exact distribution of seats. The effect of excluding a party from coalition bargaining depends entirely on the presence of the excluded party in the MSC coalition. As such, the anti-pact rule might increase the probability of MSC coalitions. This happens when the excluded party is not part of the MSC coalition (as only the number of winning coalitions will then decrease). However, the anti-pact rule may also decrease the likelihood of MSC coalitions when the pariah party is part of the smallest possible coalition. In fact, given that there is often only one MSC coalition, this situation reduces the probability of forming a MSC coalition to 0. Given that the composition of the smallest possible coalition is determined by the effective seat distribution (and therefore a priori unpredictable), we expect no statistically significant relation between the exclusion of pariah parties and the probability of forming a coalition of minimum size (MSC).

The Flemish municipal political system

Coalition formation in Flemish municipalities

Belgian municipalities elect a new council (the local parliament) every six years on the second Sunday of October. After the election, the party (or set of parties) that controls a majority of the council's seats decides which councillors take their places in the College of Mayor and Aldermen (the executive branch of local government) – thereby dividing these posts among its (their) own party members. Consequently, a party is regarded as part of the governing coalition only when it receives at least one position in the executive branch of local government. In Table 1, we describe the coalitions formed in the Flemish municipalities following the five most recent municipal elections (1976, 1982, 1988, 1994 and 2000). The choice for the 1976–2000 period is dictated by the large-scale municipal amalgamation operation in Belgium in 1976. This operation reduced the number of municipalities in Belgium from 2,359 to 589 (308 in Flanders, 19 in Brussels and 262 in Wallonia) and constituted the beginning of the current municipal landscape. We restrict the analysis to Flanders (rather than all Belgian municipalities) for two reasons. First, we lack data on the coalitions formed in the Walloon municipalities over a similar time period. Second, the party subject to an explicit anti-pact rule (i.e., the extreme right-wing Vlaams Blok, see below) only participates in elections in Flanders.

We first separate one-party majorities from coalitions (note that minority situations do not occur). It is clear that coalitions are becoming increasingly important in Flemish local politics. Indeed, the share of coalitions has increased from about 40 per cent following the municipal elections of 1976 to

Table 1. Coalition formation in Flemish municipalities (1976–2000)

	1976	1982	1988	1994	2000
One-party majority	184	126	140	120	96
Coalition	124	182	168	188	212
Total	308	308	308	308	308
Coalition types					
MWC	100 (80.6%)	154 (84.6%)	146 (86.9%)	162 (86.2%)	158 (74.5%)
MNC	91 (73.4%)	124 (68.1%)	125 (74.4%)	143 (76.1%)	137 (64.6%)
MSC	40 (32.3%)	66 (36.3%)	52 (31.0%)	49 (26.1%)	45 (21.2%)

nearly 66 per cent after the elections of 2000.⁹ The bottom half of Table 1 distinguishes three types of coalitions: MWC, MNC and MSC. For each of these types, we present the number of municipalities where the coalition conforms to these criteria and the share of all coalitions of the said types. The data show that at least three-quarters of the Flemish coalitions do not take up mathematically superfluous partners (MWC). About two-thirds contain the minimal number of parties that can form a majority cabinet (MNC), and 21–36 per cent holds the lowest possible majority in the council (MSC). Though power-maximization appears to matter for local politicians, the latter result shows that it is not the only thing on their minds. This is in line with a survey among local party leaders and spokesmen carried out just before the municipal elections of 2000. This survey indicates that 65 per cent of the local politicians find a ‘large and stable majority’ important in coalition formations while less than 5 per cent indicate searching for those coalition partners that demand the lowest number of positions. Moreover, positive previous experiences and the possibility to accomplish certain policy goals are also important considerations during the coalition bargaining process (Ackaert et al. 2001: 32).

Vlaams Blok and the ‘cordon sanitaire’

Since the 1980s, extreme right-wing parties in many Western European countries have been on the rise. This is also the case in Flanders where Vlaams Blok has grown near-continuously since it entered the political arena in 1978.¹⁰ Two characterizing elements of this growth are shown in Figure 1. First, we present the number of municipalities where Vlaams Blok participated in municipal

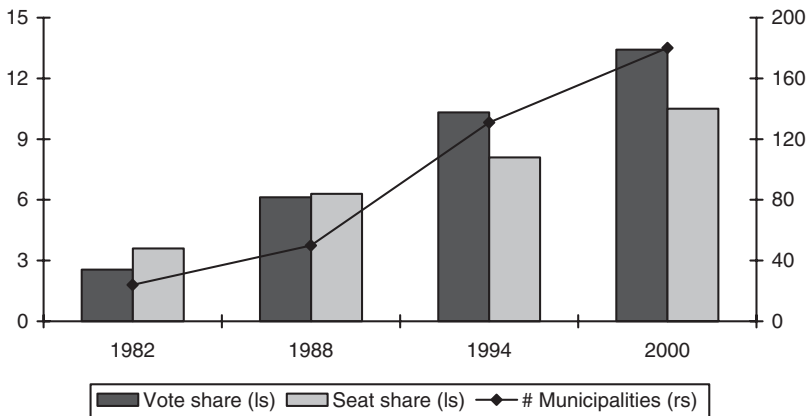


Figure 1. Vlaams Blok in Flemish municipal elections.

elections (right-hand scale). This rose from 24 in 1982 to 180 in 2000. The party initially focused on large municipalities (mostly in the province of Antwerp). During the most recent municipal elections (2000), however, Vlaams Blok participated in more than half the Flemish municipalities. Second, the vote and seat share obtained by Vlaams Blok is shown in Figure 1 (left-hand scale). These data refer to the result of Vlaams Blok in those municipalities where it actually participated in the election. Vlaams Blok grew from 2.6 per cent of the votes and 3.6 per cent of the seats in 1982 to 13.4 and 10.5, respectively, in 2000.¹¹ It is noteworthy that the party remains most successful in the Antwerp region. Of the 438 seats Vlaams Blok obtained in 154 municipal councils after the 2000 municipal elections, almost half were in the province of Antwerp.

Though Vlaams Blok strove initially for the independence of Flanders, it conducted a fierce anti-immigrant campaign in the 1987 parliamentary elections under the slogan '*eigen volk eerst!*' ('own people first!'). Since that campaign, it effectively combined the original nationalist strategy with the anti-immigrant issue. This change of tactics – characterized by a populist rhetoric on racism and security and an anti-establishment discourse – marked the breakthrough of the party (Coffé et al. forthcoming). It, however, also affected the attitude of the other parties towards Vlaams Blok. Its radical discourse combined with its electoral success led the other parties to install the '*cordon sanitaire*'. This anti-pact rule explicitly forbade all other political parties to cooperate with Vlaams Blok at any level of government. This not only meant that coalition governments – at whatever level of government – could not include the party, but also that its support was not to be sought to pass legislation even if this assistance was imperative.

Importantly, though discussions on the (dis)advantages of the '*cordon sanitaire*' are recurrent, the credibility of the anti-pact rule has historically been very high. First, high-ranked politicians of all major parties strongly stress their resolve not to cooperate with Vlaams Blok prior to and following every election. That they abide by this intention is indicated by the fact that no coalition including Vlaams Blok has yet been formed at any level of government. Second, Ackaert et al. (2001), discussing the formation process of municipal governments in Belgium, show that the extreme right-wing party has never been involved in pre-electoral bargaining at the local level. Finally, a breach of the anti-pact rule by any given party is likely to have severe electoral consequences for it. In fact, any cooperation between different parties leads to alienation from (at least) a fraction of the party's habitual supporters. This is likely to be more pronounced when the new partner entertains extreme right-wing opinions. Hence, a party cooperating with Vlaams Blok is very likely to lose (at least) part of its traditional electorate. These electoral costs are likely to be prohibitive (cf. Budge & Keman 1990).

Empirical analysis

We look at the elements that affect the probability that coalitions are minimal winning (MWC), minimal number (MNC) or minimum size (MSC). This leads us to a 'conditional model of coalition behaviour' (Denters 1985: 295). In line with recent theoretical models, we extend the previous literature by including institutional features of the political system in the analysis. Our dataset consists of all coalitions formed in Flemish municipalities over the period 1976 to 2000. This implies that we look at all coalitions formed since the municipal amalgamation operation in 1976 (see above). Our focus on municipal data has several advantages. It allows us to test our model on a large number of observations (whereas studies focusing on higher levels of government are often constrained by the limited number of actual election outcomes). Also, it leads to a homogenous setting where, for example, the electoral rules and decision procedures are identical across observations. This allows us to control for their possible influence in our estimations. Finally, the local focus is a welcome supplement in a field dominated largely by studies of coalition formation at the national level in postwar Europe (other local-level analyses include Denters 1985; Gravdahl 1998; Bäck 2003; Serritzlew et al. 2005).

Empirical model

Building on previous empirical analyses, we estimate the following empirical model using data on coalitions formed in Flemish municipalities. We thereby excluded the city of Antwerp. This city could be argued to represent an outlier in our dataset. Indeed, no other municipality witnesses a seat share of Vlaams Blok in excess of 30 per cent. Also, this party is much stronger in Antwerp than in the municipality with the second highest number of seats for Vlaams Blok (the difference is 7 per cent in 2000; 10 per cent in 1994 and 11 per cent in 1988). Second, we excluded 12 municipalities with amenities for French-speaking minorities ('faciliteitengemeenten') because the Aldermen in these municipalities are directly elected.¹² This leaves us with 295 municipalities. The empirical model is as follows:

$$\text{COALTYPE} = a + b_1 \text{ INSTAB} + b_2 \text{ FRAG} + b_3 \text{ LOCAL} + b_4 \text{ MAJOR} + b_5 \text{ BLOK} + \text{year dummies} + e \quad (1)$$

The dependent variable COALTYPE is a vector including three variables that represent whether or not the coalition in a given municipality is MWC, MNC or MSC. The variables are equal to 1 if the coalition satisfies the criteria for the given coalition type, 0 otherwise. Given the use of dummies as

dependent variables, standard OLS estimation procedures are inappropriate and use should be made of a logit model (Verbeek 2004: 190–194). As we have multiple observations for each municipality, the independence of the observations over time is not guaranteed. To remedy this, we follow Volden and Carruba (2004) in using the cluster-function in Stata 7.0. This assumes independence of the observations across municipalities, though not over time within a municipality, and corrects the estimated standard errors accordingly.

INSTAB refers to the instability of the party system and measures the extent to which the relative power of the political parties changes over time. We measure this party system instability (or the volatility of political power) as:

$$\text{INSTAB} = \frac{1}{2} \sum_{i=1}^n |S_i^t - S_i^{t-1}| \quad (2)$$

Where $S_i^t(S_i^{t-1})$ represents the share of seats in the municipal council obtained by party i at time $t(t-1)$ and n stands for the number of parties gaining representation in the council at time t or $t-1$ (Dodd 1976; Pedersen 1979). Note that we regard the share of seats rather than the share of votes obtained by the parties. The reason is that only parties obtaining seats are able to play a role in the coalition formation process. It should also be observed that the lagged term needed to generate this variable implies that our estimation is effectively limited to the 1982–2000 period.

The expected effect of this instability on coalition formation is ambiguous. Dodd (1976), on the one hand, argues that unstable systems are more inclined to face power struggles within coalitions. Coalitions therefore need a larger safety margin to prevent the loss of its majority position when important decisions are due. This leads to the hypothesis that coalitions are less likely to be MWC, MNC and MSC when the party system shows a higher degree of instability. Denters (1985), on the other hand, claims that instability leads politicians to follow short-term strategies. Since their chances of re-election are limited, politicians have an incentive to maximize their utility by keeping the coalition as small as possible. This would entail a higher probability of MWC, MNC and MSC when the instability of the party system increases.

Political fragmentation (FRAG) is a second possible determinant of coalition formation. It is operationalized as the number of parties that obtain at least one seat in the municipal council. Theoretical predictions as to its effect on the probability of oversized coalitions are once again ambiguous. Carruba and Volden (2000) and Volden and Carruba (2004) expect coalitions conforming to the minimal criteria to become less likely when the level of fragmentation increases. This prediction flows from a model where inter-party

relations within coalitions are based on 'logrolling'. Under such a system, parties successively support each other's policy proposals. Each party, however, has an incentive to renege on given promises once its own policy initiatives have been accepted. Moreover, the logroll should be harder to sustain when the number of parties increases. Carruba and Volden (2000) and Volden and Carruba (2004) state that the incentive to renege can be countered by creating coalitions in excess of the minimal criteria. In such cases, legislative deadlock or government crisis does not necessarily ensue when one party refuses to support its coalition partners' proposals. Gravdahl (1998: 315), however, maintains that difficulties in finding a 'common denominator' increase with the number of parties. This should make the formation of MWC, MNC and MSC coalitions more likely in highly fragmented systems.¹³

The 'locality' of the municipal elections – or the extent to which local election results are in line with national results – represents a third possible influence on coalition formation. As the importance of local elements decreases in shaping local election results (and national trends become more prominent), local politicians feel as if their actions have little effect on their electoral success. They then have an incentive to follow short-term strategies aimed at maximizing current utility. A decrease in the importance of local elements in the election results therefore leads to a higher probability of forming coalitions conforming to the minimal criteria (Denters 1985). To test for the effect of the locality of the party system, we measure the extent to which local election results follow national trends as follows (Deschouwer 1988):

$$\text{LOCAL} = 1/n \sum_{i=1}^n |V_i^m - V_i^f| \quad (3)$$

Where V_i^m indicates party i 's vote share in the municipal elections and V_i^f that party's vote share in the closest federal elections (comparisons are made with the elections for the federal Chamber of Representatives in 1977, 1981, 1989, 1995 and 1999).¹⁴ As before, n represents the number of parties in the local council.¹⁵

MAJOR equals the seat share of the largest party within the municipal council. This is included to test Crombez' (1996) prediction that it becomes less likely that a coalition includes mathematically superfluous parties when the largest party becomes bigger (while still not obtaining a majority of the seats). The reason is that the bargaining position of the largest party becomes stronger when it controls a larger share of the seats. Specifically, the other political parties have fewer possibilities to present a viable alternative to the electorate in the advent of a government collapse (especially when the largest party is

situated in the ideological centre). We measure the size of the largest party by the seat share of this party in the municipal council. We expect a positive effect on the probability of forming a MWC and MNC. The relation for MSC is a priori uncertain. Though the largest party may use its strong bargaining position to opt for a MWC or MNC (increasing the likelihood of such coalitions), this is not the case for MSC as the largest party is not necessarily part of this coalition. Note, however, that when politicians feel attracted to certain parties irrespective of their size (e.g., because of ideological proximity), the strength of the largest party may increase the chances of cooperation with these preferred partners. This can lead to a decreased probability of MSC when the largest party strengthens.

Finally, BLOK incorporates a number of specifications with respect to the effect of the 'cordon sanitaire' around Vlaams Blok. The first is a dummy-variable (BLOKdum) that takes on the value 1 when the pariah party, Vlaams Blok, obtains at least one seat in the municipal council, 0 otherwise. This dummy-variable approach measures whether the presence of Vlaams Blok affects the formation of MWC, MNC and MSC. Second, we use the share of the seats in the municipal council obtained by Vlaams Blok (BLOKseat) and its squared value. This measures whether the effect on these coalition types is dependent upon the size of this party. As argued before, we expect a non-linear relation between the seat share of Vlaams Blok and MNC coalitions.

To control for possible year effects, we include three dummy variables for the years 1988, 1994 and 2000, respectively. The error term is given by e . Note, finally, that we limit the analysis to those municipalities where no party obtains a majority of the seats in the council. The same restriction is imposed by, among others, Boute and Praet (1983), Steunenberg (1992) and Crombez (1996). This is required as in the advent of a majority party 'the outcome of the formation process cannot be predicted significantly by coalition theories, because the result is solely determined by this actor' (Steunenberg 1992: 264). Moreover, our hypothesis with respect to the effect of the largest party is specific to the situation where no party obtains a majority of the seats. Restriction of the dataset to municipalities where no party has a majority is then a prerequisite.¹⁶ This leaves us with 680 observations.¹⁷

Empirical results

The results of our estimations are presented in Table 2. Three sets of results are shown. In columns 1 to 3, we include a dummy-variable for the presence of Vlaams Blok in the municipal council to test for the effect of the 'cordon sanitaire' around this party. Columns 4 to 9 show the results for the specifications with the seat share of this pariah party. Columns 4 to 6 regard

Table 2. Logit estimation of the probability of forming 'minimal' coalitions

	MWC (1)	MNC (2)	MSC (3)	MWC (4)	MNC (5)	MSC (6)	MWC (7)	MNC (8)	MSC (9)
Intercept	2.354 (1.56)	1.218 (1.19)	2.935*** (2.84)	1.830 (1.23)	0.862 (0.86)	2.876*** (2.81)	1.884 (1.23)	1.629 (1.55)	2.987*** (2.87)
INSTAB	-0.005 (-0.62)	-0.008 (-1.47)	-0.005 (-1.02)	-0.006 (-0.75)	-0.009 (-1.52)	-0.005 (-1.02)	-0.006 (-0.75)	-0.009 (-1.57)	-0.005 (-1.03)
FRAG	-0.546*** (-3.69)	-0.701*** (-6.32)	-0.396*** (-3.14)	-0.522*** (-3.75)	-0.640*** (-6.36)	-0.392*** (-3.28)	-0.531*** (-3.64)	-0.768*** (-6.95)	-0.409*** (-3.35)
LOCAL	-0.021 (-0.59)	-0.013 (-0.41)	0.066*** (3.03)	-0.014 (-0.38)	-0.013 (-0.44)	0.066*** (3.05)	-0.014 (-0.38)	-0.011 (-0.37)	0.069*** (3.05)
MAJOR	5.876** (2.43)	7.386*** (4.36)	-5.411*** (-3.27)	6.817*** (2.75)	7.643*** (4.43)	-5.315*** (-3.19)	6.778*** (2.70)	7.121*** (4.07)	-5.413*** (-3.23)
BLOKdum	0.747 (1.62)	0.586* (1.77)	0.115 (0.40)	-	-	-	-	-	-
BLOKseat	-	-	-	0.083** (2.44)	0.028 (1.16)	0.011 (0.52)	0.095 (1.21)	0.195*** (3.43)	0.037 (0.70)
BLOKseat ²	-	-	-	-	-	-	-0.0007 (-0.18)	-0.008*** (-3.42)	-0.001 (-0.53)

Table 2. Continued.

Year dummies	MWC (1)		MNC (2)		MSC (3)		MWC (4)		MNC (5)		MSC (6)		MWC (7)		MNC (8)		MSC (9)	
	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Chi ² (3)	5.87		12.19***		3.75		8.17**		14.85***		3.96		8.10**		12.00**		4.18	
N	680		680		680		680		680		680		680		680		680	
LL0	-221.056		-369.822		-421.944		-221.056		-369.822		-421.944		-221.056		-369.822		-421.944	
LL(k)	-204.911		-324.492		-395.883		-203.172		-325.360		-395.834		-203.159		-320.824		-395.708	
Chi ² (k)	41.21***		83.12***		42.84***		40.39***		81.58***		42.93***		41.76***		95.49***		43.16***	
PCP	90.15		78.82		70.74		90.15		78.53		70.74		90.15		78.82		70.74	
PRE	1.47		9.43		6.13		1.47		8.18		6.13		1.47		9.43		6.13	

Note: t-values based on Huber/White standard errors between brackets. * significant at 10 per cent level, ** significant at 5 per cent level; *** significant at 1 per cent level (two-sided tests). N is the number of observations; LL0 is the log-likelihood of a model containing only a constant term; LL(k) is the log-likelihood of a model with k independent variables and Chi² (k) gives the statistical significance of the latter model. PCP and PRE give the 'percentage correctly predicted' and the 'proportional reduction in error' respectively as additional indications of the predictive power of the model.

only the seat share of Vlaams Blok, while columns 7 to 9 also take its squared value into account. Each of the models presented significantly outperforms a model including only a constant term (Chi^2 value is significant beyond the 1 per cent level for all regressions).

Table 2 indicates that the instability of the local party system (INSTAB) reduces the likelihood that coalitions conform to the minimum size criteria. The parameter estimate is consistently negative over all estimations, but is, however, never statistically significantly different from 0. There thus appears to be but limited support for an effect of party system instability on coalition formation in Flemish municipalities. The number of parties in the municipal council (FRAG) has a significant negative effect on the probability of all size-related coalition types. This result is very robust over all estimations.¹⁸ It lends support to the hypothesis that party system fragmentation increases uncertainty with respect to coalition partners' actions, lowering the formation of minimal coalitions.

The 'locality' of the party system (LOCAL) – that is, the extent to which local election results follow national trends – has a significant positive effect on the likelihood of forming a coalition of the smallest possible majority (MSC). Increased prominence of local elements in the election result thus enhances the probability of forming a MSC coalition. This is in contrast to Denters' (1985) hypothesis. Indeed, he argued that a lower locality implies a diminishing electoral constraint on local politicians, leading them to pursue short-term utility maximization (and form 'minimal size' coalitions). A possible explanation for this divergent finding is that our locality-variable might measure the existence and nature of local parties in the Flemish municipalities rather than the stringency of the electoral constraint. The existence of local parties (which do not participate in elections at higher levels of government) by definition increases the 'locality' of the party system. Hence, we might not be picking up the effect envisaged by Denters' (1985), but rather the effect of some characteristic of local parties that affects the likelihood of forming MSC (e.g., their generally small size).

The strength of the largest party (MAJOR) has a statistically significant positive effect on the probability that coalitions do not contain mathematically superfluous parties (MWC) or consist of the minimal possible number of parties (MNC). This indicates that an increasingly strong bargaining position leads the largest party to refrain from including too many parties in the coalition. In contrast, the negative sign in columns 3, 6 and 9 indicates that an increasingly strong largest party significantly reduces the probability of coalitions holding the smallest possible majority in the council (MSC). Hence, though the inclusion of superfluous parties is less likely, this does not imply that the coalition formed has the smallest possible majority. This could point to

a desire in local politicians to coalesce with certain parties, irrespective of the number of seats these parties hold in the council. This may be due to ideological proximity to these parties, but might also result from positive previous experiences with these parties (for evidence of such aspirations in Flemish municipalities, see Ackaert et al. 2001).

Finally, we report on the findings concerning the effect of anti-pact rules. Measuring the effect of a pariah party's presence using a dummy variable, our theoretical predictions with regard to all three coalition types find some level of support. Specifically, a positive relation is established for both MWC and MNC coalitions, though the parameter estimates are only on the verge of statistical significance at the 10 per cent level. The presence of Vlaams Blok in the municipal council thus appears to increase the probability of forming minimal coalitions. The size of the coefficients indicates that the presence of Vlaams Blok increases the probability of forming a MWC about 6 per cent and that of a MNC about 8 per cent. In line with the mechanical perspective, no relation is found between the presence of Vlaams Blok and the likelihood of minimum size coalitions (MSC).

Including the seat share obtained by the pariah party (rather than the dummy variable indicating its presence in the council) allows us to test whether the effect is dependent upon the political strength of this party. The results in columns 4 to 6 show a statistically significant positive effect for one of the three coalition types only (MWC). This implies that the probability of minimal winning coalitions increases with the seat share of the excluded party. Evaluated at the mean seat share (equal to 2.77 per cent), a 1 per cent increase of Vlaams Blok's seat share increases the probability of forming a MWC by 0.7 per cent. Including the squared seat share of Vlaams Blok in columns 7 to 9 furthermore shows a significant non-linear effect on the probability of forming a MNC (no significant non-linearities are found for the other coalition types, nor were these a priori to be expected). Initially, this type of coalition becomes more likely when the pariah party obtains a larger share of the council's seats. The negative parameter estimate for the squared term indicates that the probability of forming a MNC reaches a maximum when Vlaams Blok controls approximately 12.5 per cent of the seats – and decreases again when Vlaams Blok surpasses this mark.

Generally, the presence of Vlaams Blok in the local council and its exclusion from coalition bargaining through the anti-pact rule thus tends to increase the probability of forming minimal coalitions. This result is in line with two of the three theories discussed above. Specifically, one possible explanation for our findings is that the other parties may wish to form a government capable of making important decisions to face the challenges posed by the emergence of extremist parties (or rather, the problems in society that allow extremist

parties to gather strength). An alternative explanation is based on the mathematical regularity that reducing the number of parties by initiation of an anti-pact rule leads to an increasing (or at least non-decreasing) probability of forming MWC and MNC coalitions.

To assess the relative merit of both these arguments, it is useful to more explicitly regard the coalitions formed by the remaining parties *given the exclusion of the pariah party*. The type of coalition formed by the relevant parties in a given area provides additional information on their behaviour towards the threat of the pariah party. As the coalition formation process among these remaining parties is not influenced by the mathematical effect of removing one party, the type of coalition formed by them would indicate the 'pure' effect of the political explanations mentioned. Therefore, we re-estimate the model focusing on the behaviour of these relevant parties only. This implies two changes to the empirical model. Firstly, we redefine the dependent variable COALTYPE as being equal to 1 if the coalition conforms to the minimal criteria *given the exclusion of the pariah party*, 0 otherwise.¹⁹ Second, we adjust the value of the fragmentation variable (FRAG) in municipalities where Vlaams Blok exists to reflect the fact that this party is a priori barred from the coalition formation process (i.e., the number of relevant parties in the council is reduced by 1 in these municipalities). As such, we control for the number of parties effectively participating in the coalition formation process rather than for the number of parties present in the council (which at times includes the pariah party) and thereby remove the mathematical effect from the estimation.

The results (presented in Table 3) indicate that the non-linear effect on the probability of forming a MNC (predicted only by the mathematical model) disappears in these additional estimations. Interestingly, however, while we still find a statistically significant positive effect from the seat share of Vlaams Blok on the probability of forming a MWC (though this is considerably weaker compared to Table 2), a similar positive relation is now visible for MSC. Evaluated at its mean value, a 1 per cent increase of Vlaams Blok's seat share still increases the probability of MWC coalitions by approximately 0.5 per cent and the probability of MSC coalitions by 0.8 per cent. Comparing both sets of results, it appears that the findings from Table 2 are to a large extent driven by the mathematical effect of excluding one party from the coalition formation process. However, Table 3 also shows that there is more going on than just this mathematical effect. Specifically, our results suggest that political parties in Flemish municipalities react to the threat of Vlaams Blok by increasingly relying on coalitions conforming to the minimal criteria – especially when this party increases in size.

Table 3. Logit estimation results focusing on the behaviour of relevant parties only

	MWC (1)	MNC (2)	MSC (3)	MWC (4)	MNC (5)	MSC (6)	MWC (7)	MNC (8)	MSC (9)
Intercept	2.354 (1.56)	1.694 (1.62)	2.666*** (2.72)	1.874 (1.23)	1.415 (1.32)	2.489** (2.49)	1.816 (1.18)	1.393 (1.30)	2.522** (2.53)
INSTAB	-0.005 (-0.62)	-0.009 (-1.57)	-0.002 (-0.47)	-0.006 (-0.72)	-0.010 (-1.64)	-0.003 (-0.52)	-0.005 (-0.72)	-0.010 (-1.63)	-0.003 (-0.54)
FRAG	-0.546*** (-3.69)	-0.733*** (-6.48)	-0.451*** (-3.85)	-0.536*** (-3.66)	-0.734*** (-6.49)	-0.444*** (-3.78)	-0.524*** (-3.51)	-0.730*** (-6.36)	-0.450*** (-3.81)
LOCAL	-0.021 (-0.59)	-0.016 (-0.52)	0.059*** (2.83)	-0.010 (-0.27)	-0.007 (-0.23)	0.061*** (2.91)	-0.012 (-0.33)	-0.008 (-0.26)	0.062*** (2.93)
MAJOR	5.876** (2.43)	6.685*** (3.84)	-4.243*** (-2.59)	6.758*** (2.70)	7.209*** (4.09)	-3.913** (2.36)	6.808*** (2.70)	7.233*** (4.10)	-3.957** (-2.39)
BLOKdum	0.201 (0.48)	-0.072 (-0.23)	0.379 (1.46)	-	-	-	-	-	-
BLOKseat	-	-	-	0.052* (1.80)	0.024 (1.02)	0.039** (1.98)	0.008 (0.11)	0.007 (0.14)	0.059 (1.13)

BLOKseat ²	-	-	-	-	-	-	0.002 (0.62)	0.001 (0.32)	-0.001 (-0.43)
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
dummies									
Chi ² (3)	5.87	11.59***	6.47*	8.18**	11.23**	7.81*	7.61*	11.13**	7.69*
N	680	680	680	680	680	680	680	680	680
LL0	-221.056	-366.224	-436.433	-221.056	-366.224	-436.433	-221.056	-363.224	-436.433
LL(k)	-204.911	-322.233	-415.310	-203.585	-321.718	-414.465	-203.388	-321.666	-414.353
Chi ² (k)	41.21***	83.07***	38.69***	41.57***	86.59***	41.47***	41.38***	86.66***	41.56***
PCP	90.15	79.41	67.65	90.15	79.41	67.65	90.15	79.26	67.35
PRE	1.47	10.26	5.17	1.47	10.26	5.17	1.47	9.62	4.31

Notes: t-values based on Huber/White standard errors between brackets. * significant at 10 per cent level; ** significant at 5 per cent level; *** significant at 1 per cent level (two-sided tests). N is the number of observations; LL0 is the log-likelihood of a model containing only a constant term; LL(k) is the log-likelihood of a model with k independent variables and Chi² (k) gives the statistical significance of the latter model. PCP and PRE give the 'percentage correctly predicted' and the 'proportional reduction in error' respectively as additional indications of the predictive power of the model.

As a test for the robustness of our results, we carried out a number of additional analyses (results available from the authors upon request). First, inclusion of municipalities where one party obtains a majority of the seats does not affect our core conclusions. In fact, the statistical significance of the results with respect to the effect of Vlaams Blok becomes stronger. The other variables in the model are in line with those presented in Table 2. One notable exception is the size of the largest party (MAJOR). This variable turns insignificant for MWC and changes sign for MSC. Of course, where the largest party has a majority, the one-party government of the largest party will be *the* MSC. It follows that these coalitions are more likely to form if the largest party holds a majority position. Second, we re-estimated the model including the city of Antwerp. This introduces a (weak) non-linearity in the effect of the seat share of Vlaams Blok in the MWC and MSC regressions. The extreme size of the pariah party in Antwerp *and* the non-MWC (and thus by definition also non-MS) character of its coalitions appear to affect the estimation results (supporting our exclusion of this municipality in Tables 2 and 3).

Finally, the more heterogeneous preferences in larger and more diverse municipalities may well make it more difficult to reach agreement among different groups. This could affect the probability of forming minimal coalitions. To test for this effect, we experimented with the inclusion of (the natural logarithm of) population size, income diversity (defined as the interquartile difference divided by median income), the age structure (measured by a Herfindahl concentration index based on three age groups: 0–19, 20–64 and over 65) and the number of pre-1977 communities that make up the present municipality. Since the large-scale municipal amalgamation operation in Belgium in 1976, most current ‘municipalities’ are composed of several pre-1977 ‘communities’ (ranging from 1 to 30). Inhabitants of the various pre-1977 communities may still identify with this initial community and thereby differ from the other inhabitants of the new municipality (cf. Lago Penas 2004; Geys 2006). However, neither of these variables significantly added to the explanatory value of the model, nor did their inclusion affect our main conclusions.

Conclusion

Recent modelling has drawn attention to institutional characteristics of the political system as structuring forces in the coalition bargaining process (see Martin & Stevenson 2001; De Winter 2002). Empirical research with respect to such models has to date been rather limited. In this article, we took a step to bridge this gap by looking at the influence of institutions on the probability that coalitions in Flemish municipalities are minimal winning, minimal number

or minimal size. We specifically concentrated on the effect of anti-pact rules. These are pre-electoral commitments of political parties *not* to coalesce with certain pariah parties. Such arrangements are likely to affect the probability of minimal coalitions (MWC, MNC or MSC) for several reasons.

First, excluding parties from coalition bargaining is likely to lead to ‘over-sized’ coalitions as this might prevent a deadlock in decision making when parties exhibit a lack of voting discipline. Low voting discipline may arise when parties know they are likely to be in future governments even when they show a bad voting record in the present coalition (e.g., when other parties are excluded *a priori*). Second, there may be a need (or desire) for strong governments to face the ‘threat’ to the democratic system embodied in the pariah party. Smaller, less fragmented, governments are often found to be more decisive (for a review, see Ashworth et al. 2005). Finally, reducing the number of parties available for coalition bargaining in itself affects the probability of forming MWC and MNC coalitions. The reason is that the share of minimal coalitions in the total number of winning coalitions is affected (which in turn influences the chance of forming minimal coalitions).

Our empirical analysis regarded the effect of the so-called ‘cordon sanitaire’ around the Flemish extreme right-wing party Vlaams Blok. This cordon was erected in the late 1980s and prevents the other parties from cooperating – at every level of government and in any possible way – with Vlaams Blok. Based on a dataset of all coalitions formed in 295 Flemish municipalities over the period 1976–2000, we find that the institutional setting – and, more specifically, the existence of pre-electoral commitments (not) to join forces with certain parties – has an important effect on the coalition formation process. In fact, the presence (and also size) of the pariah party increases the likelihood of minimal coalitions being created. While this effect is shown to be largely ‘mechanical’ (the formal exclusion of a pariah party fundamentally changes the ‘mathematical’ context of the coalition negotiations), our results reveal that strategic considerations on the part of the remaining parties play their part as well. The presence of Vlaams Blok leads parties to form more MWC and MSC coalitions – especially when this party becomes larger – to counter the (political) threat posed by this party.

Acknowledgements

This is a revised version of a paper presented at the annual MPSA Meeting in Chicago, April 2005. The authors thank Jo Buelens for providing the election data and Christophe Crombez, Sebastien Lazardeux, Sylvia Maier and two

anonymous referees for helpful comments. Financial support from FWO-Vlaanderen is gratefully acknowledged.

Notes

1. It is intuitively clear that coalitions are more likely to form if they are subject to positive pre-electoral commitments and less likely to come about in the opposite case. Martin and Stevenson (2001) show that this is also empirically valid for a dataset of 220 coalition bargaining situations in 14 democracies (period 1945–1987).
2. The Belgian Supreme Court recently convicted Vlaams Blok of racism. Following this conviction, the politicians involved in Vlaams Blok founded a new party (Vlaams Belang) and filed some ‘rough edges’ from the party programme. Through these actions, they hope to become acceptable coalition partners after future elections – and thereby break the ‘cordon sanitaire’. Given that we concentrate on elections prior to these events, we refer to the party’s old name (i.e., Vlaams Blok).
3. Once ideological preferences are taken into account, other coalition types can be distinguished. In *minimal connected winning* coalitions (MCW; Axelrod 1970), the coalition is expanded with ideologically adjacent parties until a majority position is reached. In *minimal range coalitions* (MRC; De Swaan 1973), the ideological distance between the two most extreme parties in the coalition is minimized. It is important to note, however, that in both cases ‘the focus remains on size-determined office-seeking, adding policy as a secondary consideration’ (De Winter 2002: 175; see also Laver & Schofield 1991).
4. Though these models mostly refer to building a majority to approve legislation, it is clear that the methodology is also useful for the formation of (coalition) governments (see, e.g., Baron & Ferejohn 1989; Jackson & Moselle 2002).
5. Based on a similar line of argument, Volden and Carruba (2004: 533n; emphasis added) recently noted that ‘it is *possible* that parliaments with large anti-system parties are more likely to form oversized coalitions’. This implicitly assumes that anti-system parties are always excluded from coalition bargaining. Still, given that the electoral costs of cooperation with such parties are likely to be prohibitive (cf. Budge & Keman 1990), this may not be an overly restrictive assumption.
6. A thorough discussion on the role of anti-system parties and a conceptual reassessment of the ‘anti-system’ label can be found in Capoccia (2002).
7. Obviously, the creation of ‘governments of national unity’ – where inter-party disagreements over policy issues become secondary to facing the (pariah party’s) challenge to the democratic system – would decrease the likelihood that minimal coalitions form (Sjölin 1993; Lijphart 1999).
8. This assumes that all possible coalitions are equally likely to form. The reason for this assumption is that we *a priori* have no reason to believe that – after exclusion of the pariah party – certain coalitions are more likely to form than others. In these circumstances, the assumption of equiprobability seems desirable. Note that a similar argument has been brought forward in the literature discussing so-called ‘a priori’ voting power indices such as, e.g., the Banzhaf index (e.g., Dumont & Caulier 2005).
9. This includes coalitions that are formed despite the fact that one party holds an absolute majority of the seats. Hence, our figures differ slightly from the number of absolute majorities presented in Ackaert (1996) and Buelens and Deschouwer (2001).

10. The success of extreme right parties in Belgium is hitherto largely limited to Flanders (Coffé 2005). Indeed, in the most recent regional elections (June 2004), Vlaams Blok achieved 24.2 per cent of the vote in Flanders while the Front National (FN), its Francophone counterpart, obtained 'only' 8.1 per cent in Wallonia.
11. Given that large parties are advantaged by the electoral system in Belgian municipal elections ('highest average Imperiali'), it is noteworthy that the seat share of Vlaams Blok increases at a slower pace than its vote share. This can be explained by the fact that the party initially concentrated on large municipalities. The larger district magnitude in these municipalities makes it easier to obtain representation (Coffé et al. 2005; see also Taagepera & Shugart 1989). Over time, Vlaams Blok also participated in smaller municipalities where it obtained votes, though, due to the smaller district magnitude, not necessarily seats.
12. In Brussels and a number of municipalities along the 'language border', the local population consists of sizeable Dutch- or French-speaking minorities. To prevent their discrimination by the linguistic majority group, these minorities have the right to obtain local government services in their own language ('language facilities'). Also, the direct election of Aldermen is meant to oblige subcultures to reach consensus by giving effective veto power to the minority (Deschouwer 1994: 46).
13. Note that one might also argue that the lower average size of political parties in highly fragmented systems reduces the cost of including an additional party in the coalition. Oversized coalitions are then more likely in fragmented party systems.
14. Election results for the Chamber of Representatives were taken at the district level ('kanton') because they are not available at the municipal level. This entails that we compare the vote share of party i in the municipal elections with the vote share (in the elections for the federal Chamber) that this party obtains in the district where the municipality is situated.
15. We use vote shares rather than seat shares because these allow us to most accurately compare the electoral strength of the various parties at different levels of government. The reason is that there is a slight difference in the seat allocation procedures in both types of elections (highest averages D'Hondt for the federal Chamber and highest averages Imperiali for the municipal elections). The same vote distribution may thus lead to a (marginally) different seat distribution.
16. Deschouwer (1988), on the other hand, argues that including municipalities where one party has a majority of the seats presents information about the conditions under which such a party decides to form a coalition. Looking at government formation in the 19 Brussels municipalities over the postwar period, he finds that the probability that parties with an absolute majority form a coalition increases with the fragmentation level and the locality of the party system. The probability of coalition formation by majority parties is lower when the instability of the party system is higher.
17. Note that this does not follow straightforwardly from the data in Table 1. The reason is that the number of coalitions listed in Table 1 also includes coalitions formed by parties obtaining a majority of the seats. These coalitions are also excluded in the estimation. There were eight such coalitions in 1982, 11 in 1988, nine in 1994 and 30 in 2000. However, since most of these occur in 'faciliteitengemeenten', they are already excluded from the model and we are left with 680 observations.
18. We re-estimated the model using the 'effective' number of parties, $1/\sum_{i=1}^n p_i^2$, where p_i refers to the seat share of party i and n refers to the number of parties in the council (Laakso & Taagepera 1979). This measure accounts for size inequalities between parties

- as well as the number of parties. The results (available from the authors upon request) are substantively similar to those presented in main text.
19. A coalition can be a MNC or a MSC *given the exclusion of the pariah party* whereas it does not conform to these criteria when all parties are considered. To see this, reconsider the situation in which six parties obtain seats and the percentages of seat shares are: A = 30; B = 19; C = 16; D = 13; E = 12 and F = 10. A coalition such as BCDE contains the lowest number of parties with which a winning coalition can be formed, given the exclusion of party A. Though this coalition is not a MNC in the original six-party constellation, it is one in the five-party situation created by the anti-pact rule. A similar effect applies for MSC. In the six-party setting, CDEF is of minimum size (holding 51 per cent of the seats). However, coalition AEF is of minimum size, given the exclusion of either party C or D (holding 52 per cent).

References

- Ackaert, J. (1996). De kiezers delen de kaarten uit, de partijen spelen ermee. In J. Buelens & K. Deschouwer (eds), *De dorpsstraat is de wetstraat niet*. Brussel: VUB Press.
- Ackaert, J., De Winter, L. & Dumont, P. (2001). De vorming van lokale bestuursmeerderheden. *Tijdschrift van Dexia Bank* 55(2): 29–36.
- Ansolabehere, S. et al. (2005). Voting weights and formateur advantages in the formation of coalition governments. *American Journal of Political Science* 49(3): 550–563.
- Ashworth, J., Geys, B. & Heyndels, B. (2005). Government weakness and local public debt development in Flemish municipalities. *International Tax and Public Finance* 12(4): 395–422.
- Axelrod, R. (1970). *Conflict of interest*. Chicago, IL: Markham.
- Bäck, H. (2003). Explaining and predicting coalition outcomes: Conclusions from studying data on local elections. *European Journal of Political Research* 42: 441–472.
- Baron, D. & Ferejohn, J. (1989). Bargaining in legislatures. *American Political Science Review* 83: 1181–1206.
- Boix, C. (1997). Privatizing the public business sector in the eighties: Economic performance, partisan responses and divided governments. *British Journal of Political Science* 27: 473–496.
- Boute, S. & Praet, J.-C. (1983). Testing local coalition theories in Belgian local governments. *Cahiers Economiques de Bruxelles* 25: 561–593.
- Budge, I. & Keman, H. (1990). *Parties and democracy: Coalition formation and government functioning in twenty states*. Oxford: Oxford University Press.
- Buelens, J. & Deschouwer, K. (2001). De Belgische gemeenteraadsverkiezingen en de nationale partijpolitiek. *Tijdschrift van Dexia Bank* 55(2): 19–28.
- Carruba, C.J. & Volden, C. (2000). Coalitional politics and logrolling in legislative institutions. *American Journal of Political Science* 44(2): 261–277.
- Capoccia, G. (2002). Anti-system parties: A conceptual reassessment. *Journal of Theoretical Politics* 14(1): 9–35.
- Coffé, H. (2005). *Extreem-Rechts in Vlaanderen en Wallonië: het verschil*. Roeselare: Roularta Books.
- Coffé, H., Heyndels, B. & Vermeir, J. (forthcoming). Fertile grounds for extreme right-wing parties: Explaining the Vlaams Blok's electoral success in Flemish municipal elections. *Electoral Studies*.

- Crombez, C. (1996). Minority governments, minimal winning coalitions and surplus majorities in parliamentary systems. *European Journal of Political Research* 29: 1–29.
- Denters, B. (1985). Towards a conditional model of coalition behaviour. *European Journal of Political Research* 13: 295–309.
- Deschouwer, K. (1988). De dorpen van de hoofdstad, gemeentelijke coalities in de Brusselse agglomeratie sinds 1946. *Tijdschrift voor Sociologie* 9(1–2): 263–290.
- Deschouwer, K. (1994). Local elections in Belgium: Between nationalization and localism. In L. Lopez-Nieto (ed.), *Local elections in Europe*. Barcelona: Institut de ciències polítiques y socials.
- De Swaan, A. (1973). *Coalition theories and cabinet formations: A study of formal theories of coalition formation applied to nine European parliaments after 1918*. Amsterdam: Elsevier Scientific.
- De Winter, L. (2002). Parties and government formation, portfolio allocation and policy definition. In K.R. Luther & F. Müller-Rommel (eds), *Political parties in the new Europe: Political and analytical challenges*. Oxford: Oxford University Press.
- Dodd, L. (1976). *Coalitions in parliamentary government*. Princeton, NJ: Princeton University Press.
- Dumont, P. & Caulier, J.F. (2005). The Effective Number of Relevant Parties: How Voting Power Improves Laakso-Taagepera's Index. Paper presented at the COMPASS Workshop on 'Explaining Political System Performance, Measuring Party System Configurations: Current Developments and Challenges', Louvain-la-Neuve, 28 April.
- Geys, B. (2006). District magnitude, social heterogeneity and local party system fragmentation. *Party Politics* 12(2): 281–297.
- Gravdahl, H.P. (1998). Consensual coalitions? Coalition formation in Norwegian municipalities. *Scandinavian Political Studies* 21(4): 307–323.
- Jackson, M.O. & Moselle, B. (2002). Coalition and party formation in a legislative voting game. *Journal of Economic Theory* 103: 49–87.
- Laakso, M. & Taagepera, R. (1979). Effective number of parties: A measure with application to West Europe. *Comparative Political Studies* 12: 3–27.
- Lago Penas, I. (2004). Cleavages and thresholds: The political consequences of electoral laws in the Spanish Autonomous Communities, 1980–2000. *Electoral Studies* 23: 23–43.
- Laver, M. & Schofield, N. (1991). *Multiparty government: The politics of coalition in Europe*. Oxford: Oxford University Press.
- Laver, M. & Shepsle, K.A. (1996). *Making and breaking governments*. New York: Cambridge University Press.
- Leiserson, M. (1966). Coalitions in Politics. Unpublished doctoral dissertation, Yale University.
- Lijphart, A. (1999). *Patterns of democracy*. New Haven, CT: Yale University Press.
- Martin, L.W. & Stevenson, R.T. (2001). Government formation in parliamentary democracies. *American Journal of Political Science* 45(1): 33–50.
- Pedersen, M.N. (1979). The dynamics of European party systems: Changing patterns of electoral volatility. *European Journal of Political Research* 7: 1–26.
- Perotti, R. & Kontopoulos, Y. (2002). Fragmented fiscal policy. *Journal of Public Economics* 86: 191–222.
- Riker, W. (1962). *The theory of political coalitions*. New Haven, CT: Yale University Press.
- Roubini, N. & Sachs, J.D. (1989). Political and economic determinants of budget deficits in the industrial democracies. *European Economic Review* 33: 903–938.

- Serritzlew, S., Skjaeveland, A. & Blom-Hansen, J. (2005). Explaining Oversized Coalitions: Empirical Evidence from Local Governments. Paper presented at the annual MPSA Meeting, Chicago, April.
- Sjölin, M. (1993). *Coalition politics and parliamentary power*. Lund: Lund University Press.
- Steunenberg, B. (1992). Coalition theories: Empirical evidence for Dutch municipalities. *European Journal of Political Research* 22: 245–278.
- Strøm, K., Budge, I. & Laver, M. (1994). Constraints on government formation in parliamentary democracies. *American Journal of Political Science* 38: 303–335.
- Taagepera, R. & Shugart, M.S. (1989). *Seats and votes: The effects and determinants of electoral systems*. London: Yale University Press.
- Tsebelis, G. (1995). Decision-making in political systems: Veto players in presidentialism, parliamentarism, multicameralism and multipartyism. *British Journal of Political Science* 25(3): 289–325.
- Verbeek, M. (2004). *A guide to modern econometrics*, 2nd edn. Chichester: John Wiley & Sons.
- Von Neumann, I. & Morgenstern, O. (1953). *Theory of games and economic behavior*. Princeton, NJ: Princeton University Press.
- Volden, C. & Carruba, C.J. (2004). The formation of oversized coalitions in parliamentary democracies. *American Journal of Political Science* 48(3): 521–537.

Address for correspondence: Benny Geys, Wissenschaftszentrum für Sozialforschung (WZB), 'Market Processes and Governance' Research Unit, Room D-120, Reichpietschufer 50, D-10785 Berlin, Germany.

Tel.: +49 30 254 91 415; Fax: +49 30 254 91 400; E-mail: geys@wz-berlin.de